Chehalis Elders Center

Addendum # 1

June 15, 2021

NOTICE TO ALL BIDDERS:

Owner:	The Chehalis Tribe P.O. Box 536 Oakville, WA 98568 Project Manager: Bryan Sanders (360) 709-1813
Contact:	ARC Architects Project Manager: Ariel Jamison (206) 322-3322
To All Bidders:	Attention is called to the following items effective June 15, 2021, which shall be added to, deleted from, or changed from the BID DOCUMENTS dated April 16, 2021, thereby incorporating the addendum as part of the CONTRACT DOCUMENTS.

A. GENERAL NOTES

1. The bid opening is date is extended. Sealed bids for the new Elders Center on the Chehalis Reservation will be received at The Confederated Tribes of the Chehalis Reservation's Planning Department, 6 Niederman Rd Oakville, WA 98568 until **2pm on Friday June 25, 2021**, at which time the bids will be evaluated based on specific criteria provided in the Invitation to Bid. There will be no public bid opening for this project.

2. The deadline for any bidder questions or substitution requests shall be **5pm on Thursday June 17, 2021**.

3. Due to funding source stipulations, the project will be required to adhere to Washington State prevailing wage rates. The project does not need to comply with Davis-Bacon Act wage rate requirements.

4. A bidder has requested to receive a full list of general contractor plan holders. They are:
    A. Pease Construction
    B. Korsmo Construction
    C. PNE Construction
    D. Forma Construction

5. The project does not include requirements related to the "US Buy American Act".

6. Regarding start date, the Owner intends to make a selection quickly and proceed with contracting immediately thereafter. The Owner expects construction to begin by late July.

7. In the Invitation to Bid, Form B: Subcontractor list, it states that all firms that bid or quote should be included. To **CLARIFY**, the intention is that only the bidders whose bids you intend to use need to be listed (not every sub that submitted a bid to you).

8. Liquidated damages are not included as part of the contract documents for this project. As such, a construction schedule has not been published. Bidders need to provide their own schedule to complete the project as described in the bid documents.

9. Invitation to Bidders, Schedule of Values

A. **REPLACE** the Schedule of Values in its entirety with the attached, revised Schedule of Values. The line item, “Construction Contingency” has been removed and the alternates have been clarified.

B. PROJECT MANUAL

1. Section 11 01 40 – FALL RESTRAINT / FALL PROTECTION SYSTEMS

A. **REVISE** Item 1.7.A.1 to read “Design fall arrest anchor system to allow free movement of persons to access and service the solar panel array on the south facing roof while attached to full body harness, retractable life line, or vertical life line to catenary lines attached to D-ring or eye at each fall arrest anchor. Include quick release attachments”. The intention is not to provide access to the entire roof.

2. Section 08 71 00 – DOOR HARDWARE

A. **REVISE ‘**Hardware Set #3 – Exterior’ from, “101B, 101C” to, “132A, 132B”.

3. Section 08 71 00 – DOOR HARDWARE

A. **REVISE ‘**Hardware Set #3A – Exterior – Card Access’ from, “101D” to, “101B”.

4. Section 08 71 00 – DOOR HARDWARE

A. **REVISE ‘**Hardware Set #20 – Kitchen’ from, “129C” to, “129A”.

5. Section 08 71 00 – DOOR HARDWARE

A. **REVISE ‘**Hardware Set #16 – Closet’ from, “119A” to, “119A, 134A”.

6. Section 093013 – CERAMIC TILING

A. Paragraph 2.3.A.1. **CHANGE** basis of design product description **FROM**, “Trek Anthrocite Wall Mosaic B 12”x24” to, “Trek Anthrocite Wall Mosaic B”

B. Paragraph 2.3.A.2. **CHANGE** Module Size **FROM**, “12”x24”” to, “Varies”

C. Paragraph 2.3.C.1. **CHANGE** basis of design product description **FROM**, “Trek Anthrocite Wall Mosaic B 12”x24”” to, “Trek Anthrocite Mosaic A 12”x24””

7. Section 08 41 13 – ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

A. **CLARIFY** item 2.3.A.4 Finish: Anodized, Bronze. The intended finish of the system is anodized bronze including the basis of design manufacturer’s standard warranty period for this finish. Item 2.10.A, which references a paint system, should be ignored.

8. Section 08 44 13 – GLAZED ALUMINUM CURTAIN WALLS

A. **CLARIFY** item 2.8 Aluminum Finishes: Anodized, Bronze. The intended finish of the system is anodized bronze including the basis of design manufacturer's standard warranty period for this finish. Any references to a paint system, should be ignored.

9. Section 06 10 00 – ROUGH CARPENTRY

A. **CLARIFY** item 1.4 LEED Submittals: Although FSC wood is discussed elsewhere in the project manual (01 35 00), it is not prescriptively required in specific sections. The contractor may choose to use any combination of responsible sourcing criteria to meet the MR Credit BPDO: Sourcing of Raw Materials: Responsible Sourcing of Raw Materials credit. The following all contribute: Extended Producer Responsibility, Bio-based Materials, Wood Products, Materials Reuse, Recycled Content, and Regional Material (indirectly). Because FSC wood comes at a premium, it may be an advantage to select certain wood materials (such as finish materials or doors) that are FSC to contribute to the 15-30% total value required to achieve the credit. To reiterate, the means and methods to achieve this credit are the responsibility of the contractor.

10. Section 27 15 00 – DATA/COMMUNICATIONS CABLING

A. To **CLARIFY**, Data and TV are rough in only. Refer to Detail 2, Sheet E6.2 for specific requirements.

11. Section 26 32 33 – EMERGENCY ENGINE GENERATOR

D. Item 2.2.Q.1: **CHANGE** 72 hour run time at full load to 48 hour run time at full load.
E. Item 2.6: **DELETE** engine start monitor contacts specified in last sentence of this item.
F. Item 2.7: **DELETE** in its entirety. Manual transfer switch is not required as system is not NEC 700.

11. Section 26 24 16 - PANELBOARDS

A. To **CLARIFY**, Part 2.1. Square D components are listed to establish a basis of design. All four manufacturers are acceptable.

12. Section 281300 – ACCESS CONTROL

A. **PROVIDE** Bosch 9512G system. System shall address both access control (281300) and intrusion detection (281600). Also allowed are similar and equal panels by other manufacturers subject to conformance with the contract documents. (Originally specified product is discontinued)

13. Section 28 16 00 – INTRUSION DETECTION

A. Bosch 9512G panel is acceptable as a replacement for the 9412 panel. Also allowed are similar and equal panels by other manufacturers subject to conformance with the contract documents. (Originally specified product is discontinued)

14. Section 282300 – VIDEO SURVEILLANCE

QUESTION: The specs call for video surveillance, but the drawings call for conduit & pull strings only. Please clarify. Please provide a spec/further info if a full system is to be installed.

ANSWER: Provide video surveillance system and devices (including CCTV cameras) per Section 282300. Provide conduit only to camera locations as per plans. Cat 6 cabling required to each camera shall be provided by Owner's low voltage vendor who will install Cat 6 cabling for data outlets and CCTV cameras.

15. Section 283111 – FIRE ALARM SYSTEM

    QUESTION: The fire alarm spec calls for Fire-Lite. Will Gamewell & Potter systems be acceptable?

    ANSWER: Yes

16. Section – LOW VOLTAGE SYSTEMS

    QUESTION: There are specifications for all the low voltage systems except the Voice & Data System. The drawings show V/D locations but a note on sheet E6.2 says conduit pathway only. Could you please confirm that the project requires complete Paging, Access Control, Intrusion and CCTV systems but not a Voice and Data System?

    ANSWER: Confirmed.

17. Section 230923 – DIRECT-DIGITAL CONTROL SYSTEM
    i. Delete paragraph 2.5-I.
    ii. Delete paragraph 2.5-J.

18. Section 238129 VARIABLE REFRIGERANT FLOW HVAC SYSTEMS
    i. Delete paragraph 2.4-B.
    ii. Add new paragraph 2.4-B Low Ambient Performance, to read:
        1. The outdoor units shall be capable of providing full rated cooling capacity at 23°F. Outdoor units not capable of this shall be provided with manufacturer's low ambient kit. Low ambient kits shall be ETL listed and labeled and shall be factory tested. Low ambient kit controllers shall be rated for outdoor installation and shall be capable of operating all required components automatically in all outdoor unit operation modes.

19. Division 230900 (HVAC Controls Scope)
    QUESTION: Demand limiting is specified (Section 2.5, Paragraph I) – we want to confirm that this is indeed required.

    ANSWER: This will not be required for the DDC system.

20. Division 230900 – HVAC CONTROLS SCOPE
    QUESTION: Tenant billing log for local overrides is specified (Section 2.5, Paragraph J) – we want to confirm that this is indeed required for this project.

    ANSWER: This will not be required for the DDC system.

21. Division 230900 – HVAC CONTROLS SCOPE, Section 2.12 Paragraph C, 1A
    QUESTION: Can the propane submeter be purchased with a pulse transmitter device by the DIV 22 contractor rather than having the DIV 23 09 controls contractor buy one separately (as specified)?

    ANSWER: This would be acceptable; however the bidding team (suppliers/contractors) would need to coordinate this to make sure that this scope is included in the GC's bid to the owner.

22. Division 230900 – HVAC CONTROLS SCOPE
    QUESTION: Who is providing and installing the following sub meters, as mentioned in Section 2.12, Paragraph A2:
    A. HVAC System Energy
        i. **ANSWER**: DDC contractor per spec 230923-2.12-B for electric meters, -C for propane gas meters
    B. Water Energy

i. **ANSWER**: Plumbing contractor, per spec 221119-2.10

C. Lighting Energy
   i. **ANSWER**: DDC contractor per spec 230923-2.12-B

D. Plug Load Energy
   i. **ANSWER**: DDC contractor per spec 230923-2.12-B

23. Division 230900 – HVAC CONTROLS SCOPE
QUESTION: Who is responsible for providing and installing the lighting control panel mentioned under Section 2.16, Paragraph D (Electrical Systems)?

ANSWER: Lighting control panel is provided by Division 26, under spec 260923.

24. Division 230900 – HVAC CONTROLS SCOPE
QUESTION: Who is responsible for providing the water meters and irrigation deduct meter mentioned under Section 2.16, Paragraph C (Plumbing Systems)?

ANSWER: Plumbing contractor, per spec 221119-2.10

25. Section 129300 - SITE FURNISHINGS

A. DELETE Section 129300 in its entirety.

26. Section 123661 – SIMULATED STONE COUNTERTOPS, Paragraph 2.4.D.3.

A. The basis of design products listed are quartz products. They have been discontinued. During the submittal process we will select a different quartz color/pattern from the basis-of-design manufacturer's (or other listed manufacturer's) standard line.

27. Section 123216 – MANUFACTURED PLASTIC-LAMINATE-FACED CASEWORK.
QUESTION: Locks for casework are called out in specs. Have not found any locks called out on any of the casework. Are there to be any locks on any of the casework?

ANSWER: For bidding purposes, assume locks on glass display case door and all upper cabinets.

28. Section 101100 – VISUAL DISPLAY UNITS.
QUESTION: The specs call for tackboards. The only area we could locate is the bulletin board at the reception copy station. Please confirm this is the only tackboard.

ANSWER: Confirmed.

29. Section 331100 – WATER DISTRIBUTION, Paragraph 2.5.B.
QUESTION: Please clarify what type of communication output you require? The meter manufacturer isn't familiar with BACnet DDC and wants to confirm the type of output you need - either encoder output, pulse output or 4-20Mah output.

ANSWER: The DDC system can work with any water meter that has either an electronic pulse output, 4-20mA output. There aren't really any specific BACNet water meters out that I'm aware of. For most water meter manufacturers (Badger, Sensus, Metron-Farnier, etc.), the electronic meter register is an add-on component or option available for their meter lines. The DDC contractor will need to provide a controller or converter to take that signal from the water meter and convert it into data that the DDC system can use.

B. SUBSTITUTIONS

1. SECTION 087100 – DOOR HARDWARE

A. The proposed substitution **'**Automatic Door Solutions, Tormax 1301 Swing Door Operator' shall be considered an approved **SUBSTITUTE** for the specified product, per the attached substitution request form.

2. SECTION 102113.17 – PHENOLIC-CORE TOILET PARTITIONS

A. The proposed substitution **'**ASI Global Partitions, Phenolic Toilet Partitions' shall be considered an approved **SUBSTITUTE** for the specified product, per the attached substitution request form.

3. SECTION 102239 – FOLDING PANEL PARTITIONS

A. The proposed substitution **'**Moderco Operable Partitions Signature 800 Series, Model 841' shall be considered an approved **SUBSTITUTE** for the specified product, per the attached substitution request form.

4. SECTION 263233 – EMERGENCY ENGINE GENERATOR

A. The proposed substitution **'**Generac Power Systems' shall be considered an approved **SUBSTITUTE** for the specified generator and transfer switch, per the attached substitution request form.

5. SECTION 265100 – INTERIOR LIGHTING

A. The proposed lighting substitution package from **'**The Lighting Group' shall be considered to contain approved **SUBSTITUTES** for the specified products, per the attached lighting substitution package.

6. SECTION 265100 – INTERIOR LIGHTING

A. The proposed lighting substitution package from **'**SeaTac Lighting' shall be considered to contain approved **SUBSTITUTES** for the specified products, per the attached lighting substitution package.

7. PLUMBING SCHEDULES (Sheet P002, ITEM GI-1, Grease Interceptor)

A. The proposed substitution **'**Schier Products, Model GG1-1000' shall be considered an approved **SUBSTITUTE** for the specified grease interceptor, per the attached substitution request form.

C. DRAWINGS

1. Architectural Drawings

A. Interior Elevations Sheet A5.3, Details 16 and 17. **ADD** the following note, "ALL MEDICAL EQUIPMENT LISTED; INCLUDING OPTHALMOSCOPE, OTOSCOPE, BP, CRASH CART, EXAM TABLE, POC GLUCOSE MACHINE, NEUBILIZER MACHINE, ASPIRATOR, MEDICATION OR DEVICES FOR ACLS, PALS, SHARPS HOLDER, AND GLOVE DISPENSER ARE TO BE FOIO".

B. Floor Plan Sheet A2.1, Detail 1, Room 126. **ADD** the following note regarding the washer and dryer, "THE WASHER & DRYER SHALL BE FOIO".

C. Finish Plan Sheet A10.1, Legend. **ADD** the following note, "AA = Anodized Aluminum".

D. Elevation Sheets A3.1 and A3.2, Elevation Notes, Note 7. To **CLARIFY** the following note, "STOREFRONT AND CURTAINWALL ALUMINUM WINDOW SYSTEMS NOT INCLUDED IN WINDOW SCHEDULE. REFER TO ELEVATIONS", site assembled window systems are not scheduled to allow for openings to be verified in field. For bidding purposes, window type, glass

type, relevant dimensions, and operability are indicated on the elevations.

E. Elevation Sheet A3.3, Detail 1. **CLARIFY** the following note, “HEATED OVERHEAD CRAWL”. This note is not meant to imply that floor framing & sheathing is required. All mechanical equipment should be accessible via access panels or other means.

F. Sheet C201: **CHANGE** description of monument sign from, “MONUMENT SIGN, SEE ARCHITECTURAL PLANS” to, “MONUMENT SIGN, FOIO”.

G. Elevation Sheets A3.1 and A3.2, Elevation Notes. **ADD** the following note, “8. Glass sizes have been confirmed with basis-of-design window system manufacturer, if select sizes exceed the manufacturing capabilities of glass manufacturer, we will work with contractor to add mullions as necessary”.

H. Sheet A9.1, Detail 9.
QUESTION: Supports for Countertop are they supposed to be fabricated to have exposed sides having Solid Surface material?

ANSWER: The supports are fabricated from solid surface material per note on same detail.

I. Sheet A2.2, Detail 1, Roof Plan.
QUESTION: At the shaded region of roof for solar panels per alternate #1, could you please clarify whether we should provide an alternative metal roof numbers that will have penetrations included for the solar panels.

ANSWER: The specified attachment method for the solar panel alternate is a clip method that attached to the standing seam ribs. See Section 012300, Paragraph 1.2.1.b.iv for more info.

J. Sheet A3.2, Detail 5.
QUESTION: Please verify that the scale on page A3.2 section 5 is 1/8” or 3/8”.

ANSWER: The scale is 3/8”, as listed.

K. Sheet A8.4, Various Details.
QUESTION: Please verify the material and gauge size of “secondary trim” at wood siding per page A8.4, detail 2

ANSWER: The ‘secondary trim’ is the same material as all other sheet metal flashing.

L. Sheet A3.3 and A3.4, Typical Exterior Wall Assemblies.
QUESTION: Please verify the spacing of the 1x4 PT wood furring at the sidings

ANSWER: Wood furring is spaced at 16” o.c., u.n.o. They are not always 1x4 material however, refer to drawings.

M. Sheet A2.1. **REPLACE** Sheet A2.1 in its entirety with the attached Sheet A2.1. Changes are bubbled.

N. Sheet A3.1. **REPLACE** Sheet A3.1 in its entirety with the attached Sheet A3.1. Changes are bubbled.

O. Sheet A3.2. **REPLACE** Sheet A3.2 in its entirety with the attached Sheet A3.2. Changes are bubbled.

P. Sheet A3.4. **REPLACE** Sheet A3.4 in its entirety with the attached Sheet A3.4. Changes are bubbled.

Q. Sheet A4.1. **REPLACE** Sheet A4.1 in its entirety with the attached Sheet A4.1. Changes are bubbled.

R. Sheet A5.1. **REPLACE** Sheet A5.1 in its entirety with the attached Sheet A5.1. Changes are bubbled.

S. Sheet A5.2. **REPLACE** Sheet A5.2 in its entirety with the attached Sheet A5.2. Changes are bubbled.

T. Sheet A5.5. **REPLACE** Sheet A5.5 in its entirety with the attached Sheet A5.5. Changes are bubbled.

U. Sheet A5.6. **REPLACE** Sheet A5.6 in its entirety with the attached Sheet A5.6. Changes are bubbled.

V. Sheet A8.2. **REPLACE** Sheet A8.2 in its entirety with the attached Sheet A8.2. Changes are bubbled.

W. Sheet A8.3. **REPLACE** Sheet A8.3 in its entirety with the attached Sheet A8.3. Changes are bubbled.

X. Sheet A8.4. **REPLACE** Sheet A8.4 in its entirety with the attached Sheet A8.4. Changes are bubbled.

Y. Sheet A8.5. **REPLACE** Sheet A8.5 in its entirety with the attached Sheet A8.5. Changes are bubbled.

Z. Sheet A9.1. **REPLACE** Sheet A9.1 in its entirety with the attached Sheet A9.1. Changes are bubbled.

AA. Sheet A9.4. **ADD** Sheet A9.4 to the set. Sheet A9.4 is a new sheet.

BB. Sheet A9.5. **ADD** Sheet A9.5 to the set. Sheet A9.5 is a new sheet.

CC. Sheet A10.1. **REPLACE** Sheet A10.1 in its entirety with the attached Sheet A10.1. Changes are bubbled.

2. Civil Drawings

A. Sheet C301 and C302. As **SUPPLEMENTAL** information, the frame and cover for the concrete channel called out on the civil drawing sheets C301 and C302 shall be from the East Jordan Iron Works V-7500 trench cover and frame series or approved equal.

3. Landscape Drawings

A. Sheet L2.01, General Note 1.1 and Irrigation Note 17 (same page). To **CLARIFY**, the intent of the irrigation is that the system is labeled as temporary to meet LEED requirements, but will not be removed.

B. Sheet L5.03, Detail 1.
QUESTION: There is a pet waste station shown on 1/L5.03. We could not locate this on the drawing. Will any of these be required on this project?

ANSWER: The Pet Waste Station was deleted from the plan during VE efforts. Please disregard any references to it.

C. Sheet L2.01.
QUESTION: The plans call out for a 6” sch 80 Mainline. A 2” sch 40 mainline is more than adequate for this system.

ANSWER: You are correct. A 2” sch 40 mainline is sufficient.

D. Sheet L2.01.
QUESTION: 22 out of the 24 valves can be changed from 2” to 1” valves.

ANSWER: 1” drip valves are acceptable if they work with the final system. Contractor to verify the irrigation system based on tested static pressure at the site.

E. Sheet L2.01.
QUESTION: The valves are also to be latching solenoid that will not work with the specified controller, typical valves are needed.

ANSWER: Specified valves are specific to the drip system. The alternative would be to provide a controller that works with the latching solenoid.

F. Sheet L2.01.
QUESTION: In the sheet notes on sheet L2.01 under general notes Item #1 says Irrigation to be an in-ground temporary system to be turned off after two growing seasons (two years).

ANSWER: “This system is labeled as temporary to meet LEED but will not be removed.” Temporary system to be turned off after one (1) year.

G. Sheet L2.10.
QUESTION: On page L2.10 it says static pressure is at 37 psi which will not run this system accurately, more pressure is needed a Booster pump would definitely be necessary.

ANSWER: Booster pump is anticipated; static pressure will need to be verified to confirm.

4. Electrical Drawings

A. Sheet E1.0. The one-line diagram on E1.0 shows a CT cabinet. It is **CONFIRMED** that PSE will allow a CT cabinet for this size service.

B. Sheet E1.1.
QUESTION: Two electric vehicle charging stations are shown. Are these to be installed as part of this contract? If so, please provide a spec for these charging stations and clarify which panel they will be fed from.

ANSWER: Yes, install electric vehicle charging stations as part of this contract. Charging stations shall be ChargePoint CT4000 or equal. Pedestal mount, dual port, Level 2 charging stations. Feed charging stations from Main Dist. Panel. Provide 1.25”-3#4 & 1#8 GND to each. Provide 70/2 breaker for each.

C. Sheet E2.1.
QUESTION: Exit lights are shown on Sheet E2.1. No exit lights could be located in the fixture schedule. Please specify exit lighting to be provided.

ANSWER: Exit signs shall be Dual-Lite EVC series or equal. Combination LED exit sign and LED emergency lighting unit with battery backup. White face and green letters. Emergency lighting units shall be Dual-Lite EV Series or equal. LED emergency lighting unit with battery backup.

D. Sheet E1.1.
QUESTION: Please confirm where the PV disconnect will be located and the desired location of the conduit stub to the roof for the PV.

ANSWER: Locate PV disconnect adjacent to CT cabinet and meter. Conduit shall be stubbed to roof directly above electrical room.

E. Sheet E1.1.
QUESTION: Please confirm what size conduit is to be installed for the CCTV & video outlets shown on Drawing E1.1 Site Plan.

ANSWER: Provide 1" conduit for each video outlet

F. Sheet E1.1.
QUESTION: Please confirm what size conduit is to be installed for the future lighting at the monument sign as shown on Drawing E1.1 Site Plan.

ANSWER: Provide 1" conduit

G. Sheet E1.1.
QUESTION: On sheet E1.1 where am I to take the primary power and communications conduits, they just stop on the page and I am not seeing any continuations? Or, are we just stopping there and the vendor takes over? PSE usually provides primary conduit but we will need to figure trenching.

ANSWER: Primary power routes to UG Vault #29 along Niederman Road per E1.1. Refer to civil plans and/or survey for vault location. Provide conduit from building to vault. PSE will provide primary conductors but not conduit. Refer to Detail 2, Sheet E6.2 for where communications conduits route to.

H. Sheet E1.0, One Line Diagram.
   a. **ADD** "1000" to the copper feeder size chart defined as (3)3.5"-4#500 & 1#4/0 GND (or equivalent aluminum).
   b. **CHANGE** all occurrences of "1600" feeders to "1000" feeders on one line diagram.
   c. **CHANGE** Panel K breaker in Main Dist Panel to 100A. Change feeder to Panel K to "100".
   d. **CHANGE** breaker at generator feeding fire pump to 500 amp.
   e. **CHANGE** breaker at Main Dist Panel feeding fire pump to 500 amp.
   f. **ADD** 1.5" with controls circuitry as required by manufacturer between generator and ATS.
   g. **ADD** 1" conduit with circuitry as required by manufacturer between generator and Reception 102 for remote annunciator.

I. Sheet E1.1, Electrical Site Plan.
   a. **ADD** two 120V circuits at generator. One for battery charger and one for coolant heater. Provide circuits from Panel A.

J. Sheet E2.1. **ADD** emergency lighting units at the following locations:
   a. Restrooms 108, 109, 112, 116, 117 & 122
   b. Library 113
   c. North Hall
   d. Classroom 118
   e. Dining 121
   f. Elec 128
   g. Kitchen 129
   h. West Hall 132

K. Sheet E6.1, Main Distribution Panel Schedule.
   a. To **CLARIFY**, main breaker shall be 1000 amps, bus shall be 1200 amps (to facilitate future PV)
   b. To **CLARIFY**, locate breaker for PV system at opposite end of bus from main breaker
   c. **RELOCATE** breakers for WH-1, OU-2, OU-3, DH-1, and ST-1 from Panel A to Main Distribution Panel
   d. **CHANGE** breaker for ST-1 to 80/2
   e. **CHANGE** breaker for Panel K to 100 amp

f. **CHANGE** breaker feeding fire pump to 500 amp

L. Sheet E6.1, Panel K Schedule.
   a. **CHANGE** panel to 100 amp.

M. Sheet E6.2, Pump System Power Diagram.
   a. **ADD** note reading, “Control Panel will be furnished as part of the pump system. Electrical contractor to install within freestanding enclosure. All other components of the diagram include freestanding enclosure, fused disconnect and circuitry shall be provided by electrical contractor”.

D. ATTACHMENTS

1. Geotechnical Report prepared by Pacific Testing & Inspections Inc and dated April 9, 2021
2. A CAD file of the Survey prepared by Sound Surveyors Inc and dated November 22, 2014
3. A CAD file of the Civil Grading Plan prepared by KPFF Engineers and dated April 16, 2021
4. Updated Schedule of Values Bid Form
5. Drawing Sheet A2.1
6. Drawing Sheet A3.1
7. Drawing Sheet A3.2
8. Drawing Sheet A3.4
9. Drawing Sheet A4.1
10. Drawing Sheet A5.1
11. Drawing Sheet A5.2
12. Drawing Sheet A5.5
13. Drawing Sheet A5.6
14. Drawing Sheet A8.2
15. Drawing Sheet A8.3
16. Drawing Sheet A8.4
17. Drawing Sheet A8.5
18. Drawing Sheet A9.1
19. Drawing Sheet A9.4
20. Drawing Sheet A9.5
21. Drawing Sheet A10.1
22. Substitution Forms as listed above.

END OF ADDENDUM #1

Geotechnical Report

Chehalis Elders Center

Neiderman Road
Oakville, Washington 98568

Prepared For:

Confederated Tribes of the Chehalis Reservation
PO Box 536
Oakville, Washington 98568

Prepared By:

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4/9/21

April 9, 2021

PTI Project # 200071

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Appendix D – CEC Results
Appendix E – Foundation Perimeter Drain
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1.0 INTRODUCTION

Pacific Testing & Inspection, Inc. (PTI) has completed this geotechnical study in support of the Chehalis Elders Center located on Neiderman Road in Oakville, Washington.

An initial geotechnical evaluation of the project was conducted by PTI on September 3, 2020. During this site visit, surface and subsurface conditions were assessed. After completion of the field work and subsequent laboratory work, PTI prepared this geotechnical report in order to support the proposed development.

As presented herein, this report includes information pertaining to the project in this Introduction Section; field methods and soil descriptions in the Subsurface Investigation Section; and, supporting documentation for the project in the Engineering Conclusions and Recommendations Section.

The purpose of this geotechnical investigation is to minimally address soil parameters for the development of commercial facilities. In order to fulfill the purpose of investigation, the geotechnical program completed for the proposed improvements of the project include:

- Review project information provided by the proponent of the project;
- Conduct a site visit to document the site conditions that may influence the construction and performance of the proposed improvements of the project;
- Define general subsurface conditions of the site by observing subsoils within test pits, review geological and other soil mapping for the general area, research published references where applicable, and review any other pertinent documents near the project;
- Collect bulk samples as necessary, at various depths and locations;
- Perform laboratory testing to determine selected index and/or engineering properties of the site soils;
- Complete an engineering analysis based on the subsurface conditions that were identified by the field investigation, soil testing, and applicable project research; and,
- Establish conclusions based on our findings.

2.0 SUBSURFACE INVESTIGATION

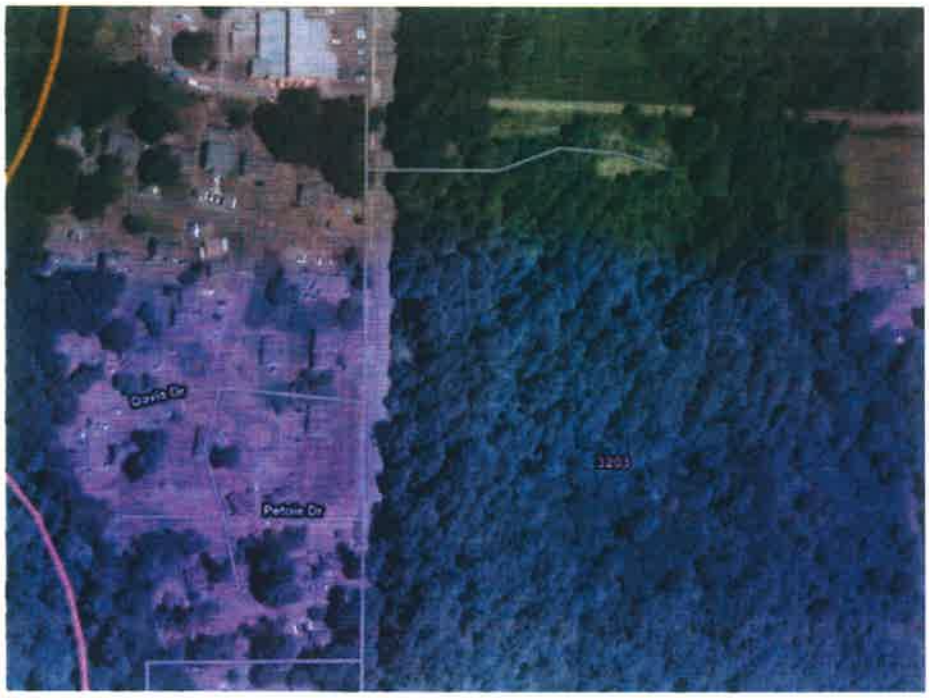
Information on subsurface conditions pertaining to the project was primarily gathered on September 3, 2020 by a representative with PTI.

Information on subsurface conditions for the project was accomplished by examining soils within 3 test pits extending to depths of up to 10 feet below the existing ground surface. See Appendix A of this report which includes our test pit logs.

Soil samples were obtained from this project and utilized for laboratory testing. The following subsurface conditions are estimated descriptions of the project subgrade utilizing information from the depth of penetration at all testing, sampling, observed and investigated locations. Soils for this project were primarily described utilizing the Unified Soil Classification System (USCS) and the Soil Conservation Service (SCS) descriptions.

Within test pit locations, soils within the upper 10 feet were generally observed to be mostly poorly graded sand and gravel (GP and SP). Groundwater or indications of seasonal groundwater were not observed within any of our test pits.

The parent material is a glacial outwash, and a restrictive layer was not encountered within any of our test pits. According to the "Soil Survey of Grays Harbor County," by the United States Department of Agriculture, Soil Conservation Service, the site soils are described as Grand Mound gravelly sandy loam, 3203. The soil designations are depicted in the aerial photograph below, and descriptions are provided in Appendix B of this report.



Soil Map from USDA Web Soil Survey

Visual classifications were performed in the field in accordance with the American Standards for Testing and Materials (ASTM) D2488. Laboratory testing was performed in order to further classify soils at selected locations and depths.

The soil samples obtained at the project site during the field investigation were preserved and transported for laboratory testing. The following soil tests were performed in accordance with the American Standards for Testing and Materials (ASTM):

6 Particle Size Analyses (ASTM D422); and,
6 Moisture Contents (ASTM D2216).

The results from the sieve analysis, performed by PTI, are provided in Appendix B of this report. The moisture content tests are shown on our soil logs in Appendix A.

3.0 ENGINEERING CONCLUSIONS & RECOMMENDATIONS

The following conclusions and recommendations include parameters for foundations, earthwork, seismic, retaining walls, drainage, and pavement.

Foundations

Recommendations provided in this section account for the site development of a typical commercial facility. The recommended allowable bearing capacities and settlements as presented below, consider the probable type of construction as well as the field investigation results by implementing practical engineering judgment within published engineering standards. Evaluations include classifying site soils based on observed field conditions and soil testing for this project. After deriving conservative relative densities, unit weights and angles of internal friction of the in-situ soils, the Terzhagi ultimate bearing capacity equation was utilized for determining foundation width and depth. Foundation parameters provided herein account for typical structural pressures due to the planned type of development. A structural analysis is beyond the scope of a geotechnical report, and a structural engineer may be required to design specific foundations and other structural elements based on the soil investigation.

Stepped foundations are acceptable, if warranted for this project. Continuous, isolated, or stepped foundations shall be horizontally level between the bottom of the foundation and the top of the bearing strata. The frost penetration depth is not expected to extend beyond 12 inches below the ground surface for this project under normal circumstances and anticipated design features.

A modulus of subgrade reaction of no more than 250 pci should be used for the foundation system. Friction between the bottom of the foundation and soil may be utilized to resist lateral loads. A coefficient of friction of 0.5 may be used for this application, and should account for the vertical dead loads only. Static bearing pressures may be increased by one-third (1/3) for short-term duration wind or seismic loads.

Existing in-situ soils for this project indicates that the structure can be established on shallow, continuous or isolated footings. Foundations shall be established on relatively undisturbed native soil that is competent and unyielding. Alternatively, foundations may be constructed on selective re-compacted native soil or compacted engineered fill as described in the Earthwork Construction Recommendations Section of this report.

For a bearing capacity requirement of no more than 3000 psf, a minimum continuous footing width of 15 inches shall be placed at a minimum of 18 inches below the existing ground surface atop prepared subgrade and unyielding soils. For a columnar load of no more than 6 tons, a circular or square isolated foundation diameter or width shall be at least 30 inches. For a columnar load of no more than 10 tons, a circular or square isolated foundation diameter or width shall be at least 40 inches.

All recommended allowable bearing capacities have a factor of safety of at least 3. Foundation recommendations are made available based on adherence to the remaining recommendations that are provided in this report. Alterations to the aforementioned foundation recommendations may

be completed upon a site inspection by a geotechnical engineer after the foundation excavation is completed.

Settlement

Total and differential settlement that a structure will undergo depends primarily on the subsurface conditions, type of structure, amount and duration of pressure exerted by the structure, reduction of pore water pressure, and in some instances, the infiltration of free moisture. Based on the expected native soil conditions, anticipated development, and construction abides by the recommendations in this report, the assumed foundation system may undergo a maximum of 1.0 inch total settlement, and a maximum differential settlement of 0.75 inch.

Concrete Slabs-on-Grade

Structural concrete slabs (i.e. slabs that receive a structural design load), should be supported on a minimum of 4 inches of compacted coarse, granular material as provided in the Earthwork Recommendations Section of this report or undisturbed, clean native soils that are placed over prepared, relatively undisturbed, native subgrade stripped of organics or engineered fill. Both in-situ granular soils and fill material are considered both a capillary break and structural support since the material is extremely porous and the finish floor elevation is expected to be raised above the surrounding, adjacent grades. Any fill material used beneath structural concrete slabs shall follow both the material and compaction requirements provided in the Earthwork Recommendations Section of this report. Alternative materials may be provided to PTI for analysis. A modulus of subgrade reaction of no more than 250 pci should be used for a structural slab.

Non-structural slabs-on-grade (i.e. slabs that do not receive structural design loads) may be placed directly on prepared subgrade per the geotechnical design, unless not allowed per code. See the Earthwork Recommendations Section below for earthwork details pertaining to both structural and non-structural concrete slabs-on-grade.

The recommendations for interior concrete slabs-on-grade as presented herein are only relevant for the geotechnical application of this project. Although beyond the scope of this report, concrete slabs should also be designed for structural integrity and environmental reliability. This includes vapor barriers or moisture control for mitigating excessive moisture in the building.

Earthwork Recommendations

Founding material for building foundations shall consist of undisturbed, unyielding native soils to the specified foundation depths. Compacted engineered fill, or selective re-compacted native soils may be used to the extents provided in this Earthwork Construction Recommendations Section. The following recommendations include excavations, subgrade preparation, type of fill, and placement of fill for building foundations.

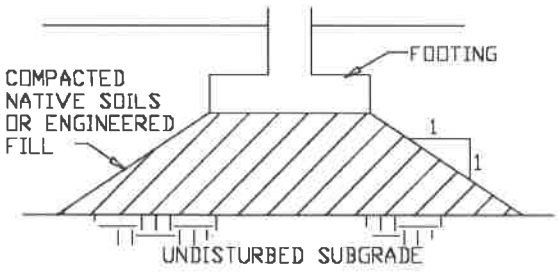
Excavation

Excavation is recommended to remove organic laden topsoil, excessive organic content or other deleterious material, if present, beneath foundations and all concrete slabs-on-grade (structural and non-structural), and to achieve appropriate foundation depth for foundations. Additional sub-excavation will be required for this project if the soils below slabs or the required foundation depth are loose, saturated, not as described in this report, or otherwise incompetent due to inappropriate land disturbing, or excessive water trapped within foundation excavations prior to foundation construction. All soils below the bottom of the excavation shall be competent, and relatively undisturbed or properly compacted fill. If these soils are disturbed or deemed incompetent, re-compaction of these soils below the anticipated footing depth is necessary. Excavations shall be completely dewatered, compacted, and suitable before placement of additional native soil, engineered fill or structural concrete. Subgrades shall be prepared for ensuing structural fill, foundations and both structural/ non-structural slabs by stripping topsoil and excessive organics, and proof rolling with a steel drum roller or a hand-held jumping jack.

Engineered Fill

For engineered fill or disturbed native soils that will be utilized as fill material directly beneath foundations and structural slabs-on-grade, observation and/ or geotechnical testing is required prior to foundation construction. Native soils used as engineered fill shall be the soils below the upper organic laden topsoil per the requirements provided in this section. The following placement and compaction requirements are necessary.

For disturbed native soils or engineered fill beneath foundations, limits of compacted or re-compacted fill shall extend laterally from the bottom edge of the foundation at a rate of one horizontal foot for each foot of compacted or re-compacted fill depth beneath the foundation. See the illustration below.



Both engineered fill and native soils used as compacted fill should be free of roots and other organics, rocks over 6 inches in size, or any other deleterious matter. If import material is utilized as structural fill material for placement in building pad areas, we recommend that it meets the current Washington State Department of Transportation Standard Specification for Road, Bridge and Municipal Construction (WSDOT), Section 9-03(14), for Gravel Borrow. The material should be placed per the recommendation in section 2-06 of WSDOT for sub-grade. For structural concrete slab-on-grades, the 4-inch minimum capillary/ structural supporting material should have the following gradation and qualities:

100% passing the ¾ - inch sieve
< 10% passing the #200 sieve
Fine materials (passing #200) is non-plastic

All structural supporting fill material should be placed in 12 inch maximum vertical lifts and compacted with a vibratory smooth drum roller to achieve 95% of the (ASTM D1557) modified proctor. Each lift surface should be adequately maintained during construction in order to achieve acceptable compaction and inter-lift bonding. Alternative materials may be imported for this project and used for foundation support per the geotechnical engineer.

Temporary and permanent earth cuts and temporary fill slopes exceeding 4 feet in height should be limited to a slope of 2:1 (horizontal:vertical). Utility trenches or other confined excavations exceeding 4 feet should conform to OSHA safety regulations. Permanent cut and fill slopes shall be limited to a slope of 2:1, unless otherwise approved by an engineer.

Seismic

The nearest Class 'A' or Class 'B' fault to this property is the Olympia Structure, and is over 20 miles from the parcel. This information is based on the USGS Quaternary Fault and Fold Database for the United States with the following description:

Fault Name: Olympia structure (class B)
Fault System: Olympia structure (class B)
Geologic Age (Years):unknown
Geologic Age Description:insufficient data to determine age (class B)
Fault Detection Method:geophysical lineament
Fault Visiblilty:inferred fault trace
Slip Rate (mm per year):--
Fault Description:fault
USGS Fault ID:--
Fault Source URL:--
Fault Source Citation: Brocher, Thomas M.; Parsons, Tom E.; Blakely, Richard J.; Christensen, Nikolas I.; Fisher, Michael A.; Wells, Ray E.; SHIPS Working Group, 2001, Upper crustal structure in Puget Lowland, Washington--Results from the 1998 Seismic Hazards Investigations in Puget Sound: Journal of Geophysical Research, v. 106, no. B7, p. 13,541-13,564.

Soils immediately below the expected foundation depth for this project are generally Type C, corresponding to the International Building Code (IBC) soil profiles. According to the IBC, the regional seismic zone is 3 for this project, corresponding to an estimated peak ground acceleration of 0.33g. This estimation is based on the United States Geological Survey (USGS) National Seismic Hazard project in which there is an estimated 2% probability of exceedance within the next 50 years. See the Foundation Section of this report for additional information on short-term seismic (and wind) loading. The following seismic design parameters may be used per the static force procedure outlined in the prevailing IBC:

- Spectral Response Acceleration at Short Periods (Ss) = 1.06
- Spectral Response Acceleration at 1-sec. Periods (S1) = 0.42
- Site Coefficient (Fa) = 1.00
- Site Coefficient (Fv) = 1.38

Based on observed and known subsurface conditions in the area, the potential for liquefaction is believed to be moderate for this project. According to the Interactive Geological Map of Washington, liquefaction hazards are moderate to high within the vicinity of the property. The nearest well report that we found is about 0.5 miles due south of the project, and indicates a 6-foot layer of hardpan beginning at a depth of 11 feet overlying gravel. Based on this and our shallow test pits, settlement due to liquefaction is negligible. However, geotechnical borings of at least 50 feet on the property would be required in order to accurately estimate settlement due to liquefaction.

Retaining Walls

Retaining walls may be utilized for this project. The lateral earth pressures exerted through the backfill of a retaining wall are dependent upon several factors including height of retained soil behind the wall, type of soil that is retained, degree of backfill compaction, slope of backfill, surcharges, hydrostatic pressures, earthquake pressures, and the direction and distance that the top of the wall moves. A structural or geotechnical professional should design retaining walls based on specific conditions.

Soil parameters for the structural design of retaining walls may be estimated as 134 pounds per cubic foot (pcf) and 130 pcf for engineered fill and native soils, respectively. Gravel backfill for walls per WSDOT standard specifications 9-03.12(2) may also be used, and should use the parameters for Engineered Fill Soils as provided herein. The angle of internal friction may be estimated as 36 degrees and 35 degrees for engineered fill and native soils, respectively. These soil parameters are based on soil type and placement conforming to the Earthwork Construction Recommendations Section in this report.

An equivalent fluid unit weight used for structural design may be estimated as the product of the backfill soil unit weight and the earth pressure coefficient for at-rest and active pressures. Retaining walls should be designed to resist a lateral earth pressure based on an equivalent fluid unit weight of the following:

	At-Rest	Active
Native Soils	55.9 pcf	35.1 pcf
Engineered Fill Soils	54.9 pcf	34.8 pcf

The values provided above shall be increased by 1 pcf for every 1 degree of backfill/ natural slope angle.

Backfill may consist of engineered fill, as presented in this report, or borrow material approved by a geotechnical engineer. Compaction of these materials shall be achieved in compacted lifts of about 12 inches. Each lift should be uniformly compacted to at least 85%, and no more than 90% of the modified Proctor maximum dry density (ASTM D 1557). If pavement or building loads are planned to be located within retaining wall backfill, then 90% compaction is required. In addition, heavy construction equipment should be at a distance of at least ½ the wall height. Over-compaction and limiting heavy construction equipment should be prevented to minimize the risk of excess lateral earth pressure on the retaining structure. PTI recommends that retaining wall backfill is compacted with light equipment such as a hand-held power tamper. If clean, coarse gravel soils are utilized as engineered fill, and surcharges will not influence the retaining wall, compaction may be achieved by reasonably densifying granular soils with construction equipment.

Drainage

Positive drainage should be provided in the final design for all planned buildings. Drainage shall include sloping the ground surface, driveways and sidewalks away from the project structures. All constructed surface and subsurface drains should be adequately maintained during the life of the structure. If drainage problems occur during or after construction, additional engineered water mitigation will be required immediately. This may include a combination of swales, berms, drain pipes, infiltration facilities, or outlet protection in order to divert water away from the structures to an appropriate protected discharge area. Leakage of water pipes, both drainage and supply lines, shall be prevented at all times.

Subsurface water intercepted in the footing perimeter drains, and stormwater collected from roof drains shall be separately tight-lined to drainage facilities to a location at least 15 feet downslope of the structure. Roof and foundation drains may share a tightline if an above ground drainage outlet is allowable and a backflow preventer is installed within the pipe system in order to prevent roof water from entering the foundation area. Due to the non-critical nature of this project where the groundwater is low and the subgrade exhibits high permeability, the example foundation perimeter drain shown in Appendix E of this report may be used for this project or any drainage standard per the civil/ drainage engineer may be used.

Infiltration facilities are feasible for this project. The drainage engineer shall review the soil/ groundwater depths provided in this report for adequately determining facility depth. For existing in-situ soils, an infiltration rate may be used as calculated below.

Infiltration rates are based on the Soil Grain Size Analysis Method as outlined in the 2012 Stormwater Management Manual for Western Washington. Based on soil characteristics and the aforesaid drainage manual, infiltration was determined to be the following:

$$Log_{10}(K_{sat}) = -1.57+1.90D_{10} + 0.015D_{60} - 0.013D_{90} - 2.08f_{fines}$$

K_{sat} = saturated hydraulic conductivity, cm/sec
D_{10} = soil sample 10% finer by weight, mm
D_{60} = soil sample 60% finer by weight, mm
D_{90} = soil sample 90% finer by weight, mm
f_{fines} = soil fraction passing #200 seive, by weight, mm

$Log_{10}(K_{sat}) = -1.57+1.90(0.40) + 0.015(16.00) - 0.013(35.00) - 2.08(0.03) = -1.0874$

- $K_{sat} = 10^{-1.0874} = 0.08177113$ cm/sec = 115.90 in/hr

$K_{sat\ design} = K_{sat}\ x\ CF_T$

$CF_T = CF_V * CF_t * CF_m$

K_{sat} = 115.90 in/hr
CF_V = 1.0 (0.33 to 1.0) site variability and number of test locations
CF_t = 0.4 (0.4) grain size test method
CF_m = 0.9 (0.9) degree of influent control

$K_{sat\ design}$ = 41.7 in/hr

PTI concludes that the soils support a design infiltration rate of 41.7 in/hr. However, we recommend that the drainage engineer reduces this value, if necessary, per the limitations in the prevailing drainage manual.

Water quality for this project may be achieved by the soil subgrade beneath proposed water storage areas. The Cation-Exchange Capacity (CEC) of the soils were tested by Libby Environmental, and determined to be the following:

- 7.14 meq/100g

Pavement Analysis

The pavement section design analysis was completed using AASHTO's Guide for Design of Pavement Structures. The AASHTO procedure utilizes a Structural Number (SN) which is used to determine thicknesses of pavement structural sections based on their corresponding structural coefficients. The structural number is determined from a nomograph (Appendix F) utilizing Equivalent Single-Axle Loads (ESALs), Reliability (R%), Serviceability Loss (ΔPSI), Standard Deviation (S_o), and Soil Resilient Modulus (M_R) of the subgrade soil. ESALs were determined by assuming an ADT. This should be confirmed by the owner, and if PTI's assumptions are significantly different, we should be contacted to revise our recommendations.

ESALs = (ADT)(365 days/yr)(N)(DDF)(DLDF)(GR)(PT)(TF)

ADT = 2-way Average Daily Traffic Count
= 300 (assumed)
N = Pavement Design Life
= 20 years
DDF = Direction Distribution Factor
= 50% (50-50 split each direction)
DLDF = Design Lane Distribution Factor
= 100% (one lane in one direction)

GR = Growth Rate
= 0%
PT = Percent Trucks
= 5%
TF = Truck Factor
= 1.7 (common default value)

ESALs = (300)(365)(20)(0.5)(1.0)(.05)(1.7) = 93,075

R% = 80% (Reliability value for local access)
ΔPSI = 2.0 (Serviceability Loss for local access)
S_o = 0.45 (Standard Deviation)
M_R = 1155+555(R Value) = 1155+555(55) = 31,680 psf
where R-Value is interpolated from soil results

The flexible pavement nomograph presented in the AASHTO Guide, was used to calculate the structural number of 1.6. In conjunction with known or assumed pavement layer depths (d_i, etc…), typical published structural coefficients (a_i, etc…), and drainage coefficients (m_i, etc…), as needed, the following formula was used to determine the pavement structural section.

$SN \leq a_1d_1 + a_2d_2m_2 + \ldots. + a_id_im_i + \ldots$

$1.6 \leq (0.42 \times 2 \text{ in}) + (0.14 \times 2 \text{ in}) + (0.14 \times 4.0 \text{ in})$

where a = 0.42 for asphalt concrete (class B)
a = 0.14 for CSTS
a = 0.14 for CSBC

Based on the result of the analysis provided above, PTI recommends that the following pavement elements be utilized at a minimum:

Flexible Pavement

Asphalt concrete	: 2.0 inches
CSTC	: 2.0 inches
CSBC	: 4.0 inches

Heavy Duty Flexible Pavement

Asphalt concrete	: 3.5 inches
CSTC	: 2.0 inches
CSBC	: 6.0 inches

Heavy Duty Rigid Pavement

PC concrete	: 6.0 inches
CSTC/BC	: 4.0 inches

Portland Cement Concrete in rigid pavements should have a 28-day compressive strength of 4000 psi. Appropriate concrete joints at 20 feet apart with transfer mechanisms should be included.

PTI recommends construction to occur during the dry season (May 1st to October 31st) if at all possible. The upper organic laden soils should be removed beneath proposed roadway sections to a depth so that the necessary fill and/ or pavement structural section is to the desired grade. Upon excavation, the native subgrade should be proof rolled with a 60K steel drum roller to a firm, unyielding condition. If necessary, engineered fill soils should be placed and compacted in order to achieve proper grade. Engineered fill soils should be approved by the geotechnical engineer, and compacted to at least 95% of the modified Proctor.

Upon satisfactory completion of the subgrade preparation and necessary fill, the overlying 4.0 inches Crushed Surfacing Base Course (CSBC), 2.0 inches of Crushed Surfacing Top Course (CSTC) and 2.0 inches asphalt concrete layers may be constructed. New CSB/TC should meet the requirements of Class B foundation material from the Washington State Department of Transportation Standard Specifications for Road, Bridge and Municipal Construction. Furthermore, the base materials shall be compacted per the (ASTM D1557) modified Proctor. Each lift surface throughout the project should be adequately maintained during construction in order to achieve acceptable compaction and inter-lift bonding.

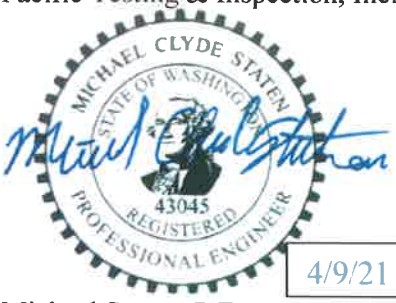
4.0 LIMITATIONS

Due to the inherent natural variations of the soil stratification and the nature of geotechnical subsurface explorations, there is always a possibility that soil conditions encountered during construction are different than those described in this report. Therefore, it is recommended that a qualified engineer observes and documents the construction, or PTI is promptly notified if project and subsurface conditions found on-site are not as presented in this report so that we can re-evaluate our recommendations.

This report presents engineering design guidelines, and is intended only for the owner, or owners' representative, and location of project described herein. This report should not be used to dictate construction procedures or relieve the contractor of his responsibility.

Please contact PTI if you have any questions, comments, or require additional information.

Sincerely,
Pacific Testing & Inspection, Inc.



Michael Staten, P.E.
Engineer

APPENDIX A

TEST PIT LOCATION PLAN

SCALE: 1 INCH = 300 FEET

0 150 300

PROJECT & LOCATION

CHEHALIS ELDERS CENTER

NEIDERMAN ROAD
OAKVILLE, WASHINGTON

ENGINEER:
PACIFIC TESTING & INSPECTION, INC
3215 HARRISON AVENUE
CENTRALIA, WASHINGTON 98531
360-736-3922

TEST PIT LOCATION PLAN

APPENDIX B

TEST PIT LOGS

Pacific Testing & Inspection Inc.

3215 Harrison Avenue, Centralia, WA 98531

Phone (360) 736-3922 Fax (360) 807-6002

LOG OF TEST PIT

Project No.:	Project Name:	Client:	Date:
200071	Chehalis Elders Center	Chehalis Tribe	9/3/2020

Test Pit No.:	Location:	Diameter:	
1	North Center		

Logged By:	Depth of Water:	Date Checked:	Depth of Caving:
TB	None	9/3/2020	

Elev. Or Depth	Lab #	USCS	Description	Remarks	Moisture (%)
6"-8"		Ol	Forest duff		
1'		Sp-Gp	Medium Brown, silty fine to coarse sand w/ gravels and some cobble	Dry, loose,<1', <30%, rounded	
1.5'		Gp	Medium Brown gravel w/ fine to coarse sand trace silt & cobbles	Dry, gets denser, gets coarser, <1', <40%	
2'	20-212	Gp	10yr 5/4 yellowish brown		2.5%
10'	20-213	Gp	No changes test pit terminated		2.9%

Reported by: Tim Barney, ICC Geotechnical Inspector	Reviewed by: Michael Staten, PE

Pacific Testing & Inspection Inc.

3215 Harrison Avenue, Centralia, WA 98531
Phone (360) 736-3922 Fax (360) 807-6002

LOG OF TEST PIT

Project No.:	Project Name:	Client:	Date:
200071	Chehalis Elders Center	Chehalis Tribe	9/3/2020

Test Pit No.:	Location:	Diameter:	
2	South Center		

Logged By:	Depth of Water:	Date Checked:	Depth of Caving:
TB	None	9/3/2020	

Elev. Or Depth	Lab #	USCS	Description	Remarks	Moisture (%)
0'-1'		Ol	Forest duff		
1'		Gp	Tan - Medium Brown gravel w/fine to coarse sand &some silt & cobble	Dry, loose,<1.5', <30%, rounded	
1.5'		Gp	Medium Brown gravel w/ fine to coarse sand trace silt & cobbles	Dry, gets denser, gets coarser, <1', <40%	
2'		Gp	Same gets denser	harder digging	
8'	20-215	Gp	10yr 4/2 dark gray		3.5%
9'	20-214	Gp	10yr 4/1 dark gray		3.9%
10'	20-216	Gp	No changes test pit terminated		2.6%

Reported by: Tim Barney, ICC Geo technical Inspector	Reviewed by: Michael Staten, PE

Pacific Testing & Inspection Inc.

3215 Harrison Avenue, Centralia, WA 98531

Phone (360) 736-3922 Fax (360) 807-6002

LOG OF TEST PIT

Project No.:	Project Name:	Client:	Date:
200071	Chehalis Elders Center	Chehalis Tribe	9/3/2020

Test Pit No.:	Location:	Diameter:	
3	South West		

Logged By:	Depth of Water:	Date Checked:	Depth of Caving:
TB	None	9/3/2020	

Elev. Or Depth	Lab #	USCS	Description	Remarks	Moisture (%)
0'-1'		Ol	Forest duff		
1'		Gp	Tan - Medium Brown gravel w/fine to coarse sand &some silt & cobble	Dry, loose,<1.5', <30%. rounded	
1.5'		Gp	Medium Brown gravel w/ fine to coarse sand trace silt & cobbles	Dry, gets denser, gets coarser, <1', <40%	
2'		Gp	Same gets denser	harder digging	
7'	20-217	Gw	10yr 3/4 yellowish brown		2.6%
10'		Gp	No changes test pit terminated		

Reported by: Tim Barney, ICC Geo Technical Inspector	Reviewed by: Michael Staten, PE

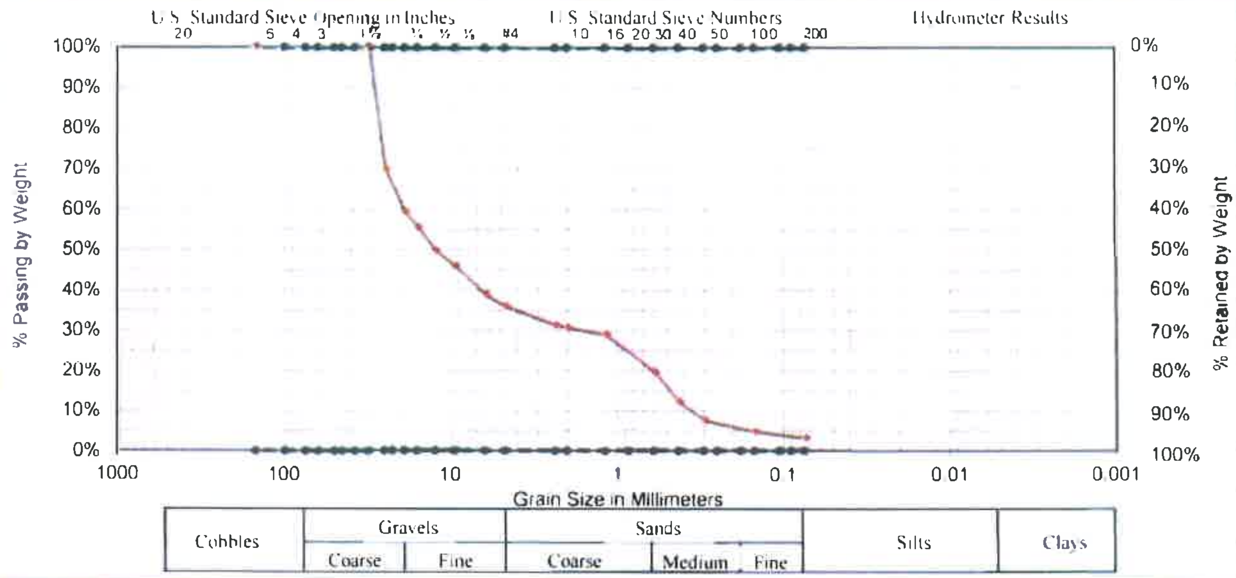
APPENDIX C

SEIVE ANALYSIS RESULTS

Pacific Testing Inspection Inc.

3215 Harrison Avenue, Centralia, WA 98531
Phone (360) 736-3922 Fax (360) 807-6022

ASTM C-136 **Sieve Report** **ASTM D-4318**



Date	9/3/2020	D_{10} = 0.37	**USCS Classification**	% Gravel	% Sand
Sample #	20-212	D_{30} = 1.78	GP, Poorly graded Gravel with Sand	64.2%	32.8%
Source	TP1 @ 2'	D_{60} = 19.58	**Specifications**	Color	
Project #	200071	C_C = 0.44	No Specs	10yr5/4 Yellowish bro	
Project	Chehalis Elders Center Geo	C_U = 52.82	Sample Meets Specs	% Silt & Clay	
Client	Chehalis Tribe	Liquid Limit= 0.0%	n/a	3.0%	
Tested By	TB	Plastic Limit= 0.0%	Fineness Modulus		
Date Tested	9/4/2020	Plasticity Index= 0.0%	5.68		

Coarse Section

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
6.00"	150.00		100.0%		
4.00"	100.00		100.0%		
3.00"	75.00		100.0%		
2.50"	63.00		100.0%		
2.00"	50.00		100.0%		
1.75"	45.00		100.0%		
1.50"	37.50		100.0%		
1.25"	31.50	100.0%	100.0%		
1.00"	25.00	69.5%	69.5%		
7/8"	22.40		65.0%		
3/4"	19.00	59.0%	59.0%		
5/8"	16.00	55.3%	55.3%		
1/2"	12.50	49.5%	49.5%		
3/8"	9.50	45.7%	45.7%		
1/4"	6.30	38.7%	38.7%		
#4	4.75	35.8%	35.8%		

Fines Section

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
#4	4.750	35.8%	35.8%		
#8	2.360	31.1%	31.1%		
#10	2.000	30.5%	30.5%		
#16	1.180	28.7%	28.7%		
#20	0.850		23.5%		
#30	0.600	19.5%	19.5%		
#40	0.425	12.0%	12.0%		
#50	0.300	7.4%	7.4%		
#60	0.250		6.5%		
#80	0.180		5.2%		
#100	0.150	4.6%	4.6%		
#140	0.106		3.7%		
#170	0.090		3.3%		
#200	0.075	3.0%	3.0%		
#270	0.053				

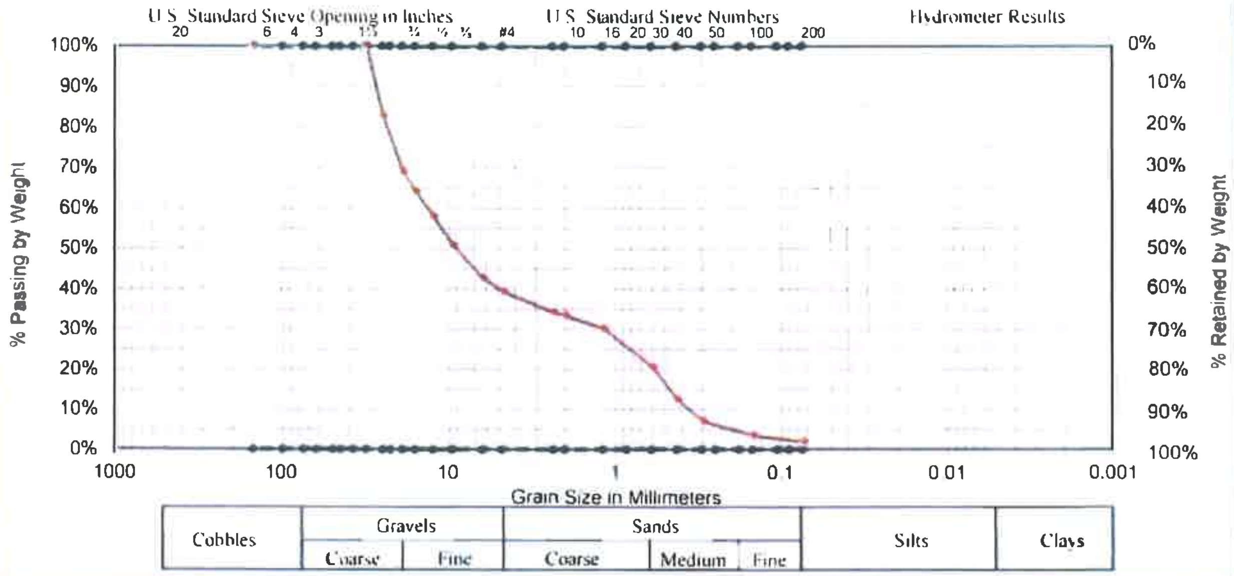
Comments: Moisture content = 2.5%

Reviewed by: Tim Barney, Lab Manager

Pacific Testing Inspection Inc.

3215 Harrison Avenue, Centralia, WA 98531
Phone (360) 736-3922 Fax (360) 807-6022

ASTM C136 | **Sieve Report** | ASTM D4318



Date 9/3/2020	D_{10} = 0.37	**USCS Classification**	% Gravel 60.8% · % Sand 37.4%
Sample # 20-213	D_{30} = 1.18	GP, Poorly graded Gravel with Sand	
Source TP1 @ 10'	D_{60} = 13.78	**Specifications**	Color
Project # 200071	C_C = 0.27	No Specs	10yr5/4 Yellowish bro
Project Chehalis Elders Center Geo	C_U = 36.95	Sample Meets Specs	% Silt & Clay
Client Chehalis Tribe	Liquid Limit= 0.0%	n/a	1.8%
Tested By TB	Plastic Limit= 0.0%	Fineness Modulus	
Date Tested 9/4/2020	Plasticity Index= 0.0%	5.47	

Coarse Section

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
6.00"	150.00		100.0%		
4.00"	100.00		100.0%		
3.00"	75.00		100.0%		
2.50"	63.00		100.0%		
2.00"	50.00		100.0%		
1.75"	45.00		100.0%		
1.50"	37.50		100.0%		
1.25"	31.50	100.0%	100.0%		
1.00"	25.00	82.6%	82.6%		
7/8"	22.40		76.6%		
3/4"	19.00	68.7%	68.7%		
5/8"	16.00	64.0%	64.0%		
1/2"	12.50	57.7%	57.7%		
3/8"	9.50	50.6%	50.6%		
1/4"	6.30	42.5%	42.5%		
#4	4.75	39.2%	39.2%		

Fines Section

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
#4	4.750	39.2%	39.2%		
#8	2.360	34.1%	34.1%		
#10	2.000	33.2%	33.2%		
#16	1.180	30.1%	30.1%		
#20	0.850		24.5%		
#30	0.600	20.3%	20.3%		
#40	0.425	12.2%	12.2%		
#50	0.300	6.9%	6.9%		
#60	0.250		5.7%		
#80	0.180		4.0%		
#100	0.150	3.3%	3.3%		
#140	0.106		2.4%		
#170	0.090		2.1%		
#200	0.075	1.8%	1.8%		
#270	0.053				

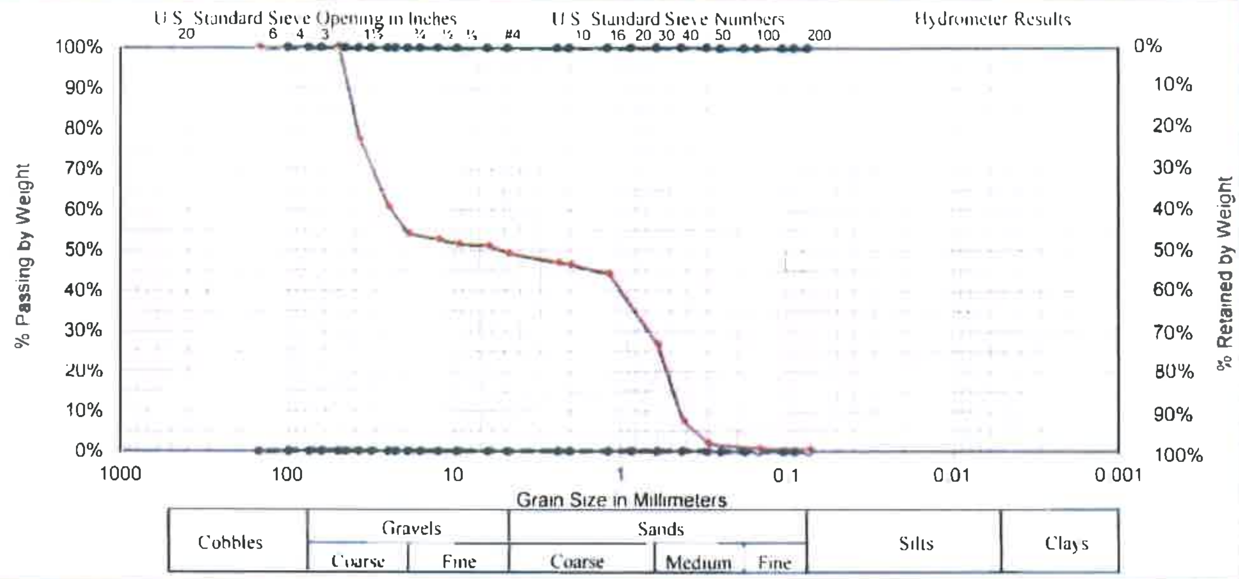
Comments Moisture content = 2.9%

Reviewed by Tim Barney, Lab Manager

Pacific Testing Inspection Inc.

3215 Harrison Avenue, Centralia, WA 98531
Phone (360) 736-3922   Fax (360) 807-6022

ASTM C-136 | Sieve Report | ASTM D-4318



Date 9/3/2020	D_{10} = 0.45	**USCS Classification**	% Gravel	% Sand
Sample # 20-215	D_{30} = 0.72	GP, Poorly graded Gravel with Sand	51.0%	48.7%
Source TP2 @ 8'	D_{60} = 24.61	**Specifications**	Color	
Project # 200071	C_C = 0.05	No Specs	10yr4/2dark gray	
Project Chehalis Elders Center Geo	C_U = 54.79	Sample Meets Specs	% Silt & Clay	
Client Chehalis Tribe	Liquid Limit= 0.0%	n/a	0.4%	
Tested By TB	Plastic Limit= 0.0%	Fineness Modulus		
Date Tested 9/4/2020	Plasticity Index= 0.0%	5.49		

Coarse Section

Sieve Size US	Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
6.00"	150.00		100.0%		
4.00"	100.00		100.0%		
3.00"	75.00		100.0%		
2.50"	63.00		100.0%		
2.00"	50.00	100.0%	100.0%		
1.75"	45.00		90.9%		
1.50"	37.50	77.3%	77.3%		
1.25"	31.50		69.2%		
1.00"	25.00	60.4%	60.4%		
7/8"	22.40		57.6%		
3/4"	19.00	53.9%	53.9%		
5/8"	16.00		53.2%		
1/2"	12.50	52.5%	52.5%		
3/8"	9.50	51.3%	51.3%		
1/4"	6.30	50.9%	50.9%		
#4	4.75	49.0%	49.0%		

Fines Section

Sieve Size US	Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
#4	4.750	49.0%	49.0%		
#8	2.360	46.8%	46.8%		
#10	2.000	46.2%	46.2%		
#16	1.180	43.9%	43.9%		
#20	0.850		33.9%		
#30	0.600	26.4%	26.4%		
#40	0.425	7.4%	7.4%		
#50	0.300	1.7%	1.7%		
#60	0.250		1.3%		
#80	0.180		0.8%		
#100	0.150	0.5%	0.5%		
#140	0.106		0.4%		
#170	0.090		0.4%		
#200	0.075	0.4%	0.4%		
#270	0.053				

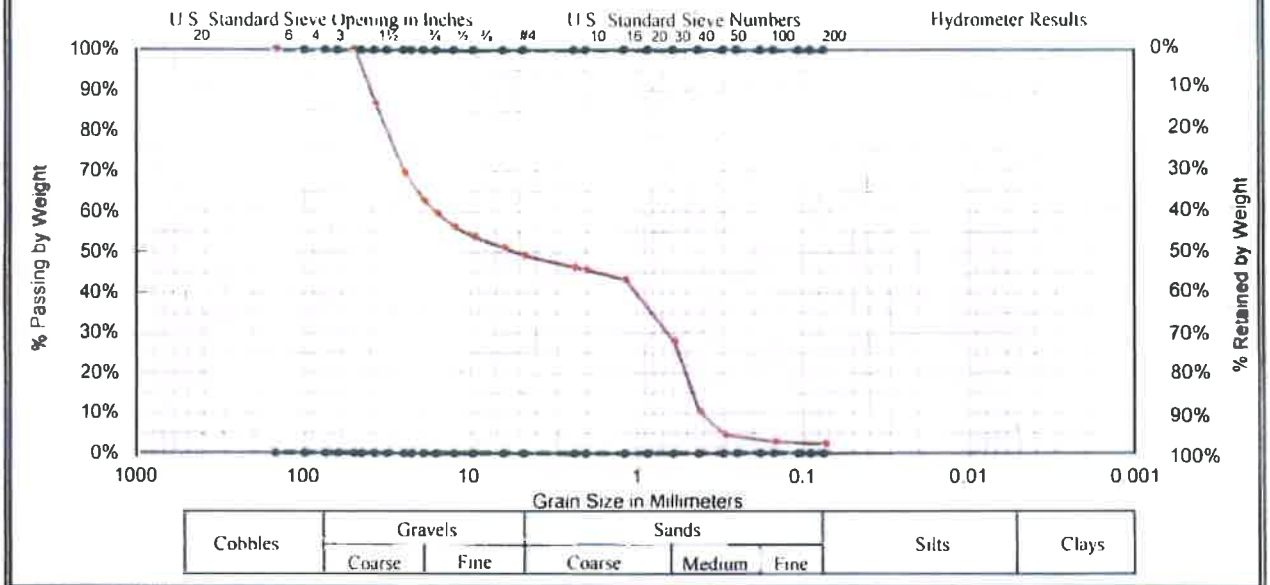
Comments   Moisture content = 3.5%

Reviewed by   Tim Barnes, Lab Manager

Pacific Testing Inspection Inc.

3215 Harrison Avenue, Centralia, WA 98531
Phone (360) 736-3922 Fax (360) 807-6022

ASTM C-136 **Sieve Report** **ASTM D-4318**



Date	9/3/2020	D_{10} = 0.42	**USCS Classification**	% Gravel	% Sand
Sample #	20-214	D_{30} = 0.69	GP, Poorly graded Gravel with Sand	50.9%	46.8%
Source	TP2 @ 9'	D_{60} = 16.56	**Specifications**	Color	
Project #	200071	C_C = 0.07	No Specs	10yr4/1 dark gray	
Project	Chehalis Elders Center Geo	C_U = 39.42	Sample Meets Specs	% Silt & Clay	
Client	Chehalis Tribe	Liquid Limit= 0.0%	n/a	2.3%	
Tested By	TB	Plastic Limit= 0.0%	Fineness Modulus		
Date Tested	9/4/2020	Plasticity Index= 0.0%	5.24		

Coarse Section Sieve Size US	Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
6.00"	150.00		100.0%		
4.00"	100.00		100.0%		
3.00"	75.00		100.0%		
2.50"	63.00		100.0%		
2.00"	50.00	100.0%	100.0%		
1.75"	45.00		94.7%		
1.50"	37.50	86.7%	86.7%		
1.25"	31.50		78.5%		
1.00"	25.00	69.5%	69.5%		
7/8"	22.40		66.5%		
3/4"	19.00	62.5%	62.5%		
5/8"	16.00	59.4%	59.4%		
1/2"	12.50	56.1%	56.1%		
3/8"	9.50	53.6%	53.6%		
1/4"	6.30	51.0%	51.0%		
#4	4.75	49.1%	49.1%		

Fines Section Sieve Size US	Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
#4	4.750	49.1%	49.1%		
#8	2.360	46.2%	46.2%		
#10	2.000	45.6%	45.6%		
#16	1.180	43.1%	43.1%		
#20	0.850		34.3%		
#30	0.600	27.7%	27.7%		
#40	0.425	10.2%	10.2%		
#50	0.300	4.4%	4.4%		
#60	0.250		3.9%		
#80	0.180		3.1%		
#100	0.150	2.7%	2.7%		
#140	0.106		2.5%		
#170	0.090		2.4%		
#200	0.075	2.3%	2.3%		
#270	0.053				

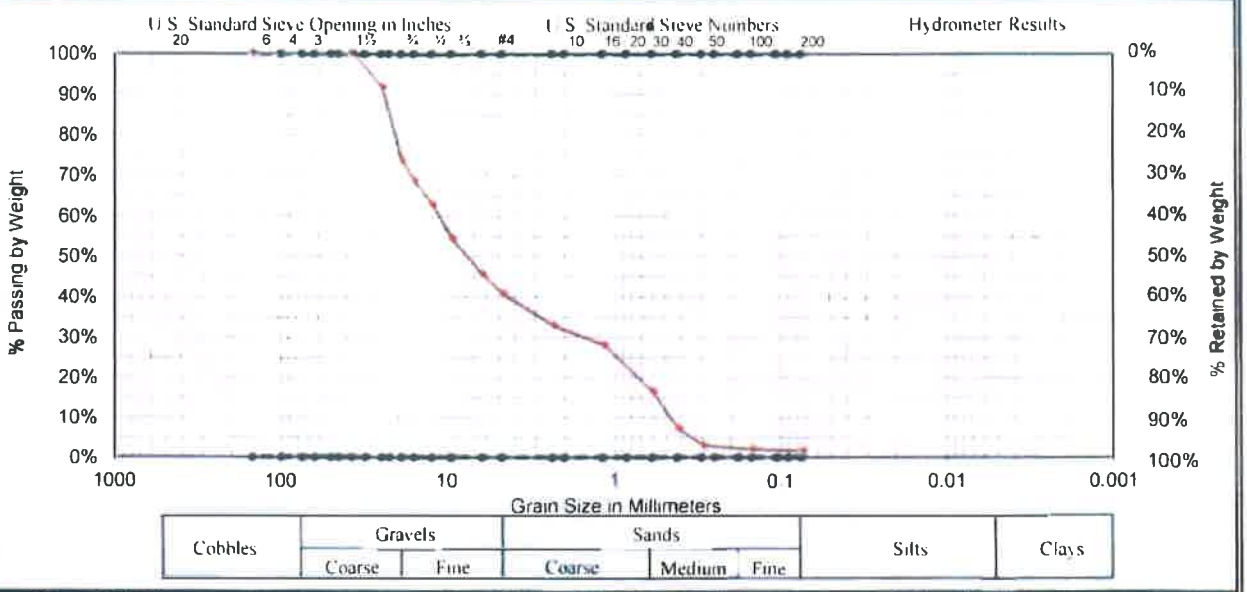
Comments Moisture content = 3.9%

Reviewed by Tim Barnes, Lab Manager

Pacific Testing Inspection Inc.

3215 Harrison Avenue, Centralia, WA 98531
Phone (360) 736-3922 Fax (360) 807-6022

ASTM C-136 Sieve Report ASTM D422



Date	9/3/2020	D_{10} = 0.48	**USCS Classification**	% Gravel	% Sand
Sample #	20-216	D_{30} = 1.69	GP, Poorly graded Gravel with Sand	59.4%	39.0%
Source	TP2 @ 10'	D_{60} = 11.58	**Specifications**	Color	
Project #	200071	C_C = 0.51	No Specs	10yr 3/4 yellowish bro	
Project	Chehalis Elders Center Geo	C_U = 24.08	Sample Meets Specs	% Silt & Clay	
Client	Chehalis Tribe	Liquid Limit= 0.0%	n/a	1.6%	
Tested By	TB	Plastic Limit= 0.0%	Fineness Modulus		
Date Tested	9/4/2020	Plasticity Index= 0.0%	5.50		

Coarse Section Sieve Size US	Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
6.00"	150.00		100.0%		
4.00"	100.00		100.0%		
3.00"	75.00		100.0%		
2.50"	63.00		100.0%		
2.00"	50.00		100.0%		
1.75"	45.00		100.0%		
1.50"	37.50	100.0%	100.0%		
1.25"	31.50		95.9%		
1.00"	25.00	91.5%	91.5%		
7/8"	22.40		83.7%		
3/4"	19.00	73.4%	73.4%		
5/8"	16.00	68.4%	68.4%		
1/2"	12.50	62.6%	62.6%		
3/8"	9.50	54.3%	54.3%		
1/4"	6.30	45.4%	45.4%		
#4	4.75	40.6%	40.6%		

Fines Section Sieve Size US	Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
#4	4.750	40.6%	40.6%		
#8	2.360	32.7%	32.7%		
#10	2.000		31.3%		
#16	1.180	27.9%	27.9%		
#20	0.850		21.3%		
#30	0.600	16.2%	16.2%		
#40	0.425	7.1%	7.1%		
#50	0.300	2.9%	2.9%		
#60	0.250		2.6%		
#80	0.180		2.1%		
#100	0.150	1.9%	1.9%		
#140	0.106		1.7%		
#170	0.090		1.6%		
#200	0.075	1.6%	1.6%		
#270	0.053				

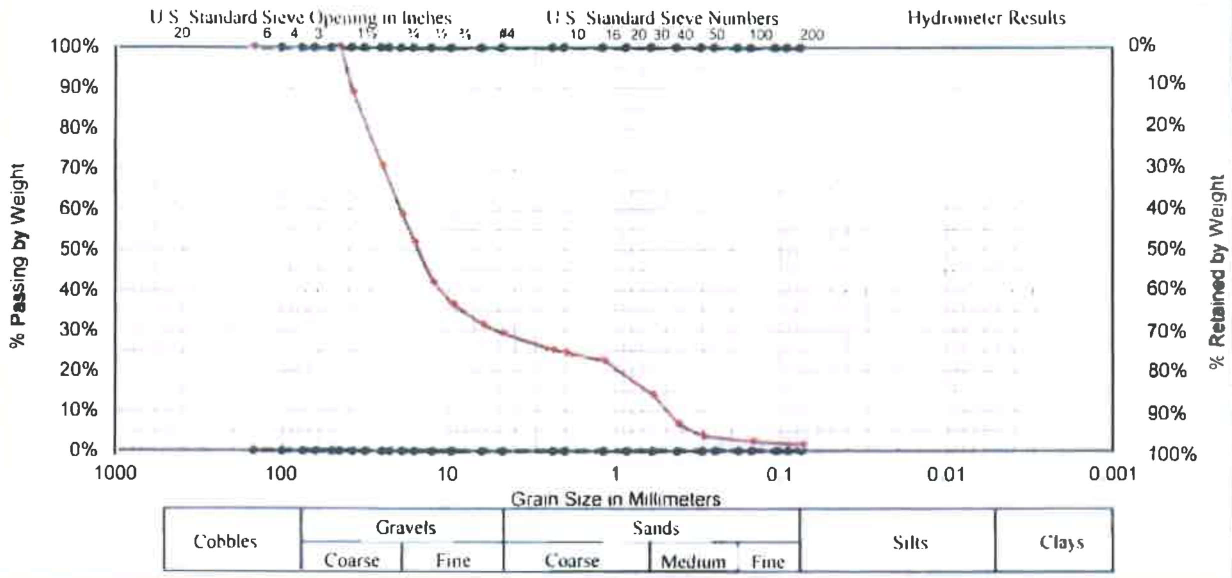
Comments Moisture content = 2.6%

Reviewed by Tim Barney, Lab Manager

Pacific Testing Inspection Inc.

3215 Harrison Avenue, Centralia, WA 98531
Phone (360) 736-3922 Fax (360) 807-6022

Sieve Report | ASTM D-4318



Date	9/3/2020	D_{10} = 0.51	**USCS Classification**	% Gravel	% Sand
Sample #	20-217	D_{30} = 5.35	GW, Well-graded Gravel with Sand	70.9%	27.7%
Source	TP3 @ 7'	D_{60} = 19.65	**Specifications**	Color	
Project #	200071	C_C = 2.86	No Specs	10yr 3/4 yellowish brc	
Project	Chehalis Elders Center Geo	C_U = 38.68	Sample Meets Specs	% Silt & Clay	
Client	Chehalis Tribe	Liquid Limit= 0.0%	n/a	1.4%	
Tested By	TB	Plastic Limit= 0.0%	Fineness Modulus		
Date Tested	9/4/2020	Plasticity Index= 0.0%	6.20		

Coarse Section

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
6.00"	150.00		100.0%		
4.00"	100.00		100.0%		
3.00"	75.00		100.0%		
2.50"	63.00		100.0%		
2.00"	50.00		100.0%		
1.75"	45.00	100.0%	100.0%		
1.50"	37.50	88.8%	88.8%		
1.25"	31.50		80.1%		
1.00"	25.00	70.7%	70.7%		
7/8"	22.40		65.5%		
3/4"	19.00	58.7%	58.7%		
5/8"	16.00	51.8%	51.8%		
1/2"	12.50	41.9%	41.9%		
3/8"	9.50	36.4%	36.4%		
1/4"	6.30	31.4%	31.4%		
#4	4.75	29.1%	29.1%		

Fines Section

Sieve Size US	Sieve Size Metric	Actual Cumulative Percent Passing	Interpolated Cumulative Percent Passing	Specs Max	Specs Min
#4	4.750	29.1%	29.1%		
#8	2.360	25.0%	25.0%		
#10	2.000	24.4%	24.4%		
#16	1.180	22.4%	22.4%		
#20	0.850		17.5%		
#30	0.600	13.8%	13.8%		
#40	0.425	6.5%	6.5%		
#50	0.300	3.5%	3.5%		
#60	0.250		3.1%		
#80	0.180		2.4%		
#100	0.150	2.2%	2.2%		
#140	0.106		1.7%		
#170	0.090		1.6%		
#200	0.075	1.4%	1.4%		
#270	0.053				

Comments Moisture content = 2.6%

Reviewed by Tim Barney, Lab Manager

APPENDIX C

CEC RESULTS

Libby Environmental, Inc.

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

CHEHALIS ELDERS CENTER PROJECT
Pacific Testing and Inspection, Inc.
Libby Project # L200904-1
Date Received 9/4/2020
Time Received 10:53 AM

Received By JA

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody is complete?	☑ Yes	☐ No	
2. How was the sample delivered?	☑ Hand Delivered	☐ Picked Up	☐ Shipped

Log In

3. Cooler or Shipping Container is present.	☐ Yes	☑ No	☐ N/A
4. Cooler or Shipping Container is in good condition.	☐ Yes	☐ No	☑ N/A
5. Cooler or Shipping Container has Custody Seals present.	☐ Yes	☐ No	☑ N/A
6. Was an attempt made to cool the samples?	☐ Yes	☑ No	☐ N/A
7. Temperature of cooler (0°C to 8°C recommended)	N/A °C		
8. Temperature of sample(s) (0°C to 8°C recommended)	24.0 °C		
9. Did all containers arrive in good condition (unbroken)?	☑ Yes	☐ No	
10. Is it clear what analyses were requested?	☑ Yes	☐ No	
11. Did container labels match Chain of Custody?	☑ Yes	☐ No	
12. Are matrices correctly identified on Chain of Custody?	☑ Yes	☐ No	
13. Are correct containers used for the analysis indicated?	☑ Yes	☐ No	
14. Is there sufficient sample volume for indicated analysis?	☑ Yes	☐ No	
15. Were all containers properly preserved per each analysis?	☑ Yes	☐ No	
16. Were VOA vials collected correctly (no headspace)?	☐ Yes	☐ No	☑ N/A
17. Were all holding times able to be met?	☑ Yes	☐ No	

Discrepancies/ Notes

18. Was client notified of all discrepancies? ☐ Yes ☐ No ☑ N/A

Person Notified: _____ Date: _____

By Whom: _____ Via: _____

Regarding: _____

19. Comments. _____

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Libby Environmental
Sherry Chilcutt
3322 South Bay Road NE
Olympia, WA 98506

RE: Chehalis Elders Center
Work Order Number: 2009112

September 22, 2020

Attention Sherry Chilcutt:

Fremont Analytical, Inc. received 1 sample(s) on 9/8/2020 for the analyses presented in the following report.

Cation Exchange Capacity by EPA 9081

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025 2017 and QSM 5.3 for Environmental Testing
ORELAP Certification WA 100009 (NELAP Recognized) for Environmental Testing
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

Fremont Analytical

Date: *09/22/2020*

CLIENT: Libby Environmental
Project: Chehalis Elders Center
Work Order: 2009112

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2009112-001	Test Pit-1	09/03/2020 3:30 PM	09/08/2020 12:15 PM

Note: If no "Time Collected" is supplied, a default of 12 00AM is assigned

Original

Case Narrative

WO#: **2009112**
Date: **9/22/2020**

CLIENT: Libby Environmental
Project: Chehalis Elders Center

I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
DUP - Sample Duplicate
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
REP - Sample Replicate
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **2009112**
Date Reported: **9/22/2020**

Client: Libby Environmental
Project: Chehalis Elders Center
Lab ID: 2009112-001
Client Sample ID: **Test Pit-1**

Collection Date: 9/3/2020 3:30:00 PM
Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Cation Exchange Capacity by EPA 9081				Batch ID: R61987		Analyst: CO
Cation Exchange Capacity	7.14	1.00		meq/100g	1	9/18/2020 11:03:49 PM

Original

Fremont Analytical

Date: 9/22/2020

Work Order: 2009112
CLIENT: Libby Environmental
Project: Chehalis Elder Center

QC SUMMARY REPORT

Cation Exchange Capacity by EPA 9081

Sample ID: MB-R61987	SampType MBLK			Units meq/100g		Prep Date 9/18/2020		RunNo 61987		
Client ID MBLKS	Batch ID R61987					Analysis Date 9/18/2020		SeqNo 1243403		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cation Exchange Capacity	ND	1.00									

Sample ID LCS-R61987	SampType LCS			Units µg/L		Prep Date 9/18/2020		RunNo 61987		
Client ID LCSS	Batch ID R61987					Analysis Date 9/18/2020		SeqNo 1243405		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	1,050	100	1,000	0	105	75	125				

Sample ID: 2009112-001ADUP	SampType: DUP			Units meq/100g		Prep Date: 9/18/2020		RunNo: 61987		
Client ID Test Pit-1	Batch ID: R61987					Analysis Date: 9/18/2020		SeqNo: 1243408		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cation Exchange Capacity	6.72	1.00						7.140	6.06	30	

Sample Log-In Check List

Client Name:	**LIBBY**	Work Order Number:	**2009112**
Logged by:	**Clare Griggs**	Date Received:	**9/8/2020 12:15:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	UPS		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Present ☑
6.	Was an attempt made to cool the samples?	Yes ☐	No ☑	NA ☐
		Not required		
7.	Were all items received at a temperature of >2°C to 6°C	Yes ☐	No ☐	NA ☑
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

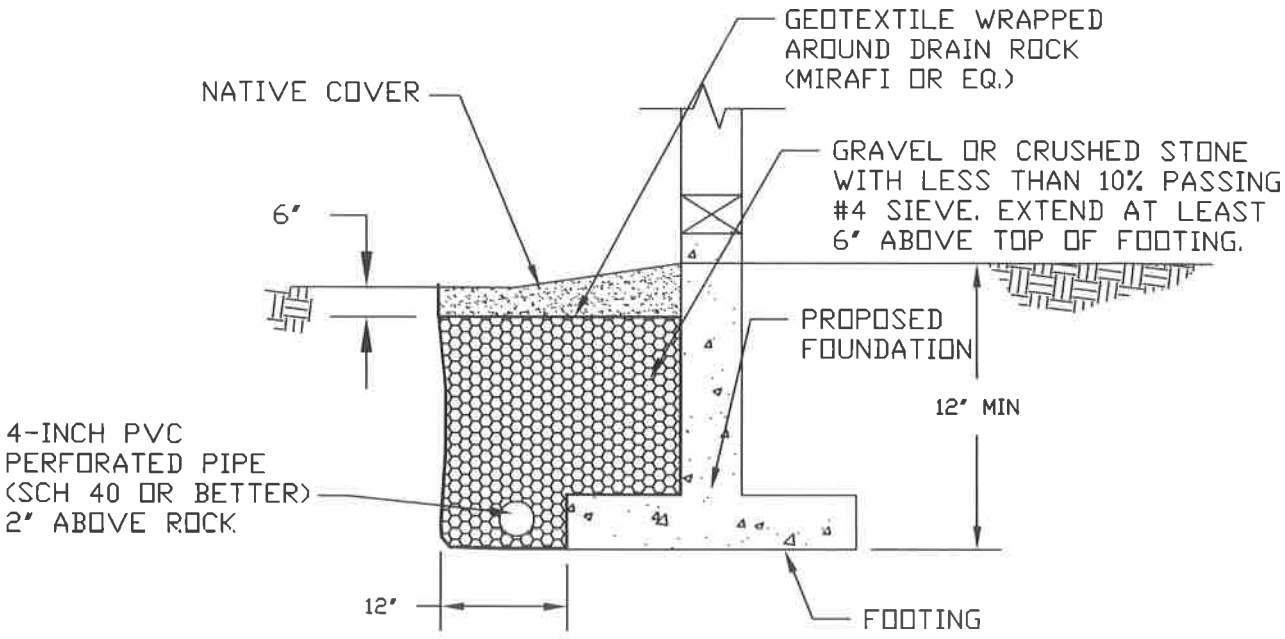
	Item #	Temp °C
Sample		21.5

Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

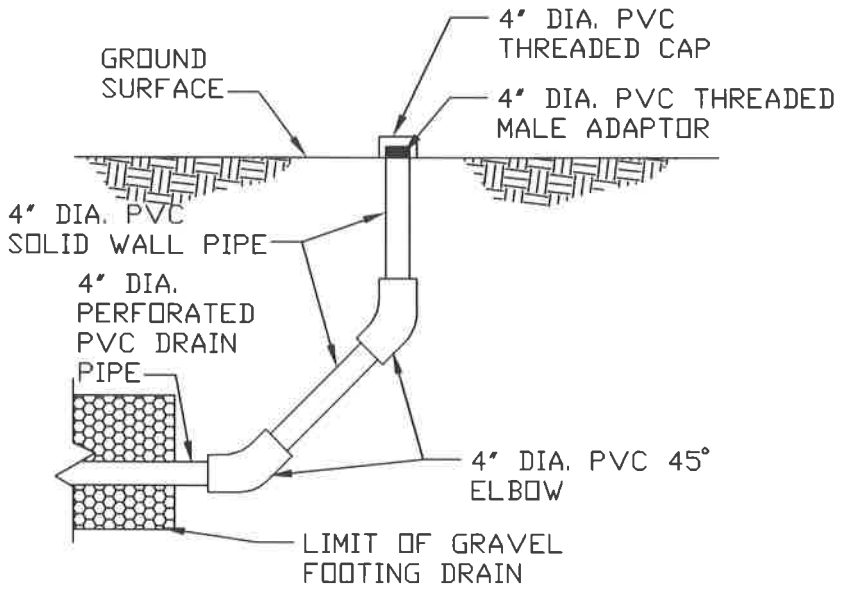
Original

APPENDIX E

FOUNDATION PERIMETER DRAIN



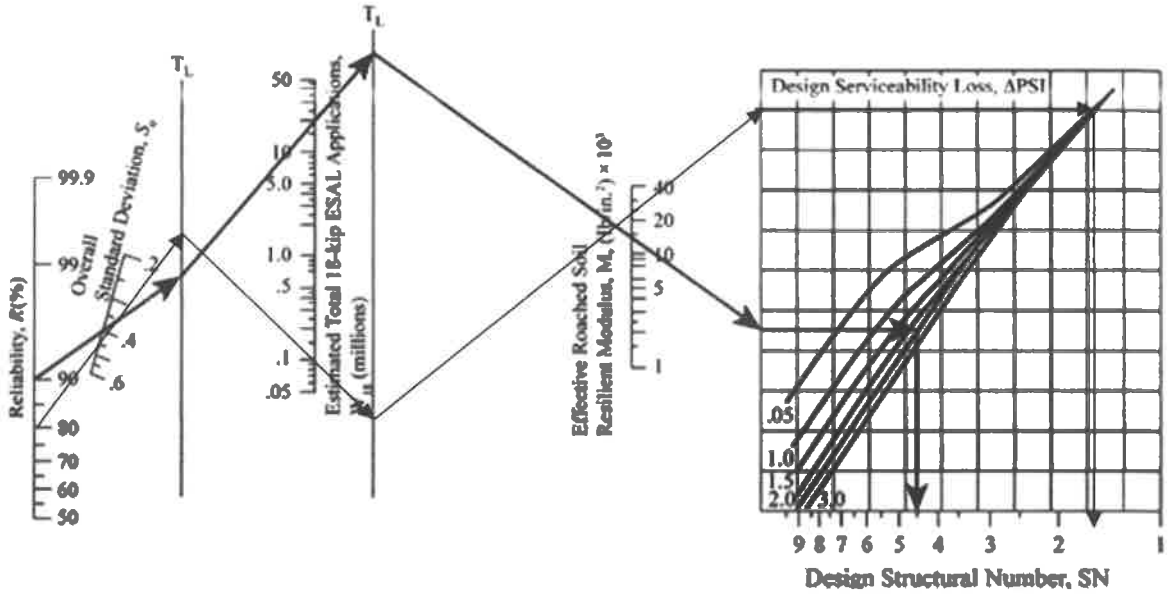
FOOTING PERIMETER DRAIN DETAILS
N.T.S.



FOOTING DRAIN & CLEANOUT DETAILS
N.T.S.

APPENDIX F

PAVEMENT NOMOGRAPH


Reliability, R(%)
99.9
99
90
80
70
60
50
Overall Standard Deviation, S_o
.2
.4
.6
T_L
T_L
50
10
5.0
1.0
.5
.1
.05
Estimated Total 18-kip ESAL Applications, W_{18} (millions)
Effective Roached Soil Resilient Modulus, M, (lb/in.²) x 10³
40
20
10
5
1
Design Serviceability Loss, ΔPSI
.05
1.0
1.5
2.0
3.0
9 8 7 6 5 4 3 2 1
Design Structural Number, SN

Chehalis Tribe Elder Center

Detailed Cost Breakdown

11,710 SF

BID PROPOSAL / SCHEDULE OF VALUES

BIDDER-

COMPONENT DESCRIPTION	EXTENSION
1. DEMO/EARTHWORK/UTILITIES	$ -
2. HARDSCAPE/PAVING/FENCING	$ -
3. SITE SPECIALTIES	$ -
4.LANDSCAPING AND IRRIGATION	$ -
5.FOUNDATIONS	$ -
6. VERITCAL STRUCTURE	$ -
7. FLOOR AND ROOF STRUCTURE	$ -
8. EXTERIOR CLADDING	$ -
9. ROOFING AND WATERPROOFING	$ -
10. INTERIOR PARTITIONS AND DOORS	$ -
11. INTERIOR FINISHES-FLOORS, WALLS, CEILINGS	$ -
12. FIXED EQUIPMENT	$ -
13. FURNISHINGS AND CASEWORK	$ -
14. FIRE PROTECTION	$ -

15. PLUMBING	$ -
16. HEATING, VENTILATING & AIR CONDITIONING	$ -
17. ELECTRICAL	$ -
GENERAL CONDITIONS	$ -
LIABILITY INSURANCE	$ -
BUILDER'S RISK INSURANCE	$ -
CONTRACTOR'S FEE (OVERHEAD & PROFIT	$ -

TOTAL BASE BID $ -

SCHEDULE OF ALTERNATES - SEE SECTION - 01 23 00 OF BID DOCUMENTS

ADDITIVE	
ALTERNATE 1: SOLAR PHOTO VOLTAIC SYSTEM	$ -
DEDUCTIVE	
ALTERNATE 2A: REDUCTIONS IN PLANT SCHEDULE	$ -
ALTERNATE 2B: INSTALLATION OF RESTORATION PLANTING	$ -
ALTERNATE 2C: DEDUCT CISTERN	$ -
ALTERNATE 2D: DEDUCT BELOW GRADE IRRIGATION	$ -
ALTERNATE 2E: DELETE BASKET WEAVE BRICK DESIGN	$ -
ALTERNATE 2F: SALVAGE BOULDERS	$ -
ALTERNATE 2G: DELETE RAISED PLANTERS	$ -

Knowledge for Creating and Sustaining the Built Environment

SUBSTITUTION REQUEST

(During the Bidding/Negotiating Stage)

Project: Chehalis Tribe Elders Center Project

Substitution Request Number:

From: Christina Erickson / United Sales NW, LLC

To: ARC Architects

Date: 6/7/21

Confederated Tribes of the Chehalis Reservation

A/E Project Number: 20-034

Re:

Contract For: Toilet Partitions

Specification Title: PHENOLIC-CORE TOILET COMPARTMENTS

Description: Phenolic-core toilet compartments

Section: 102113.17 Page: 2

Article/Paragraph: 2.2

Proposed Substitution: ASI Global Partitions

Manufacturer: ASI Group Address: 900 Clary Connector Eastanollee, Georgia 30538 Phone: 706.827.2700

Trade Name: ASI Global Partitions Model No.: Phenolic Toilet Partitions

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Christina Erickson

Signed by:

Firm: United Sales NW, LLC

Address: 2600 NE Andresen Rd Suite 150

Vancouver, WA 98661

Telephone: 360-524-6040

A/E's REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: Date:

Supporting Data Attached: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☒ _____

Attach to E-Mail | Print a Copy | Save a Copy | Attach a file | Reset Form

ONLY ASI OFFERS
THE LARGEST SELECTION OF DESIGNER OPTIONS IN THE INDUSTRY.

ASI Global Partitions

asi-globalpartitions.com

Introducing the largest collection of partitions from one source. Since 1960, ASI® Global Partitions has been providing high-performance toilet partitions that meet or exceed specifications, require little maintenance, withstand the rigors of some very difficult environments, and provide a lifetime of low-cost of ownership. Only ASI® offers the most comprehensive collection of toilet partitions available anywhere. Welcome to choice—welcome to the new ASI.

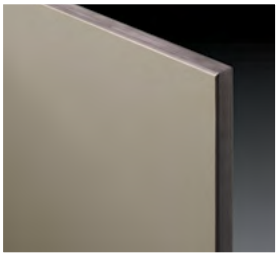
Shipped In 48 HOURS

Solid Plastic, Phenolic, Powder Coated, Stainless Steel or Moisture Guard™ Plastic Laminate partitions ready to ship **within 48 hours.**

Solid Plastic P. 12

Alpaco Collection P. 5

Phenolic provides superior strength, durability and a broad variety of patterns and colors.

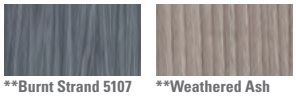


Phenolic partitions sheets are fused at high temperature and pressure. In addition to strength and serviceability, a wide range of colors provides limitless design flexibility. Available in Color-Thru (Class "A" Fire Rated Material standard) and Black Core. **Options:** Continuous Piano Hinges, Continuous Anodized Aluminum and Stainless Steel Brackets, Custom Colors and No-Sight Privacy Strips.

BLACK CORE COLOR SELECTION:*

Neutral Glace 1130 | Silver Gray 3000 | Dove Gray 3010 | Taupe 9096 | Graphite Grafix 3020

Folkstone Celesta 3300 | Almond 4000 | **Washed Knotty Ash 9438 | Desert Zephyr 4583 | Tungsten EV 4801



**Burnt Strand 5107 | **Weathered Ash 9842

COLOR-THRU SELECTION:

Black 2000C | Burgundy 5450C

Fog 3450C | Smoke 8450C

Hazel 4450C | Navy Blue 7450C

*Shipped in 48 Hours available for Black Core Phenolic. Consult color card for more definitive color matching.
**Directional Pattern – Pattern on panels over 60" wide will run perpendicular to pattern on doors and pilasters.
Patterns shown cropped from full size sheet, contact us for additional references.

Floor Anchored/Overhead Braced

This economical and sturdy mounting style installs just about anywhere. An anodized aluminum anti-grip head rail secures partitions firmly to the walls.

Floor Anchored

Simplified construction permits ease of installation anywhere. For concrete floors only: 2" minimum penetration into floor required.

Ceiling Hung

When used together with wall-hung fixtures, the entire floor is accessible for efficient cleaning. Structural steel ceiling supports are necessary to assure proper installation.

Floor to Ceiling Anchored

This mounting style is extremely stable and durable as pilasters are anchored into both the concrete floor and the structural ceiling support.

Alpaco Classic

Zero sightlines, doors and pilasters that meet in a flush finish rebated closure all ensure guaranteed privacy. Style and stability have not been sacrificed in this collection, with robust octagonal head rails.

Alpaco Elegance

The signature top rail provides structural stability and style. If you're looking for strength, comfort, aesthetics and durability, the Elegance collection has it all.

Ultimate Privacy™

Our Ultimate Privacy design features doors and panels up to 72" tall and eliminates sightlines into the compartments around the doors.*

Urinal & Privacy Screens

1 **Wall-Hung Screens**
Available in three standard heights: 42", 48" and 58".

2 **Post-Mounted Screens**
1¾" sq. aluminum post in Floor Mounted or Floor to Ceiling Mounted.

3 **Pilaster-Mounted Screens**
Available in Floor Mounted, Ceiling Hung, Floor to Ceiling or Overhead Braced.

**Shown in Stainless Steel, also available in Phenolic and Powder Coated Steel in all mounting styles.*

SECTION 10155
TOILET COMPARTMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Phenolic partitions.

1.2 WARRANTY

A. Manufacturers Standard Warranty: Provide warranty for Phenolic Material against delamination, breakage, or corrosion for 10 years, assuming proper maintenance according to manufacturer's recommendations.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Manufacturer: ASI Global Partitions, which is located at: 2171 Liberty Hill Rd.; Eastanollee, GA 30538; Tel: 706-827-2700; Fax: 706-827-2710; Email:request info (sales@globalpartitions.com); Web:asi-globalpartitions.com

2.2 COMPARTMENTS AND SCREENS

A. Toilet Compartments: Floor anchored/overhead braced.
   1. Compartment Depth and Width: As scheduled and indicated on Drawings.
   2. Door Width: 24 inches (610 mm), minimum; at ADA accessible compartments 36 inches (915 mm) minimum.
   3. Height Above Floor: 6 inches (152 mm) if room size and plumbing locations allow, 9” AFF if room size and plumbing locations are restrictive.
   4. Door Height: 72 inches (1829 mm)
   5. Panel Height: 72 inches (1829mm)
   6. Pilaster Height: 86 inches (2083 mm).

B. Privacy and Urinal Screens: Wall hung.
   1. Screen Panel Size: 24 inches (610 mm) wide by 48 inches (1219 mm) high.
   2. Height Above Floor: 18 inches (457 mm).

2.3 SOLID PHENOLIC

A. Doors, Panels, Screens, and Pilasters: Decorative surface sheet with solid phenolic core of melamine resin impregnated kraft paper fused under high temperature and pressure; edges machine sanded with a 45 degree radius edge. Manufacturer's standard.
   1. Doors and Pilasters: 3/4 inch (19 mm) thick.
   2. Panels and Screens: 1/2 inch (13 mm) thick.
   3. Edges: Black core.
   4. Fire Rated Material: Class B, ASTM E 84.

B. No-Sight System: No-Sight System: Doors and panels to be routed to allow overlapping edges and providing no sight lines into compartment.

C. Finish: Solid phenolic with black core, as selected from manufacturer's standard colors.

D. Door Hardware: Surface mounted barrel hinges.

1. Hinges: Type 304 Stainless steel barrel hinges 4 per standard door, 5 per accessible door. Door to be predrilled at factory for hinge location.
2. Coat Hook and Bumper: Stainless steel, with black rubber tip for doorstop.
3. Fastening Hardware: Manufacturer's standard Type 304 stainless steel, No. 4 satin finish, with theft-resistant barrel nuts and machine screws.
4. Latch and keeper—ASI Global Alpaco stainless steel latch/keeper system with integral occupancy indicator to be installed on pilaster for inswinging doors and on door for outswinging doors.

E. Mounting Brackets: Standard is Type 304 stainless steel continuous U brackets, No. 4 satin finish, with stainless steel theft-resistant barrel nuts and machine screws of same material and finish.
   1. Optional 304 stainless steel stirrup brackets.

F. Headrail: Manufacturer's standard anodized aluminum rail with anti-grip profile.

G. Pilaster Anchors, Floor Anchored/Overhead Braced.
   1. Easy Stall shoe system. 1/4 inch by 2 inch steel screws attach Easy Stall shoe to floor. Pilaster to be inserted into shoe and secured after height adjusted. Leveling adjustment to be concealed by pilaster shoe. Height/leveling adjustment to be made via machine thread bolts inserted into threaded insert in bottom of pilaster.

END OF SECTION

Global Partitions and Accurate Partitions are both owned by the same parent company. The ASI Group is a family of companies that manufacture products for various industries but in particular the construction industry and specifically commercial washroom components. Accurate Partitions and Global Partitions are both members of the ASI Group.

Global Partition products are all made in Eastanollee, Georgia. Accurate Partition steel partitions are made in Chicago but their plastic partitions are made in Georgia at one of our three plants in town. There are no differences in hardware offerings as standard between the two partition companies and the panels, pilasters and doors are identical on plastic partition components. The door hinges and latches for steel partitions are also identical. There are some color differences on powder coated steel partitions but the most commonly used colors are exactly the same.

There are no structural or aesthetic differences between Global and Accurate partitions.

Kyle Larson
Sales and Marketing
Global Partitions

SUBSTITUTION REQUEST

(During the Bidding/Negotiating Stage)

Project: Chehalis Elder's Center

Substitution Request Number: _____

From: _____

To: ARC Architects

Date: _____

Attn: Paul Curtis

A/E Project Number: _____

Re: Substitution Request

Contract For: _____

Specification Title: Folding Panel Partitions

Description: Folding Panel Partitions

Section: 102239 Page: 4

Article/Paragraph: 2.2.A.1

Proposed Substitution: Moderco Signature 800 Series

Manufacturer: Moderco Address: 115 de Lauzon Boucherville Québec Canada, J4B 1E7 Phone: (450) 641-3150

Trade Name: Moderco Model No.: 841

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Brian Goodwill (Estimator)

Signed by: Brian Goodwill (Estimator)

Firm: NWAP

Address: 18717 236th Ave NE
Woodinville, WA 98077

Telephone: (425) 967 - 4444

Included Documentation:

Point to Point Comparison, Brochure, Data Sheet, Benefits of Aluminum Article, STC Report, Sample Warranty, LEED Information, References

A/E's REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 33 00 Submittal Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

Signed by: Date:

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☐ _____

Form Version: September 2013
CSI Form 1.5C

POINT BY POINT COMPARISON OF

	Moderco Signature 841	Hufcor 631 Series
Acoustics – STC	53*	51*
Panel Thickness	4"	4"
Operation	Single, Manual	Single, Manual
Frame	Anodized, steel reinforced Aluminum	16 Gage Steel
Finish Options	Fabric	Standard - Vinyl
Skin/Face Option	Gyp/Steel	Steel/MDF
Max Opening Width	Unlimited	Unlimited
Hanging Wt (lbs/sq ft)	9.5	10.2
Top/Bottom Seals	Top: Fixed (Mechanical optional) Bottom: 2" Manual	Top: Fixed (Mechanical optional) Bottom: 2" Manual
Warranty	Will Match Specified Warranty	2 Years Materials & Workmanship

* Specifications call for NIC 45; however, field tests consistently show NIC to be closer to 40 (industry-wide), in addition, the NIC is dependent upon the surrounding construction, therefore the NIC cannot be reasonably expected to be guaranteed (ASTM E557 attached).

MODERCO

SIGNATURE 800 • OPERABLE PARTITION

SIGNATURE 800
OPERABLE PARTITION

BUILT TO LAST
Durability is the basis of the Signature design. All Signature Panels are built with a strong steel reinforced aluminum alloy frame that provides strength and stability as well as protection to the panel finish while panels are in motion.

LIMITLESS FINISH POSSIBILITIES
Traditional vinyl, fabric, and acoustical wallcoverings are available in a variety of colors and textures. The Signature offers far more including: Plastic Laminates, Wood veneers, & Specialty steels (to name a few). Our Installing Distributors will work with you on applied millwork moldings, inset trims and other custom design finishes.

SUSPENSION SYSTEMS
Aluminum tracks offer superior benefits including: yield strength stronger than steel, easy installation, and quiet smooth operation.

SEALS
Moderco's Standard Bottom (Floor) Seals are set automatically as the panels are placed into position. Automatic Seals do not require a removable handle to set or release the seal and can be used only when fully extending the Partition.

SINGLE PANELS
Single panel configurations allow the greatest flexibility in layouts. The panels can be used in openings of unlimited width and in multiple locations should the layout require flexibility.

PAIRED PANELS
Paired Panels are designed for straight line openings, stacking at one or both ends; they offer a quick, easy and practical set up. Paired Panels are two panels hinged together with a single carrier centered in each panel.

STORAGE POCKET DOORS
If the operable partition needs to be stored out of sight in a door closet or "Pocket" Moderco can supply a matching Pocket Door. The doors are generally used when the Operable Partition is sealing to the face of the Pocket Door.

PASS DOORS
Pass Doors may be incorporated in selected panels to provide egress, fire safety, service entrance or general access to an area. Signature Pass Doors all have mechanical retractable bottom seals, no sweeps dragging on the floor, and are constructed to match the panel.

MODERCO

MODELS	841	842	843-E	843-EP
OPERATION	Individual	Paired	Continuously hinged, electrically operated	Continuously hinged, electrically operated pneumatic seals
CONFIGURATION	Remote/Side	Center		
THICKNESS	4" (102mm)			
PANEL FRAME	Trimless and protective trim aluminum frame		Protective trim aluminum frame	
STC	43, 47, 49, 52, 53*, 55**		43, 47, 49, 52	43, 47, 49, 52, 53
FINISH OPTIONS	Vinyl, Fabric, Carpet, Customer owned or specified material, Plastic laminate, Full height marker board, Tack board, Wood veneer, Steel, Uncovered			
MAX. HEIGHT	33'-3" (10130mm)	22'-3" (6780mm)		
PANEL WIDTH	Min. 24" (609mm) Max. 48 1/2" (1230mm)		Min.28" (711mm) Max. 48 1/2" (1230mm)	Min.32" (813mm) Max. 48 1/2" (1230mm)
PANEL WEIGHT	6 to 9,5 lbs./sq. ft. (29 to 46 kg/sq.m)		6 to 8,5 lbs./sq. ft. (29 to 41,5 kg/sq.m)	6 to 9,5 lbs./sq. ft. (29 to 46 kg/sq.m)
CLOSURE	Telescopic panel or hinged closure panel		Side jamb, pocket door	Pneumatically-operated telescopic mecanism
SEALS	FA FM : 1; 1.5; 2; 2.5; 4; MM : 1; 1.5; 2; 2.5; 4; 55** AA : 1.5		FF	FP
TRACK	#23-T, #33-T, #55-T, #72	#45-T, #55-T, #72	#55-T	#55-T

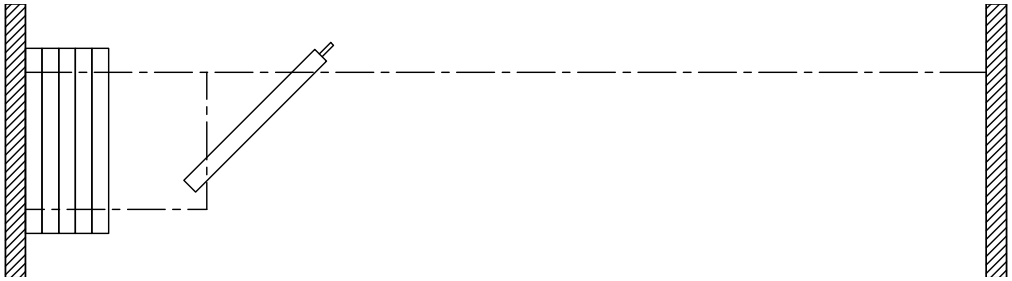
SEALS TYPE

FA	Fixed top 1" (25mm) and Automatic bottom 2" (50mm) floor clearance
FM-1	Fixed top 1" (25mm) and manually-operated bottom 1" (25mm) floor clearance
FM-1.5	Fixed top 1" (25mm) and manually-operated bottom 1 1/2" (38mm) floor clearance
FM-2	Fixed top 1" (25mm) and manually-operated bottom 2" (50mm) floor clearance
FM-2.5	Fixed top 1" (25mm) and manually-operated bottom 2 1/2" (64mm) floor clearance
FM-4	Fixed top 1" (25mm) and manually-operated bottom 4" (102mm) floor clearance
MM-1*	Manually-operated top 1" (25mm) and bottom 1" (25mm) floor clearance
MM-1.5	Manually-operated top 1" (25mm) and bottom 1 1/2" (38mm) floor clearance
MM-2	Manually-operated top 1" (25mm) and bottom 2" (50mm) floor clearance
MM-2.5	Manually-operated top 1" (25mm) and bottom 2 1/2" (64mm) floor clearance
MM-4	Manually-operated top 1" (25mm) and bottom 4" (102mm) floor clearance
MM-55**	Manually-operated top 1" (25mm) and bottom 1" (25mm) floor clearance with additional fixed top sweeps
AA-1.5	Automatic top 1" (25mm) and bottom 1 1/2" (38mm) floor clearance
FF	Fixed top 1" (25mm) and bottom 2" (50mm) floor clearance
FP	Fixed top 1" (25mm) and pneumatically-operated bottom 2" (50mm) floor clearance

MODERCO

Signature 800 Series

Technical Data Sheet
Signature 841



Features & Options

Standard Features

- Manually-operated individual-panel movable partition.
- STC 43 or 47 with gypsum board faces.
- STC 49, 52, 53, or 55 with steel faces laminated to gypsum board.
- 102 mm [4"] nominal thickness. 1230 mm [48 1/2"] maximum width.
- Clear-anodized steel-reinforced aluminum frame.
- Protective trims on entire perimeter.
- Combination aluminum and vinyl tongue and groove vertical sound seals between panels.
- Final closure by telescopic jamb.
- Type FA horizontal seals:
  - Fixed top sweeps
  - Automatic retractable bottom seals set as panels are deployed
  - bottom seals provide a 50 mm [2"] floor clearance
- (STC 53) Type MM-1 horizontal seals:
  - top and bottom retractable seals
  - Manually-operated, simultaneously-activated top and bottom seals
  - bottom seals provide a 25 mm [1"] floor clearance
- (STC 55) Type MM-55 horizontal seals:
  - top and bottom retractable seals
  - Manually-operated, simultaneously-activated top and bottom seals
  - bottom seals provide a 25 mm [1"] floor clearance
  - additional fixed top sweeps
- Clear-anodized 6063-T6 alloy aluminum track.
- Each panel supported by two carriers made up of two horizontally-aligned precision-ground hardened steel ball bearing wheels with nylon tires.
- Vinyl wallcovering.

Optional Features and Accessories

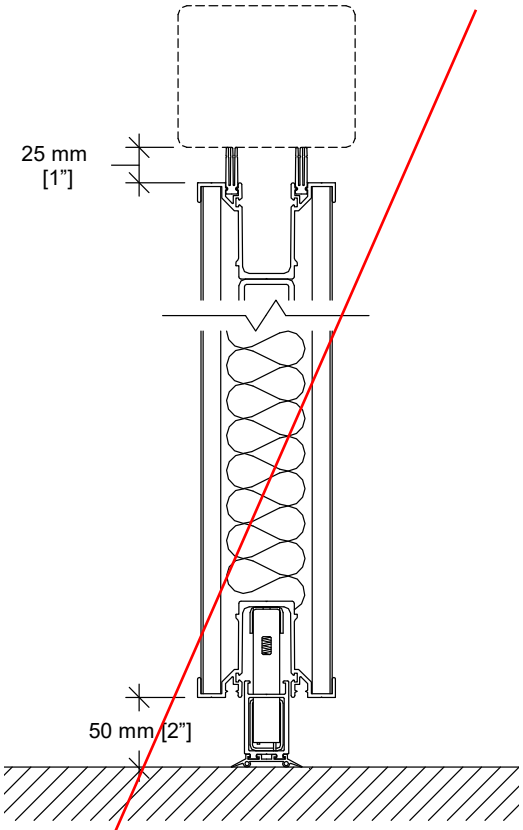
- STC 49, 52, 53, or 55 with gypsum board faces and steel backing.
- Trimless vertical edges.
- Powder-coated frame and/or track.
- 11 ga. steel track, painted white.
- Upgraded wallcoverings : fabric, vertically-ribbed carpet, plastic laminate, full-height marker board, wood veneer, custom finishes.
- Owner-supplied wallcovering (approval required).
- Final closure by hinged closure panel.

Optional Features and Accessories (cont'd)

- (STC 43 to 52) Type FM horizontal seals:
  - Fixed top sweeps
  - Manually-operated bottom seals
  - bottom seals provide a floor clearance of 25 mm [1"], 38 mm [1 1/2"], 50 mm [2"], 64 mm [2 1/2"], or 102 mm [4"]
- (STC 43 to 52) Type MM horizontal seals:
  - top and bottom retractable seals
  - Manually-operated, simultaneously-activated top and bottom seals
  - bottom seals provide a floor clearance of 25 mm [1"], 38 mm [1 1/2"], 50 mm [2"], 64 mm [2 1/2"], or 102 mm [4"]
- (STC 43 to 52) Type AA horizontal seals:
  - top and bottom retractable seals
  - simultaneously-activated Automatic top and bottom seals
  - bottom seals provide a floor clearance of 38 mm [1 1/2"]
  - simultaneous operation of telescopic closure and seals of last panel (also available on partitions with type MM-1.5 horizontal seals)
- ADA-compliant pass door with flush pulls and roller latch.
- Door options:
  - concealed automatic closer
  - window frame
  - door viewer
  - panic bar
  - panic bar with lockable lever
  - self-illuminated exit sign *
  - "green running man" self-illuminated exit sign *
  - deadbolt lock *

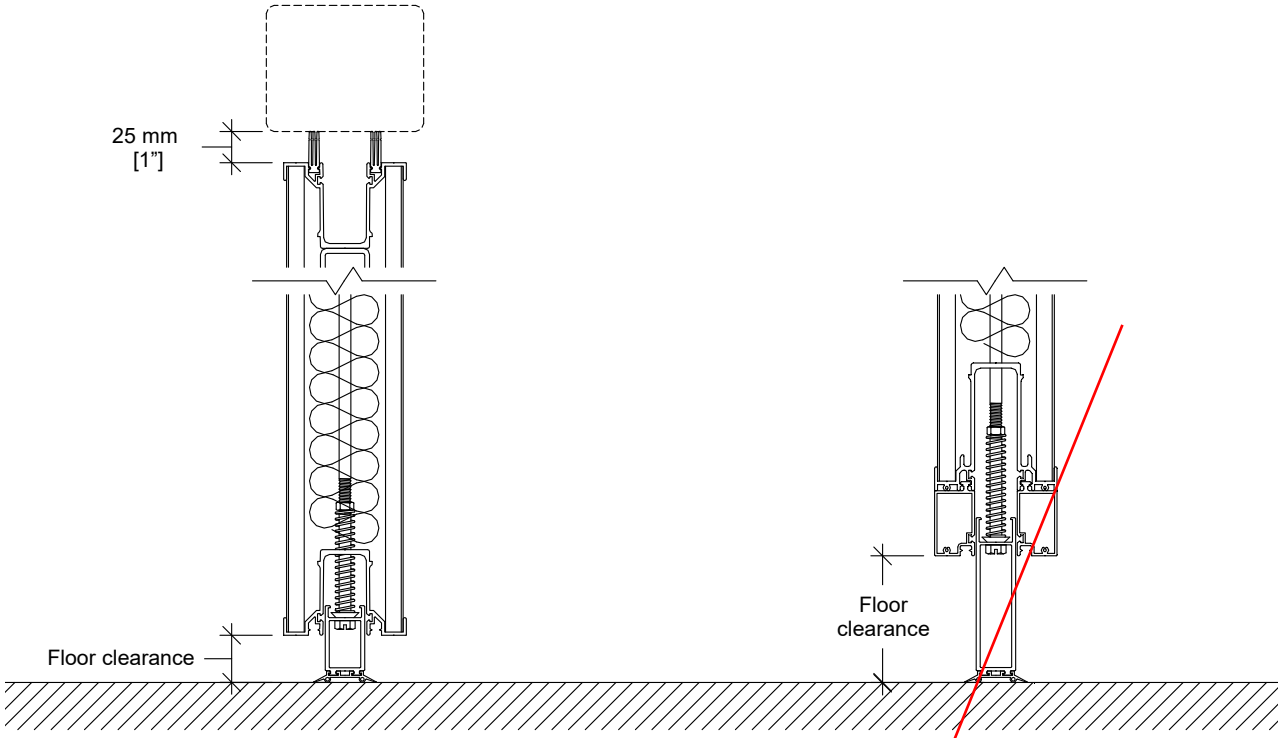
  (An exit sign and a deadbolt lock will not be installed together on the same door.)*
- Inset white marker boards / chalk boards / natural cork tack boards.
- Eraser boxes / chalk trays
- Acoustical or non-acoustical pocket door.
- UL/ULC-listed 1 hour fire-rating (requires type MM-1, MM-1.5, or MM-2 horizontal seals).

Horizontal Seals



Type FA
Floor clearance : 50 mm [2"]
Operating tolerances :
+0 mm / -38 mm [+0" / -1 1/2"]

Horizontal Seals (cont'd)



Type FM-1
Floor clearance : 25 mm [1"]
Operating tolerances :
+0 mm / -15 mm [+0" / -5/8”]

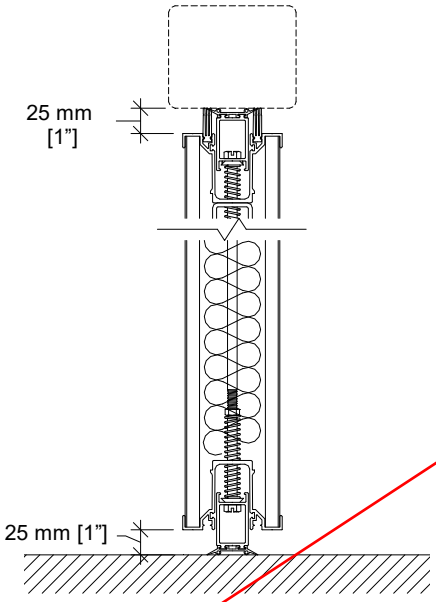
Type FM-1.5
Floor clearance : 38 mm [1 1/2"]
Operating tolerances :
+0 mm / -19 mm [+0" / -3/4”]

Type FM-2
Floor clearance : 50 mm [2"]
Operating tolerances :
+0 mm / -25 mm [+0" / -1”]

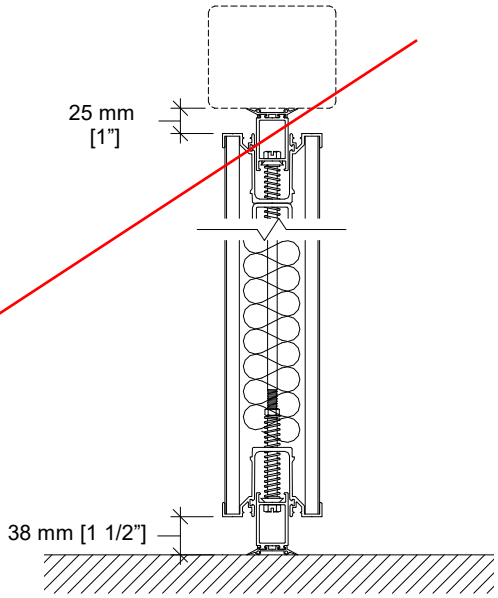
Type FM-2.5
Floor clearance : 64 mm [2 1/2"]
Operating tolerances :
+0 mm / -50 mm [+0" / -2”]

Type FM-4
Floor clearance : 102 mm [4"]
Operating tolerances :
+0 mm / -89 mm [+0" / -3 1/2”]

Horizontal Seals (cont'd)

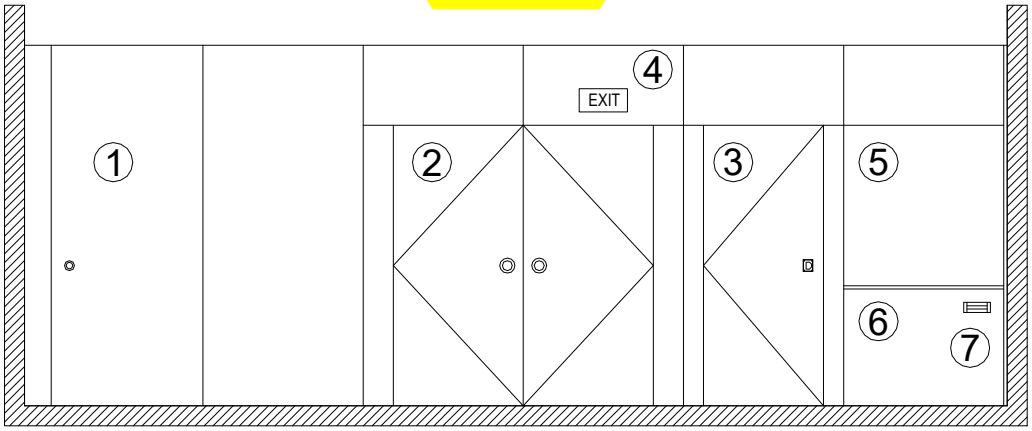


Type MM-55 (STC 55 only)
Floor clearance : 25 mm [1"]
Operating tolerances :
+0 mm / -15 mm [+0" / -5/8”]



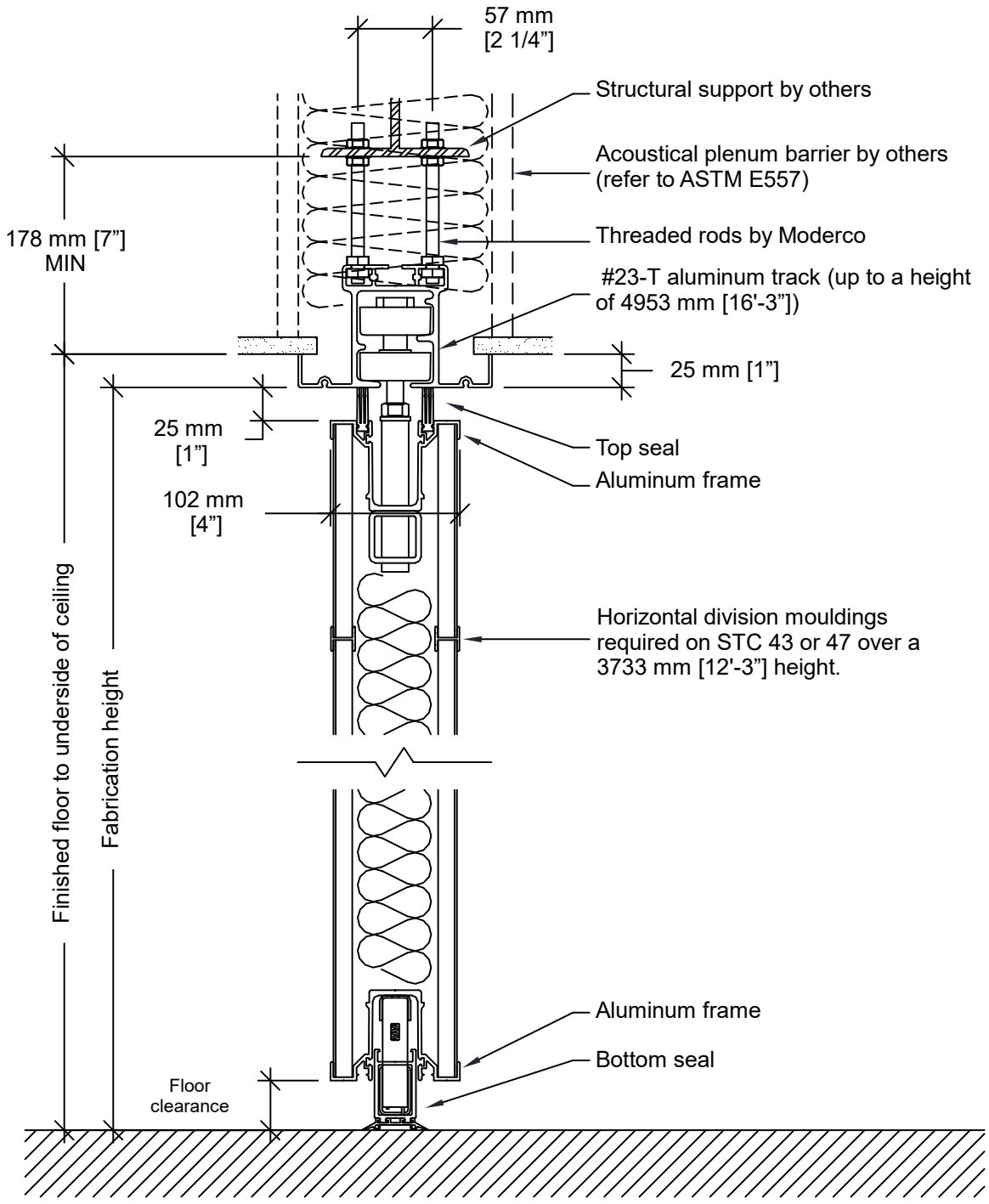
Type AA
Floor clearance : 38 mm [1 1/2"]
Operating tolerances :
+0 mm / -19 mm [+0" / -3/4”]

Elevation

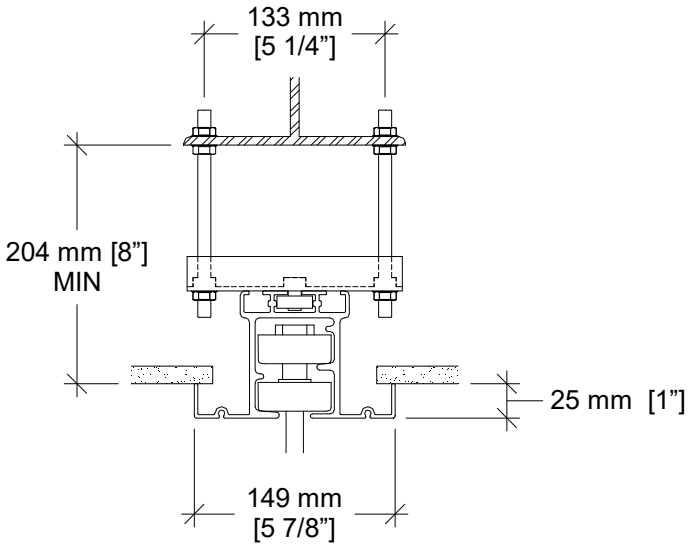


1- Telescopic closure panel
2- Double pass doors
3- Single pass door
4- Self-illuminated exit sign
5- Work surface
6- Chalk tray
7- Eraser box

Vertical Section

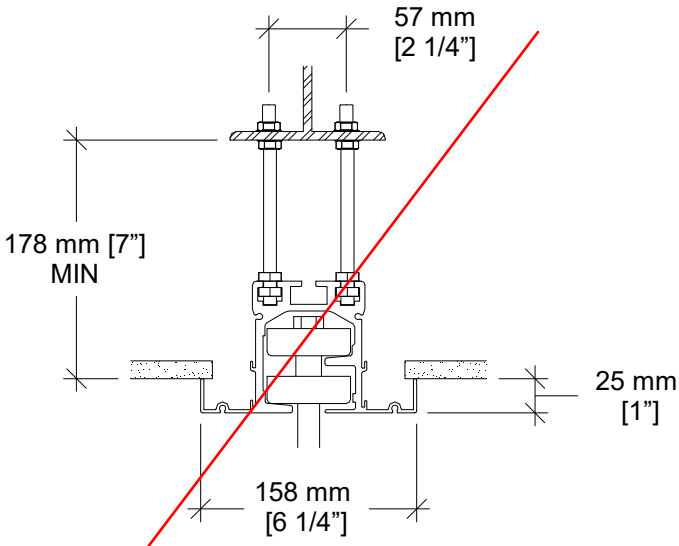


Track Options



#23-T track with optional hanger bracket

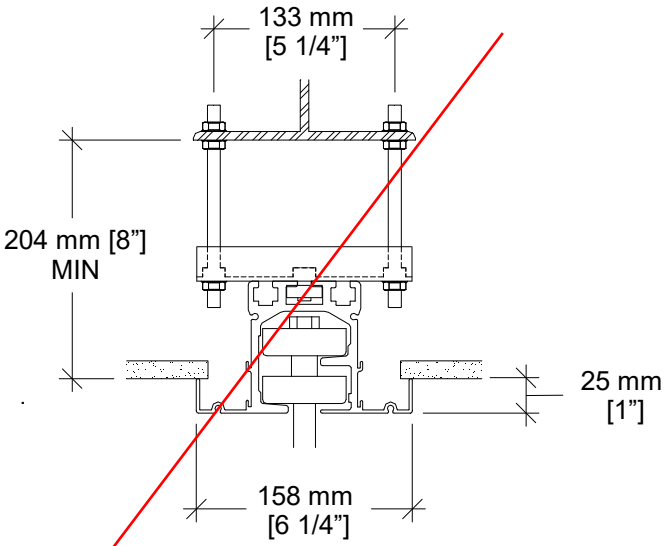
Hanger bracket required for installations where the topmost nuts cannot be used for adjustment.



#33-T aluminum track

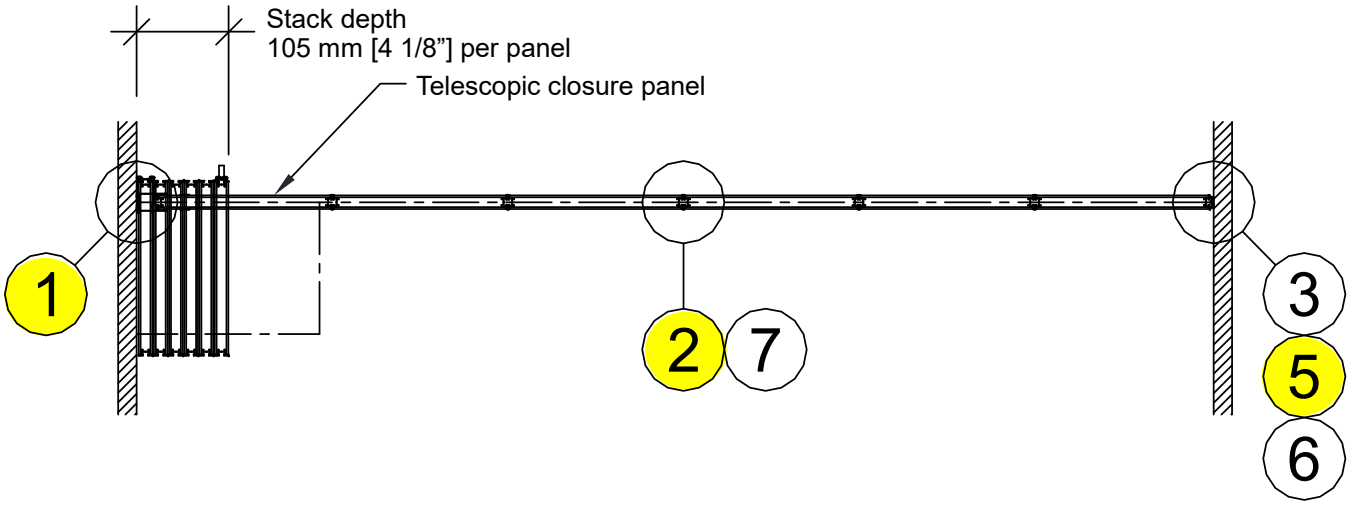
Standard for partitions from a height of 4953 mm [16'-3”] up to 6781 mm [22'-3”].

Optional for partitions up to 4343 mm [14'-3”].

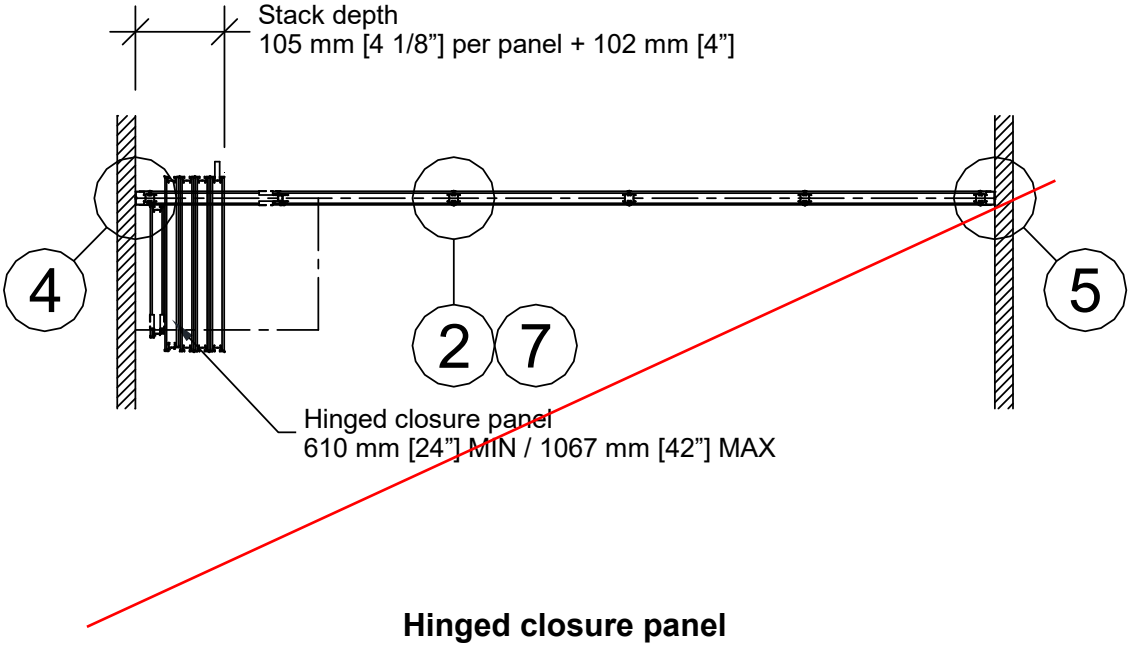


#33-T aluminum track with optional hanger bracket

Plan Views

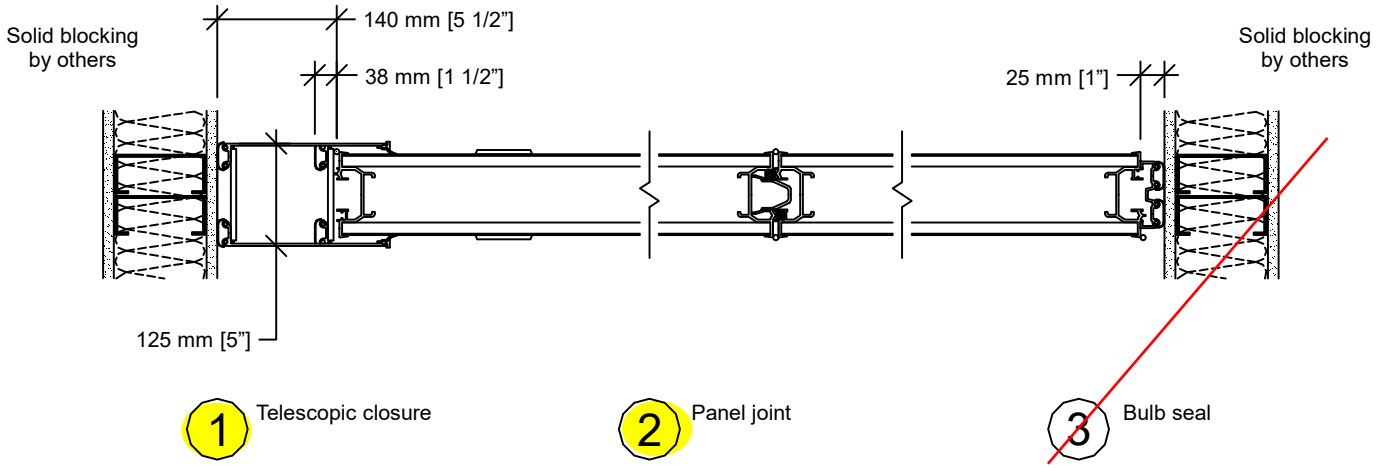


Telescopic closure panel



Hinged closure panel

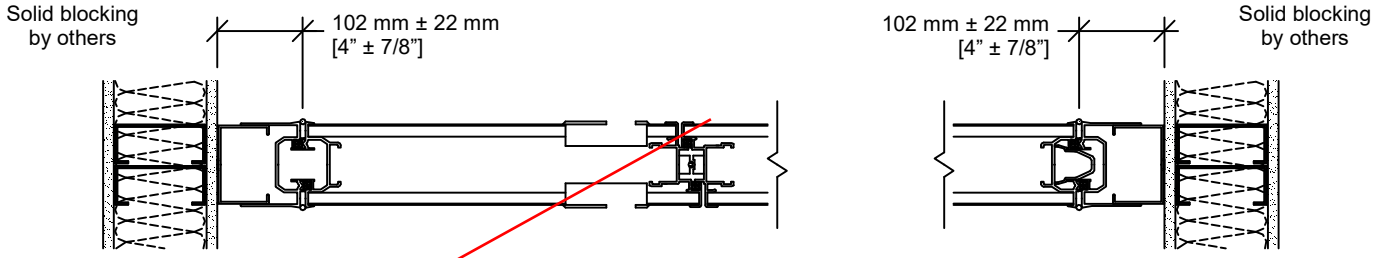
Horizontal Sections



1 Telescopic closure

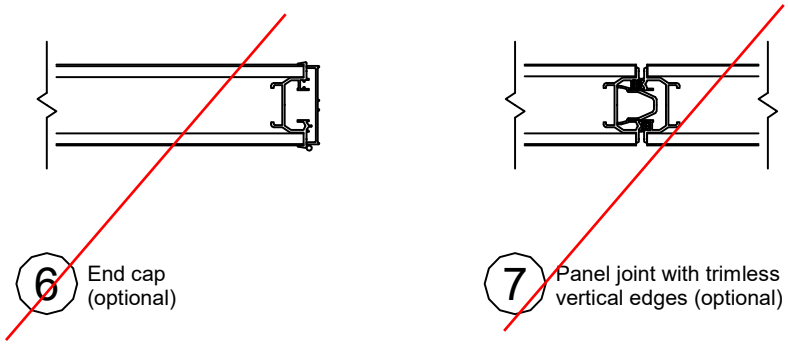
2 Panel joint

3 Bulb seal



4 Hinged closure panel with recessed pulls and roller latch (optional)

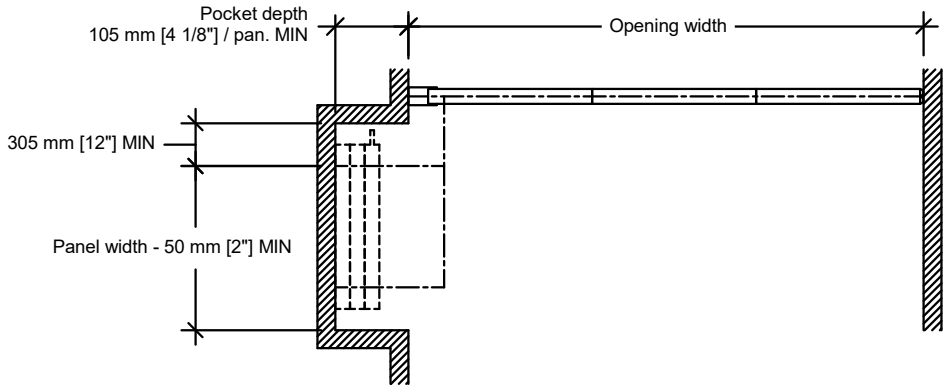
5 Wall jamb (optional)



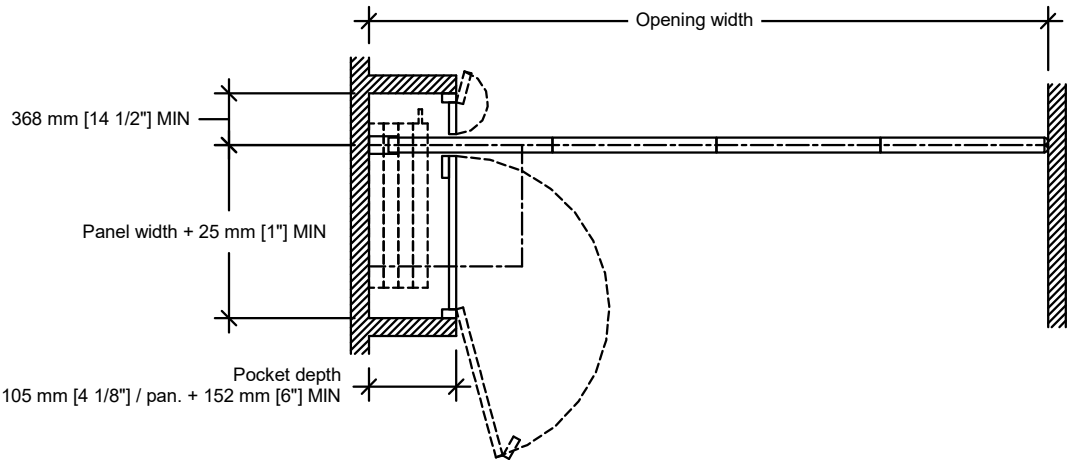
6 End cap (optional)

7 Panel joint with trimless vertical edges (optional)

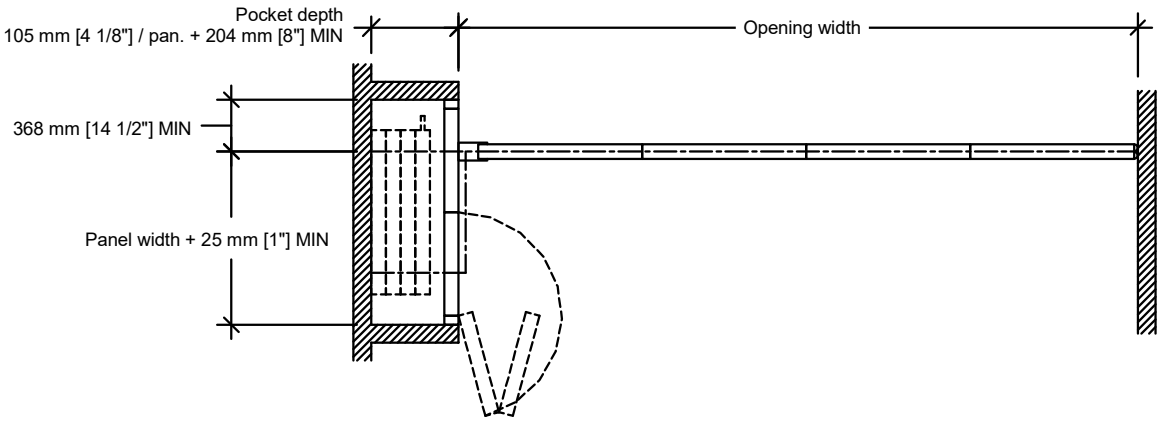
Typical Layouts - #23-T & #33-T Tracks (cont'd)



Remote Stack



Pocket and PN-3 non-acoustical pocket door
(partition seals to back of pocket)



Pocket and PA-2B acoustical pocket door
(partition seals to face of pocket door)

RIVERBANK ACOUSTICAL LABORATORIES

OF
IIT RESEARCH INSTITUTE

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

FOR: Moderco Inc.

Sound Transmission Loss Test
RAL™-TL00-103

ON: Operable 8000 Series Folding Partition

CONDUCTED: 26 July 2000

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-99 and E413-87, as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure. A description of the measuring technique is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the manufacturer as an operable 8000 Series folding partition. The overall dimensions of the specimen as measured were 4.27 m (168 in.) wide by 2.56 m (100.75 in.) high and 102 mm (4 in.) thick. The specimen was installed by the manufacturer directly into the laboratory's 2.74 m (9 ft) by 4.27 m (14 ft) wood-lined steel frame and was sealed on the periphery (both sides) with a dense mastic.

The manufacturer's description of the specimen was as follows: The test specimen was a top supported, manually operated 8000 series folding partition. The overhead track was covered on both sides by a gypsum board construction bulkhead covered with a dense mastic and was not included in the overall area of the sample. The assembly consisted of a single No. 45 track system with a No. 45 trolley per panel. Each trolley was made of four (4) steel ball bearings with nylon tires. The closure system consisted of a telescopic mechanism made of a "U" shape assembly providing lateral pressure. The specimen wall butted into a two-part wall jamb sealed at the back with caulking. Each panel was constructed of a steel reinforced aluminum full perimeter protective frame that held a layer of 13 mm (.50 in.) thick gypsum board on both sides of a 64 mm (2.5 in.) thick fiberglass acoustical core. Skins of 16 gauge steel were bonded to the inside of the gypsum board faces. The panels were finished with Moderco Class A reinforced vinyl, pressure bonded to the panel faces. The vertical seals were a combination of double tongue and groove systems with voids filled with alignment mouldings and absorbent material. The horizontal top and bottom seals were of the lever operated mechanical type with neoprene gasket. The specimen was opened and closed at least five times, and the test was conducted with no further adjustments.

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TEST REPORT

Moderco Inc. RAL™-TL00-103

26 July 2000

DESCRIPTION OF THE SPECIMEN (Continued)

The specimen consisted of four panels. Three panels measured 1.03 m (40.5 in.) wide by 2.56 m (100.75 in.) high and 102 mm (4 in.) thick. The fourth panel measured 1.03 m (40.5 in.) wide by 2.56 m (100.75 in.) high and had a telescopic end jamb attached. The telescopic end measured 222 mm (8.75 in.) wide by 2.57 m (101 in.) high and 165 mm (6.5 in) thick.

The weight of the specimen as measured was 626.4 kg (1,381 lbs) an average of 57.4 kg/m^2 (11.8 lbs/ft^2). The transmission area used in the calculations was 10.9 m^2 (117.5 ft^2). The source and receiving room temperatures at the time of the test were 26°C (78±1°F) and 56±3% relative humidity. The source and receive reverberation room volumes were 179m^3 (6,298 ft^3) and 177 m^3 (6,255 ft^3), respectively.

RIVERBANK ACOUSTICAL LABORATORIES

OF

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GENEVA, ILLINOIS 60134

630/232-0104

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WALLACE CLEMENT SABINE

TEST REPORT

Moderco Inc. RAL™-TL00-103

26 July 2000

TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the TL test data are within the limits set by the ASTM Standard E90-99.

FREQ.	T.L.	C.L.	DEF.	FREQ.	T.L.	C.L.	DEF.
100	31	0.20	0	800	53	0.30	2
125	34	0.22	3	1000	55	0.28	1
160	39	0.27	1	1250	59	0.23	0
200	39	0.31	4	1600	61	0.18	0
250	44	0.36	2	2000	62	0.19	0
315	45	0.39	4	2500	62	0.14	0
400	47	0.30	5	3150	60	0.13	0
500	49	0.33	4	4000	57	0.13	0
630	51	0.29	3	5000	57	0.12	0

STC = 53

ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)
T.L. = TRANSMISSION LOSS, dB
C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT
DEF. = DEFICIENCIES, dB<STC CONTOUR
STC = SOUND TRANSMISSION CLASS

Tested by _____ Written by Kimberly Scarano

Dean Victor
Senior Experimentalist

Kimberly Scarano
Secretary

RIVERBANK ACOUSTICAL LABORATORIES

OF
IIT RESEARCH INSTITUTE

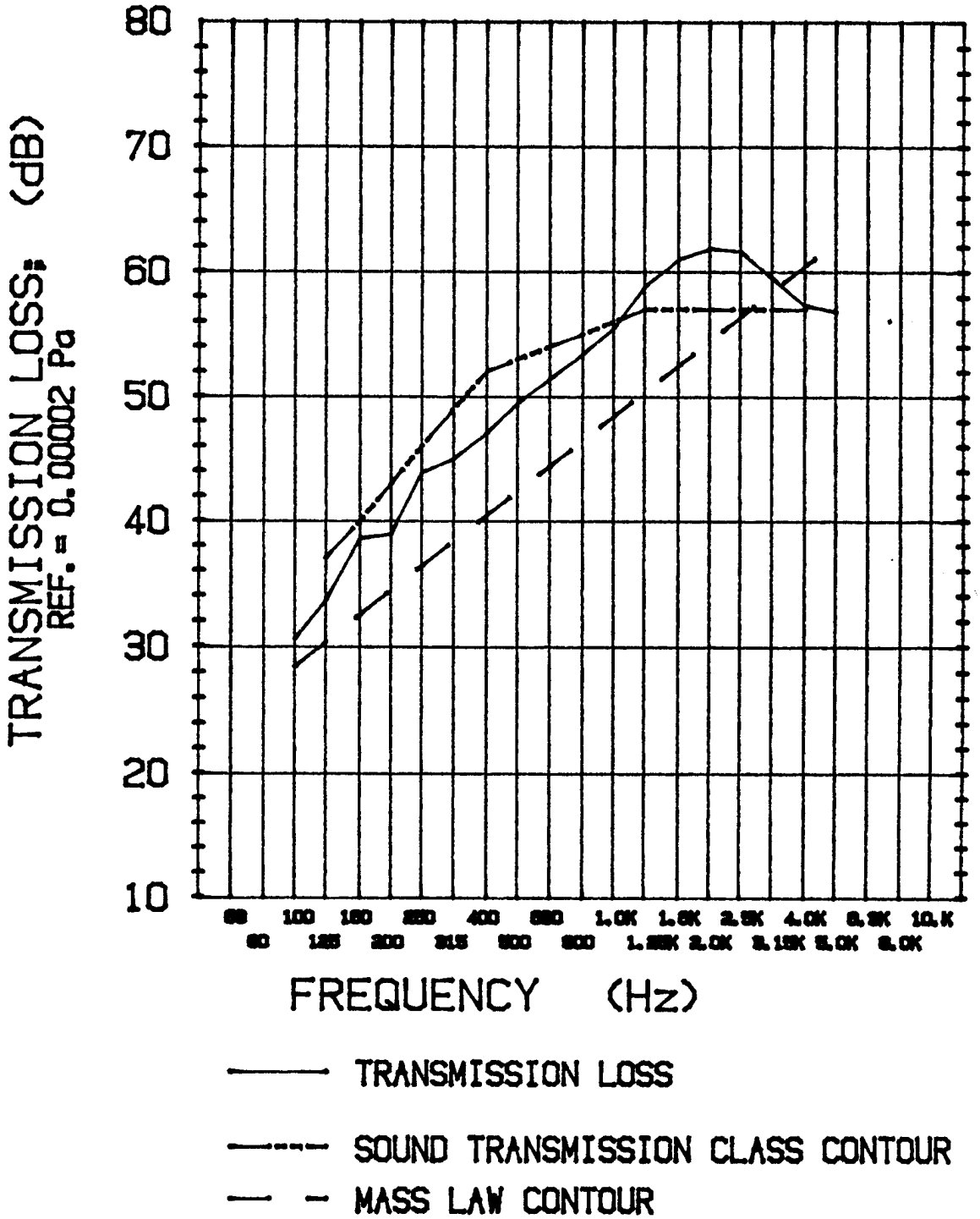
1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

630/232-0104

FOUNDED 1918 BY
WALLACE CLEMENT SABINE

TEST REPORT

TRANSMISSION LOSS REPORT
RAL-TL00-103



LIMITED WARRANTY

We, the undersigned, Moderco Inc., do hereby warrant our product:

MOVABLE PARTITION – SIGNATURE 800 SERIES MODEL 841

Covered on contract _____ described as follows:

PROJECT: _____

OWNER: _____

GENERAL CONTRACTOR: _____

The movable partition is guaranteed against warping, buckling, crackling, delaminating for a period of TWO (2) YEARS and the mechanical parts, including track and trolleys, for a period of FIVE (5) YEARS starting from _____

THIS LIMITED WARRANTY IS SUBJECT TO THE FOLLOWING:

- The owner is to advise Moderco or its authorized representative in writing of any defect in material or workmanship; this applies provided that the product has been used to serve its intended purpose and provided that said defect is not the result of an abusive use.
- This limited warranty will be void if the product has been modified in any way, shape or form since original installation or repaired by someone other than a Moderco authorized installer.
- This limited warranty does not hold Moderco or its authorized representative responsible for any damage that should occur to the said property or its content.
- Any obligation or liability not specified thereon shall not be considered our responsibility.
- In the event that covered items fail due to defects in workmanship or materials, and the Operation & Maintenance Guide instructions has been followed, MODERCO will, at its discretion, repair or provide replacement parts F.O.B. job site.

DATE: _____

AUTHORIZED REPRESENTATIVE: _____

LEED Data Sheet

Manufacturer: Moderco Inc.

Product: Signature 8000

Panel Component	Component Material	Component % by weight	Component % by cost	MR 4.1 & 4.2 Post-consumer recycled content (% by weight)	MR 4.1 & 4.2 Pre-consumer recycled content (% by weight)	MR 5.1 & 5.2 Final Assembly Location	MR 5.1 & 5.2 Manufactured / Harvested	MR 5.1 & 5.2 Distance (Miles)
Panel Face Substrate	Gypsum board	44.34%	5.42%	5.50%	93.50%	Boucherville, QC (Moderco)	Montreal, QC (CGC)	23
Steel Liner	Steel	27.71%	19.37%	50.60%	33.30%	Boucherville, QC (Moderco)	Hamilton, ON (ArcelorMittal)	395
Panel frame	Aluminum	9.56%	30.52%	10.00%	3.00%	Boucherville, QC (Moderco)	Montreal, QC (Sapa)	23
Track	Aluminum	3.71%	10.04%	10.00%	3.00%	Boucherville, QC (Moderco)	Montreal, QC (Sapa)	23
Acoustical Insulation	Fiberglass	3.69%	3.53%	0.00%	75.00%	Boucherville, QC (Moderco)	Milton, ON (Roxul)	373
Panel Header & Trolley Pipe	Steel	2.64%	4.30%	50.60%	33.30%	Boucherville, QC (Moderco)	Hamilton, ON (ArcelorMittal)	395
Drop Seal	Aluminum	1.07%	3.07%	10.00%	3.00%	Boucherville, QC (Moderco)	Montreal, QC (Sapa)	23
Horizontal Bracing	Steel	0.88%	0.83%	50.60%	33.30%	Boucherville, QC (Moderco)	Hamilton, ON (ArcelorMittal)	395
Panel Finish Adhesive	H.B. Fuller NP2075LT	0.78%	6.46%	0.00%	0.00%	Boucherville, QC (Moderco)	Grand Rapids, MI (H.B. Fuller)	701
Horizontal Sound Seals	PVC	0.69%	1.72%	0.00%	100.00%	Boucherville, QC (Moderco)	Saint-Damien, QC (R.P.M.)	75
Alignment Moulding	PVC	0.63%	2.32%	50.00%	50.00%	Boucherville, QC (Moderco)	Saint-Damien, QC (R.P.M.)	75
Corner Brackets	Steel	0.33%	0.78%	50.60%	33.30%	Boucherville, QC (Moderco)	Hamilton, ON (ArcelorMittal)	395
Trolley	Steel	0.30%	2.66%	50.60%	33.30%	Boucherville, QC (Moderco)	Hamilton, ON (ArcelorMittal)	395
Drop Seal Mechanism	Steel	0.29%	0.92%	50.60%	33.30%	Boucherville, QC (Moderco)	Hamilton, ON (ArcelorMittal)	395
Vertical Sound Seals	PVC	0.25%	0.86%	0.00%	30.00%	Boucherville, QC (Moderco)	Saint-Remi, QC (Polyone)	32
Drop Seal End Caps	Polypropylene Impact Copolymer	0.04%	0.37%	0.00%	100.00%	Boucherville, QC (Moderco)	Philadelphia, PA (Sunoco)	453
Total (not including panel finish)		**96.92%**	**93.17%**	**20.46%**	**56.48%**	**Post-consumer + 1/2 Pre-consumer =**		**48.70%**
Standard Finishes:								
Vinyl Wallcovering		3.08%	6.83%	0.00%	0.00%	Boucherville, QC (Moderco)	Columbus, OH (Koroseal)	729
Fabric Wallcovering		3.08%	6.83%	0.00%	100.00%	Boucherville, QC (Moderco)	Valdese, NC (Hytex)	1006
Acoustical Wallcovering *		3.08%	6.83%	100.00%	0.00%	Boucherville, QC (Moderco)	Valdese, NC (Hytex)	1006

* Also known as Carpet Wallcovering. Now refered to as Acoustical Wallcovering to avoid confusion with LEED Credit EQ 4.3 where "carpet" refers to a floor treatment system.

2013-01-29

NORTHWEST ARCHITECTURAL PRODUCTS

The Operable Partition Specialists

MODERCO
Signature 800 Series
Operable Partition References

NWAP has been in the operable partition sales/installation/service business for over 20 years.

Luther Memorial Lutheran Church
13047 Greenwood Avenue North
Seattle WA 98133
Contractor: Walsh Construction
Phone: 206.547.4008
Architect: GGLO Design
Phone: 206.467.5828
Completed May, 2019

TwinStar Credit Union TI
4501 Intelco Loop Southeast
Lacey WA 98503
Contractor: Merit Construction NW
Phone: 253.588.9100
Architect: Jon Graves Architect
Phone: 253.272.4214
Completed December, 2018

WA County Public Safety Center
600 Southwest Walnut Street
Hillsboro OR 97123
Contractor: Corp, Inc.
Phone: 503.371.2453
Architect: Scott|Edwards Architecture
Phone: 253.226.3617
Completed March, 2019

W Hotel
1112 Fourth Avenue
Seattle WA 98101
Contractor: Level Builders
Phone: 425.413.1000
Architect: Axis/GFA Architecture
Phone: 415.371.1400
Completed September, 2019

Silver Cloud Hotel
1202 North Orchard Street
Tacoma WA 98406
Contractor: Owner-Directed
Phone: 206.526.5200
Architect: n/a
Completed January, 2019

Tata Consultancy TI
14475 NE 24th St
Bellevue WA 98007
Contractor: DP, Inc
Phone: 206.361.2989
Architect: JCP Architecture
Phone: 425.641.9200
Completed June, 2019

This page is provided for your information only. Please feel free to contact our references, but do not publish this information in project addenda as we wish to respect our customers' privacy.

Knowledge for Creating and Sustaining the Built Environment

SUBSTITUTION REQUEST

(During the Bidding/Negotiating Stage)

Project: Chehalis Tribe Elders Center Project

Substitution Request Number:

From: Christina Erickson, United Sales NW, LLC

To: ARC Architects

Date: 6/7/21

Confederated Tribes of the Chehalis Reservation

A/E Project Number: 20-034

Re:

Contract For:

Specification Title: Plumbing Schedules

Description: Grease Trap

Section: Plumbing

Page: P002

Article/Paragraph: GI-1

Proposed Substitution: Schier Products

Manufacturer: Schier Products

Address: 6455 Woodland Drive Shawnee, KS 66218

Phone: (913) 951-3300

Trade Name: Schier products

Model No.: GGI-1000

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Christina Erickson

Signed by:

Firm: United Sales, LLC

Address: 2600 NE Andresen RD Suite 150

Vancouver, WA 98661

Telephone: 360-524-6040

A/E's REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
☐ Substitution rejected - Use specified materials.
☐ Substitution Request received too late - Use specified materials.

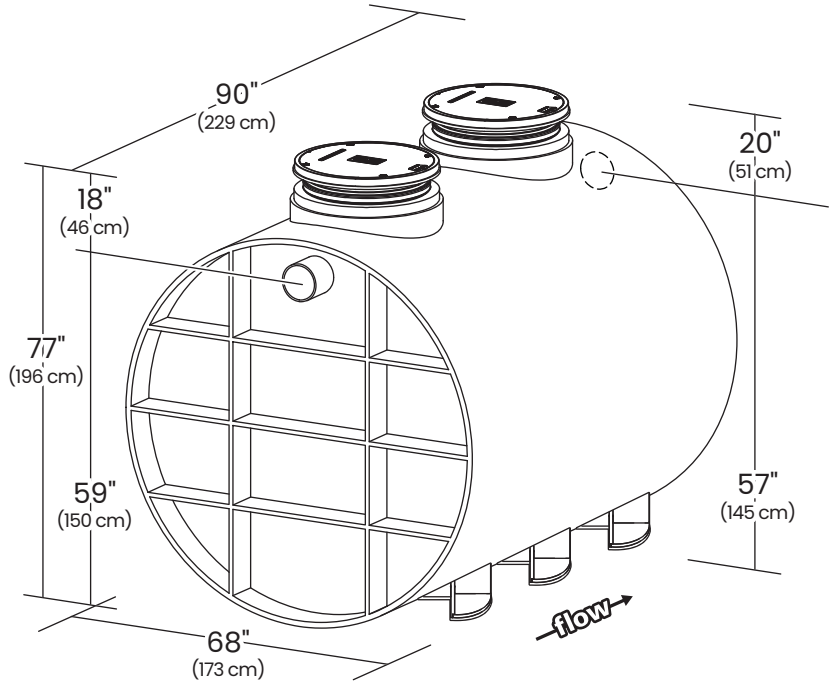
Signed by: Date:

Supporting Data Attached: ☐ Drawings ☒ Product Data ☐ Samples ☐ Tests ☐ Reports ☒ _____

Attach to E-Mail | Print a Copy | Save a Copy | Attach a file | Reset Form

SPECIFICATION AND SUBMITTAL

GGI-1000 1000 Gallon Gravity Grease Interceptor for Indoor/Outdoor Use



This unit is certified to ANSI Z1001-2016

SUBMITTAL

Standard

Location: indoor/outdoor
Installation: below grade only
Flow Rate / Grease Capacity:
100 GPM (6.3 L/s) / 6,547 lbs. (2,969.7 kg)
200 GPM (12.6 L/s) / 4,451 lbs. (2,018.9 kg)
Solids Capacity: 103 gal. (389.9 L)
Liquid Capacity: 1,010 gal. (3,823.3 L)
Weight: 1,516 lbs. (687.6 kg)
Connections: 6" (150 mm) plain end inlet/outlet
Cover: gas/water tight pickable cast iron with H20 lb. load rating

Options

- ☐ 6" (150 mm) MPT inlet/outlet (stainless steel, straight-through)
- ☐ 4" (100 mm) plain end inlet/outlet
- ☐ **C24H2:** Highway rated bolted composite covers - 16,000 lbs.
- ☐ **CC2:** integral membrane clamping collar kit
- ☐ **AK3:** High Water Anchor Kit

Field Cut Risers

- ☐ **FCR2** (x2) >4" – 34"
- ☐ **FCR2** (x4) >34" – 64"
- ☐ **FCR2** (x6) >64" – 94"

Approval

Signature:	Date:	Company:
Specifying Engineer:	Engineering Firm:	

SCHIER
LIFETIME GUARANTEED GREASE INTERCEPTORS

MODEL NUMBER: GGI-1000	DESCRIPTION: Polyethylene Gravity Grease Interceptor – 100/200 GPM – 1,010 gallon capacity			
PART #: 4360-002-05	DWG BY: B. Karrer	DATE: 1/10/2020	REV: 1 5/8/2019	ECO:

9500 Woodend Road | Edwardsville, KS 66111 | Tel: 913-951-3300 | www.schierproducts.com

SPECIAL PRECAUTIONS

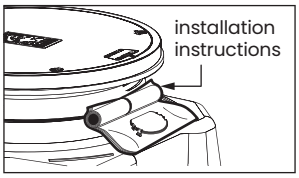
For Schier Grease Interceptor Installations - Failure to follow this guidance voids your warranty

WARNING! DO NOT AIR TEST UNIT OR RISER SYSTEM!
Doing so may result in property damage, personal injury or death.

CAUTION! Do not install this unit in any manner except as described in these instructions.

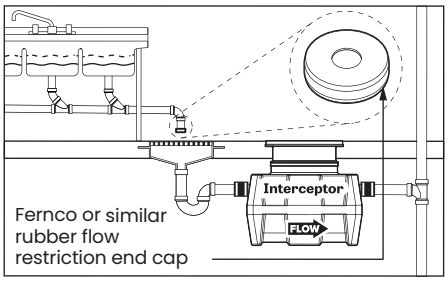
Installation Instructions

Installation instructions and additional components are included with the interceptor. Read all instructions prior to installation. This interceptor is intended to be installed by a licensed plumber in conformance with all local codes.



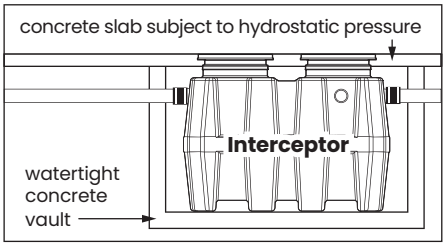
When Installing Interceptor Inside

If your dishwashing sink(s) discharges into a floor drain/sink (drain), you must regulate the flow into the drain to avoid an overflow of water onto the kitchen floor. This can be done by installing a valve or flow restriction cap on the sink piping that discharges into the drain. See drawing for guidance. For detailed guidance on indirect connections, go to: webtools.schierproducts.com/Technical_Data/Indirect_Connections.pdf

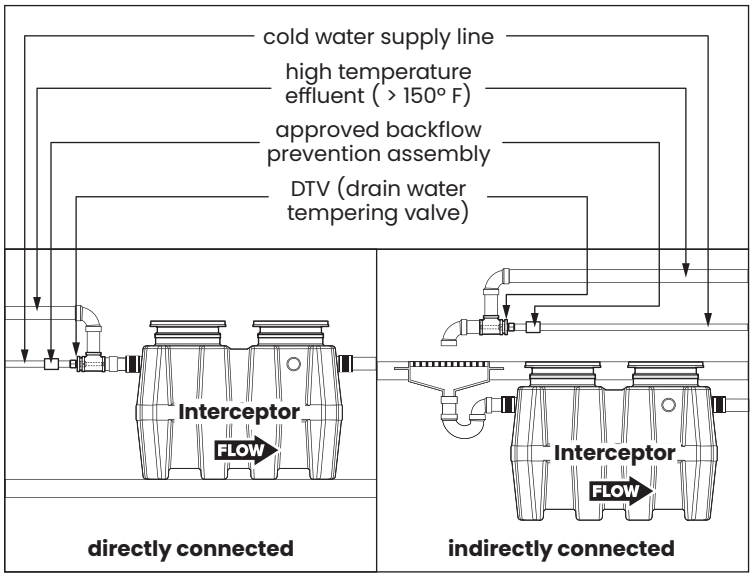


Hydrostatic Slabs (or Pressure Slabs)

When installed under a hydrostatic slab (slab designed to withstand upward lift, usually caused by hydrostatic pressure) interceptor must be enclosed in a watertight concrete vault.



High Temperature Kitchen Water

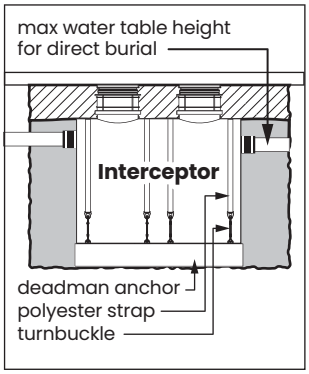


If water is entering the interceptor at excessive temperature (over 150° F), a drain water tempering valve (DTV) and approved backflow prevention assembly must be installed. Most state and local plumbing codes prohibit water above 150° F being discharged into the sanitary sewer. Water above 150° F will weaken or deform PVC Schedule 40 pipe, poly drainage fixtures like interceptors and erode the coating of cast iron (leading to eventual failure).

SPECIAL PRECAUTIONS

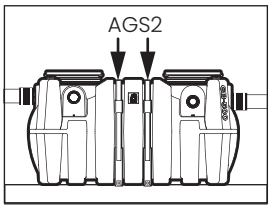
For Schier Grease Interceptor Installations - Failure to follow this guidance voids your warranty

High Water Table Installations



Interceptors and risers are not designed to withstand water table height in excess of the top of the unit when buried (see figure). If it is possible for this to occur, install the interceptor and risers in a water-tight concrete vault or backfill with concrete or flowable fill (wet concrete and flowable backfill should be poured in stages to avoid crushing the interceptor). At risk areas include but are not limited to tidal surge areas, floodplains and areas that receive storm water. Great Basin™ models that are direct buried in high water table scenarios must be installed with an anchor kit. Models GB-50, GB-75, and GB-250 use model AK1 anchor kit. Model GB-500 uses model AK2 anchor kit for use with deadmen anchors. Models GB-1000, GGI-750 and GGI-1500 use model AK3 anchor kit for use with deadmen anchors.

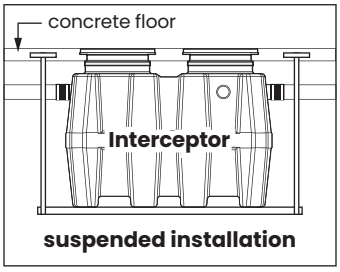
Above Grade Installation Support (for Model GB-500 Only)



The wet weight of the interceptor combined with high temperature kitchen water creates the potential for tank deformation when installed above grade. Model GB-500 installed above grade must be installed with Above Grade Support Kit model AGS2 to maintain structural integrity

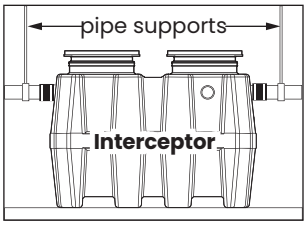
Fully Support Base of Unit

Install unit on solid, level surface in contact with the entire footprint of unit base; for suspended installations design trapeze to support the wet weight of the unit. Do not partially support unit or suspend unit using metal U-channel to create a trapeze.

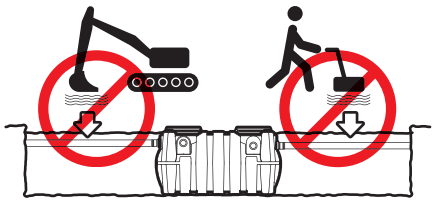


Support Inlet and Outlet Piping

For above grade installations ensure heavy inlet and outlet piping (such as cast iron or long runs) is properly supported or suspended during the entire installation process to prevent connection failure or damage to bulkhead fittings.



DO NOT COMPACT BACKFILL



SCHIER
LIFETIME GUARANTEED GREASE INTERCEPTORS

MODEL NUMBER: GGI-1000		**DESCRIPTION:** Polyethylene Gravity Grease Interceptor – 100/200 GPM – 1,010 gallon capacity		
PART #: 4360-002-05	DWG BY: B. Karrer	DATE: 1/10/2020	REV: 1 5/8/2019	ECO:

9500 Woodend Road | Edwardsville, KS 66111 | Tel: 913-951-3300 | www.schierproducts.com

SPECIFICATIONS

NOTES

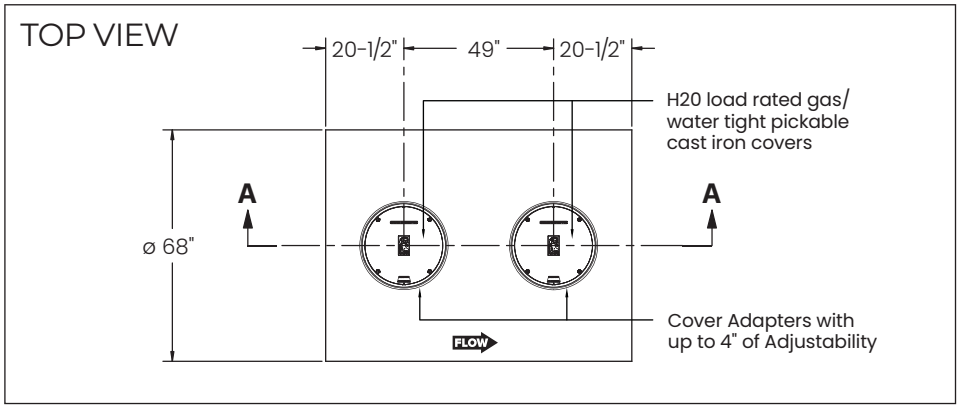
1. 6" plain end SCH. 40 inlet/outlet
2. Unit weight - w/composite covers: 1,400 lbs.; w/cast iron covers: 1,516 lbs.
3. Maximum operating temperature: 150° F continuous
4. Capacities
   Liquid: 1,010 gal.;
   Grease (Factory Rating):
   6,547 lbs. @ 100 GPM / 4,451 lbs. @ 200 GPM;
   Solids: 103 gal.

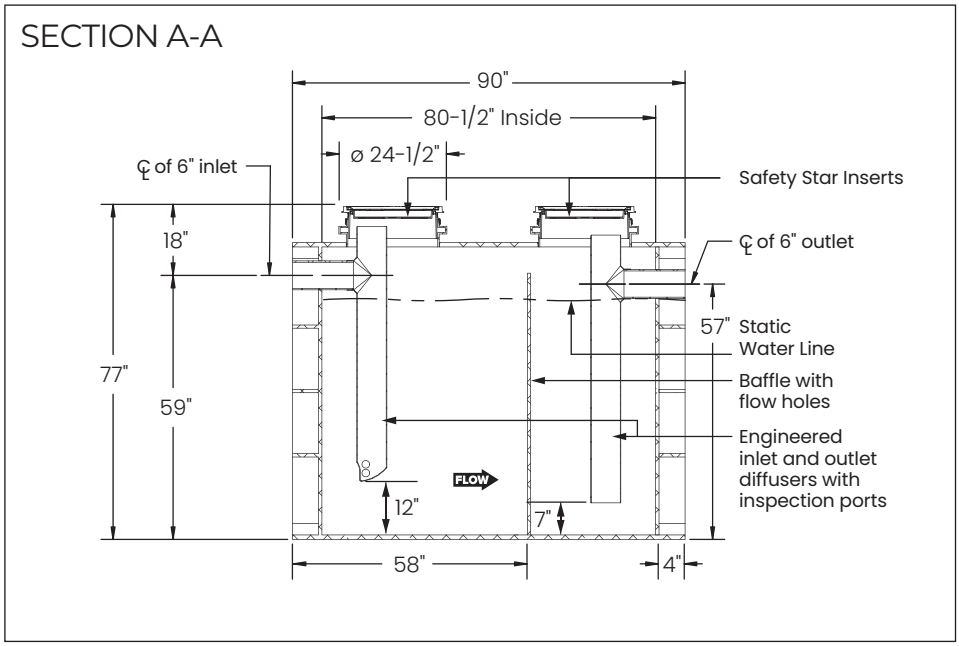
ENGINEER SPECIFICATION GUIDE

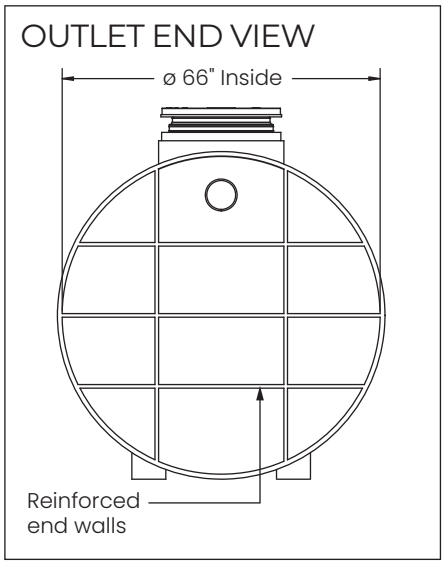
Schier Big Foot™ grease interceptor model # GGI-1000 shall be lifetime guaranteed and made in USA of seamless, molded polyethylene with minimum 3/4" uniform wall thickness. Interceptor shall be furnished for below grade installation with field adjustable riser system. Interceptor flow rate shall be 100 or 200 GPM. Interceptor grease capacity shall be 6,547 lbs. @ 100 GPM or 4,451 lbs. @ 200 GPM. Cover shall provide water/gas-tight seal and have minimum 16,000 lbs. load capacity.

CERTIFIED DESIGN STANDARD

Big Foot™ gravity grease interceptors are third party tested and listed by IAPMO to ANSI Z1001-2016 grease interceptor standards. They are compliant to the Uniform Plumbing Code.







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9500 Woodend Road | Edwardsville, KS 66111 | Tel: 913-951-3300 | www.schierproducts.com

SCHIER
Lifetime Guarantee

Effective January 1st 2018 Schier Products represents and warrants that all grease interceptor products ("Products") will be free from any and all defects in material and workmanship during the lifetime of the plumbing system in which the Products were originally installed and will, at its option, agree to repair, replace, or supply credit to the original purchaser.

This warranty does not cover wear and tear, extreme temperatures or pH levels, nor does it cover damage from naturally occurring phenomenon, including, but not limited to UV, freeze-related damage, or natural disasters. If the Products are warehoused without cover from the elements (direct sun, rain, sleet, snow, windblown gravel dust or sand) or are susceptible to damage from regular business traffic (passing forklifts and vehicles) this warranty will be null and void and the Products will not be considered for return. This warranty does not cover the purchaser's cost for parts required in routine maintenance. This warranty shall be effective if, and only if, the Products were:

a. installed in accordance with Schier Product's notes, specifications and instructions, for installation, operation and maintenance;
b. installed in conformance with all applicable building and plumbing codes and passed all applicable testing methods immediately following installation;
c. not subjected to misuse or abuse, whether negligent or intentional;
d. never modified, repaired or altered by any individual(s) not authorized by Schier Products;
e. installed by a licensed plumber.

This warranty is the purchaser's sole and exclusive remedy, and acceptance of this exclusive remedy is a condition of the purchase of these Products. In no event shall Schier Products be liable for any incidental, special, consequential or punitive damages, or for any costs, attorney fees, expenses, losses or delays claimed to be as a consequence of any damage to, failure of, or defect in any products including, but not limited to, any claims for loss of profits, transportation, removal and installation charges. This warranty is exclusive and in lieu of all other warranties or conditions, written or oral, expressed or implied.

LIFETIME GUARANTEED
GREASE INTERCEPTORS

SCHIER

Chehalis Tribe Elders Center Project

SUBSTITUTION REQUEST FORM

To: Architect: ARC Architects

We hereby submit for consideration the following product instead of specified item for above project:

Section 26 32 33 Paragraph 1.3 Specified Item Emergency Engine Generator

Proposed Substitution: Generac Power Systems for the generator and transfer switch.

Attachments: (If not applicable, write N/A left of item number.) Submittal documents and tank drawing.

No. 1: Complete product data.
No. 2: Drawings showing dimensional changes and other change to drawings.
No. 3: Complete description of all changes to specifications.

Undersigned attests function and quality equivalent or superior to specified item.

Submitted by: (Person and Firm) Kerry Nicolaus, Energy Systems

Date 6/8/2021 Phone (209) 479-0413 Signature Kerry Nicolaus

Acceptance by Architect:

By:
Date:
Remarks:

Accepted
Accepted as Noted
Not Accepted

Transmittal

Sea-Tac Lighting & Controls, LLC
15455 53rd Ave S
Tukwila WA 98188
Phone: (206) 575-6865
From: Samantha Nyblod

Project **The Chehalis Tribe Chehalis Elder Center**
Quote# SEATAC-WWA21-113425
Location

Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- ☐ Drawings
- ☐ Prints
- ☐ Plans
- ☐ Specifications
- ☐ Information
- ☒ Submittals

Other:

THESE ARE TRANSMITTED FOR:

- ☒ Prior Approval
- ☐ Approval
- ☐ Approval as Submitted
- ☐ Approval as Noted
- ☐ Resubmittal for Approval
- ☐ Corrections
- ☐ Your Use
- ☐ Review and Comment
- ☐ Record

Bids due on:
Other:

Type	MFG	Part
B1	McGraw-Edison	BRT6AX-730-U-TX-42-FINISH
B2	Design Plan	601712P-30K-FINISH
P1	McGraw-Edison	GLEON-SAX-X-730-U-TX-FINISH
P1-OPT 2	Visionaire Lighting, LLC	VLX-1-TX-XXL-3K-UNV-AM-FINISH
P1-OPT 3	Visionaire Lighting, LLC	VMX-II-TX-XXLC-X-3K-UNV-AM-FINISH
P1-POLE	United Lighting Standards	RSA-5203-FINISH
P2	McGraw-Edison	GLEON-SAX-X-730-U-TX-FINISH
P2-OPT-2	Visionaire Lighting, LLC	VLX-1-TX-XXL-3K-UNV-AM-FINISH
P2-OPT 3	Visionaire Lighting, LLC	VMX-II-TX-XXLC-X-3K-UNV-AM-FINISH
P2-POLE	United Lighting Standards	RSA-5203-FINISH
PL-1	Pinnacle Arch. Lighting Inc.	EX3WET-N-CL830746LM-4'-IND-PPXX-U-OL2-1-0-FINISH
PL-3	FC Lighting	FCC800-15-SPM-LENGTH-UNV-830-25L-FINISH-40-LD-N/A
RL-3	Portfolio	LD4B20D010 EU4B10208030 4LB(X)1H
RL-4	Portfolio	LD2B(X)D010 EU2B(XX)8030 2LBD1(X)
WL-1	McGraw-Edison	IST-SA1-X-730-U-T3-FINISH

Project		**Catalog #**		**Type**	
Prepared by		**Notes**		**Date**	

McGraw-Edison

BRT6 Bollard

Round LED Pedestrian Luminaire

Typical Applications

Outdoor • Walkway • Perimeter • Landscapes • Hardscapes

Interactive Menu

- Ordering Information page 2
- Product Specifications page 2
- Optical Distributions page 2
- Energy and Performance Data page 3

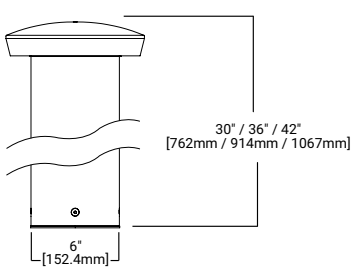
Product Certifications

Quick Facts

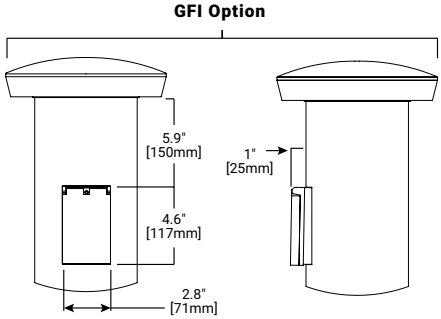
- 4 Optical Distributions
- Available in 30", 36", and 42"
- Lumen packages range from 560 - 4400 (5W - 49W)
- Efficacy up to 122 lumens per watt
- Zero uplight on all configurations

Dimensional Details

Side View



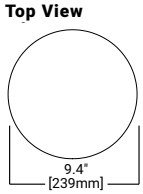
GFI Option



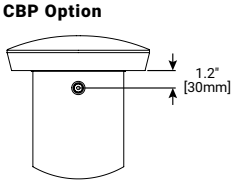
Height	Weight
30"	7.2lb (3.3kg)
36"	8.7lb (4.0kg)
42"	10.3lb (4.7kg)

* Base model without options or controls

Top View



CBP Option



McGraw-Edison — BRT6 Bollard

Ordering Information

SAMPLE NUMBER: **BRT6-A3-740-U-T4-36-GM**

CONFIRM FINISH

Product Family	Configuration [1]	Color Temperature	Voltage	Distribution	Height	Finish
BRT6=Bollard, 6" Round Base	**A1**=1000lm Nominal [11] **A2**=2000lm Nominal **A3**=3000lm Nominal **A4**=4000lm Nominal CONFIRM OUTPUT	**727**=70CRI, 2700K **730**=70CRI, 3000K **740**=70CRI, 4000K **750**=70CRI, 5000K **830**=80CRI, 3000K **AMB**=Amber, 590nm [2]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [5] **9**=347V	**T3**=Path Asymmetric **T4**=Wide Path Asymmetric **T5**=Type V Symmetric **T5S**=Type V Square Symmetric CONFIRM DISTRIBUTION	**30**=30" **36**=36" **42**=42"	**AP**=Gray **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)
DIM=External 0-10V Dimming Leads [4, 7] **F**=Single Fuse (120, 277 or 347V Specify Voltage) **FF**=Double Fuse (208, 240 or 480V Specify Voltage) **CC**=Coastal Construction [3] **HA**=50°C High Ambient **20K**=20kV UL 1449 fused surge protective device **CBP**=Battery Pack, Cold Weather Rated [9, 12] **DALI**=DALI Driver [4, 11] **LAB**=Less Anchor Bolts & Template [6] **GFI**=GFCI Outlet [8]	**BPC**=Button Type Photocontrol [10]	**BRT6ANCHOR**=Anchor bolt kit and template [6]

NOTES:
1. Nominal output based on symmetric distributions at 4000K CCT. See lumen table and IES files for details.
2. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Available with configuration A1 only.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
4. Not available with other controls options
5. 480V must utilize Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems.)
6. Bollard ships with anchor bolts and template included, unless LAB is specified, in which case the BRT6ANCHOR accessory must be ordered separately.
7. Low voltage control leads brought out 18" from fixture
8. GFCI 125-Volt duplex tamper-proof outlet rated for 15A. Available in 120V only.
9. Operates at -20°C to +40°C. Not available with HA option. 6W initial output. 16.2Wh capacity.
10. Not available with "U" voltage, must specify voltage.
11. Available in 120V only.
12. Specify 120V or 277V.

Product Specifications

Construction
- Extruded aluminum housing with cast base and top
- Patent-pending base plate design offers superior rigidity
- 3G vibration rated
- IK10 impact rating for housing and optic assembly

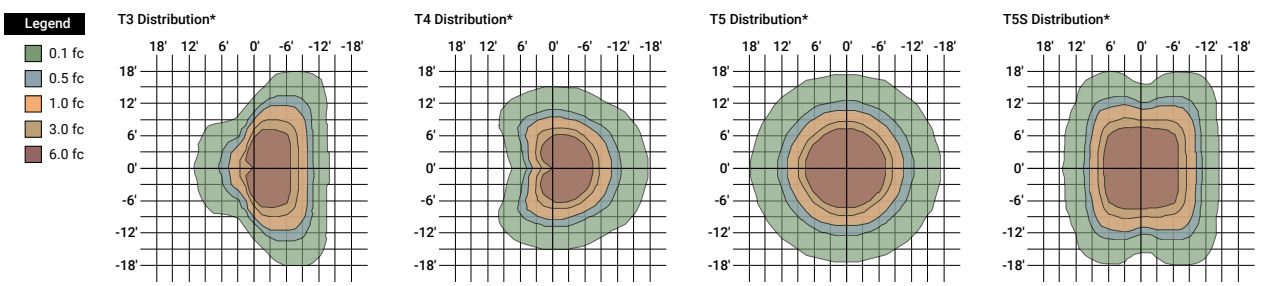
Optics
- High-efficiency injection-molded AccuLED optics technology
- 4 optical distributions; 2 symmetric and 2 asymmetric
- IDA Certified (3000K CCT and warmer only)

Electrical
- Standard with 0-10V dimming
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration
- 10kV surge module standard

Finish
- Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty
- Five year warranty

Optical Distributions



***NOTE:** A4 lumen package, 4000K CCT, 3.5' MH

McGraw-Edison — BRT6 Bollard

Energy and Performance Data

CONFIRM DISTRIBUTION AND OUTPUTS

Asymmetric Power and Lumens

Optics			Configuration			
			A1	A2	A3	A4
4000K / 5000K CCT, 70 CRI	T3	Wattage	5	11	17	22
		Lumens	537	1075	1627	1961
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1
		Lumens per Watt	99	99	94	91
	T4	Wattage	5	10	15	21
		Lumens	559	1101	1616	2193
		BUG Rating	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1
		Lumens per Watt	110	115	110	104
3000K CCT, 70 CRI	T3	Wattage	5	11	17	22
		Lumens	489	979	1482	1786
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1
		Lumens per Watt	99	99	94	91
	T4	Wattage	5	10	15	21
		Lumens	509	1003	1472	1997
		BUG Rating	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1
		Lumens per Watt	110	115	110	104
3000K CCT, 80 CRI	T3	Wattage	5	11	17	22
		Lumens	427	854	1293	1558
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1
		Lumens per Watt	99	99	94	91
	T4	Wattage	5	10	15	21
		Lumens	444	875	1284	1743
		BUG Rating	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1
		Lumens per Watt	110	115	110	104
2700K CCT, 70 CRI	T3	Wattage	5	11	17	22
		Lumens	449	899	1361	1640
		BUG Rating	B0-U0-G0	B0-U0-G1	B0-U0-G1	B0-U0-G1
		Lumens per Watt	99	99	94	91
	T4	Wattage	5	10	15	21
		Lumens	467	921	1351	1834
		BUG Rating	B0-U0-G0	B0-U0-G1	B1-U0-G1	B1-U0-G1
		Lumens per Watt	110	115	110	104
AMB 590nm	T3	Wattage	13	--	--	--
		Lumens	457	--	--	--
		BUG Rating	B0-U0-G0	--	--	--
		Lumens per Watt	34	--	--	--
	T4	Wattage	11	--	--	--
		Lumens	352	--	--	--
		BUG Rating	B0-U0-G0	--	--	--
		Lumens per Watt	32	--	--	--

Symmetric Power and Lumens

Optics			Configuration			
			A1	A2	A3	A4
4000K / 5000K CCT, 70 CRI	T5	Wattage	9	18	29	42
		Lumens	1149	2210	3244	4401
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	122	120	111	105
	T5S	Wattage	10	21	35	49
		Lumens	1125	2230	3338	4367
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	110	107	97	89
3000K CCT, 70 CRI	T5	Wattage	9	18	29	42
		Lumens	1046	2013	2954	4008
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	122	120	111	105
	T5S	Wattage	10	21	35	49
		Lumens	1025	2031	3040	3977
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	110	107	97	89
3000K CCT, 80 CRI	T5	Wattage	9	18	29	42
		Lumens	913	1757	2578	3497
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	122	120	111	105
	T5S	Wattage	10	21	35	49
		Lumens	894	1772	2653	3470
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	110	107	97	89
2700K CCT, 70 CRI	T5	Wattage	9	18	29	42
		Lumens	960	1848	2712	3680
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	122	120	111	105
	T5S	Wattage	10	21	35	49
		Lumens	941	1865	2791	3652
		BUG Rating	B1-U0-G0	B1-U0-G1	B2-U0-G1	B2-U0-G1
		Lumens per Watt	110	107	97	89
AMB 590nm	T5	Wattage	21	--	--	--
		Lumens	575	--	--	--
		BUG Rating	B0-U0-G0	--	--	--
		Lumens per Watt	28	--	--	--
	T5S	Wattage	25	--	--	--
		Lumens	676	--	--	--
		BUG Rating	B1-U0-G0	--	--	--
		Lumens per Watt	27	--	--	--

McGraw-Edison BRT6 Bollard

Energy and Performance Data

Asymmetric Input Current (mA)

Optics		Configuration			
		A1	A2	A3	A4
T3	Wattage	47	97	152	190
	Lumens	--	59	89	110
	BUG Rating	--	52	78	97
	Lumens per Watt	--	48	70	85
	Wattage	--	40	59	72
	Lumens	--	29	43	53
T4	Wattage	44	84	128	183
	Lumens	--	52	75	105
	BUG Rating	--	47	66	92
	Lumens per Watt	--	44	59	81
	Wattage	--	35	49	68
	Lumens	--	25	36	50

Symmetric Input Current (mA)

Optics		Configuration			
		A1	A2	A3	A4
T5	Wattage	81	159	257	373
	Lumens	--	93	146	209
	BUG Rating	--	82	128	183
	Lumens per Watt	--	73	113	159
	Wattage	--	65	96	148
	Lumens	--	48	70	108
T5S	Wattage	90	185	314	454
	Lumens	--	107	177	251
	BUG Rating	--	94	155	219
	Lumens per Watt	--	83	135	190
	Wattage	--	69	114	172
	Lumens	--	51	82	125

Lumen Maintenance (TM-21)

Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
25°C	95.9%	92.9%	91.7%	87.1%	271,000
40°C	95.7%	92.5%	91.3%	86.5%	256,000
50°C	95.3%	91.9%	90.6%	85.7%	242,000

* Supported by IES TM-21 standards
**Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

View BRT6 IES files

Submitted by Sea-Tac Lighting & Controls, LLC			
	Job Name: The Chehalis Tribe Chehalis Elder Center	**Catalog Number:** 601712P-30K-FINISH Notes:	**Type:** **B2** SEATAC-WWA21-113425

SECTOR 1000

designplan

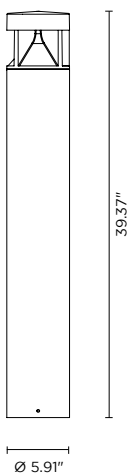
datasheet

Sector 1000 is a 39.4" height round bollard for outdoor surface installation with the option of 1 to 4 light windows: 90°, 180° (or 90° + 90°), 270°, 360°. It is available in 2 color temperatures and 2 standard finishes.

TECHNICAL DATA

Wattage / Input	6W, 12W, 18W, 24W (120VAC)
Power Supply	Integral (0-10V Dimming)
Construction	Body: Extruded Copper-Free Aluminum Lens: Opaline Tempered Glass Cable Length: 3.28'
CCT	3000K, 4000K
BUG Rating	B0-U2-G1 (6W, 3000K) B0-U3-G1 (24W, 3000K)
Delivered Lumens	553 lm (6W, 3000K) 1067 lm (12W, 3000K) 1600 lm (18W, 3000K) 2134 lm (24W, 3000K)
Efficacy	92.2 lm/W (6W, 3000K) 88.9 lm/W (12W, 18W, 24W, 3000K)
Optics	90°, 180° (or 90° + 90°), 270°, 360°
Finishes	Textured Gray, Anthracite Gray, Matte Black (on request)
Fixture Dimensions	Ø5.91" x 39.37"
LED Source	1 x CREEXHP70 LED
Fixture Weight	17.64 lbs
IP Rating	IP66
IK Rating	IK10

Fixture Dimensions



ORDERING INFORMATION

Example: 601711P-30K-AG. Accessories ordered separately.

	-		-	

Model No.	CCT	Finish
601709P (6W, 90°)	**30K** - 3000K	**TG** - Textured Gray
601710P (12W, 180° or 90°x90°)	**40K** - 4000K	**AG** - Anthracite Gray
601711P (18W, 270°)		**MB** - Matte Black (on request)
601712P (24W, 360)		CONFIRM FINISH

Job Name/Date:

Fixture Type Designation:

sales@designplan.com
www.designplan.com

79 Trenton Avenue, Frenchtown NJ 08825

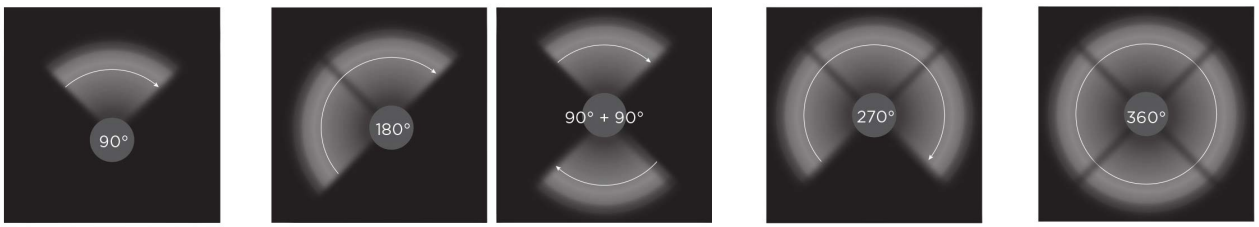
Published: February 16, 2021
P: 908-996-7710
F: 908-996-7042

SECTOR 1000

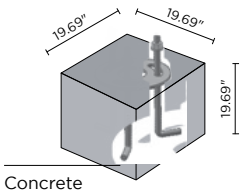
designplan

datasheet

LIGHT DISTRIBUTIONS



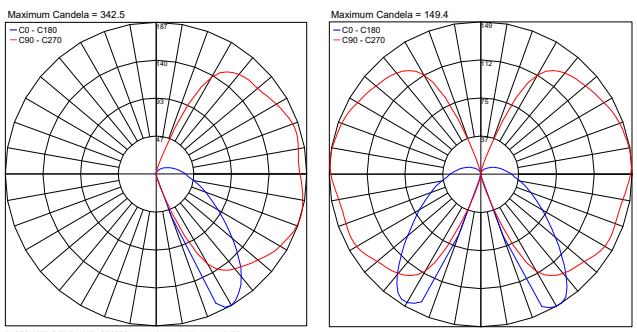
ACCESSORIES - Installation

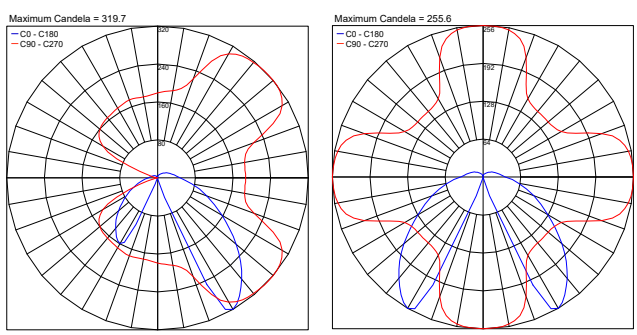


AC053P
Base Plate

PHOTOMETRIC DATA

Note: all photometry is 3000K





Job Name/Date:

Fixture Type Designation:

sales@designplan.com
www.designplan.com

79 Trenton Avenue, Frenchtown NJ 08825

Published: February 16, 2021

P: 908-996-7710
F: 908-996-7042

Project		Catalog #		Type	
Prepared by		Notes		Date	

McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Typical Applications

Outdoor • Parking Lots • Walkways • Roadways • Building Areas

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

Product Certifications

Product Features

LumenSafe Technology · Enlighted · WaveLinx · Light ARchitect™

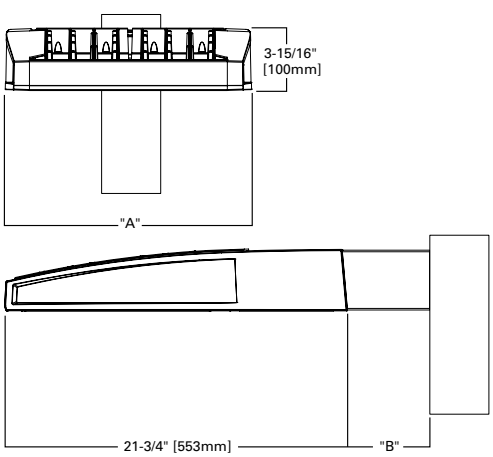
Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt

Connected Systems

- WaveLinx
- Enlighted

Dimensional Details



Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length [1]	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

McGraw-Edison — GLEON Galleon

Ordering Information

SAMPLE NUMBER: **GLEON-SA4C-740-U-T4FT-GM**

CONFIRM DISTRIBUTION

Product Family [1,2]	Light Engine		Color Temperature	Voltage	Distribution	Mounting	Finish
	Configuration	Drive Current					
GLEON=Galleon	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares **SA5**=5 Squares [4] **SA6**=6 Squares **SA7**=7 Squares [5] **SA8**=8 Squares [5] **SA9**=9 Squares [6] **SA0**=10 Squares [6]	**A**=600mA **B**=800mA **C**=1000mA **D**=1200mA [16]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [14,16]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [7,8] **9**=347V [7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [9] **MA**=Mast Arm Adapter [10] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [11] **QMEA**=Quick Mount Arm (Extended Length) [12]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

CONFIRM OUTPUT

CONFIRM FINISH

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)
DIM=External 0-10V Dimming Leads [19,20] **F**=Single Fuse (120, 277 or 347V Specify Voltage) **FF**=Double Fuse (208, 240 or 480V Specify Voltage) **20K**=Series 20kV UL 1449 Surge Protective Device **2L**=Two Circuits [17,18] **HA**=50°C High Ambient **HSS**=Installed House Side Shield [28] **GRSBK**=Glare Reducing Shield, Black [23] **GRSWH**=Glare Reducing Shield, White [23] **LCF**=Light Square Trim Painted to Match Housing [27] **MT**=Installed Mesh Top **TH**=Tool-less Door Hardware **CC**=Coastal Construction finish [3] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **CE**=CE Marking [29] **AHD145**=After Hours Dim, 5 Hours [22] **AHD245**=After Hours Dim, 6 Hours [22] **AHD255**=After Hours Dim, 7 Hours [22] **AHD355**=After Hours Dim, 8 Hours [22] **DALI**=DALI Drivers	**BPC**=Button Type Photocontrol **PR**=NEMA 3-PIN Photocontrol Receptacle **PR7**=NEMA 7-PIN Photocontrol Receptacle [21] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8' - 20' Mounting [34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21' - 40' Mounting [34] **MS-L20**=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [24] **MS-L40W**=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [24] **MS/X-L20**=Bi-Level Motion Sensor, 9' - 20' Mounting Height [24,25] **MS/X-L40W**=Bi-Level Motion Sensor, 21' - 40' Mounting Height [24,25] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [24] **MS/DIM-L40W**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [24] **ZW**=WaveLinx Module and 4-PIN Receptacle **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle **SWPD4XX**=WaveLinx Sensor Only, 7'-15' [13,32,33] **SWPD5XX**=WaveLinx Sensor Only, 15'-40' [13,32,33] **W0BXX**=WaveLinx Sensor with Bluetooth, 7'-15' [13,32] **W0FXX**=WaveLinx Sensor with Bluetooth, 15'-40' [13,32] **LWR-LW**=Enlighted Sensor, 8'–16' Mounting Height [26] **LWR-LN**=Enlighted Sensor, 16'–40' Mounting Height [26] **DIM10-MS/DIM-L08**=Synapse Occupancy Sensor (<8' Mounting) [19] **DIM10-MS/DIM-L20**=Synapse Occupancy Sensor (9'-20' Mounting) [19] **DIM10-MS/DIM-L40**=Synapse Occupancy Sensor (21'-40' Mounting) [19]	**OA/RA1016**=NEMA Photocontrol Multi-Tap - 105-285V **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1014**=120V Photocontrol **MA1252**=10kV Surge Module Replacement **MA1036-XX**=Single Tenon Adapter for 2-3/8" O.D. Tenon **MA1037-XX**=2@180° Tenon Adapter for 2-3/8" O.D. Tenon **MA1197-XX**=3@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1188-XX**=4@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1189-XX**=2@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1190-XX**=3@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1191-XX**=2@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1038-XX**=Single Tenon Adapter for 3-1/2" O.D. Tenon **MA1039-XX**=2@180° Tenon Adapter for 3-1/2" O.D. Tenon **MA1192-XX**=3@120° Tenon Adapter for 3-1/2" O.D. Tenon **MA1193-XX**=4@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1194-XX**=2@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1195-XX**=3@90° Tenon Adapter for 3-1/2" O.D. Tenon **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [24] **GLEON-MT1**=Field Installed Mesh Top for 1-4 Light Squares **GLEON-MT2**=Field Installed Mesh Top for 5-6 Light Squares **GLEON-MT3**=Field Installed Mesh Top for 7-8 Light Squares **GLEON-MT4**=Field Installed Mesh Top for 9-10 Light Squares **GLEON-QM**=Quick Mount Arm Kit [11] **GLEON-QMEA**=Quick Mount Extended Arm Kit [12] **LS/HSS**=Field Installed House Side Shield [28,30] **LS/GRSBK**=Glare Reducing Shield, Black [23,30] **LS/GRSWH**=Glare Reducing Shield, White [23,30] **LS/PFS**=Perimeter Shield, Black [15] **WOLC-7P-10A**=WaveLinx Outdoor Control Module [19,31] **SWPD4-XX**=Wavelinx Wireless Sensor, 7'–15' Mounting Height [13,19,32,33] **SWPD5-XX**=Wavelinx Wireless Sensor, 15'–40' Mounting Height [13,19,32,33]

NOTES:

1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Not available with TH option.
4. Not compatible with MS/4-LXX or MS/1-LXX sensors.
5. Not compatible with extended quick mount arm (QMEA).
6. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
7. Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
8. 480V must utilize Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems.)
9. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
10. Factory installed.
11. Maximum 8 light squares.
12. Maximum 6 light squares.
13. Requires ZW or ZD receptacle.
14. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
15. Set of 4 pcs. One set required per Light Square.
16. Not available with HA option.
17. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in SA2 through SA4 requires a larger housing, normally used for SA5 or SA6. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
18. Not available with Enlighted wireless sensors.
19. Cannot be used with other control options.
20. Low voltage control lead brought out 18" outside fixture.
21. Not available if any "MS" sensor is selected. Motion sensor has an integral photocell.
22. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
23. Not for use with T4FT, T4W or SL4 optics. See IES files for details.
24. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
25. Replace X with number of Light Squares operating in low output mode.
26. Enlighted wireless sensors are factory installed only requiring network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities.
27. Not available with house side shield (HSS).
28. Not for use with 5NQ, 5MQ, 5WQ or RW optics. A black trim plate is used when HSS is selected.
29. CE is not available with the LWR, MS, MS/X, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
30. One required for each Light Square.
31. Requires PR7.
32. Replace XX with sensor color (WH, BZ or BK.)
33. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
34. Smart device with mobile application required to change system defaults. See controls section for details.

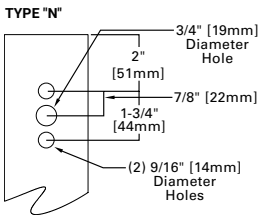
LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

Product Family	Camera Type	Data Backhaul	
L=LumenSafe Technology	**D**=Standard Dome Camera **H**=Hi-Res Dome Camera **Z**=Remote PTZ Camera	**C**=Cellular, No SIM **A**=Cellular, AT&T **V**=Cellular, Verizon **S**=Cellular, Sprint	**R**=Cellular, Rogers **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

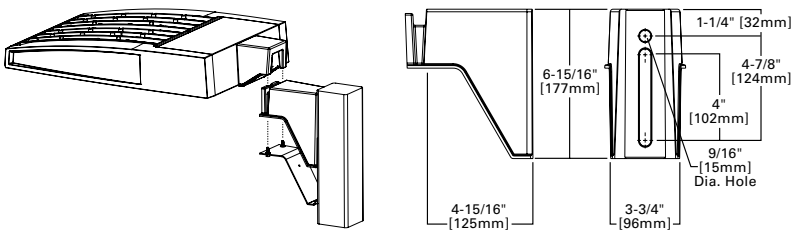
McGraw-Edison — GLEON Galleon

Mounting Details

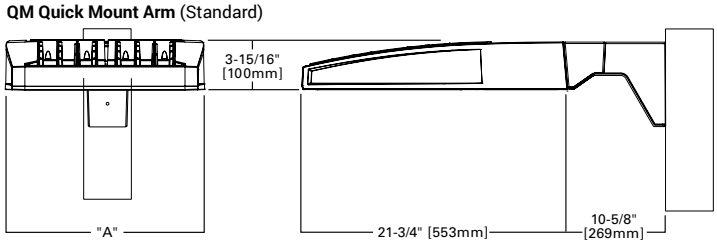
Standard Arm (Drilling Pattern)



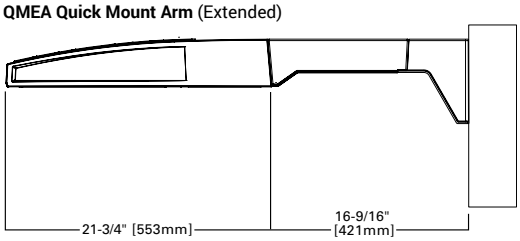
Quick Mount Arm (Includes fixture adapter)



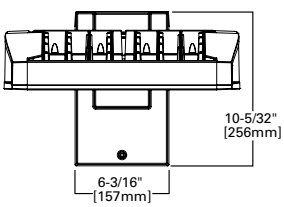
QM Quick Mount Arm (Standard)

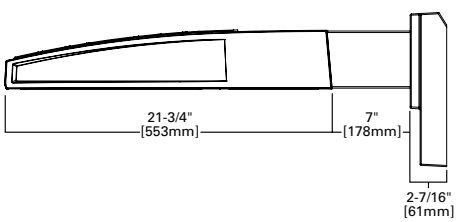


QMEA Quick Mount Arm (Extended)

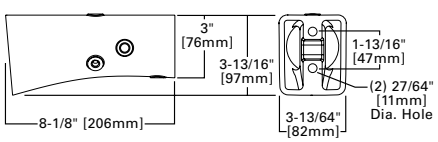


Standard Wall Mount



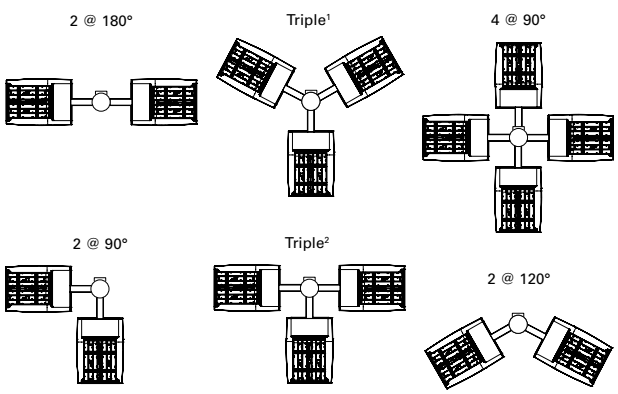


Mast Arm Mount



Arm Mounting Requirements

Number of Light Squares	Standard Arm @ 90° Apart	Standard Arm @ 120° Apart	Quick Mount Arm @ 90° Apart	Quick Mount Arm @ 120° Apart
1	Standard	Standard	QM Extended	Quick Mount
2	Standard	Standard	QM Extended	Quick Mount
3	Standard	Standard	QM Extended	Quick Mount
4	Standard	Standard	QM Extended	Quick Mount
5	Extended	Standard	QM Extended	Quick Mount
6	Extended	Standard	QM Extended	Quick Mount
7	Extended	Extended	--	Quick Mount
8	Extended	Extended	--	Quick Mount
9	Extended	Extended	--	--
10	Extended	Extended	--	--



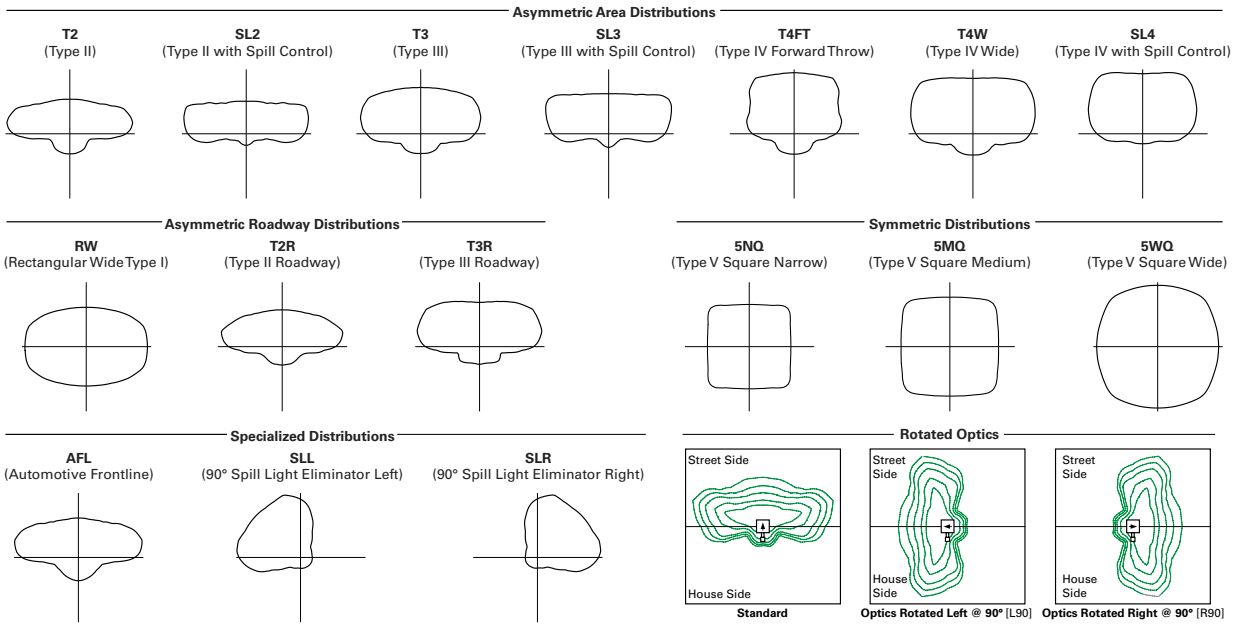
NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2** Round poles are 3 @ 90°.

Fixture Weights and EPAs

Number of Light Squares	Weight with Standard and Extended Arm (lbs.)	EPA with Standard and Extended Arm (Sq. Ft.)	Weight with Quick Mount Arm (lbs.)	EPA with Quick Mount Arm (Sq. Ft.)	Weight with Quick Mount Extended Arm (lbs.)	EPA with Quick Mount Extended Arm (Sq. Ft.)
1-4	33	0.96	35	1.11	38	1.11
5-6	44	1.00	46	1.11	49	1.11
7-8	54	1.07	56	1.11	--	--
9-10	63	1.12	--	--	--	--

McGraw-Edison — GLEON Galleon

Optical Distributions



Product Specifications

Construction
- Extruded aluminum driver enclosure
- Heavy-wall, die-cast aluminum end caps
- Die-cast aluminum heat sinks
- Patent pending interlocking housing and heat sink

Optics
- Patented, high-efficiency injection-molded AccuLED Optics technology
- 16 optical distributions
- 3 shielding options including HSS, GRS and PFS
- IDA Certified (3000K CCT and warmer only)

Electrical
- LED drivers are mounted to removable tray assembly for ease of maintenance
- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting
- Standard extruded arm includes internal bolt guides and round pole adapter
- Extended arms (EA and QMEA) may be required in 90° or 120° pole mount configurations, see arm mounting requirements table
- Mast arm (MA) factory installed
- Wall mount (WM) option available
- Quick mount arm (QM and QMEA) includes pole adapter and factory installed fixture mount for fast installation to square or round poles

Finish
- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty
- Five year warranty

Energy and Performance Data

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

* Supported by IES TM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

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McGraw-Edison — GLEON Galleon

Nominal Power Lumens (1.2A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		67	129	191	258	320	382	448	511	575	640
Input Current @ 120V (A)		0.58	1.16	1.78	2.31	2.94	3.56	4.09	4.71	5.34	5.87
Input Current @ 208V (A)		0.33	0.63	0.93	1.27	1.57	1.87	2.22	2.52	2.8	3.14
Input Current @ 240V (A)		0.29	0.55	0.80	1.10	1.35	1.61	1.93	2.18	2.41	2.71
Input Current @ 277V (A)		0.25	0.48	0.70	0.96	1.18	1.39	1.69	1.90	2.09	2.36
Input Current @ 347V (A)		0.20	0.39	0.57	0.78	0.96	1.15	1.36	1.54	1.72	1.92
Input Current @ 480V (A)		0.15	0.30	0.43	0.60	0.73	0.85	1.03	1.16	1.28	1.45
Optics											
T2	4000K Lumens	7,972	15,580	23,245	30,714	38,056	45,541	53,857	61,024	68,072	75,366
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	122	119	119	119	120	119	118	118
T2R	4000K Lumens	8,462	16,539	24,680	32,609	40,401	48,348	57,176	64,783	72,266	80,010
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	129	126	126	127	128	127	126	125
T3	4000K Lumens	8,125	15,879	23,693	31,307	38,787	46,417	54,893	62,197	69,381	76,818
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	122	123	122	121	120
T3R	4000K Lumens	8,306	16,232	24,220	32,001	39,651	47,447	56,114	63,580	70,924	78,523
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
T4FT	4000K Lumens	8,173	15,970	23,831	31,488	39,014	46,686	55,212	62,558	69,783	77,261
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	122	124	125	122	122	122	123	122	121	121
T4W	4000K Lumens	8,067	15,764	23,522	31,080	38,510	46,082	54,499	61,751	68,881	76,263
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	120	122	123	120	120	121	122	121	120	119
SL2	4000K Lumens	7,958	15,552	23,206	30,662	37,989	45,462	53,763	60,920	67,952	75,235
	BUG Rating	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	121	119	119	119	120	119	118	118
SL3	4000K Lumens	8,124	15,877	23,690	31,302	38,784	46,410	54,885	62,189	69,372	76,805
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	121	123	122	121	120
SL4	4000K Lumens	7,719	15,085	22,510	29,741	36,850	44,097	52,148	59,089	65,913	72,977
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	115	117	118	115	115	115	116	116	115	114
5NQ	4000K Lumens	8,380	16,375	24,436	32,287	40,003	47,870	56,610	64,144	71,552	79,221
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	125	127	128	125	125	125	126	126	124	124
5MQ	4000K Lumens	8,534	16,676	24,885	32,881	40,739	48,752	57,653	65,326	72,868	80,679
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	127	129	130	127	127	128	129	128	127	126
5WQ	4000K Lumens	8,556	16,723	24,951	32,968	40,847	48,881	57,808	65,499	73,063	80,894
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	128	130	131	128	128	128	129	128	127	126
SLL/ SLR	4000K Lumens	7,140	13,951	20,817	27,506	34,081	40,783	48,231	54,649	60,959	67,492
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	107	108	109	107	107	107	108	107	106	105
RW	4000K Lumens	8,304	16,228	24,215	31,994	39,641	47,437	56,100	63,566	70,907	78,504
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
AFL	4000K Lumens	8,335	16,287	24,302	32,110	39,784	47,610	56,303	63,796	71,163	78,790
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	125	126	125	124	123

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

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Nominal Power Lumens (1A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		59	113	166	225	279	333	391	445	501	558
Input Current @ 120V (A)		0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.60	5.07
Input Current @ 208V (A)		0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75
Input Current @ 240V (A)		0.26	0.48	0.71	0.96	1.19	0.41	1.67	1.89	2.12	2.39
Input Current @ 277V (A)		0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09
Input Current @ 347V (A)		0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68
Input Current @ 480V (A)		0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28
Optics											
T2	4000K Lumens	7,267	14,201	21,190	28,000	34,692	41,515	49,096	55,627	62,053	68,703
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	126	128	124	124	125	126	125	124	123
T2R	4000K Lumens	7,715	15,077	22,497	29,725	36,829	44,073	52,122	59,056	65,876	72,937
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	131	133	136	132	132	132	133	133	131	131
T3	4000K Lumens	7,408	14,475	21,598	28,539	35,358	42,313	50,039	56,698	63,246	70,024
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
T3R	4000K Lumens	7,571	14,798	22,078	29,172	36,145	43,253	51,153	57,959	64,653	71,581
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
T4FT	4000K Lumens	7,451	14,559	21,725	28,703	35,564	42,558	50,330	57,027	63,613	70,430
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	129	131	128	127	128	129	128	127	126
T4W	4000K Lumens	7,354	14,371	21,442	28,333	35,105	42,007	49,681	56,291	62,792	69,521
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	125	127	129	126	126	126	127	126	125	125
SL2	4000K Lumens	7,254	14,178	21,155	27,951	34,631	41,443	49,011	55,533	61,944	68,584
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	125	127	124	124	124	125	125	124	123
SL3	4000K Lumens	7,406	14,474	21,596	28,534	35,355	42,307	50,033	56,690	63,237	70,014
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
SL4	4000K Lumens	7,037	13,751	20,519	27,112	33,592	40,198	47,538	53,864	60,087	66,524
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	119	122	124	120	120	121	122	121	120	119
5NQ	4000K Lumens	7,640	14,928	22,275	29,431	36,465	43,637	51,606	58,472	65,226	72,218
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	129	132	134	131	131	131	132	131	130	129
5MQ	4000K Lumens	7,779	15,203	22,684	29,973	37,137	44,441	52,555	59,549	66,427	73,545
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	133	133	133	134	134	133	132
5WQ	4000K Lumens	7,800	15,243	22,744	30,052	37,236	44,560	52,697	59,708	66,603	73,742
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	134	133	134	135	134	133	132
SLL/ SLR	4000K Lumens	6,510	12,719	18,977	25,075	31,067	37,176	43,967	49,817	55,569	61,525
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	110	113	114	111	111	112	112	112	111	110
RW	4000K Lumens	7,570	14,793	22,073	29,165	36,137	43,243	51,140	57,945	64,637	71,564
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
AFL	4000K Lumens	7,598	14,847	22,154	29,272	36,267	43,400	51,326	58,156	64,872	71,824
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	129	131	133	130	130	130	131	131	129	129

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

McGraw-Edison — GLEON Galleon

Nominal Power Lumens (800mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		44	85	124	171	210	249	295	334	374	419
Input Current @ 120V (A)		0.39	0.77	1.13	1.54	1.90	2.26	2.67	3.03	3.39	3.80
Input Current @ 208V (A)		0.22	0.44	0.62	0.88	1.06	1.24	1.50	1.68	1.87	2.12
Input Current @ 240V (A)		0.19	0.38	0.54	0.76	0.92	1.08	1.30	1.46	1.62	1.84
Input Current @ 277V (A)		0.17	0.36	0.47	0.72	0.83	0.95	1.19	1.31	1.42	1.67
Input Current @ 347V (A)		0.15	0.24	0.38	0.49	0.63	0.77	0.87	1.01	1.15	1.52
Input Current @ 480V (A)		0.11	0.18	0.29	0.37	0.48	0.59	0.66	0.77	0.88	0.96
Optics											
T2	4000K Lumens	5,871	11,474	17,121	22,622	28,029	33,542	39,667	44,944	50,134	55,508
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	135	134	135	134	132
T2R	4000K Lumens	6,233	12,181	18,176	24,016	29,756	35,608	42,111	47,714	53,224	58,929
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5
	Lumens per Watt	142	143	147	140	142	143	143	143	142	141
T3	4000K Lumens	5,986	11,695	17,450	23,057	28,568	34,186	40,430	45,809	51,099	56,576
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
T3R	4000K Lumens	6,117	11,955	17,838	23,569	29,203	34,946	41,328	46,827	52,235	57,832
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
T4FT	4000K Lumens	6,019	11,763	17,551	23,190	28,734	34,384	40,663	46,074	51,396	56,904
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	137	138	142	136	137	138	138	138	137	136
T4W	4000K Lumens	5,942	11,610	17,324	22,891	28,363	33,940	40,138	45,480	50,732	56,169
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	135	137	140	134	135	136	136	136	136	134
SL2	4000K Lumens	5,862	11,454	17,091	22,583	27,980	33,484	39,598	44,867	50,048	55,411
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	134	134	134	134	132
SL3	4000K Lumens	5,985	11,694	17,447	23,053	28,565	34,182	40,424	45,804	51,092	56,568
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
SL4	4000K Lumens	5,685	11,111	16,577	21,905	27,140	32,478	38,409	43,520	48,546	53,748
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	129	131	134	128	129	130	130	130	130	128
5NQ	4000K Lumens	6,172	12,061	17,997	23,778	29,462	35,256	41,694	47,242	52,699	58,347
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	140	142	145	139	140	142	141	141	141	139
5MQ	4000K Lumens	6,285	12,283	18,328	24,217	30,004	35,907	42,462	48,112	53,669	59,421
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	144	144	144	144	142
5WQ	4000K Lumens	6,303	12,317	18,377	24,281	30,085	36,001	42,575	48,241	53,812	59,579
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	145	144	144	144	142
SLL/ SLR	4000K Lumens	5,260	10,276	15,332	20,259	25,101	30,037	35,522	40,249	44,898	49,708
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	120	121	124	118	120	121	120	121	120	119
RW	4000K Lumens	6,116	11,952	17,834	23,563	29,196	34,938	41,317	46,817	52,224	57,819
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
AFL	4000K Lumens	6,139	11,996	17,899	23,650	29,302	35,064	41,468	46,987	52,412	58,030
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4
	Lumens per Watt	140	141	144	138	140	141	141	141	140	138

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

McGraw-Edison — GLEON Galleon

Nominal Power Lumens (600mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		34	66	96	129	162	193	226	257	290	323
Input Current @ 120V (A)		0.30	0.58	0.86	1.16	1.44	1.73	2.03	2.33	2.59	2.89
Input Current @ 208V (A)		0.17	0.34	0.49	0.65	0.84	0.99	1.14	1.30	1.48	1.63
Input Current @ 240V (A)		0.15	0.30	0.43	0.56	0.74	0.87	1.00	1.13	1.30	1.43
Input Current @ 277V (A)		0.14	0.28	0.41	0.52	0.69	0.81	0.93	1.04	1.22	1.33
Input Current @ 347V (A)		0.11	0.19	0.30	0.39	0.49	0.60	0.69	0.77	0.90	0.99
Input Current @ 480V (A)		0.08	0.15	0.24	0.30	0.38	0.48	0.53	0.59	0.71	0.77
Optics											
T2	4000K Lumens	4,787	9,357	13,961	18,448	22,856	27,353	32,347	36,651	40,884	45,265
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	141	142	145	143	141	142	143	143	141	140
T2R	4000K Lumens	5,083	9,934	14,822	19,585	24,266	29,038	34,341	38,911	43,404	48,055
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	150	151	154	152	150	150	152	151	150	149
T3	4000K Lumens	4,880	9,537	14,231	18,803	23,296	27,878	32,970	37,358	41,671	46,137
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	148	146	144	144	146	145	144	143
T3R	4000K Lumens	4,988	9,749	14,547	19,220	23,814	28,497	33,703	38,188	42,598	47,162
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	147	148	152	149	147	148	149	149	147	146
T4FT	4000K Lumens	4,909	9,591	14,312	18,911	23,432	28,040	33,161	37,574	41,913	46,404
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	149	147	145	145	147	146	145	144
T4W	4000K Lumens	4,845	9,468	14,128	18,668	23,130	27,678	32,732	37,088	41,371	45,805
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	143	143	147	145	143	143	145	144	143	142
SL2	4000K Lumens	4,779	9,341	13,937	18,416	22,818	27,305	32,292	36,589	40,813	45,188
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	141	142	145	143	141	141	143	142	141	140
SL3	4000K Lumens	4,879	9,536	14,229	18,800	23,294	27,874	32,965	37,351	41,666	46,130
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	144	144	148	146	144	144	146	145	144	143
SL4	4000K Lumens	4,637	9,059	13,519	17,863	22,132	26,486	31,322	35,490	39,589	43,831
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	136	137	141	138	137	137	139	138	137	136
5NQ	4000K Lumens	5,033	9,835	14,676	19,392	24,026	28,751	34,002	38,526	42,975	47,581
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	148	149	153	150	148	149	150	150	148	147
5MQ	4000K Lumens	5,126	10,015	14,946	19,747	24,468	29,281	34,628	39,236	43,766	48,457
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	151	152	156	153	151	152	153	153	151	150
5WQ	4000K Lumens	5,139	10,043	14,985	19,801	24,533	29,359	34,721	39,339	43,883	48,586
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	151	152	156	153	151	152	154	153	151	150
SLL/ SLR	4000K Lumens	4,289	8,380	12,502	16,520	20,469	24,494	28,967	32,823	36,613	40,537
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	126	127	130	128	126	127	128	128	126	126
RW	4000K Lumens	4,987	9,746	14,543	19,215	23,808	28,491	33,695	38,178	42,587	47,151
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	147	148	151	149	147	148	149	149	147	146
AFL	4000K Lumens	5,007	9,782	14,597	19,285	23,896	28,594	33,817	38,317	42,742	47,322
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	Lumens per Watt	147	148	152	149	148	148	150	149	147	147

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Control Options

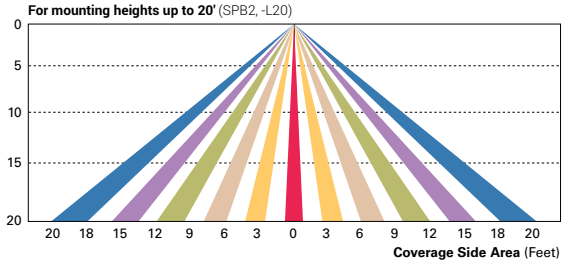
0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR and PR7)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

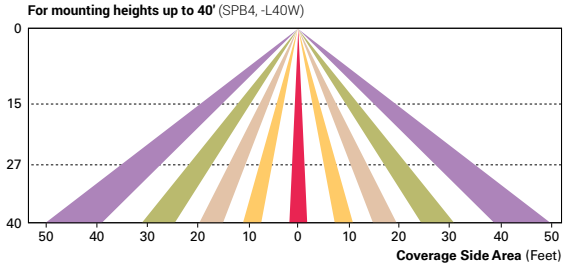
After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

For mounting heights up to 20' (SPB2, -L20)

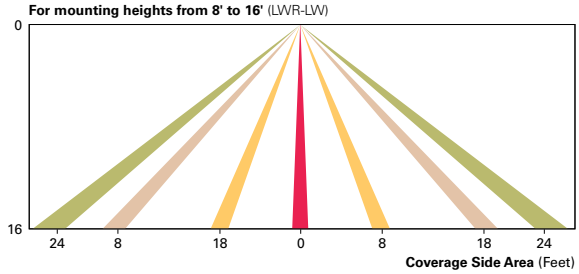


For mounting heights up to 40' (SPB4, -L40W)

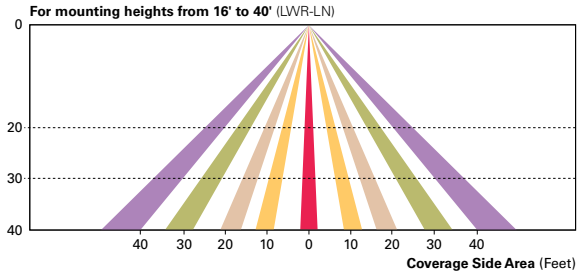


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)
The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

LumenSafe Integrated Network Security Camera (LD)
Cooper Lighting Solutions brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows security integrators to design the optimal solution for active surveillance. As the ideal solution to meet the needs for active surveillance, the LumenSafe integrated network camera is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. This IP camera is optimally designed for deployment in the video management system or security software platform of choice.

Synapse (DIM10)
SimplySNAP integrated wireless controls system by Synapse. Includes factory installed DIM10 Synapse control module and MS/DC motion sensor; requires additional Synapse system components for operation. Contact Synapse at www.synapsewireless.com for product support, warranty and terms and conditions.

VLX Array LED Specifications

Project Name:

Catalog Number:

Type:

The new **VLX Array LED** Series offers clean, functional styling that is defined by its sleek low profile design and rugged construction. It combines the latest LED Array technology, advanced LED thermal management and provides outdoor lighting that is both energy efficient and aesthetically pleasing.

The LED Arrays performance and the driver's life are maximized by enclosing them in two separate die cast aluminum housings. Easy tool-less access for mounting and maintenance.

The LED Array light assembly comes with 192 LED Arrays, with lumen packages ranging from 54,000-76,000 lumens. Ten optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature of the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VLX Array LED** series is an exceptional choice for commercial parking lots, office complexes, architectural projects, and other general lighting projects.

Ordering Information

CONFIRM FINISH

MODEL	OPTICS	LUMENS	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS
VLX-1	**T1** Type 1 **T2** Type 2 **T3** Type 3 **T3L** Type 3 Long **T4** Type 4 **T4A** Type 4 Automotive **T4L** Type 4 Long **T5LR** Type 5 Long Round **T5LS** Type 5 Long Square **T5SR** Type 5 Short Round CONFIRM DISTRIBUTION	**55L** **60L** **65L** **75L** CONFIRM OUTPUT	**3K** 3000K **4K** 4000K **5K** 5000K	**UNV** 120-277V **8** 347V **5** 480V	**AM** Arm Mount **WM** Wall Mount	**GY** Grey **SL** Silver Metallic **BK** Black **SBK** Smooth Black **WH** White **SWH** Smooth White **BZ** Bronze **GP** Graphite **CC** Custom Color	**PCR-120** **PCR-208** **PCR-240** **PCR-277** **PCR-347** **PCR-480** Photocell & Receptacle **(3,5,7) PINPER** 3, 5, or 7 Pin Photo Receptacle w/shorting cap **DIM** 0-10v Dimming Driver **WSC-8** Motion Sensor 8' Mounting Height **WSC-20** Motion Sensor 9-20' Mounting Height **WSC-40** Motion Sensor 21-40' Mounting Height This option will require (1) FSIR 100 remote for programing **VWC** Visionaire Wireless Controls *Consult Factory	**RPP3** **RPP4** **RPP5** For 3", 4", or 5"Ø Pole - Round Pole Plate Adaptor **UPMA-S** Universal Square Pole Mount Adaptor **UPMA-R** Universal Round Pole Mount Adaptor **BAWP** Cast Wall Plate **ROT-R** Rotated Optics Right Side **ROT-L** Rotated Optics Left Side **CLS** Back Side Cutoff Louver Shield **RCLS** Right Side Cutoff Louver Shield **LCLS** Left Side Cutoff Louver Shield

Features & Specifications

VLX Array

Heatsink
· Die cast aluminum heatsink with integral cooling fins for thermal management.

Mounting Arm/Driver Compartment
·Durable two-piece die cast aluminum driver compartment utilizes a tool-less push button latch for ease of maintenance and sealed with a one-piece silicone gasket.

Thermal Management
· The VLX Array series provides excellent thermal management by mounting the LED Arrays to the substantial heat sink of the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.
· The L70 test determines the point in an LEDs life when it reaches 70 percent of its initial output. The VLX Array series LEDs have been determined to last 90,000+ hours in 25° C environments when driven at 1400 mA.

Optical System
· The highest lumen output LED Arrays are utilized in the VLX Array series. IES distribution Types I, II, III, III-L, IV, IV-A, IV-L, V-LR, V-LS, and V-SR are available. The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution.
· CRI values are 70.

New LED Array Technology
· 4 Diodes now replace a single Led chip and operate at 25% of the drive current allowing for higher efficiancy, less heat and longer life. (10 Year Warranty)
· More LEDs at a lower drive current provides a more comfortable visual effect.

Quali-Guard® Finish
· The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400º F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.
· Finish is guaranteed for ten (10) years.

Electrical Assembly
· The VLX Array LED series is supplied with a choice of 350, 530, 700, 1050 mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input. Power factor of 90%. Rated for -40°C operations.
· 10 kV surge protector supplied as standard.
· Terminal block supplied as standard.

Warranty
· Ten (10) year Limited Warranty on entire system, including finish. For full warranty information, please visit visionairelighting.com.

Options
· Photocell & receptacle
· Photo receptacle
· 0-10v Dimming Driver
· Motion Sensor
· Wireless Control
· Round pole plate adapter
· Universal Pole Mount Adaptor
· Cast Wall Plate
· Cut-Off Louver Shield
· Rotated Optics

Listings
· The VLX Array Series is cUL Listed
· IP65 Rated Housing
· ANSI Certification
· Powder Coated Tough
· IDA Certification

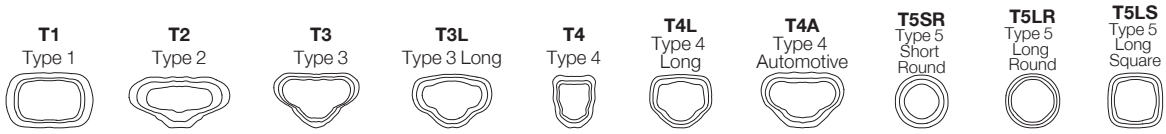
3000K must be selected with a fixed mount for IDA certification.

VLX ARRAY - ELECTRICAL LOAD (A)							
Ordering Nomenclature	**System Watts**	**120**	**208**	**240**	**277**	**347**	**480**
VLX-1-T5LS-55L	**388**	3.23	1.87	1.62	1.40	1.12	0.81
VLX-1-T5LS-60L	**444**	3.70	2.13	1.85	1.60	1.28	0.93
VLX-1-T5LS-70L	**501**	4.18	2.41	2.09	1.81	1.44	1.04
VLX-1-T5LS-75L	**565**	4.71	2.72	2.35	2.04	1.63	1.18

19645 Rancho Way · Rancho Dominguez, CA 90220 · Phone: 310 512 6480 Fax 310 512 6486
www.visionairelighting.com

VLX Array LED Array Specifications

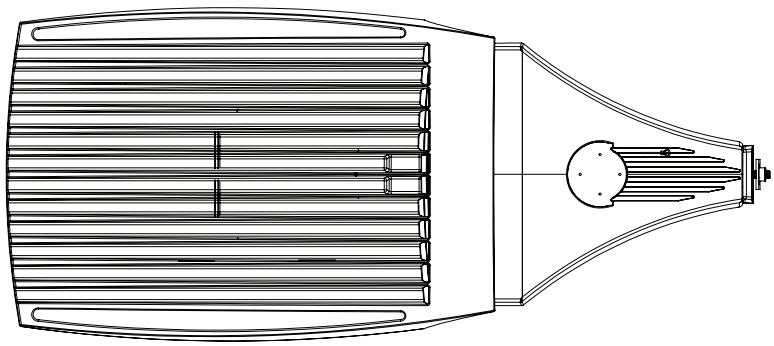
Photometric Optical Summary

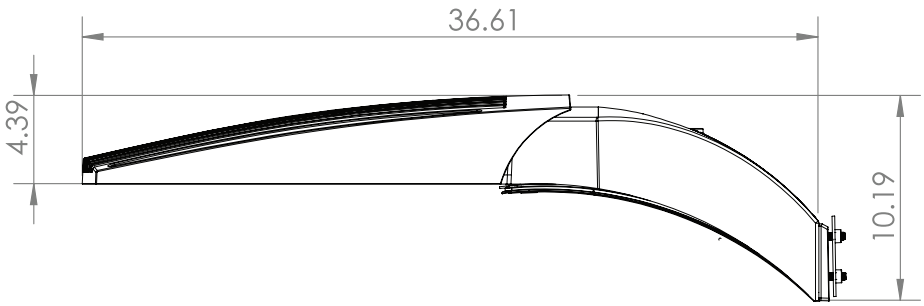


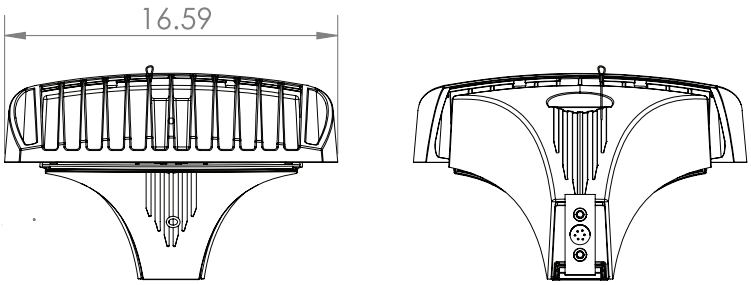
Dimensions

CONFIRM DISTRIBUTION

Width:	VLX-1	16.5”
Depth:	VLX-1	36.6”
Height:	VLX-1	4.39”
Overall Height:	VLX-1	10.19”
Weight:		58 LBS







VISIONAIRE LIGHTING

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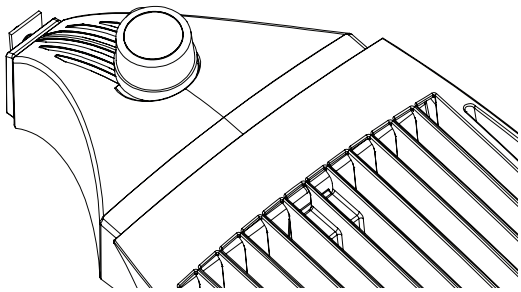
LED Specifications **VLX Array**

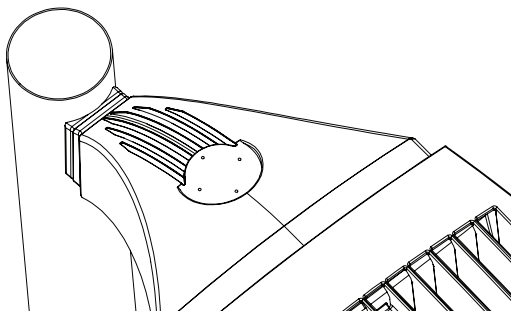
Twist lock Photocell & Receptacle

Dusk to dawn sensor.

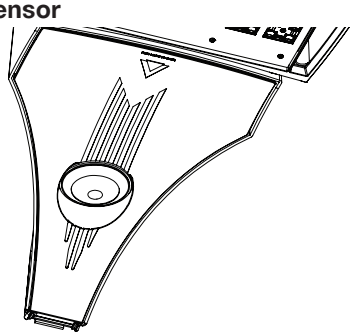


Round Pole Plate Adaptor

Round Pole Plate Adaptor to be used with round pole.



Motion Sensor

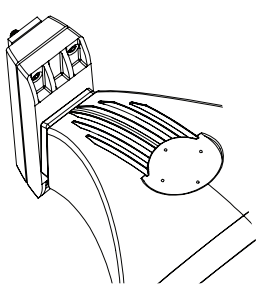


The FSP-211 by Legrand is integrated into the VLX housing and provides multi-level control based on motion and/or daylight contribution.
Lens Coverage Patterns:
WSC-8 - 360° lens, maximum coverage 48'; diameter from 8' height
WSC-20 - 360° lens, maximum coverage 48'; diameter from 20' height
WSC-40 -360° lens, maximum coverage 100'; diameter from 40' height

Default settings:

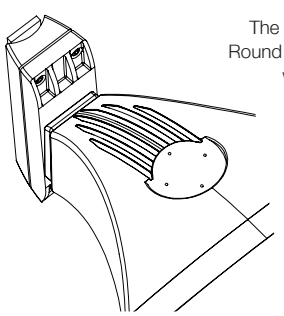
FACTORY DEFAULTS High Mode	0 Volts
Low Mode	1 Volts
Time Delay	5 Minutes
Cut Off	1 Hour
Sensitivity	Maximum
Hold Off Set point	4 Foot Candles
Ramp Up	None
Fade Down	None
Force Off Set point with Occupied	Disable

UPMA



The Universal Pole Mount Adaptor is ideal for retrofit applications with existing square poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

UPMA-R



The Universal Pole Mount Adaptor Round is ideal for retrofit applications with existing round poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

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CONFIRM OUTPUT

VLX Array LED Array Specifications

VLX ARRAY LUMEN CHART - 3K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	52191	51808	50363	45516	51180	52819	46412	50261	52041	53885	388
	800	60L	58603	58173	56550	51108	57468	59308	52114	56436	58435	60506	444
	900	65L	64846	64370	62574	56552	63589	65626	57665	62448	64659	66951	501
	1000	75L	70533	70015	68062	61512	69166	71382	62723	67925	70330	72822	565
VLX ARRAY LUMEN CHART - 4K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	54287	53889	52385	47344	53235	54940	48276	52279	54131	56049	388
	800	60L	60956	60509	58821	53160	59775	61690	54207	58702	60781	62935	444
	900	65L	67449	66955	65087	58823	66143	68261	59981	64955	67256	69639	501
	1000	75L	73365	72827	70795	63982	71943	74248	65241	70652	73154	75746	565
VLX ARRAY LUMEN CHART - 5K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	55011	54608	53084	47975	53945	55673	48920	52977	54853	56797	388
	800	60L	61770	61317	59606	53869	60573	62513	54930	59486	61592	63775	444
	900	65L	68350	67848	65955	59608	67025	69172	60781	65822	68153	70568	501
	1000	75L	74344	73799	71740	64835	72904	75238	66112	71595	74130	76757	565
VLX ARRAY LUMEN PER WATT CHART - 3K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	135	134	130	117	132	136	120	130	134	139	388
	800	60L	132	131	127	115	130	134	117	127	132	136	444
	900	65L	129	128	125	113	127	131	115	125	129	134	501
	1000	75L	125	124	120	109	122	126	111	120	124	129	565
VLX ARRAY LUMEN PER WATT CHART - 4K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	140	139	135	122	137	142	124	135	140	144	388
	800	60L	137	136	133	120	135	139	122	132	137	142	444
	900	65L	135	134	130	117	132	136	120	130	134	139	501
	1000	75L	130	129	125	113	127	131	115	125	129	134	565
VLX ARRAY LUMEN PER WATT CHART - 5K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	142	141	137	124	139	144	126	137	141	146	388
	800	60L	139	138	134	121	137	141	124	134	139	144	444
	900	65L	136	135	132	119	134	138	121	131	136	141	501
	1000	75L	132	131	127	115	129	133	117	127	131	136	565

VISIONAIRE LIGHTING

LED Specifications **VLX Array**

VLX ARRAY BUG CHART - 3K

# LEDs	Current (mA)	K Lumen	T1			T2			T3			T3L			T4			T4A			T4L			T5LR			T5LS			T5SR			Wattage
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
192AR	700	55L	5	0	5	5	0	5	4	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	4	388
	800	60L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	4	444
	900	65L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	4	501
	1000	75L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	4	565

VLX ARRAY BUG CHART - 4K

# LEDs	Current (mA)	K Lumen	T1			T2			T3			T3L			T4			T4A			T4L			T5LR			T5LS			T5SR			Wattage
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
192AR	700	55L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	5	388
	800	60L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	5	444
	900	65L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	5	501
	1000	75L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	565

VLX ARRAY BUG CHART - 5K

# LEDs	Current (mA)	K Lumen	T1			T2			T3			T3L			T4			T4A			T4L			T5LR			T5LS			T5SR			Wattage
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
192AR	700	55L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	388
	800	60L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	444
	900	65L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	501
	1000	75L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	565

VMX-II LED Specifications

*Universal Arm Mount (UAM) Version Shown.

Project Name:

Catalog Number:

Type:

The **VMX-II LED** Series offers clean, functional styling that is defined by its sleek low profile design and rugged construction. It combines the latest LED technology, advanced LED thermal management and provides outdoor lighting that is both energy efficient and aesthetically pleasing.

The LED's performance and the driver's life are maximized by enclosing them in two separate cast aluminum housings. Easy tool-less access for mounting and maintenance.

The LED light assemblies come with 48 to 96 LEDs. Eight optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature of the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VMX-II LED** series is an exceptional choice for commercial parking lots, office complexes, architectural projects, and other general lighting projects.

Ordering Information

CONFIRM FINISH

MODEL	OPTICS	LEDs	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS	OPTIONS
VMX-II	**T1** Type 1	**48LC**	**3** 350mA	**3K** 3000K	**UNV** 120-277V	**AM** Arm Mount	**BZ** Bronze	**PCR-120**	**WSC-8** Motion Sensor 8' Mounting Height	**UPMA-S** Universal Square Pole Mount Adaptor
	T2 Type 2	**64LC**	**5** 530mA	**4K** 4000K	**8** 347V	**SAM** Straight Arm Mount W/ Terminal Block (New Construction)	**BK** Black	**PCR-208**	**WSC-20** Motion Sensor 9-20' Mounting Height	**UPMA-R** Universal Round Pole Mount Adaptor
	T3 Type 3	**80LC**	**7** 700mA	**5K** 5000K	**5** 480V	**UAM** Universal ArmW/ Terminal Block Mount (Retrofit)	**SBK** Smooth Black	**PCR-240**	**WSC-40** Motion Sensor 21-40' Mounting Height *The WSC option will require (1) FSIR 100 remote for programing	**BAWP** Cast Wall Plate
	T4 Type 4	**96LC**	**10** 1050mA *Not available in 96LC			**MAF** Mast Arm Fitter	**WH** White	**PCR-277**		**ROT-R** Rotated Optics Right Side
	T4A Type 4 Automotive	CONFIRM OUTPUT				**KM** Knuckle Mount	**SWH** Smooth White	**PCR-347**		**ROT-L** Rotated Optics Left Side
	T5 Type 5					**WM** Wall Mount *Requires BAWP	**GP** Graphite	**PCR-480** Photocell & Receptacle	**UMAP** Universal Mast arm fitter	**CLS** Backside cutoff shield *Not to be used with KM
	T5W Type 5 Wide					**AWM** Adjustable Wall Mount	**GY** Grey	**PER**	**ECLS** Egg Crate Louver Shield	**RCLS** Rightside cutoff shield *Not to be used with KM
	T5WR Type 5 Wide Round					*Round Pole Plate Adapters (RPP) are to be ordered separately.	**SL** Silver Metallic	**5PINPER**	**ADJLS** Adjustable Louver Light Shield	**LCLS** Leftside cutoff shield *Not to be used with KM
	CONFIRM DISTRIBUTION					*BAWP to be ordered separately	**CC** Custom Color	**7PINPER** 3, 5, or 7 Pin Photo Receptacle w/shorting cap Requires Dimming Driver	**BD** Barn Door Shield	**HS** House shield
								DIM 0-10v Dimming Driver		
								RPP-3"		
								RPP-4"		
								RPP-5" Round Pole Plate Adaptor		
								VWC Visionaire Wireless Controls *Consult Factory		

VISIONAIRE LIGHTING

Features & Specifications

VMX-II

Heatsink
Cast aluminum heatsink with integral cooling fins for thermal management.

Mounting Arm/Driver Compartment
Durable two-piece die cast aluminum driver compartment utilizes stainless steel hardware and sealed with a one-piece silicone gasket.

Thermal Management
· The VMX-II series provides excellent thermal management by mounting the LEDs to the substantial heat sink of the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.
· The L70 test determines the point in an LEDs life when it reaches 70 percent of its initial output. The VMX-II series LEDs have been determined to last 100,000+ hours in 25° C environments when driven at 350 mA.

Optical System
· The highest lumen output, LEDs are utilized in the VMX-II series. IES distribution Types I, II, II, III, IV, IV-A, V, V-WR are available. The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution.
· CRI values are 70.

Quali-Guard® Finish
· The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400º F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.
· Finish is guaranteed for five (5) years.

Electrical Assembly
· The VMX-II LED series is supplied with a choice of 350, 530, 700 or 1050 mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input. Power factor of 90%. Rated for -40°C operations.
· 10 kV surge protector supplied as standard.
· Terminal block supplied as standard on AM, SAM and UAM as standard

Warranty
· Five (5) year Limited Warranty on entire system, including finish. For full warranty information, please visit visionairelighting.com.

Options
· Photocell & Receptacle
· Photo Receptacle with Shorting Cap
· 0-10v Dimming Driver
· Motion Sensor
· Wireless Control
· Round pole plate adapter
· Universal Pole Mount Adaptor
· Cast Wall Plate
· Rotated Optics
· Cutoff Louver Shielding (CLS)

Listings
· The VMX-II Series is cUL Listed
· IP65 Rated Housing
· ANSI Certification
· Powder Coated Tough
· IDA Certification
· DLC Listed

DesignLights Consortium (DLC) qualified Product. Some configurations of this product family may not be DesignLights Consortium (DLC) listed, please refer to the DLC qualified products list to confirm listed configurations. http://www.designlights.org/
3000K must be selected with a fixed mount for IDA certification. Fixed mount must be selected for IDA dark sky certification.

VMX-II - ELECTRICAL LOAD (A)							
Ordering Nomenclature	**System Watts**	**120**	**208**	**240**	**277**	**347**	**480**
VMX-II-T5-48LC-3	52	0.43	0.25	0.22	0.19	0.15	0.11
VMX-II-T5-48LC-5	78	0.65	0.38	0.33	0.28	0.22	0.16
VMX-II-T5-48LC-7	106	0.88	0.51	0.44	0.38	0.31	0.22
VMX-II-T5-48LC-10	161	1.34	0.77	0.67	0.58	0.46	0.34
VMX-II-T5-64LC-3	70	0.58	0.34	0.29	0.25	0.20	0.15
VMX-II-T5-64LC-5	107	0.89	0.51	0.45	0.39	0.31	0.22
VMX-II-T5-64LC-7	142	1.18	0.68	0.59	0.51	0.41	0.30
VMX-II-T5-64LC-10	218	1.82	1.05	0.91	0.79	0.63	0.45
VMX-II-T5-80LC-3	87	0.73	0.42	0.36	0.31	0.25	0.18
VMX-II-T5-80LC-5	132	1.10	0.63	0.55	0.48	0.38	0.28
VMX-II-T5-80LC-7	177	1.48	0.85	0.74	0.64	0.51	0.37
VMX-II-T5-80LC-10	272	2.27	1.31	1.13	0.98	0.78	0.57
VMX-II-T5-96LC-3	104	0.87	0.50	0.43	0.38	0.30	0.22
VMX-II-T5-96LC-5	157	1.31	0.75	0.65	0.57	0.45	0.33
VMX-II-T5-96LC-7	212	1.77	1.02	0.88	0.77	0.61	0.44

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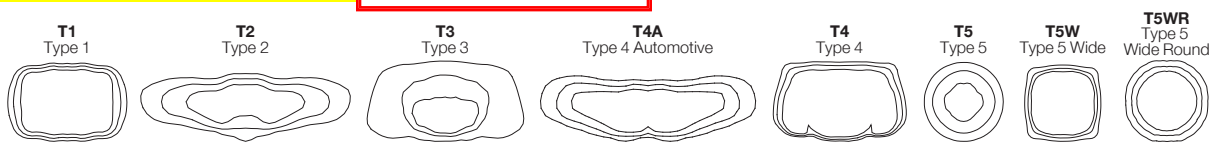
VMX-II LED Specifications

Photometric Optical Summary CONFIRM DISTRIBUTION



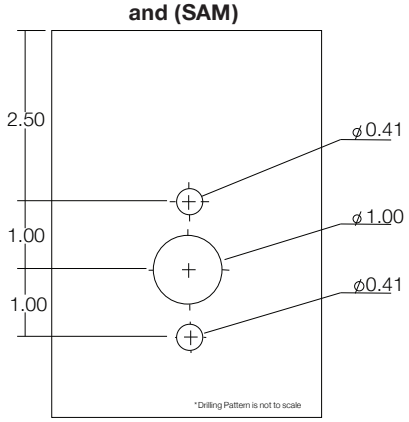
EPA Data	0.75	1.47	1.5	2.22	2.1	2.22

VMX-II-KM EPA DATA										
Degree of Tilt	0º	10º	20º	30	40º	50º	60º	70º	80º	90º
EPA	0.26	0.32	0.43	0.70	0.98	1.42	1.89	2.43	3.13	3.95

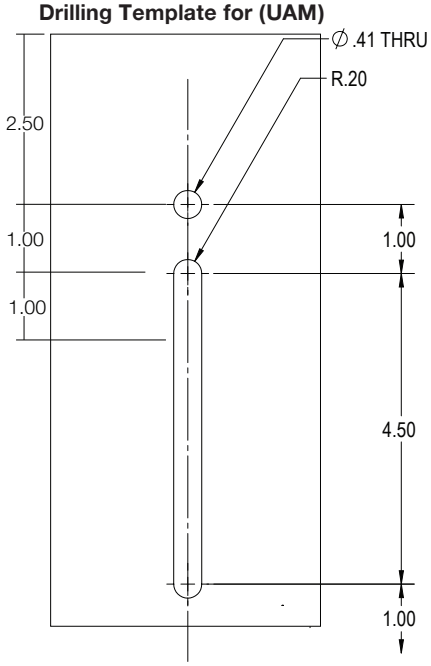
Dimensions

Width:	VMX-II 15.5”
Depth:	VMX-II 29”
Height:	VMX-II 4.0”
Overall Height:	VMX-II 10.75”
Weight:	49 LBS

Drilling Template for (AM) and (SAM)



Drilling Template for (UAM)

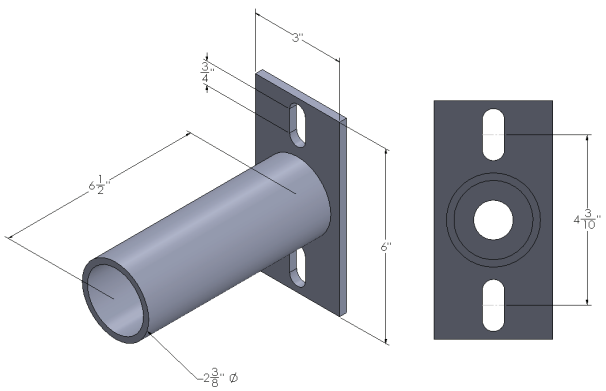


VISIONAIRE LIGHTING

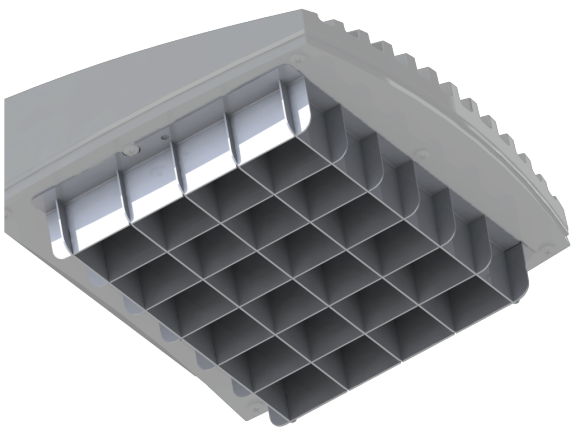
VMX-II Options

Universal Mast Arm Fitter

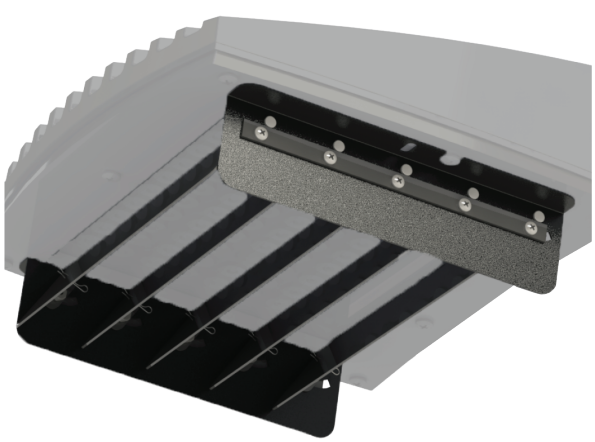
UMAP – The Universal Mast Arm Fitter is a simple solution for retrofit applications where a fixture needs to mount to an existing pole, the UMAP is meant to be use to with knuckle mounts and also Mast Arm Fitters. The UMAP has a bolt slot ranging from 7" all the way down to 3.5". The UMAP also has a Round Pole Plate Adaptor (RPP) for mounting to round poles.



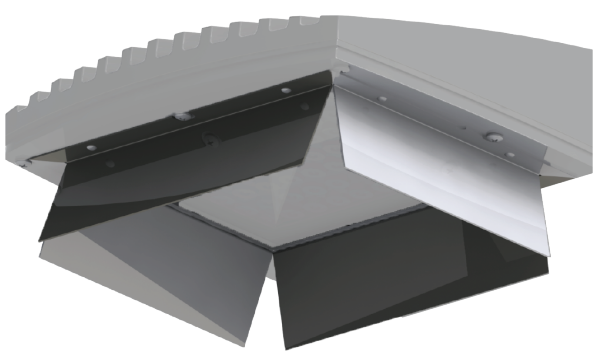
Egg Crate Light Shield



Adjustable Louver Light Shield



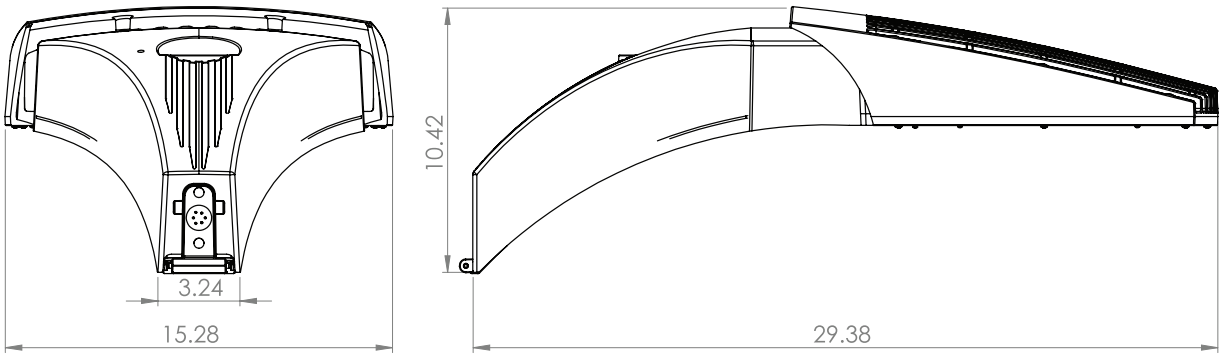
Barn Door Light Shield



VMX-II LED Specifications

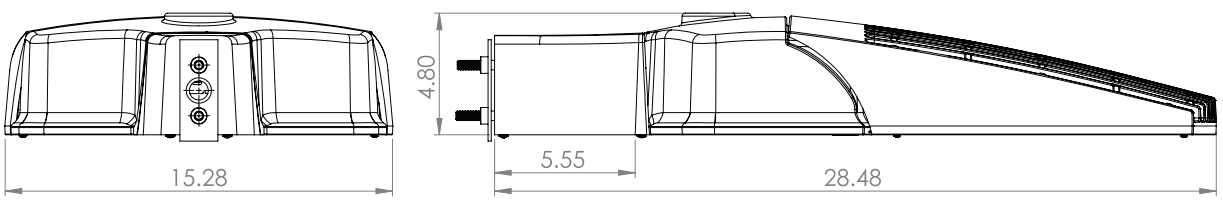
Arm Mount (AM)

The Arm Mount (AM) utilizes a 2 piece cleat system for easy installation, a terminal block is supplied as standard. A Round Pole Plate Adapter (RPP) is required for mounting to round poles.



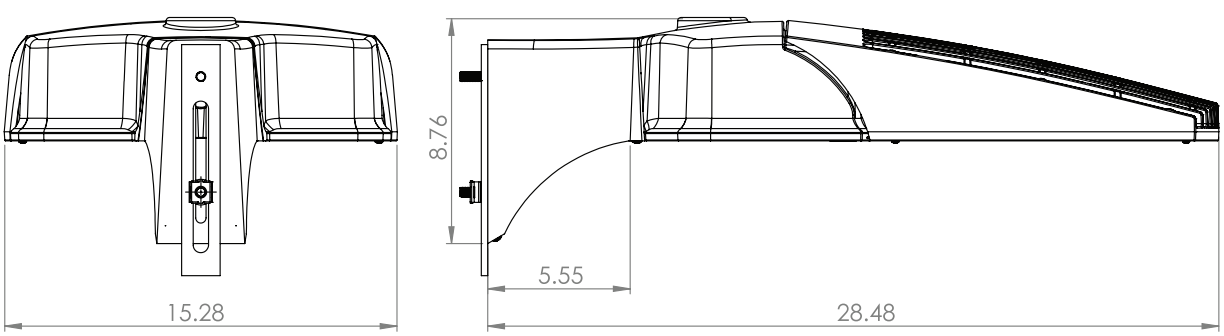
Straight Arm Mount (SAM)

The Straight Arm Mount (SAM) uses a 2 piece mounting system, a terminal block is supplied as standard. A Round Pole Plate Adapter (RPP) is required for mounting to round poles.



Universal Arm Mount (UAM)

The Unviersal Arm Mount (UAM) is meant for retrofit Applications and has a drilling templat raning from 3" to 5.5". A Round Pole Plate Adapter (RPP) is required for mounting to round poles.



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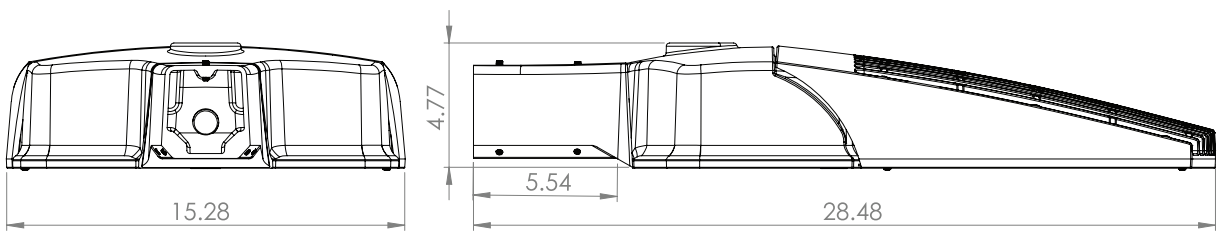
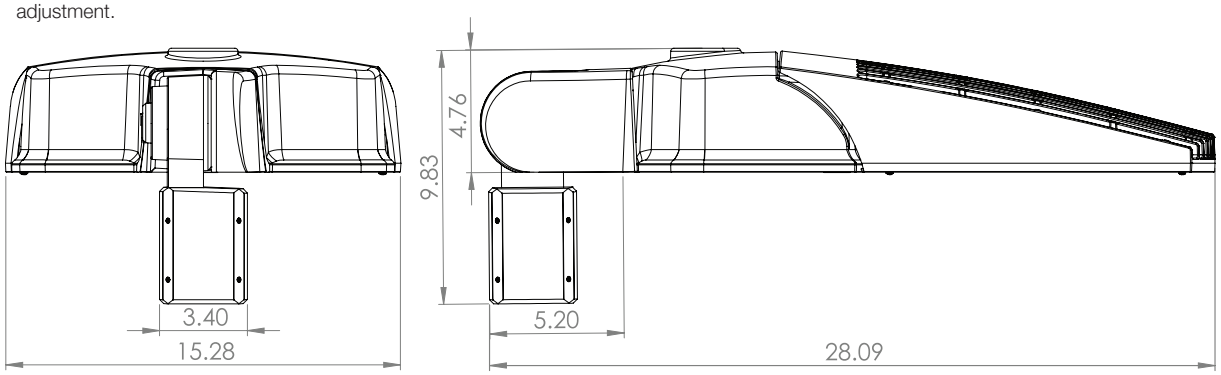
Mast Arm Fitter (MAF)

Mast Arm Fitter fits over a 1 5/8" - 2 3/8" tenon.



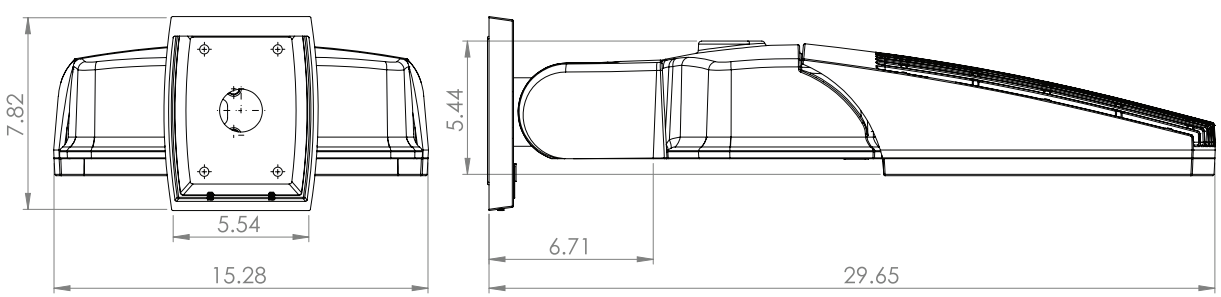
Knuckle Mount (KM)

An adjustable knuckle slip fits over a 2 3/8" Tenon, and allows for up to 90° degrees of vertical adjustment in 10° degree increments from horizontal, as well as full side to side adjustment.



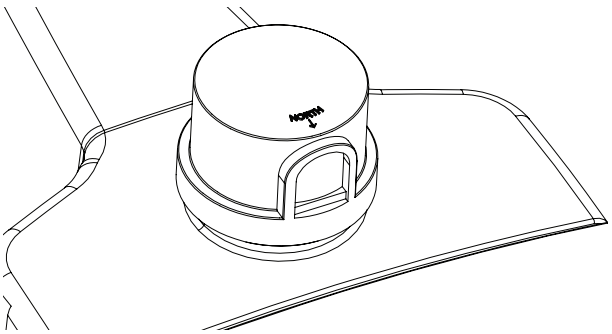
Adjustable Wall Mount (AWM)

Wall Mount - Adjustable up to 50° in 10° increments

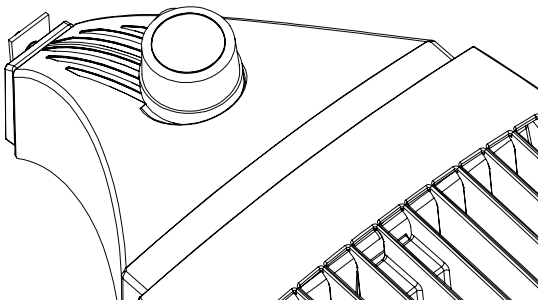


VMX-II LED Specifications

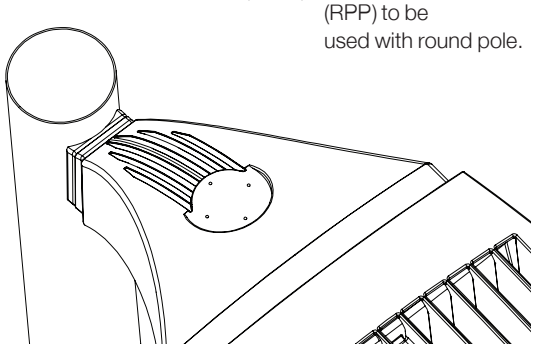
Twist lock Photocell & Receptacle - Dusk to dawn sensor.



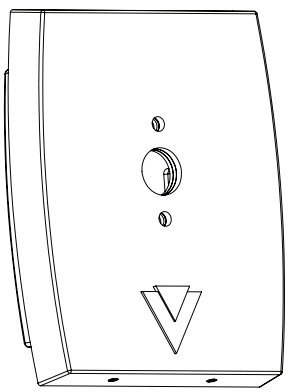
Photocell Receptacle and Shorting Cap



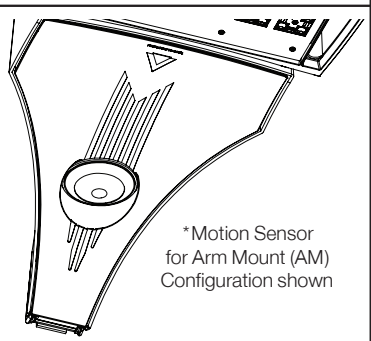
Round Pole Plate Adaptor (RPP) - Round Pole Plate Adaptor (RPP) to be used with round pole.



Cast Wall Plate - Arm Mount Wall Plate is needed to wall mount the VMX-II.

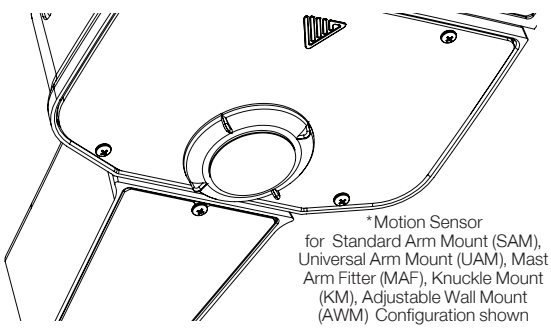


Motion Sensor - *This option will require one FSIR 100 remote for programing.



*Motion Sensor for Arm Mount (AM) Configuration shown

Motion Sensor (for SAM, UAM, MAF, KM, AWM) - *This option will require one FSIR 100 remote for programing.



*Motion Sensor for Standard Arm Mount (SAM), Universal Arm Mount (UAM), Mast Arm Fitter (MAF), Knuckle Mount (KM), Adjustable Wall Mount (AWM) Configuration shown

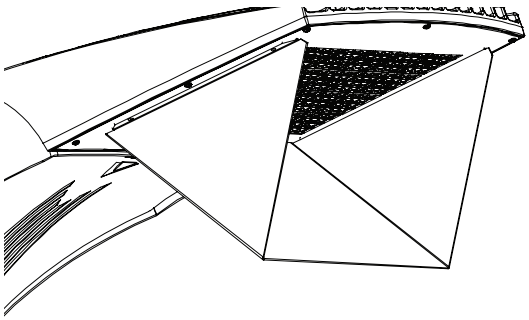
The FSP-211 by Legrand is integrated into the VMX housing and provides multi-level control based on motion and/or daylight contribution.

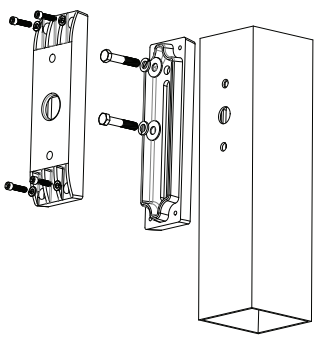
Lens Coverage Patterns:	
WSC-8	360° lens, maximum coverage 48'; diameter from 8' height
WSC-20	360° lens, maximum coverage 48'; diameter from 20' height
WSC-40	360° lens, maximum coverage 100'; diameter from 40' height

Motion Sensor Default Settings	
High Mode	0 Volts
Low Mode	1 Volts
Time Delay	5 Minutes
Cut Off	1 Hour
Sensitivity	Maximum
Hold Off Set Point	4ft
Candles	N/A
Ramp Up	None
Fade Down	None
Force Off Set Point With Occupied	Disable

VISIONAIRE LIGHTING

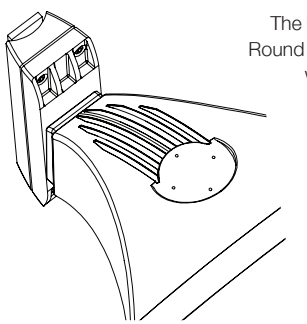
House Shield - Provides solid back light cutoff





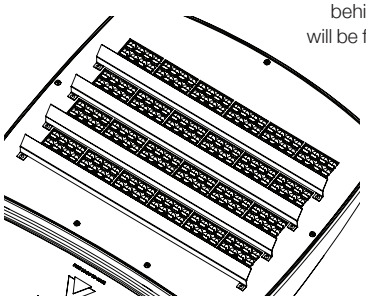
UPMA

The Universal Pole Mount Adaptor is ideal for retrofit applications with existing square poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.



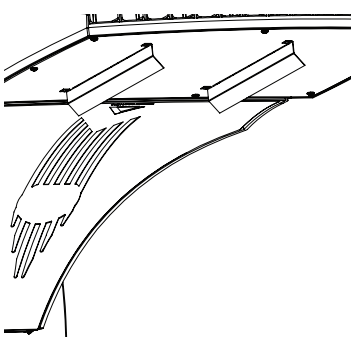
UPMA-R

The Universal Pole Mount Adaptor Round is ideal for retrofit applications with existing round poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.



CLS

The Back Side Cutoff Louver Shield will reduce light output behind the fixture, all of the light will be focused in front of the VMX.
*Not to be used with KM

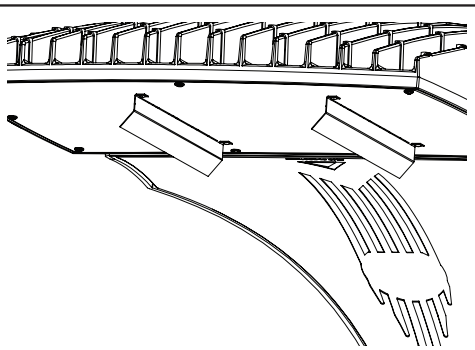


LCLS

The Left Side Cutoff Louver Shield will reduce light output on the left side of the fixture, all of the light be focused on the right side of the VMX.
*Not to be used with KM

RCLS

The Right Side Cutoff Louver Shield will reduce light output on the right side of the fixture, all of the light be focused on the left side of the VMX.
*Not to be used with KM



VMX-II LED Specifications

CONFIRM OUTPUT

VMX-II - 3K Lumen Data										
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	7311	6909	7243	6994	7321	7506	7333	7191	52
	530	9808	9269	9717	9383	9822	10070	9838	9648	78
	700	12786	12084	12668	12232	12805	13128	12826	12578	106
	1050	17509	16547	17347	16750	17534	17977	17563	17223	161
64	350	9309	8798	9223	8906	9323	9558	9338	9158	70
	530	13763	13007	13636	13167	13783	14131	13806	13539	107
	700	16888	15960	16732	16156	16912	17339	16940	16612	142
	1050	23222	21946	23007	22215	23255	23843	23293	22843	218
80	350	11512	10880	11406	11013	11529	11820	11547	11324	87
	530	16640	15726	16486	15918	16664	17084	16691	16368	132
	700	20813	19670	20621	19911	20844	21370	20878	20474	177
	1050	29027	27433	28759	27769	29069	29803	29117	28554	272
96	350	13714	12961	13588	13120	13734	14081	13757	13491	104
	530	19516	18444	19336	18670	19544	20038	19576	19198	157
	700	24739	23380	24511	23667	24775	25400	24815	24336	212
VMX-II - 4K Lumen Data										
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	7695	7273	7624	7362	7707	7901	7719	7627	52
	530	10324	9757	10229	9876	10339	10600	10356	10232	78
	700	13459	12720	13335	12876	13479	13819	13501	13340	106
	1050	18430	17418	18260	17631	18457	18923	18487	18267	161
64	350	9799	9261	9709	9375	9814	10061	9830	9713	70
	530	14487	13692	14354	13860	14509	14875	14532	14359	107
	700	17777	16800	17612	17006	17802	18252	17831	17619	142
	1050	24444	23101	24218	23385	24479	25097	24519	24227	218
80	350	12118	11452	12006	11593	12135	12442	12155	12010	87
	530	17515	16553	17354	16756	17541	17984	17569	17360	132
	700	21909	20705	21707	20959	21941	22495	21977	21715	177
	1050	30555	28876	30273	29231	30599	31372	30649	30284	272
96	350	14436	13643	14303	13811	14457	14822	14481	14308	104
	530	20543	19415	20354	19653	20573	21092	20607	20361	157
	700	26041	24611	25801	24912	26079	26737	26122	25810	212
VMX-II - 5K Lumen Data										
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	7384	6979	7316	7064	7395	7582	7407	7264	52
	530	9907	9362	9815	9477	9921	10172	9937	9745	78
	700	12915	12206	12796	12356	12934	13261	12955	12705	106
	1050	17685	16714	17522	16919	17711	18158	17740	17397	161
64	350	9403	8887	9317	8996	9417	9655	9433	9250	70
	530	13902	13138	13774	13300	13922	14274	13945	13675	107
	700	17058	16121	16901	16319	17083	17514	17111	16780	142
	1050	23456	22168	23240	22440	23490	24083	23529	23074	218
80	350	11628	10989	11521	11124	11645	11939	11664	11439	87
	530	16808	15884	16653	16079	16832	17257	16860	16534	132
	700	21024	19869	20830	20112	21054	21586	21089	20681	177
	1050	29320	27710	29050	28050	29363	30104	29411	28842	272
96	350	13853	13092	13725	13253	13873	14223	13896	13627	104
	530	19713	18630	19531	18859	19742	20240	19774	19392	157
	700	24989	23616	24758	23906	25025	25657	25066	24581	212

LED Specifications **VMX-II**

VMX-II - 3K Lumen Per Watt Data									
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR
48	350	141	133	139	134	141	144	141	138
	530	125	118	124	120	125	129	126	123
	700	121	114	120	115	121	124	121	119
	1050	109	103	108	104	109	112	109	107
64	350	133	126	132	127	133	137	133	131
	530	129	122	127	123	129	132	129	127
	700	119	112	118	114	119	122	119	117
	1050	107	101	106	102	107	109	107	105
80	350	133	125	131	127	133	136	133	130
	530	126	119	125	121	126	130	127	124
	700	118	111	117	112	118	121	118	116
	1050	107	101	106	102	107	110	107	105
96	350	132	125	131	127	132	136	133	130
	530	125	118	123	119	125	128	125	123
	700	117	110	116	112	117	120	117	115
VMX-II - 4K Lumen Per Watt Data									
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR
48	350	148	140	147	142	148	152	148	147
	530	132	125	131	126	132	135	132	131
	700	127	120	126	121	127	130	127	126
	1050	114	108	113	110	115	118	115	113
64	350	140	132	139	134	140	144	140	139
	530	135	128	134	130	136	139	136	134
	700	125	118	124	120	125	129	126	124
	1050	112	106	111	107	112	115	112	111
80	350	140	132	138	133	140	143	140	138
	530	133	126	132	127	133	136	133	132
	700	124	117	123	118	124	127	124	123
	1050	112	106	111	108	113	115	113	111
96	350	139	132	138	133	139	143	140	138
	530	131	124	130	125	131	135	132	130
	700	123	116	122	118	123	126	123	122
VMX-II - 5K Lumen Per Watt Data									
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR
48	350	142	134	141	136	142	146	142	140
	530	127	120	125	121	127	130	127	124
	700	122	115	121	117	122	125	122	120
	1050	110	104	109	105	110	113	110	108
64	350	134	127	133	129	135	138	135	132
	530	130	123	129	124	130	133	130	128
	700	120	114	119	115	120	123	121	118
	1050	108	102	107	103	108	110	108	106
80	350	134	127	133	128	134	137	134	132
	530	128	121	126	122	128	131	128	125
	700	119	112	118	114	119	122	119	117
	1050	108	102	107	103	108	111	108	106
96	350	134	126	132	128	134	137	134	131
	530	126	119	125	120	126	129	126	124
	700	118	111	117	113	118	121	118	116

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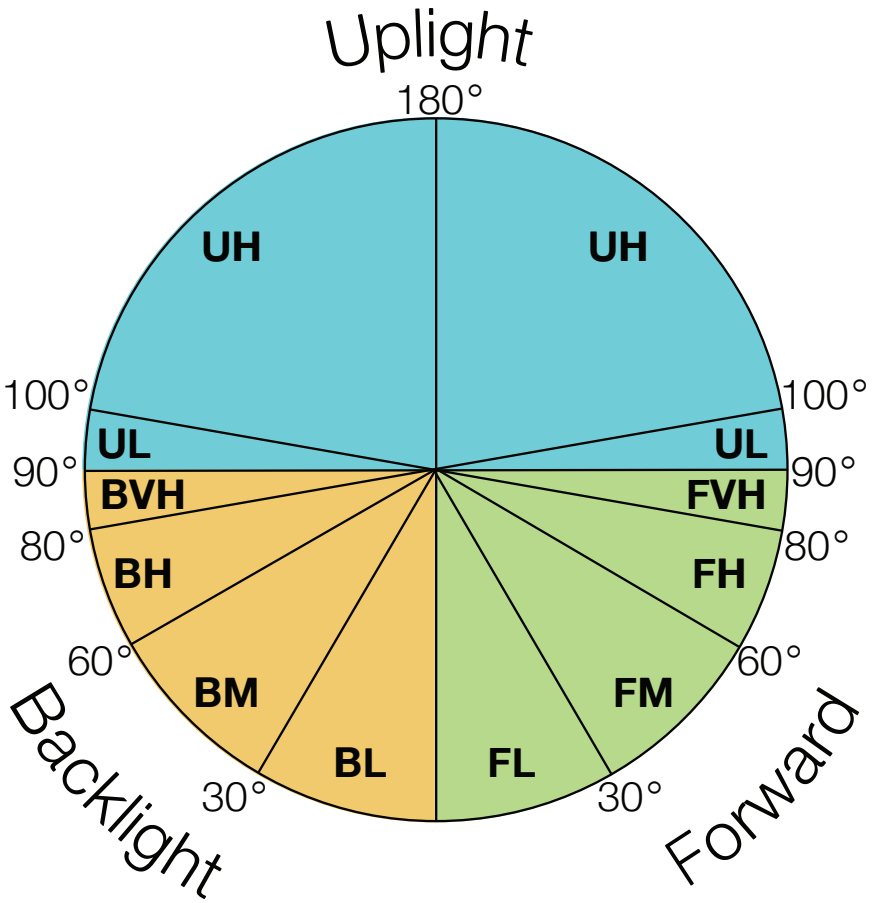
VMX-II LED Specifications

VMX-II - 3K BUG Data																									
LED's	mA	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type T5WR		
		B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G
48	350	2	0	2	2	0	2	1	0	2	2	0	2	1	0	1	3	0	1	3	0	2	3	0	2
	530	3	0	3	2	0	3	1	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	700	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	3	0	2	4	0	2	4	0	2
	1050	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
64	350	3	0	3	2	0	3	1	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	530	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
80	350	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	4	0	2	4	0	2
	530	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
	1050	5	0	4	3	0	4	3	0	4	3	0	4	3	0	3	5	0	3	5	0	3	5	0	4
96	350	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	5	0	3
	700	4	0	4	3	0	4	3	0	4	3	0	4	3	0	2	4	0	2	5	0	3	5	0	3
VMX-II - 4K BUG Data																									
LED's	mA	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type T5WR		
48	350	3	0	3	2	0	2	1	0	2	2	0	2	1	0	1	3	0	1	3	0	2	3	0	2
	530	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	4	0	2	4	0	2
	700	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	5	0	3
64	350	3	0	3	2	0	3	1	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	530	3	0	3	3	0	3	2	0	2	3	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	4	3	0	4	3	0	4	3	0	4	3	0	2	4	0	2	5	0	3	5	0	3
80	350	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	4	0	2	4	0	2
	530	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
	1050	5	0	4	3	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
96	350	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
	700	4	0	4	3	0	4	3	0	4	3	0	4	3	0	3	5	0	3	5	0	3	5	0	3
VMX-II - 5K BUG Data																									
LED's	mA	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type T5WR		
48	350	2	0	2	2	0	2	1	0	2	2	0	2	1	0	1	3	0	1	3	0	2	3	0	2
	530	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	700	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
64	350	3	0	3	2	0	3	1	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	530	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
80	350	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	4	0	2	4	0	2
	530	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
	1050	5	0	4	3	0	4	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
96	350	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	3	3	0	3	3	0	3	3	0	2	4	0	2	4	0	3	5	0	3
	700	4	0	4	3	0	4	3	0	4	3	0	4	3	0	2	4	0	2	5	0	3	5	0	3

Bug Rating -

The subzones are individually rated on a scale from 0 to 5, going from lowest to highest luminous flex. The highest rating of a subzone is considered the overall rating for that zone, and these readings are compiled into the BUG lighting classification: for example, B3 U1 G0. The tables below, which are based on the standards established by the IES, show the thresholds for each subzone.



VMX-II LED Specifications

VMX-II Cutoff Louver Shield - 3K Lumen Data *Not to be used with KM										
# of LEDs	Current (mA)	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	4839	4388	4668	4666	5514	4472	3980	3932	52
	530	6491	5886	6262	6260	7398	6000	5339	5275	78
	700	8463	7674	8164	8162	9645	7822	6961	6878	106
	1050	11589	10508	11180	11176	13207	10710	9531	9418	160
64	350	6162	5587	5944	5942	7022	5695	5068	5007	73
	530	9109	8260	8788	8785	10382	8419	7492	7403	106
	700	11178	10135	10783	10779	12739	10331	9193	9084	140
	1050	15370	13937	14828	14822	17516	14205	12641	12491	218
80	350	7619	6909	7351	7348	8684	7042	6267	6192	88
	530	11013	9987	10625	10621	12551	10179	9058	8950	131
	700	13776	12492	13290	13285	15700	12732	11330	11195	176
	1050	19212	17421	18535	18528	21895	17757	15801	15613	274
96	350	9077	8231	8757	8754	10345	8389	7466	7377	104
	530	12917	11713	12462	12457	14721	11939	10624	10497	157
	700	16374	14848	15797	15791	18661	15134	13467	13307	212
VMX-II Cutoff Louver Shield - 4K Lumen Data *Not to be used with KM										
# of LEDs	Current (mA)	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	5093	4619	4914	4912	5805	4707	4189	4139	52
	530	6833	6196	6592	6590	7787	6315	5620	5553	78
	700	8908	8078	8594	8591	10152	8233	7327	7240	106
	1050	12198	11061	11768	11764	13902	11274	10033	9913	160
64	350	6486	5881	6257	6255	7392	5995	5334	5271	73
	530	9589	8695	9251	9247	10928	8862	7887	7793	106
	700	11766	10669	11351	11347	13409	10874	9677	9562	140
	1050	16179	14670	15608	15602	18438	14953	13307	13148	218
80	350	8020	7273	7738	7735	9141	7413	6597	6518	88
	530	11593	10512	11184	11180	13212	10715	9535	9421	131
	700	14501	13149	13989	13984	16526	13402	11927	11784	176
	1050	20224	18338	19510	19503	23048	18691	16633	16435	274
96	350	9555	8664	9218	9215	10889	8831	7859	7765	104
	530	13597	12329	13117	13113	15496	12567	11183	11050	157
	700	17236	15629	16628	16622	19643	15930	14176	14007	212
VMX-II Cutoff Louver Shield - 5K Lumen Data *Not to be used with KM										
# of LEDs	Current (mA)	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	5197	4713	5014	5012	5923	4804	4275	4224	52
	530	6973	6322	6727	6724	7946	6444	5735	5666	78
	700	9090	8243	8770	8766	10360	8401	7476	7387	106
	1050	12447	11287	12008	12004	14186	11504	10238	10116	160
64	350	6618	6001	6385	6383	7543	6117	5443	5379	73
	530	9785	8872	9439	9436	11151	9043	8047	7952	106
	700	12006	10887	11583	11578	13683	11096	9875	9757	140
	1050	16509	14970	15927	15921	18814	15258	13578	13416	218
80	350	8184	7421	7895	7893	9327	7564	6731	6651	88
	530	11830	10727	11412	11408	13482	10933	9729	9614	131
	700	14797	13417	14275	14270	16863	13676	12170	12025	176
	1050	20636	18712	19908	19901	23518	19073	16973	16770	274
96	350	9750	8841	9406	9403	11112	9011	8019	7924	104
	530	13875	12581	13385	13380	15812	12823	11411	11275	157
	700	17588	15948	16967	16961	20044	16255	14465	14293	212

LED Specifications **VMX-II**

VMX-II Cutoff Louver Shield - 3K Lumen Per Watt Data *Not to be used with KM										
# of LEDs	**Current (mA)**	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 4A**	**Type 5**	**Type 5W**	**Type 5WR**	**Watts**
48	**350**	93	84	90	90	106	86	77	76	**52**
	530	83	75	80	80	94	77	68	67	**78**
	700	80	72	77	77	91	74	66	65	**106**
	1050	72	66	70	70	83	67	60	59	**160**
64	**350**	85	77	82	82	96	78	70	69	**73**
	530	86	78	83	83	98	79	71	70	**106**
	700	80	72	77	77	91	74	66	65	**140**
	1050	71	64	68	68	80	65	58	57	**218**
80	**350**	86	78	83	83	98	80	71	70	**88**
	530	84	76	81	81	96	77	69	68	**131**
	700	78	71	76	75	89	72	64	64	**176**
	1050	70	64	68	68	80	65	58	57	**274**
96	**350**	88	79	84	84	100	81	72	71	**104**
	530	82	75	80	80	94	76	68	67	**157**
	700	77	70	75	74	88	71	64	63	**212**
VMX-II Cutoff Louver Shield - 4K Lumen Per Watt Data *Not to be used with KM										
# of LEDs	**Current (mA)**	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 4A**	**Type 5**	**Type 5W**	**Type 5WR**	**Watts**
48	**350**	98	89	95	94	112	91	81	80	**52**
	530	87	79	84	84	99	81	72	71	**78**
	700	84	76	81	81	96	78	69	68	**106**
	1050	76	69	74	74	87	70	63	62	**160**
64	**350**	89	81	86	86	101	82	73	72	**73**
	530	90	82	87	87	103	83	74	73	**106**
	700	84	76	81	81	96	78	69	68	**140**
	1050	74	67	72	72	85	69	61	60	**218**
80	**350**	91	82	88	88	104	84	75	74	**88**
	530	88	80	85	85	101	82	73	72	**131**
	700	82	75	79	79	94	76	68	67	**176**
	1050	74	67	71	71	84	68	61	60	**274**
96	**350**	92	84	89	89	105	85	76	75	**104**
	530	87	79	84	84	99	80	71	71	**157**
	700	81	74	78	78	93	75	67	66	**212**
VMX-II Cutoff Louver Shield - 5K Lumen Per Watt Data *Not to be used with KM										
# of LEDs	**Current (mA)**	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 4A**	**Type 5**	**Type 5W**	**Type 5WR**	**Watts**
48	**350**	100	91	96	96	114	92	82	81	**52**
	530	89	81	86	86	101	82	73	72	**78**
	700	86	78	83	83	98	79	71	70	**106**
	1050	78	71	75	75	89	72	64	63	**160**
64	**350**	91	82	88	88	104	84	75	74	**73**
	530	92	84	89	89	105	85	76	75	**106**
	700	86	78	83	83	98	79	71	70	**140**
	1050	76	69	73	73	86	70	62	62	**218**
80	**350**	93	84	89	89	106	86	76	75	**88**
	530	90	82	87	87	103	83	74	73	**131**
	700	84	76	81	81	96	78	69	68	**176**
	1050	75	68	73	73	86	70	62	61	**274**
96	**350**	94	85	91	91	107	87	77	76	**104**
	530	89	80	85	85	101	82	73	72	**157**
	700	83	75	80	80	95	77	68	67	**212**

VMX-II LED Specifications

VMX-II Cutoff Louver Shield - 3K BUG Data *Not to be used with KM

# of LEDs	Current (mA)	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type 5WR			Watts
		B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
48	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	1	0	1	1	0	1	52
	530	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	2	0	2	2	0	2	78
	700	2	0	2	1	0	3	2	0	2	1	0	2	1	0	2	2	0	2	2	0	2	2	0	2	106
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	160
64	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	2	0	2	2	0	2	73
	530	3	0	3	1	0	3	2	0	2	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	106
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	2	0	2	2	0	2	140
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	218
80	350	2	0	2	1	0	3	1	0	2	1	0	2	1	0	2	2	0	1	2	0	2	2	0	2	88
	530	3	0	3	2	0	3	2	0	3	2	0	3	1	0	3	2	0	2	2	0	2	2	0	2	131
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	176
	1050	3	0	4	2	0	4	3	0	3	3	0	4	2	0	3	3	0	3	3	0	3	3	0	3	274
96	350	3	0	3	1	0	3	2	0	2	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	104
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	157
	700	3	0	3	2	0	3	3	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	212

VMX-II Cutoff Louver Shield - 4K BUG Data *Not to be used with KM

# of LEDs	Current (mA)	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type 5WR			Watts
		B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
48	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	1	0	1	1	0	1	52
	530	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	2	0	1	2	0	2	2	0	2	78
	700	3	0	3	1	0	3	2	0	2	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	106
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	160
64	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	2	0	2	2	0	2	73
	530	3	0	3	1	0	3	2	0	3	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	106
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	140
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	218
80	350	2	0	2	1	0	3	1	0	2	1	0	2	1	0	2	2	0	2	2	0	2	2	0	2	88
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	131
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	176
	1050	3	0	4	2	0	4	3	0	3	3	0	4	2	0	3	3	0	3	3	0	3	3	0	3	274
96	350	3	0	3	1	0	3	2	0	3	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	104
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	157
	700	3	0	3	2	0	4	3	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	212

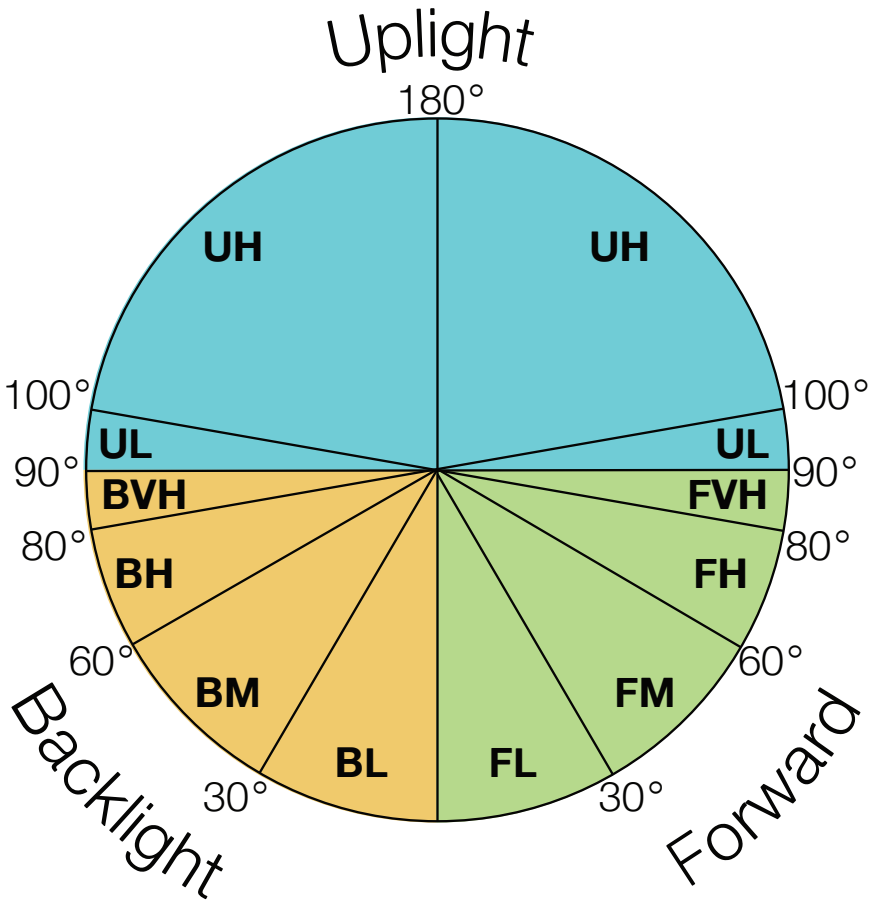
VMX-II Cutoff Louver Shield - 5K BUG Data *Not to be used with KM

# of LEDs	Current (mA)	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type 5WR			Watts
		B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
48	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	1	0	1	1	0	1	52
	530	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	2	0	1	2	0	2	2	0	2	78
	700	3	0	3	1	0	3	2	0	2	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	106
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	160
64	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	2	0	2	2	0	2	73
	530	3	0	3	1	0	3	2	0	3	2	0	3	1	0	3	2	0	2	2	0	2	2	0	2	106
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	140
	1050	3	0	3	2	0	3	3	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	218
80	350	2	0	2	1	0	3	2	0	2	1	0	2	1	0	2	2	0	2	2	0	2	2	0	2	88
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	131
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	3	3	0	3	176
	1050	3	0	4	3	0	4	3	0	4	3	0	4	2	0	3	3	0	3	3	0	3	3	0	3	274
96	350	3	0	3	1	0	3	2	0	3	2	0	3	1	0	3	2	0	2	2	0	2	2	0	2	104
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	157
	700	3	0	3	2	0	4	3	0	3	3	0	3	2	0	3	3	0	2	3	0	3	3	0	3	212

VISIONAIRE LIGHTING

Bug Rating -

The subzones are individually rated on a scale from 0 to 5, going from lowest to highest luminous flex. The highest rating of a subzone is considered the overall rating for that zone, and these readings are compiled into the BUG lighting classification: for example, B3 U1 G0. The tables below, which are based on the standards established by the IES, show the thresholds for each subzone.



Submitted by Sea-Tac Lighting & Controls, LLC

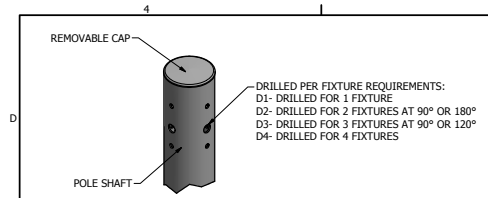
Job Name:
The Chehalis Tribe Chehalis Elder Center

Catalog Number:
RSA-5203-FINISH

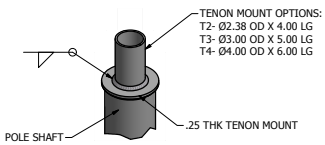
Notes:

Type:
P1-POLE

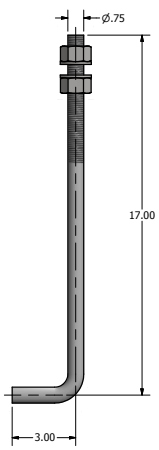
SEATAC-WWA21-113425



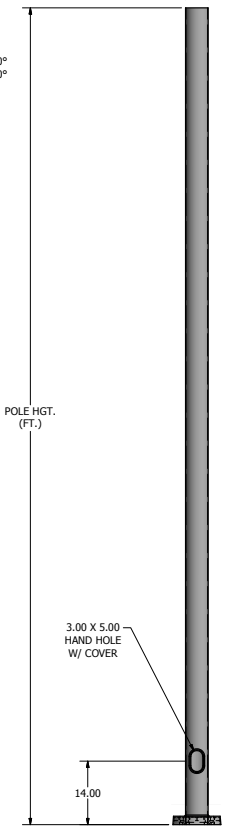
DRILLED MOUNT OPTIONS



TENON MOUNT OPTIONS



Ø.75 X 20.00 ANCHOR BOLT



POLE DETAIL

POLE SPECIFICATIONS

NO.	COMPONENT	MAT'L DESIGNATION
1.	POLE SHAFT	6063-T6
2.	BASE PLATE	A356-T6
3.	ANCHOR BOLTS	F1554 GR. 55
4.	GALVANIZED HARDWARE	A153

FINISH SPECIFICATIONS

POLES SHALL HAVE A POLYESTER POWDER COAT FINISH IN A STANDARD COLOR.

POLE DIMENSIONS

POLE HGT (FT.)	TOP DIA. (IN.)	BOTTOM DIA. (IN.)	GAGE	MTG. HGT. (FT.)
20'	5.00	5.00	.188	20'

BASE PLATE DIMENSIONS

BOLT CIRCLE (IN.)	BASE PLATE DIM. (IN.)	BOLT HOLE (IN.)	PLATE THK. (IN.)
7.75	10.62 DIA	.88	.75

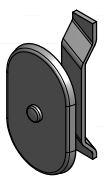
ANCHOR BOLT DIMENSIONS

ANCHOR BOLT DIA. (IN.)	ANCHOR BOLT LENGTH (IN.)
.75	20.00

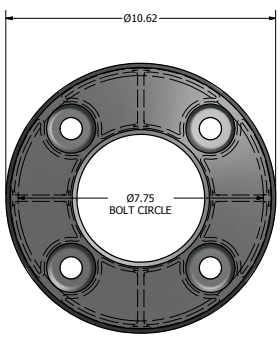
ALLOWABLE WIND LOADING (SQ. FT.)

WIND*	INDICATED EPA	80 MPH	90 MPH	100 MPH	120 MPH
EPA	-	8.2	6.0	4.1	2.5

*WITH 1.3 GUST FACTOR



3.00 X 5.00 HAND HOLE COVER



Ø10.62 X 1.88 THK. BASE CASTING

180° 270° 90° 0° HAND HOLE

DRAWN: M. HARVALA	2/2/2015	
CHECKED		
REVISION:	DATE:	
APPROVED:		
QUOTE:		
S.O.#		
REF:	SCALE: NONE	

UNITED LIGHTING STANDARDS
A DWM COMPANY

23171 Groesbeck Hwy.
Warren, MI 48089
P: (586) 774-5650 | F: (586) 774-5706
www.unitedlightingstandards.com

SOME GEOGRAPHICAL AREAS HAVE SPECIAL WIND CONDITIONS THAT CAN CREATE WIND INDUCED VIBRATIONS CAUSING A FATIGUE PROBLEM. NO METHOD HAS YET BEEN FOUND FOR PREDICTING DESTRUCTIVE LIGHTING POLE VIBRATION. THESE CONDITIONS ARE UNIQUE AND CANNOT BE GUARANTEED AGAINST, AND ARE THE RESPONSIBILITY OF A LOCAL SITE ENGINEER.

TITLE:

CATALOG:

DWG NO: RSA-5203 | SIZE: C | SHEET 1 OF 1

UNITED LIGHTING STANDARDS
A DWM COMPANY

www.unitedlightingstandards.com

POLE ORDERING GUIDE

ORDER NUMBER TEMPLATE

Example Order Number

Fixture			Catalog Number													
Brand	Product	Number	Design	Mounting Height	Shaft Size	Wall Thickness	Mounting Type	Fixture Mounting Arrangement	Finish	Options: Design	Options: Orientation	Options: Height From Base	Accessories: Design	Accessories: Orientation	Accessories: Height From Base
			RPSQ	20	4	11	AB	T2	DB	WB-15	@90	10'	FH	@180	9'

Build Your Order Number

Fixture			Catalog Number													
Brand	Product	Number	Design	Mounting Height	Shaft Size	Wall Thickness	Mounting Type	Fixture Mounting Arrangement	Finish	Options: Design	Options: Orientation	Options: Height From Base	Accessories: Design	Accessories: Orientation	Accessories: Height From Base

Note: N/A = Not Applicable

Mounting Type

AB = Anchor Base

EMB = Embedded (Direct Burial)

Fixture Mounting Arrangement

D1	D4
D2@90	T2
D2@180	T2.5
D3@90	T3
D3@120*	T4

**Round poles only*

Refer to the Mounting Orientation Guide on the next page of this file.

Finish

WH = White
TWH = Textured White
DB = Dark Bronze
TMB = Textured Medium Bronze
HB = Harvest Bronze
NB = New Bronze
SL = Silver
MGY = Medium Gray
GR = Gray
TGR = Textured Gray
GM = Graphite Metallic
DP = Dark Platinum
MA = Matte Aluminum
PSP = Platinum Silver
BK = Black
TBK = Textured Black
MG = Moss Green

Contact us for custom colors.

Options

CMB = Camera Mounting Bracket
CMP = Camera Mounting Plate
WB-15 = Welded Bracket
WC = Welded Coupling (denote size)
WN = Welded Nipple (denote size)
Festoon = Festoon Provision
CSBC = Custom Steel Base Cover
VD = Vibration Dampener
GFCI/IUC = Ground Fault Circuit Interrupter with In-Use Cover
UL = UL Listed**

Accessories

TB = Transformer Base*
ABS-BC = ABS Base Cover*
LW = Lowering Winch
LW-ELECTRIC = Electric Lowering Winch BA = Banner Arm
FH = Flag Holder
PTTA = Pole Top Tenon Adapter*

**See our online product catalog for complete catalog numbers of these options and accessories.*

*** UL Listed labeling is available for catalog steel and aluminum poles—both Commercial & Industrial and Roadway. UL Listed labeling is not available for brackets. UL Listing must be specified at the time of order.*

Project		**Catalog #**		**Type**	
Prepared by		**Notes**		**Date**	

McGraw-Edison

GLEON Galleon

Area / Site Luminaire

Typical Applications

Outdoor • Parking Lots • Walkways • Roadways • Building Areas

Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Optical Distributions page 4
- Product Specifications page 4
- Energy and Performance Data page 4
- Control Options page 9

Product Certifications

Product Features

LumenSafe Technology · Enlighted · WaveLinx · Light ARchitect™

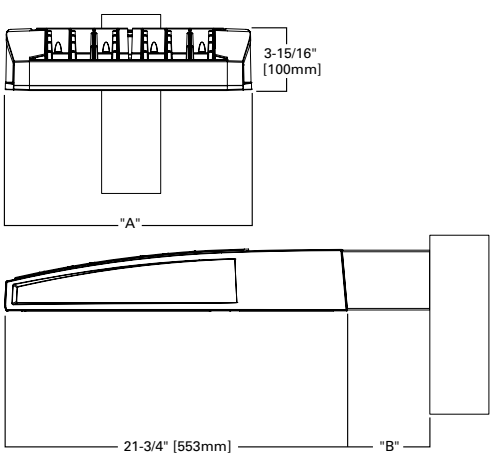
Quick Facts

- Lumen packages range from 4,200 - 80,800 (34W - 640W)
- Efficacy up to 156 lumens per watt

Connected Systems

- WaveLinx
- Enlighted

Dimensional Details



Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Extended Arm Length [1]	"B" Quick Mount Arm Length	"B" Quick Mount Extended Arm Length
1-4	15-1/2"	7"	10"	10-5/8"	16-9/16"
5-6	21-5/8"	7"	10"	10-5/8"	16-9/16"
7-8	27-5/8"	7"	13"	10-5/8"	--
9-10	33-3/4"	7"	16"	--	--

NOTES:
For arm selection requirements and additional line art, see Mounting Details section.

McGraw-Edison — GLEON Galleon

Ordering Information

SAMPLE NUMBER: **GLEON-SA4C-740-U-T4FT-GM**

CONFIRM DISTRIBUTION

Product Family [1,2]	Light Engine		Color Temperature	Voltage	Distribution	Mounting	Finish
	Configuration	Drive Current					
GLEON=Galleon	**SA1**=1 Square **SA2**=2 Squares **SA3**=3 Squares **SA4**=4 Squares **SA5**=5 Squares [4] **SA6**=6 Squares **SA7**=7 Squares [5] **SA8**=8 Squares [5] **SA9**=9 Squares [6] **SA0**=10 Squares [6]	**A**=600mA **B**=800mA **C**=1000mA **D**=1200mA [16]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [14,16]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [7,8] **9**=347V [7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=Type V Square Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I **AFL**=Automotive Frontline	**[Blank]**=Arm for Round or Square Pole **EA**=Extended Arm [9] **MA**=Mast Arm Adapter [10] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [11] **QMEA**=Quick Mount Arm (Extended Length) [12]	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White

CONFIRM OUTPUT

CONFIRM FINISH

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)
DIM=External 0-10V Dimming Leads [19,20] **F**=Single Fuse (120, 277 or 347V Specify Voltage) **FF**=Double Fuse (208, 240 or 480V Specify Voltage) **20K**=Series 20kV UL 1449 Surge Protective Device **2L**=Two Circuits [17,18] **HA**=50°C High Ambient **HSS**=Installed House Side Shield [28] **GRSBK**=Glare Reducing Shield, Black [23] **GRSWH**=Glare Reducing Shield, White [23] **LCF**=Light Square Trim Painted to Match Housing [27] **MT**=Installed Mesh Top **TH**=Tool-less Door Hardware **CC**=Coastal Construction finish [3] **L90**=Optics Rotated 90° Left **R90**=Optics Rotated 90° Right **CE**=CE Marking [29] **AHD145**=After Hours Dim, 5 Hours [22] **AHD245**=After Hours Dim, 6 Hours [22] **AHD255**=After Hours Dim, 7 Hours [22] **AHD355**=After Hours Dim, 8 Hours [22] **DALI**=DALI Drivers	**BPC**=Button Type Photocontrol **PR**=NEMA 3-PIN Photocontrol Receptacle **PR7**=NEMA 7-PIN Photocontrol Receptacle [21] **SPB2**=Dimming Occupancy Sensor with Bluetooth Interface, 8' - 20' Mounting [34] **SPB4**=Dimming Occupancy Sensor with Bluetooth Interface, 21' - 40' Mounting [34] **MS-L20**=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [24] **MS-L40W**=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [24] **MS/X-L20**=Bi-Level Motion Sensor, 9' - 20' Mounting Height [24,25] **MS/X-L40W**=Bi-Level Motion Sensor, 21' - 40' Mounting Height [24,25] **MS/DIM-L20**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [24] **MS/DIM-L40W**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [24] **ZW**=WaveLinx Module and 4-PIN Receptacle **ZD**=WaveLinx Module with DALI driver and 4-PIN Receptacle **SWPD4XX**=WaveLinx Sensor Only, 7'-15' [13,32,33] **SWPD5XX**=WaveLinx Sensor Only, 15'-40' [13,32,33] **W0BXX**=WaveLinx Sensor with Bluetooth, 7'-15' [13,32] **W0FXX**=WaveLinx Sensor with Bluetooth, 15'-40' [13,32] **LWR-LW**=Enlighted Sensor, 8'–16' Mounting Height [26] **LWR-LN**=Enlighted Sensor, 16'–40' Mounting Height [26] **DIM10-MS/DIM-L08**=Synapse Occupancy Sensor (<8' Mounting) [19] **DIM10-MS/DIM-L20**=Synapse Occupancy Sensor (9'-20' Mounting) [19] **DIM10-MS/DIM-L40**=Synapse Occupancy Sensor (21'-40' Mounting) [19]	**OA/RA1016**=NEMA Photocontrol Multi-Tap - 105-285V **OA/RA1027**=NEMA Photocontrol - 480V **OA/RA1201**=NEMA Photocontrol - 347V **OA/RA1013**=Photocontrol Shorting Cap **OA/RA1014**=120V Photocontrol **MA1252**=10kV Surge Module Replacement **MA1036-XX**=Single Tenon Adapter for 2-3/8" O.D. Tenon **MA1037-XX**=2@180° Tenon Adapter for 2-3/8" O.D. Tenon **MA1197-XX**=3@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1188-XX**=4@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1189-XX**=2@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1190-XX**=3@90° Tenon Adapter for 2-3/8" O.D. Tenon **MA1191-XX**=2@120° Tenon Adapter for 2-3/8" O.D. Tenon **MA1038-XX**=Single Tenon Adapter for 3-1/2" O.D. Tenon **MA1039-XX**=2@180° Tenon Adapter for 3-1/2" O.D. Tenon **MA1192-XX**=3@120° Tenon Adapter for 3-1/2" O.D. Tenon **MA1193-XX**=4@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1194-XX**=2@90° Tenon Adapter for 3-1/2" O.D. Tenon **MA1195-XX**=3@90° Tenon Adapter for 3-1/2" O.D. Tenon **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [24] **GLEON-MT1**=Field Installed Mesh Top for 1-4 Light Squares **GLEON-MT2**=Field Installed Mesh Top for 5-6 Light Squares **GLEON-MT3**=Field Installed Mesh Top for 7-8 Light Squares **GLEON-MT4**=Field Installed Mesh Top for 9-10 Light Squares **GLEON-QM**=Quick Mount Arm Kit [11] **GLEON-QMEA**=Quick Mount Extended Arm Kit [12] **LS/HSS**=Field Installed House Side Shield [28,30] **LS/GRSBK**=Glare Reducing Shield, Black [23,30] **LS/GRSWH**=Glare Reducing Shield, White [23,30] **LS/PFS**=Perimeter Shield, Black [15] **WOLC-7P-10A**=WaveLinx Outdoor Control Module [19,31] **SWPD4-XX**=Wavelinx Wireless Sensor, 7'–15' Mounting Height [13,19,32,33] **SWPD5-XX**=Wavelinx Wireless Sensor, 15'–40' Mounting Height [13,19,32,33]

NOTES:

1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Not available with TH option.
4. Not compatible with MS/4-LXX or MS/1-LXX sensors.
5. Not compatible with extended quick mount arm (QMEA).
6. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
7. Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
8. 480V must utilize Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems.)
9. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
10. Factory installed.
11. Maximum 8 light squares.
12. Maximum 6 light squares.
13. Requires ZW or ZD receptacle.
14. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option.
15. Set of 4 pcs. One set required per Light Square.
16. Not available with HA option.
17. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in SA2 through SA4 requires a larger housing, normally used for SA5 or SA6. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
18. Not available with Enlighted wireless sensors.
19. Cannot be used with other control options.
20. Low voltage control lead brought out 18" outside fixture.
21. Not available if any "MS" sensor is selected. Motion sensor has an integral photocell.
22. Requires the use of BPC photocontrol or the PR7 or PR photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
23. Not for use with T4FT, T4W or SL4 optics. See IES files for details.
24. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
25. Replace X with number of Light Squares operating in low output mode.
26. Enlighted wireless sensors are factory installed only requiring network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities.
27. Not available with house side shield (HSS).
28. Not for use with 5NQ, 5MQ, 5WQ or RW optics. A black trim plate is used when HSS is selected.
29. CE is not available with the LWR, MS, MS/X, MS/DIM, BPC, PR or PR7 options. Available in 120-277V only.
30. One required for each Light Square.
31. Requires PR7.
32. Replace XX with sensor color (WH, BZ or BK.)
33. WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed.
34. Smart device with mobile application required to change system defaults. See controls section for details.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

Product Family	Camera Type	Data Backhaul	
L=LumenSafe Technology	**D**=Standard Dome Camera **H**=Hi-Res Dome Camera **Z**=Remote PTZ Camera	**C**=Cellular, No SIM **A**=Cellular, AT&T **V**=Cellular, Verizon **S**=Cellular, Sprint	**R**=Cellular, Rogers **W**=Wi-Fi Networking w/ Omni-Directional Antenna **E**=Ethernet Networking

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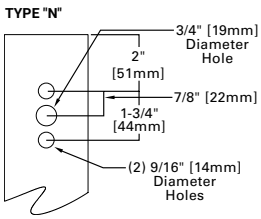
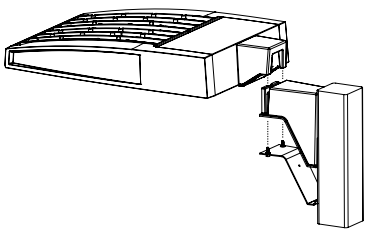
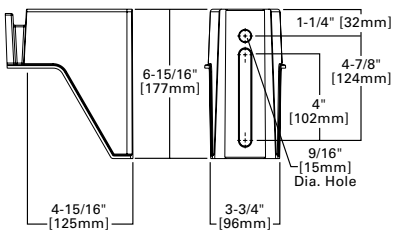
Mounting Details

Standard Arm (Drilling Pattern)

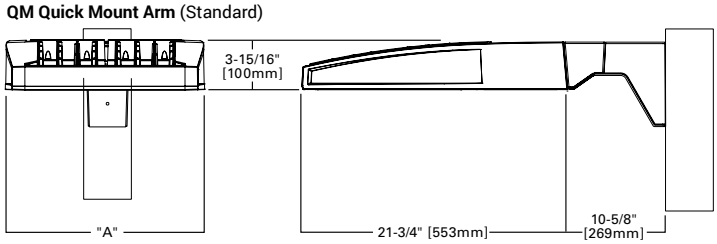


Quick Mount Arm (Includes fixture adapter)

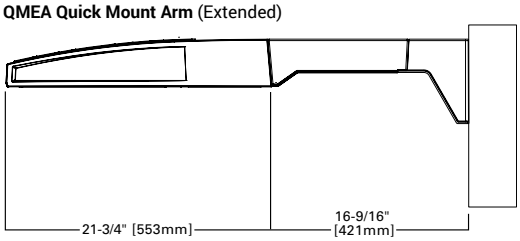




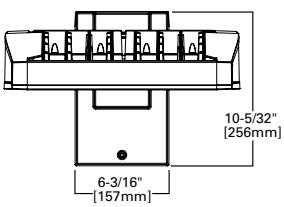
QM Quick Mount Arm (Standard)

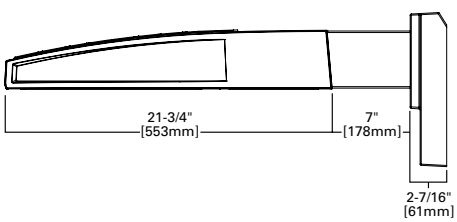


QMEA Quick Mount Arm (Extended)

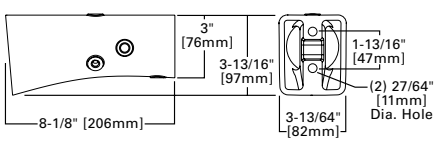


Standard Wall Mount



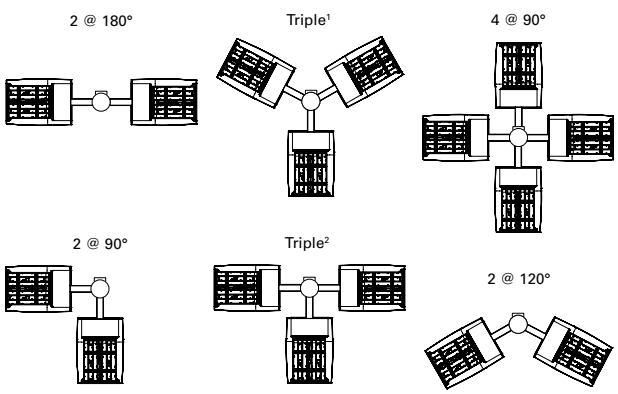


Mast Arm Mount



Arm Mounting Requirements

Number of Light Squares	Standard Arm @ 90° Apart	Standard Arm @ 120° Apart	Quick Mount Arm @ 90° Apart	Quick Mount Arm @ 120° Apart
1	Standard	Standard	QM Extended	Quick Mount
2	Standard	Standard	QM Extended	Quick Mount
3	Standard	Standard	QM Extended	Quick Mount
4	Standard	Standard	QM Extended	Quick Mount
5	Extended	Standard	QM Extended	Quick Mount
6	Extended	Standard	QM Extended	Quick Mount
7	Extended	Extended	--	Quick Mount
8	Extended	Extended	--	Quick Mount
9	Extended	Extended	--	--
10	Extended	Extended	--	--



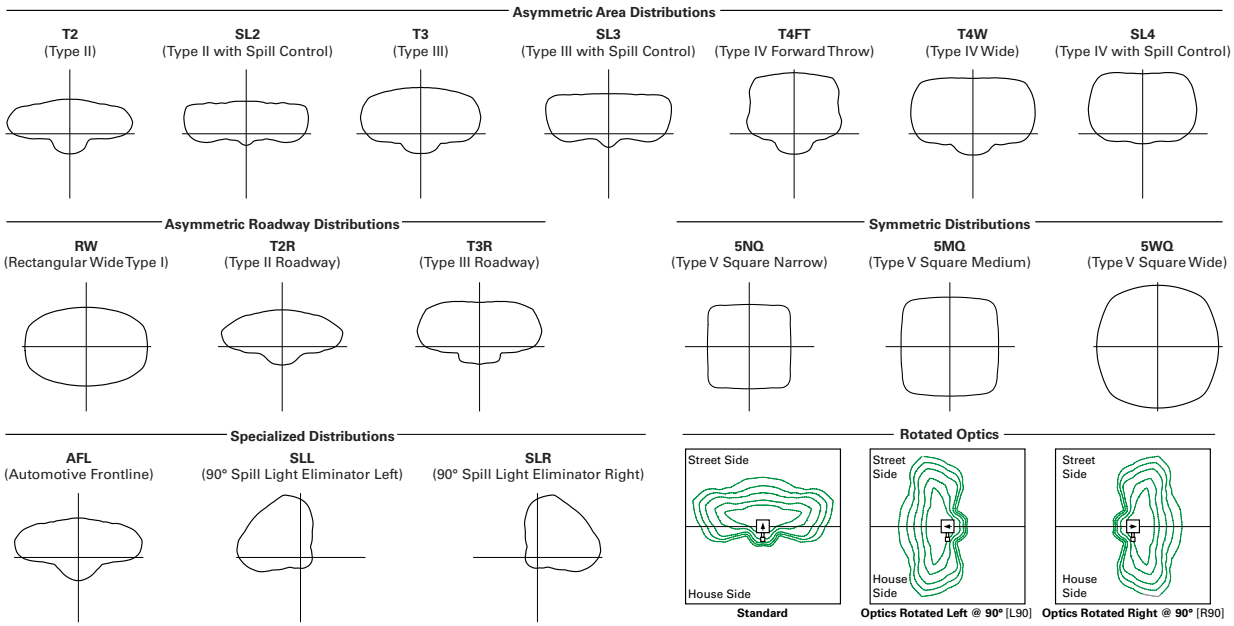
NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. **2** Round poles are 3 @ 90°.

Fixture Weights and EPAs

Number of Light Squares	Weight with Standard and Extended Arm (lbs.)	EPA with Standard and Extended Arm (Sq. Ft.)	Weight with Quick Mount Arm (lbs.)	EPA with Quick Mount Arm (Sq. Ft.)	Weight with Quick Mount Extended Arm (lbs.)	EPA with Quick Mount Extended Arm (Sq. Ft.)
1-4	33	0.96	35	1.11	38	1.11
5-6	44	1.00	46	1.11	49	1.11
7-8	54	1.07	56	1.11	--	--
9-10	63	1.12	--	--	--	--

McGraw-Edison GLEON Galleon

Optical Distributions



Product Specifications

Construction
- Extruded aluminum driver enclosure
- Heavy-wall, die-cast aluminum end caps
- Die-cast aluminum heat sinks
- Patent pending interlocking housing and heat sink

Optics
- Patented, high-efficiency injection-molded AccuLED Optics technology
- 16 optical distributions
- 3 shielding options including HSS, GRS and PFS
- IDA Certified (3000K CCT and warmer only)

Electrical
- LED drivers are mounted to removable tray assembly for ease of maintenance
- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting
- Standard extruded arm includes internal bolt guides and round pole adapter
- Extended arms (EA and QMEA) may be required in 90° or 120° pole mount configurations, see arm mounting requirements table
- Mast arm (MA) factory installed
- Wall mount (WM) option available
- Quick mount arm (QM and QMEA) includes pole adapter and factory installed fixture mount for fast installation to square or round poles

Finish
- Super housing durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Heat sink is powder coated black
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty
- Five year warranty

Energy and Performance Data

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

* Supported by IES TM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0ºC	1.02
10ºC	1.01
25ºC	1.00
40ºC	0.99
50ºC	0.97

View GLEON IES files

McGraw-Edison — GLEON Galleon

Nominal Power Lumens (1.2A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		67	129	191	258	320	382	448	511	575	640
Input Current @ 120V (A)		0.58	1.16	1.78	2.31	2.94	3.56	4.09	4.71	5.34	5.87
Input Current @ 208V (A)		0.33	0.63	0.93	1.27	1.57	1.87	2.22	2.52	2.8	3.14
Input Current @ 240V (A)		0.29	0.55	0.80	1.10	1.35	1.61	1.93	2.18	2.41	2.71
Input Current @ 277V (A)		0.25	0.48	0.70	0.96	1.18	1.39	1.69	1.90	2.09	2.36
Input Current @ 347V (A)		0.20	0.39	0.57	0.78	0.96	1.15	1.36	1.54	1.72	1.92
Input Current @ 480V (A)		0.15	0.30	0.43	0.60	0.73	0.85	1.03	1.16	1.28	1.45
Optics											
T2	4000K Lumens	7,972	15,580	23,245	30,714	38,056	45,541	53,857	61,024	68,072	75,366
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	122	119	119	119	120	119	118	118
T2R	4000K Lumens	8,462	16,539	24,680	32,609	40,401	48,348	57,176	64,783	72,266	80,010
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	129	126	126	127	128	127	126	125
T3	4000K Lumens	8,125	15,879	23,693	31,307	38,787	46,417	54,893	62,197	69,381	76,818
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	122	123	122	121	120
T3R	4000K Lumens	8,306	16,232	24,220	32,001	39,651	47,447	56,114	63,580	70,924	78,523
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
T4FT	4000K Lumens	8,173	15,970	23,831	31,488	39,014	46,686	55,212	62,558	69,783	77,261
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	122	124	125	122	122	122	123	122	121	121
T4W	4000K Lumens	8,067	15,764	23,522	31,080	38,510	46,082	54,499	61,751	68,881	76,263
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	120	122	123	120	120	121	122	121	120	119
SL2	4000K Lumens	7,958	15,552	23,206	30,662	37,989	45,462	53,763	60,920	67,952	75,235
	BUG Rating	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	119	121	121	119	119	119	120	119	118	118
SL3	4000K Lumens	8,124	15,877	23,690	31,302	38,784	46,410	54,885	62,189	69,372	76,805
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	121	123	124	121	121	121	123	122	121	120
SL4	4000K Lumens	7,719	15,085	22,510	29,741	36,850	44,097	52,148	59,089	65,913	72,977
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	115	117	118	115	115	115	116	116	115	114
5NQ	4000K Lumens	8,380	16,375	24,436	32,287	40,003	47,870	56,610	64,144	71,552	79,221
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	125	127	128	125	125	125	126	126	124	124
5MQ	4000K Lumens	8,534	16,676	24,885	32,881	40,739	48,752	57,653	65,326	72,868	80,679
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	127	129	130	127	127	128	129	128	127	126
5WQ	4000K Lumens	8,556	16,723	24,951	32,968	40,847	48,881	57,808	65,499	73,063	80,894
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	128	130	131	128	128	128	129	128	127	126
SLL/ SLR	4000K Lumens	7,140	13,951	20,817	27,506	34,081	40,783	48,231	54,649	60,959	67,492
	BUG Rating	B1-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	107	108	109	107	107	107	108	107	106	105
RW	4000K Lumens	8,304	16,228	24,215	31,994	39,641	47,437	56,100	63,566	70,907	78,504
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	124	126	127	124	124	124	125	124	123	123
AFL	4000K Lumens	8,335	16,287	24,302	32,110	39,784	47,610	56,303	63,796	71,163	78,790
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5
	Lumens per Watt	124	126	127	124	124	125	126	125	124	123

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

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Nominal Power Lumens (1A)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		59	113	166	225	279	333	391	445	501	558
Input Current @ 120V (A)		0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.60	5.07
Input Current @ 208V (A)		0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75
Input Current @ 240V (A)		0.26	0.48	0.71	0.96	1.19	0.41	1.67	1.89	2.12	2.39
Input Current @ 277V (A)		0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09
Input Current @ 347V (A)		0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68
Input Current @ 480V (A)		0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28
Optics											
T2	4000K Lumens	7,267	14,201	21,190	28,000	34,692	41,515	49,096	55,627	62,053	68,703
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	126	128	124	124	125	126	125	124	123
T2R	4000K Lumens	7,715	15,077	22,497	29,725	36,829	44,073	52,122	59,056	65,876	72,937
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	131	133	136	132	132	132	133	133	131	131
T3	4000K Lumens	7,408	14,475	21,598	28,539	35,358	42,313	50,039	56,698	63,246	70,024
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
T3R	4000K Lumens	7,571	14,798	22,078	29,172	36,145	43,253	51,153	57,959	64,653	71,581
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
T4FT	4000K Lumens	7,451	14,559	21,725	28,703	35,564	42,558	50,330	57,027	63,613	70,430
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	129	131	128	127	128	129	128	127	126
T4W	4000K Lumens	7,354	14,371	21,442	28,333	35,105	42,007	49,681	56,291	62,792	69,521
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	125	127	129	126	126	126	127	126	125	125
SL2	4000K Lumens	7,254	14,178	21,155	27,951	34,631	41,443	49,011	55,533	61,944	68,584
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	123	125	127	124	124	124	125	125	124	123
SL3	4000K Lumens	7,406	14,474	21,596	28,534	35,355	42,307	50,033	56,690	63,237	70,014
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	126	128	130	127	127	127	128	127	126	125
SL4	4000K Lumens	7,037	13,751	20,519	27,112	33,592	40,198	47,538	53,864	60,087	66,524
	BUG Rating	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	119	122	124	120	120	121	122	121	120	119
5NQ	4000K Lumens	7,640	14,928	22,275	29,431	36,465	43,637	51,606	58,472	65,226	72,218
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	129	132	134	131	131	131	132	131	130	129
5MQ	4000K Lumens	7,779	15,203	22,684	29,973	37,137	44,441	52,555	59,549	66,427	73,545
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	133	133	133	134	134	133	132
5WQ	4000K Lumens	7,800	15,243	22,744	30,052	37,236	44,560	52,697	59,708	66,603	73,742
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	132	135	137	134	133	134	135	134	133	132
SLL/ SLR	4000K Lumens	6,510	12,719	18,977	25,075	31,067	37,176	43,967	49,817	55,569	61,525
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	110	113	114	111	111	112	112	112	111	110
RW	4000K Lumens	7,570	14,793	22,073	29,165	36,137	43,243	51,140	57,945	64,637	71,564
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
	Lumens per Watt	128	131	133	130	130	130	131	130	129	128
AFL	4000K Lumens	7,598	14,847	22,154	29,272	36,267	43,400	51,326	58,156	64,872	71,824
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
	Lumens per Watt	129	131	133	130	130	130	131	131	129	129

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

McGraw-Edison — GLEON Galleon

Nominal Power Lumens (800mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		44	85	124	171	210	249	295	334	374	419
Input Current @ 120V (A)		0.39	0.77	1.13	1.54	1.90	2.26	2.67	3.03	3.39	3.80
Input Current @ 208V (A)		0.22	0.44	0.62	0.88	1.06	1.24	1.50	1.68	1.87	2.12
Input Current @ 240V (A)		0.19	0.38	0.54	0.76	0.92	1.08	1.30	1.46	1.62	1.84
Input Current @ 277V (A)		0.17	0.36	0.47	0.72	0.83	0.95	1.19	1.31	1.42	1.67
Input Current @ 347V (A)		0.15	0.24	0.38	0.49	0.63	0.77	0.87	1.01	1.15	1.52
Input Current @ 480V (A)		0.11	0.18	0.29	0.37	0.48	0.59	0.66	0.77	0.88	0.96
Optics											
T2	4000K Lumens	5,871	11,474	17,121	22,622	28,029	33,542	39,667	44,944	50,134	55,508
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	135	134	135	134	132
T2R	4000K Lumens	6,233	12,181	18,176	24,016	29,756	35,608	42,111	47,714	53,224	58,929
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5
	Lumens per Watt	142	143	147	140	142	143	143	143	142	141
T3	4000K Lumens	5,986	11,695	17,450	23,057	28,568	34,186	40,430	45,809	51,099	56,576
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
T3R	4000K Lumens	6,117	11,955	17,838	23,569	29,203	34,946	41,328	46,827	52,235	57,832
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
T4FT	4000K Lumens	6,019	11,763	17,551	23,190	28,734	34,384	40,663	46,074	51,396	56,904
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	137	138	142	136	137	138	138	138	137	136
T4W	4000K Lumens	5,942	11,610	17,324	22,891	28,363	33,940	40,138	45,480	50,732	56,169
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	135	137	140	134	135	136	136	136	136	134
SL2	4000K Lumens	5,862	11,454	17,091	22,583	27,980	33,484	39,598	44,867	50,048	55,411
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	133	135	138	132	133	134	134	134	134	132
SL3	4000K Lumens	5,985	11,694	17,447	23,053	28,565	34,182	40,424	45,804	51,092	56,568
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	136	138	141	135	136	137	137	137	137	135
SL4	4000K Lumens	5,685	11,111	16,577	21,905	27,140	32,478	38,409	43,520	48,546	53,748
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	129	131	134	128	129	130	130	130	130	128
5NQ	4000K Lumens	6,172	12,061	17,997	23,778	29,462	35,256	41,694	47,242	52,699	58,347
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	140	142	145	139	140	142	141	141	141	139
5MQ	4000K Lumens	6,285	12,283	18,328	24,217	30,004	35,907	42,462	48,112	53,669	59,421
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	144	144	144	144	142
5WQ	4000K Lumens	6,303	12,317	18,377	24,281	30,085	36,001	42,575	48,241	53,812	59,579
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	143	145	148	142	143	145	144	144	144	142
SLL/ SLR	4000K Lumens	5,260	10,276	15,332	20,259	25,101	30,037	35,522	40,249	44,898	49,708
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	120	121	124	118	120	121	120	121	120	119
RW	4000K Lumens	6,116	11,952	17,834	23,563	29,196	34,938	41,317	46,817	52,224	57,819
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	139	141	144	138	139	140	140	140	140	138
AFL	4000K Lumens	6,139	11,996	17,899	23,650	29,302	35,064	41,468	46,987	52,412	58,030
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4
	Lumens per Watt	140	141	144	138	140	141	141	141	140	138

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

McGraw-Edison — GLEON Galleon

Nominal Power Lumens (600mA)

Supplemental Performance Guide**

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		34	66	96	129	162	193	226	257	290	323
Input Current @ 120V (A)		0.30	0.58	0.86	1.16	1.44	1.73	2.03	2.33	2.59	2.89
Input Current @ 208V (A)		0.17	0.34	0.49	0.65	0.84	0.99	1.14	1.30	1.48	1.63
Input Current @ 240V (A)		0.15	0.30	0.43	0.56	0.74	0.87	1.00	1.13	1.30	1.43
Input Current @ 277V (A)		0.14	0.28	0.41	0.52	0.69	0.81	0.93	1.04	1.22	1.33
Input Current @ 347V (A)		0.11	0.19	0.30	0.39	0.49	0.60	0.69	0.77	0.90	0.99
Input Current @ 480V (A)		0.08	0.15	0.24	0.30	0.38	0.48	0.53	0.59	0.71	0.77
Optics											
T2	4000K Lumens	4,787	9,357	13,961	18,448	22,856	27,353	32,347	36,651	40,884	45,265
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	141	142	145	143	141	142	143	143	141	140
T2R	4000K Lumens	5,083	9,934	14,822	19,585	24,266	29,038	34,341	38,911	43,404	48,055
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
	Lumens per Watt	150	151	154	152	150	150	152	151	150	149
T3	4000K Lumens	4,880	9,537	14,231	18,803	23,296	27,878	32,970	37,358	41,671	46,137
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	148	146	144	144	146	145	144	143
T3R	4000K Lumens	4,988	9,749	14,547	19,220	23,814	28,497	33,703	38,188	42,598	47,162
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	147	148	152	149	147	148	149	149	147	146
T4FT	4000K Lumens	4,909	9,591	14,312	18,911	23,432	28,040	33,161	37,574	41,913	46,404
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
	Lumens per Watt	144	145	149	147	145	145	147	146	145	144
T4W	4000K Lumens	4,845	9,468	14,128	18,668	23,130	27,678	32,732	37,088	41,371	45,805
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	143	143	147	145	143	143	145	144	143	142
SL2	4000K Lumens	4,779	9,341	13,937	18,416	22,818	27,305	32,292	36,589	40,813	45,188
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
	Lumens per Watt	141	142	145	143	141	141	143	142	141	140
SL3	4000K Lumens	4,879	9,536	14,229	18,800	23,294	27,874	32,965	37,351	41,666	46,130
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	144	144	148	146	144	144	146	145	144	143
SL4	4000K Lumens	4,637	9,059	13,519	17,863	22,132	26,486	31,322	35,490	39,589	43,831
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	136	137	141	138	137	137	139	138	137	136
5NQ	4000K Lumens	5,033	9,835	14,676	19,392	24,026	28,751	34,002	38,526	42,975	47,581
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
	Lumens per Watt	148	149	153	150	148	149	150	150	148	147
5MQ	4000K Lumens	5,126	10,015	14,946	19,747	24,468	29,281	34,628	39,236	43,766	48,457
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	Lumens per Watt	151	152	156	153	151	152	153	153	151	150
5WQ	4000K Lumens	5,139	10,043	14,985	19,801	24,533	29,359	34,721	39,339	43,883	48,586
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
	Lumens per Watt	151	152	156	153	151	152	154	153	151	150
SLL/ SLR	4000K Lumens	4,289	8,380	12,502	16,520	20,469	24,494	28,967	32,823	36,613	40,537
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	Lumens per Watt	126	127	130	128	126	127	128	128	126	126
RW	4000K Lumens	4,987	9,746	14,543	19,215	23,808	28,491	33,695	38,178	42,587	47,151
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
	Lumens per Watt	147	148	151	149	147	148	149	149	147	146
AFL	4000K Lumens	5,007	9,782	14,597	19,285	23,896	28,594	33,817	38,317	42,742	47,322
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	Lumens per Watt	147	148	152	149	148	148	150	149	147	147

* Nominal data for 70 CRI. ** For additional performance data, please reference the Galleon Supplemental Performance Guide.

Control Options

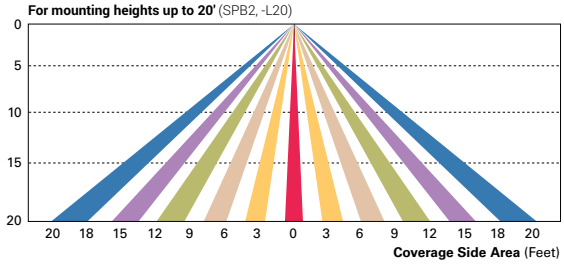
0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC, PR and PR7)
Optional button-type photocontrol (BPC) and photocontrol receptacles (PR and PR7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PR7 receptacle.

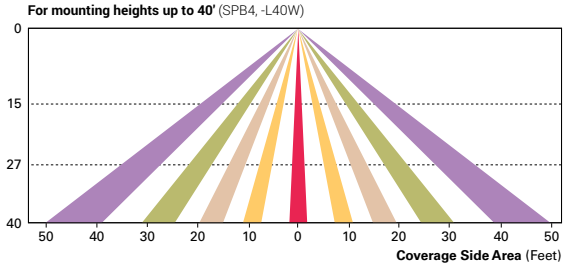
After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

For mounting heights up to 20' (SPB2, -L20)

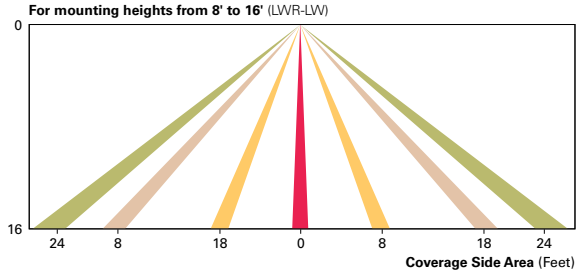


For mounting heights up to 40' (SPB4, -L40W)

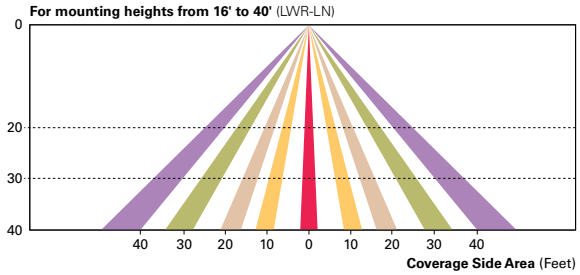


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)
The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

LumenSafe Integrated Network Security Camera (LD)
Cooper Lighting Solutions brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows security integrators to design the optimal solution for active surveillance. As the ideal solution to meet the needs for active surveillance, the LumenSafe integrated network camera is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. This IP camera is optimally designed for deployment in the video management system or security software platform of choice.

Synapse (DIM10)
SimplySNAP integrated wireless controls system by Synapse. Includes factory installed DIM10 Synapse control module and MS/DC motion sensor; requires additional Synapse system components for operation. Contact Synapse at www.synapsewireless.com for product support, warranty and terms and conditions.

VLX Array LED Specifications

Project Name:

Catalog Number:

Type:

The new **VLX Array LED** Series offers clean, functional styling that is defined by its sleek low profile design and rugged construction. It combines the latest LED Array technology, advanced LED thermal management and provides outdoor lighting that is both energy efficient and aesthetically pleasing.

The LED Arrays performance and the driver's life are maximized by enclosing them in two separate die cast aluminum housings. Easy tool-less access for mounting and maintenance.

The LED Array light assembly comes with 192 LED Arrays, with lumen packages ranging from 54,000-76,000 lumens. Ten optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature of the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VLX Array LED** series is an exceptional choice for commercial parking lots, office complexes, architectural projects, and other general lighting projects.

Ordering Information

CONFIRM FINISH

MODEL	OPTICS	LUMENS	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS
VLX-1	**T1** Type 1 **T2** Type 2 **T3** Type 3 **T3L** Type 3 Long **T4** Type 4 **T4A** Type 4 Automotive **T4L** Type 4 Long **T5LR** Type 5 Long Round **T5LS** Type 5 Long Square **T5SR** Type 5 Short Round CONFIRM DISTRIBUTION	**55L** **60L** **65L** **75L** CONFIRM OUTPUT	**3K** 3000K **4K** 4000K **5K** 5000K	**UNV** 120-277V **8** 347V **5** 480V	**AM** Arm Mount **WM** Wall Mount	**GY** Grey **SL** Silver Metallic **BK** Black **SBK** Smooth Black **WH** White **SWH** Smooth White **BZ** Bronze **GP** Graphite **CC** Custom Color	**PCR-120** **PCR-208** **PCR-240** **PCR-277** **PCR-347** **PCR-480** Photocell & Receptacle **(3,5,7) PINPER** 3, 5, or 7 Pin Photo Receptacle w/shorting cap **DIM** 0-10v Dimming Driver **WSC-8** Motion Sensor 8' Mounting Height **WSC-20** Motion Sensor 9-20' Mounting Height **WSC-40** Motion Sensor 21-40' Mounting Height This option will require (1) FSIR 100 remote for programing **VWC** Visionaire Wireless Controls *Consult Factory	**RPP3** **RPP4** **RPP5** For 3", 4", or 5"Ø Pole - Round Pole Plate Adaptor **UPMA-S** Universal Square Pole Mount Adaptor **UPMA-R** Universal Round Pole Mount Adaptor **BAWP** Cast Wall Plate **ROT-R** Rotated Optics Right Side **ROT-L** Rotated Optics Left Side **CLS** Back Side Cutoff Louver Shield **RCLS** Right Side Cutoff Louver Shield **LCLS** Left Side Cutoff Louver Shield

Features & Specifications

VLX Array

Heatsink
· Die cast aluminum heatsink with integral cooling fins for thermal management.

Mounting Arm/Driver Compartment
·Durable two-piece die cast aluminum driver compartment utilizes a tool-less push button latch for ease of maintenance and sealed with a one-piece silicone gasket.

Thermal Management
· The VLX Array series provides excellent thermal management by mounting the LED Arrays to the substantial heat sink of the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.
· The L70 test determines the point in an LEDs life when it reaches 70 percent of its initial output. The VLX Array series LEDs have been determined to last 90,000+ hours in 25° C environments when driven at 1400 mA.

Optical System
· The highest lumen output LED Arrays are utilized in the VLX Array series. IES distribution Types I, II, III, III-L, IV, IV-A, IV-L, V-LR, V-LS, and V-SR are available. The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution.
· CRI values are 70.

New LED Array Technology
· 4 Diodes now replace a single Led chip and operate at 25% of the drive current allowing for higher efficiancy, less heat and longer life. (10 Year Warranty)
· More LEDs at a lower drive current provides a more comfortable visual effect.

Quali-Guard® Finish
· The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400º F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.
· Finish is guaranteed for ten (10) years.

Electrical Assembly
· The VLX Array LED series is supplied with a choice of 350, 530, 700, 1050 mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input. Power factor of 90%. Rated for -40°C operations.
· 10 kV surge protector supplied as standard.
· Terminal block supplied as standard.

Warranty
· Ten (10) year Limited Warranty on entire system, including finish. For full warranty information, please visit visionairelighting.com.

Options
· Photocell & receptacle
· Photo receptacle
· 0-10v Dimming Driver
· Motion Sensor
· Wireless Control
· Round pole plate adapter
· Universal Pole Mount Adaptor
· Cast Wall Plate
· Cut-Off Louver Shield
· Rotated Optics

Listings
· The VLX Array Series is cUL Listed
· IP65 Rated Housing
· ANSI Certification
· Powder Coated Tough
· IDA Certification

3000K must be selected with a fixed mount for IDA certification.

VLX ARRAY - ELECTRICAL LOAD (A)							
Ordering Nomenclature	**System Watts**	**120**	**208**	**240**	**277**	**347**	**480**
VLX-1-T5LS-55L	**388**	3.23	1.87	1.62	1.40	1.12	0.81
VLX-1-T5LS-60L	**444**	3.70	2.13	1.85	1.60	1.28	0.93
VLX-1-T5LS-70L	**501**	4.18	2.41	2.09	1.81	1.44	1.04
VLX-1-T5LS-75L	**565**	4.71	2.72	2.35	2.04	1.63	1.18

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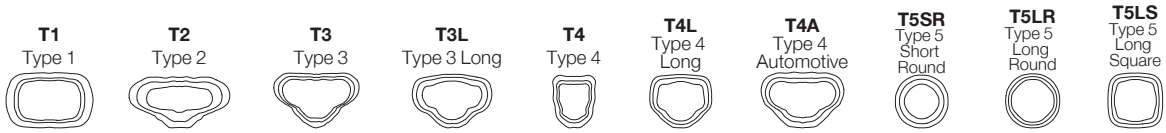
www.visionairelighting.com

VLX Array LED Array Specifications

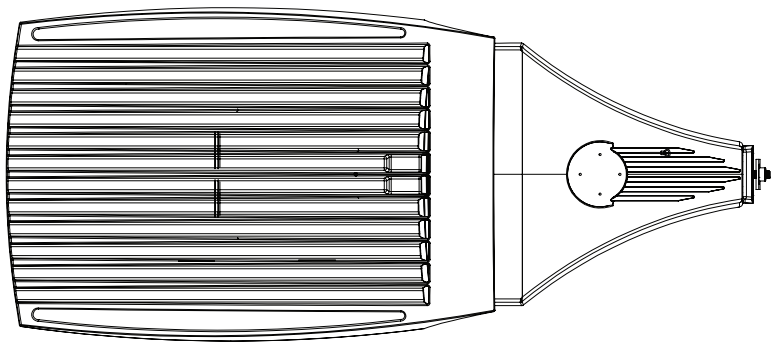
Photometric Optical Summary

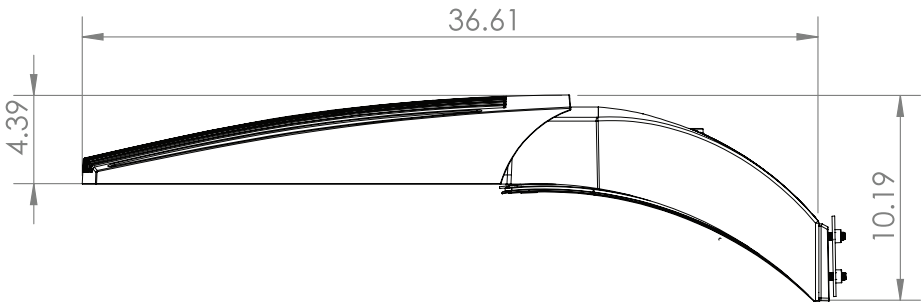


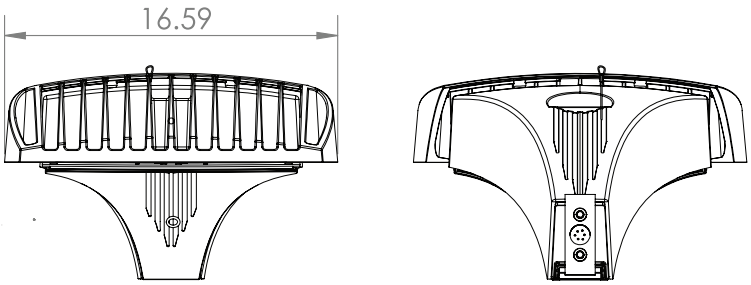
Dimensions

CONFIRM DISTRIBUTION

Width:	VLX-1	16.5”
Depth:	VLX-1	36.6”
Height:	VLX-1	4.39”
Overall Height:	VLX-1	10.19”
Weight:		58 LBS







VISIONAIRE LIGHTING

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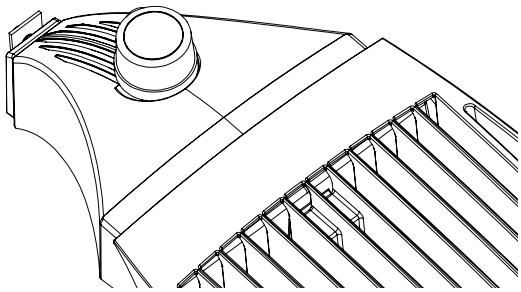
LED Specifications **VLX Array**

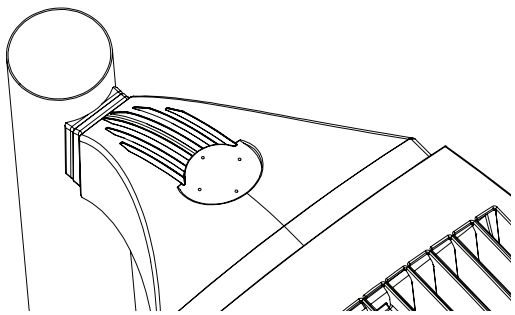
Twist lock Photocell & Receptacle

Dusk to dawn sensor.

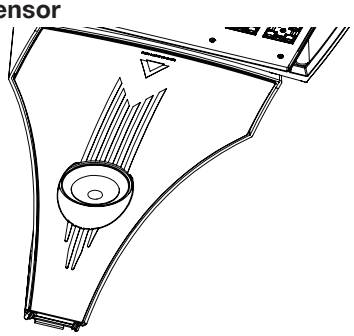


Round Pole Plate Adaptor

Round Pole Plate Adaptor to be used with round pole.



Motion Sensor

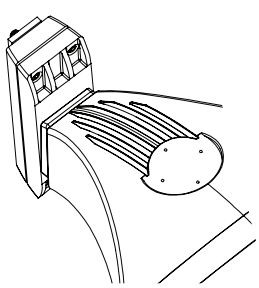


The FSP-211 by Legrand is integrated into the VLX housing and provides multi-level control based on motion and/or daylight contribution.
Lens Coverage Patterns:
WSC-8 - 360° lens, maximum coverage 48'; diameter from 8' height
WSC-20 - 360° lens, maximum coverage 48'; diameter from 20' height
WSC-40 -360° lens, maximum coverage 100'; diameter from 40' height

Default settings:

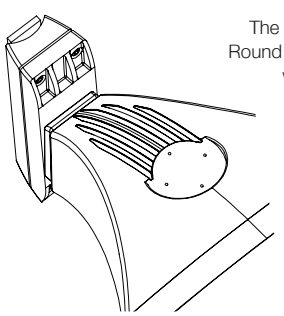
FACTORY DEFAULTS High Mode	0 Volts
Low Mode	1 Volts
Time Delay	5 Minutes
Cut Off	1 Hour
Sensitivity	Maximum
Hold Off Set point	4 Foot Candles
Ramp Up	None
Fade Down	None
Force Off Set point with Occupied	Disable

UPMA



The Universal Pole Mount Adaptor is ideal for retrofit applications with existing square poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

UPMA-R



The Universal Pole Mount Adaptor Round is ideal for retrofit applications with existing round poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

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CONFIRM OUTPUT

VLX Array LED Array Specifications

VLX ARRAY LUMEN CHART - 3K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	52191	51808	50363	45516	51180	52819	46412	50261	52041	53885	388
	800	60L	58603	58173	56550	51108	57468	59308	52114	56436	58435	60506	444
	900	65L	64846	64370	62574	56552	63589	65626	57665	62448	64659	66951	501
	1000	75L	70533	70015	68062	61512	69166	71382	62723	67925	70330	72822	565
VLX ARRAY LUMEN CHART - 4K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	54287	53889	52385	47344	53235	54940	48276	52279	54131	56049	388
	800	60L	60956	60509	58821	53160	59775	61690	54207	58702	60781	62935	444
	900	65L	67449	66955	65087	58823	66143	68261	59981	64955	67256	69639	501
	1000	75L	73365	72827	70795	63982	71943	74248	65241	70652	73154	75746	565
VLX ARRAY LUMEN CHART - 5K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	55011	54608	53084	47975	53945	55673	48920	52977	54853	56797	388
	800	60L	61770	61317	59606	53869	60573	62513	54930	59486	61592	63775	444
	900	65L	68350	67848	65955	59608	67025	69172	60781	65822	68153	70568	501
	1000	75L	74344	73799	71740	64835	72904	75238	66112	71595	74130	76757	565
VLX ARRAY LUMEN PER WATT CHART - 3K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	135	134	130	117	132	136	120	130	134	139	388
	800	60L	132	131	127	115	130	134	117	127	132	136	444
	900	65L	129	128	125	113	127	131	115	125	129	134	501
	1000	75L	125	124	120	109	122	126	111	120	124	129	565
VLX ARRAY LUMEN PER WATT CHART - 4K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	140	139	135	122	137	142	124	135	140	144	388
	800	60L	137	136	133	120	135	139	122	132	137	142	444
	900	65L	135	134	130	117	132	136	120	130	134	139	501
	1000	75L	130	129	125	113	127	131	115	125	129	134	565
VLX ARRAY LUMEN PER WATT CHART - 5K													
# LEDs	Current (mA)	K Lumen	T1	T2	T3	T3L	T4	T4A	T4L	T5LR	T5LS	T5SR	Wattage
192AR	700	55L	142	141	137	124	139	144	126	137	141	146	388
	800	60L	139	138	134	121	137	141	124	134	139	144	444
	900	65L	136	135	132	119	134	138	121	131	136	141	501
	1000	75L	132	131	127	115	129	133	117	127	131	136	565

VISIONAIRE LIGHTING

LED Specifications **VLX Array**

VLX ARRAY BUG CHART - 3K

# LEDs	Current (mA)	K Lumen	T1			T2			T3			T3L			T4			T4A			T4L			T5LR			T5LS			T5SR			Wattage
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
192AR	700	55L	5	0	5	5	0	5	4	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	4	388
	800	60L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	4	444
	900	65L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	4	501
	1000	75L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	4	565

VLX ARRAY BUG CHART - 4K

# LEDs	Current (mA)	K Lumen	T1			T2			T3			T3L			T4			T4A			T4L			T5LR			T5LS			T5SR			Wattage
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
192AR	700	55L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	5	388
	800	60L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	5	444
	900	65L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	4	5	0	5	5	0	5	5	0	5	5	0	5	501
	1000	75L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	565

VLX ARRAY BUG CHART - 5K

# LEDs	Current (mA)	K Lumen	T1			T2			T3			T3L			T4			T4A			T4L			T5LR			T5LS			T5SR			Wattage
			B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
192AR	700	55L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	388
	800	60L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	444
	900	65L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	501
	1000	75L	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	5	0	5	565

VMX-II LED Specifications

*Universal Arm Mount (UAM) Version Shown.

Project Name:

Catalog Number:

Type:

The **VMX-II LED** Series offers clean, functional styling that is defined by its sleek low profile design and rugged construction. It combines the latest LED technology, advanced LED thermal management and provides outdoor lighting that is both energy efficient and aesthetically pleasing.

The LED's performance and the driver's life are maximized by enclosing them in two separate cast aluminum housings. Easy tool-less access for mounting and maintenance.

The LED light assemblies come with 48 to 96 LEDs. Eight optical distribution patterns are available. Choose between 3000, 4000 or 5000 Kelvin temperature of the LEDs.

A durable polyester powder coat finish is guaranteed for five years; and is available in standard or custom colors.

The **VMX-II LED** series is an exceptional choice for commercial parking lots, office complexes, architectural projects, and other general lighting projects.

Ordering Information

CONFIRM FINISH

MODEL	OPTICS	LEDs	CURRENT	KELVIN	VOLTAGE	MOUNTING	FINISH	OPTIONS	OPTIONS	OPTIONS
VMX-II	**T1** Type 1	**48LC**	**3** 350mA	**3K** 3000K	**UNV** 120-277V	**AM** Arm Mount	**BZ** Bronze	**PCR-120**	**WSC-8** Motion Sensor 8' Mounting Height	**UPMA-S** Universal Square Pole Mount Adaptor
	T2 Type 2	**64LC**	**5** 530mA	**4K** 4000K	**8** 347V	**SAM** Straight Arm Mount W/ Terminal Block (New Construction)	**BK** Black	**PCR-208**	**WSC-20** Motion Sensor 9-20' Mounting Height	**UPMA-R** Universal Round Pole Mount Adaptor
	T3 Type 3	**80LC**	**7** 700mA	**5K** 5000K	**5** 480V	**UAM** Universal ArmW/ Terminal Block Mount (Retrofit)	**SBK** Smooth Black	**PCR-240**	**WSC-40** Motion Sensor 21-40' Mounting Height *The WSC option will require (1) FSIR 100 remote for programing	**BAWP** Cast Wall Plate
	T4 Type 4	**96LC**	**10** 1050mA *Not available in 96LC			**MAF** Mast Arm Fitter	**WH** White	**PCR-277**		**ROT-R** Rotated Optics Right Side
	T4A Type 4 Automotive	CONFIRM OUTPUT				**KM** Knuckle Mount	**SWH** Smooth White	**PCR-347**		**ROT-L** Rotated Optics Left Side
	T5 Type 5					**WM** Wall Mount *Requires BAWP	**GP** Graphite	**PCR-480** Photocell & Receptacle		**CLS** Backside cutoff shield *Not to be used with KM
	T5W Type 5 Wide					**AWM** Adjustable Wall Mount	**GY** Grey	**PER**		**RCLS** Rightside cutoff shield *Not to be used with KM
	T5WR Type 5 Wide Round					*Round Pole Plate Adapters (RPP) are to be ordered separately.	**SL** Silver Metallic	**5PINPER**		**LCLS** Leftside cutoff shield *Not to be used with KM
	CONFIRM DISTRIBUTION					*BAWP to be ordered separately	**CC** Custom Color	**7PINPER** 3, 5, or 7 Pin Photo Receptacle w/shorting cap Requires Dimming Driver		**HS** House shield
								DIM 0-10v Dimming Driver	**UMAP** Universal Mast arm fitter	
								RPP-3"	**ECLS** Egg Crate Louver Shield	
								RPP-4"		
								RPP-5" Round Pole Plate Adaptor	**ADJLS** Adjustable Louver Light Shield	
								VWC Visionaire Wireless Controls *Consult Factory	**BD** Barn Door Shield	

VISIONAIRE LIGHTING

Features & Specifications

VMX-II

Heatsink
Cast aluminum heatsink with integral cooling fins for thermal management.

Mounting Arm/Driver Compartment
Durable two-piece die cast aluminum driver compartment utilizes stainless steel hardware and sealed with a one-piece silicone gasket.

Thermal Management
· The VMX-II series provides excellent thermal management by mounting the LEDs to the substantial heat sink of the housing. This enables the Luminaire to withstand higher ambient temperatures and driver currents without degrading LED life.
· The L70 test determines the point in an LEDs life when it reaches 70 percent of its initial output. The VMX-II series LEDs have been determined to last 100,000+ hours in 25° C environments when driven at 350 mA.

Optical System
· The highest lumen output, LEDs are utilized in the VMX-II series. IES distribution Types I, II, II, III, IV, IV-A, V, V-WR are available. The optical system qualifies as IES full cutoff to restrict light trespass, glare and light pollution.
· CRI values are 70.

Quali-Guard® Finish
· The finish is a Quali-Guard® textured, chemically pretreated through a multiple-stage washer, electrostatically applied, thermoset polyester powder coat finish, with a minimum of 3-5 millimeter thickness. Finish is oven-baked at 400º F to promote maximum adherence and finish hardness. All finishes are available in standard and custom colors.
· Finish is guaranteed for five (5) years.

Electrical Assembly
· The VMX-II LED series is supplied with a choice of 350, 530, 700 or 1050 mA high-performance LED drivers that accept 120v thru 480v, 50 Hz to 60 Hz, input. Power factor of 90%. Rated for -40°C operations.
· 10 kV surge protector supplied as standard.
· Terminal block supplied as standard on AM, SAM and UAM as standard

Warranty
· Five (5) year Limited Warranty on entire system, including finish. For full warranty information, please visit visionairelighting.com.

Options
· Photocell & Receptacle
· Photo Receptacle with Shorting Cap
· 0-10v Dimming Driver
· Motion Sensor
· Wireless Control
· Round pole plate adapter
· Universal Pole Mount Adaptor
· Cast Wall Plate
· Rotated Optics
· Cutoff Louver Shielding (CLS)

Listings
· The VMX-II Series is cUL Listed
· IP65 Rated Housing
· ANSI Certification
· Powder Coated Tough
· IDA Certification
· DLC Listed

DesignLights Consortium (DLC) qualified Product. Some configurations of this product family may not be DesignLights Consortium (DLC) listed, please refer to the DLC qualified products list to confirm listed configurations. http://www.designlights.org/
3000K must be selected with a fixed mount for IDA certification. Fixed mount must be selected for IDA dark sky certification.

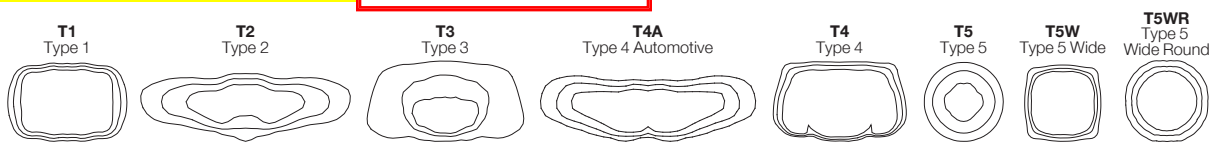
VMX-II - ELECTRICAL LOAD (A)

Ordering Nomenclature	System Watts	120	208	240	277	347	480
VMX-II-T5-48LC-3	52	0.43	0.25	0.22	0.19	0.15	0.11
VMX-II-T5-48LC-5	78	0.65	0.38	0.33	0.28	0.22	0.16
VMX-II-T5-48LC-7	106	0.88	0.51	0.44	0.38	0.31	0.22
VMX-II-T5-48LC-10	161	1.34	0.77	0.67	0.58	0.46	0.34
VMX-II-T5-64LC-3	70	0.58	0.34	0.29	0.25	0.20	0.15
VMX-II-T5-64LC-5	107	0.89	0.51	0.45	0.39	0.31	0.22
VMX-II-T5-64LC-7	142	1.18	0.68	0.59	0.51	0.41	0.30
VMX-II-T5-64LC-10	218	1.82	1.05	0.91	0.79	0.63	0.45
VMX-II-T5-80LC-3	87	0.73	0.42	0.36	0.31	0.25	0.18
VMX-II-T5-80LC-5	132	1.10	0.63	0.55	0.48	0.38	0.28
VMX-II-T5-80LC-7	177	1.48	0.85	0.74	0.64	0.51	0.37
VMX-II-T5-80LC-10	272	2.27	1.31	1.13	0.98	0.78	0.57
VMX-II-T5-96LC-3	104	0.87	0.50	0.43	0.38	0.30	0.22
VMX-II-T5-96LC-5	157	1.31	0.75	0.65	0.57	0.45	0.33
VMX-II-T5-96LC-7	212	1.77	1.02	0.88	0.77	0.61	0.44

19645 Rancho Way · Rancho Dominguez, CA 90220 · Phone: 310 512 6480 Fax 310 512 6486
www.visionairelighting.com

VMX-II LED Specifications

Photometric Optical Summary CONFIRM DISTRIBUTION



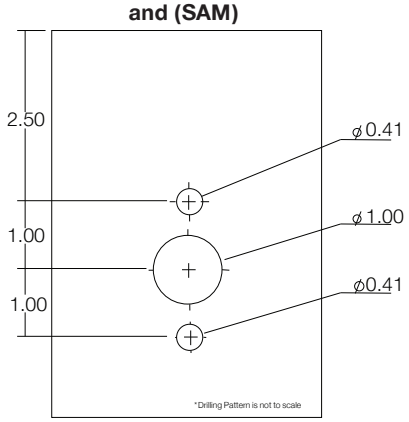
EPA Data	0.75	1.47	1.5	2.22	2.1	2.22

VMX-II-KM EPA DATA										
Degree of Tilt	0º	10º	20º	30	40º	50º	60º	70º	80º	90º
EPA	0.26	0.32	0.43	0.70	0.98	1.42	1.89	2.43	3.13	3.95

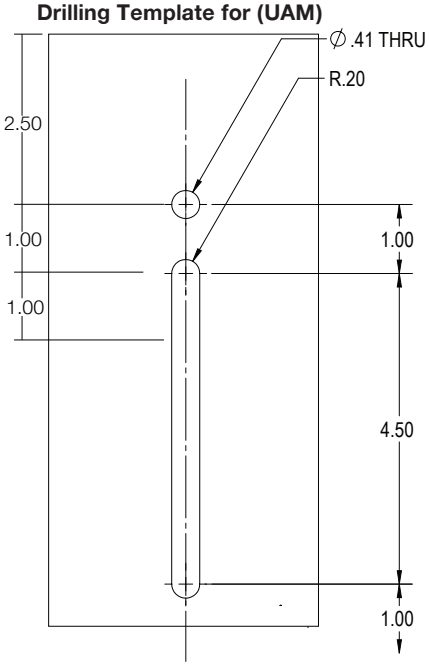
Dimensions

Width:	VMX-II 15.5”
Depth:	VMX-II 29”
Height:	VMX-II 4.0”
Overall Height:	VMX-II 10.75”
Weight:	49 LBS

Drilling Template for (AM) and (SAM)



Drilling Template for (UAM)



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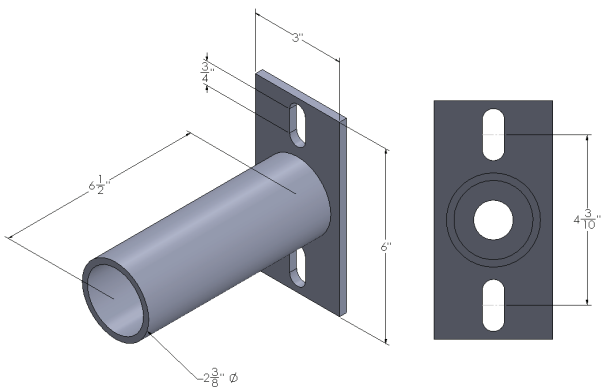
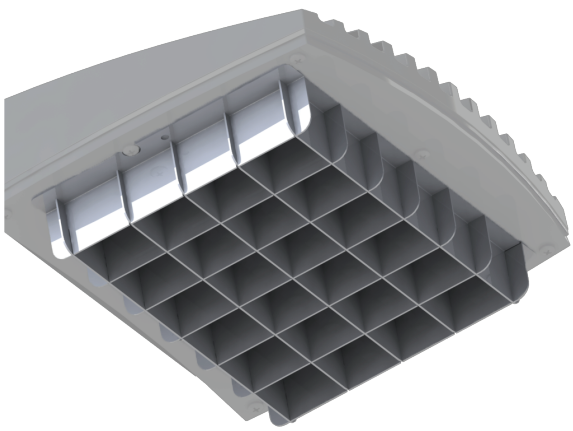
VMX-II Options

Universal Mast Arm Fitter

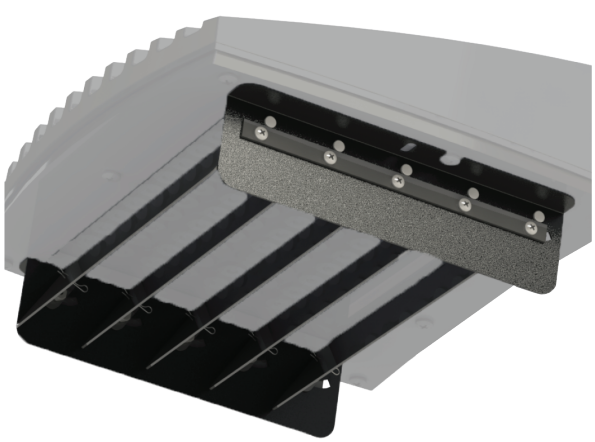
UMAP – The Universal Mast Arm Fitter is a simple solution for retrofit applications where a fixture needs to mount to an existing pole, the UMAP is meant to be use to with knuckle mounts and also Mast Arm Fitters. The UMAP has a bolt slot ranging from 7" all the way down to 3.5". The UMAP also has a Round Pole Plate Adaptor (RPP) for mounting to round poles.



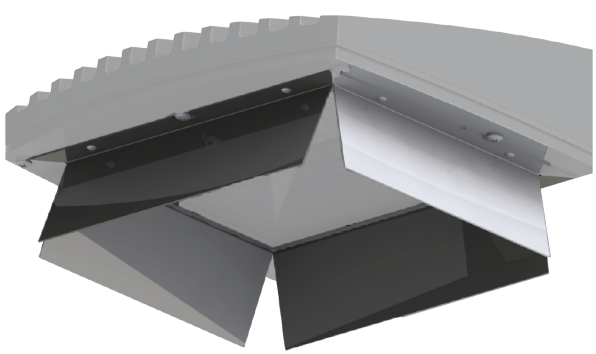
Egg Crate Light Shield



Adjustable Louver Light Shield



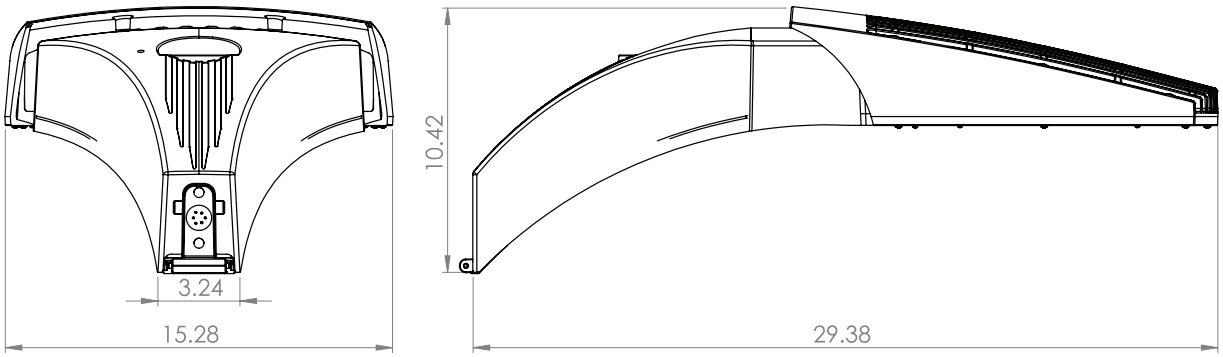
Barn Door Light Shield



VMX-II LED Specifications

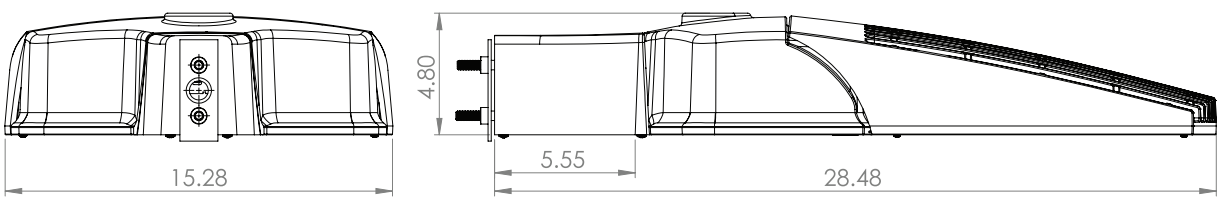
Arm Mount (AM)

The Arm Mount (AM) utilizes a 2 piece cleat system for easy installation, a terminal block is supplied as standard. A Round Pole Plate Adapter (RPP) is required for mounting to round poles.



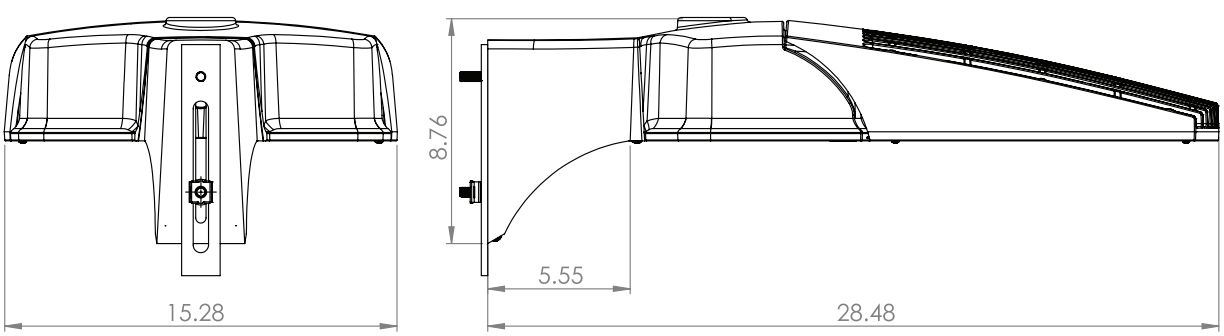
Straight Arm Mount (SAM)

The Straight Arm Mount (SAM) uses a 2 piece mounting system, a terminal block is supplied as standard. A Round Pole Plate Adapter (RPP) is required for mounting to round poles.



Universal Arm Mount (UAM)

The Unviersal Arm Mount (UAM) is meant for retrofit Applications and has a drilling templat raning from 3" to 5.5". A Round Pole Plate Adapter (RPP) is required for mounting to round poles.



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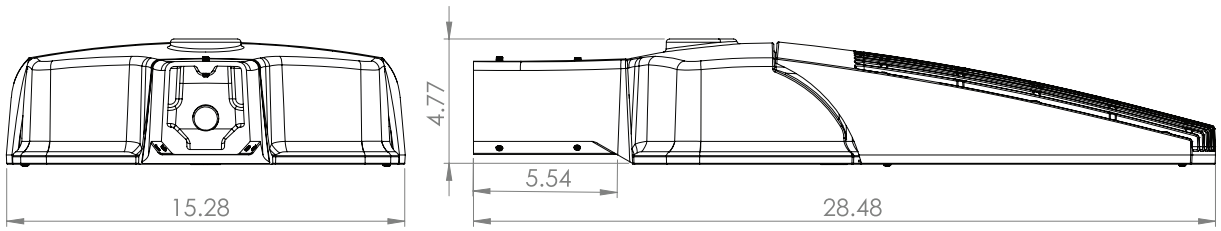
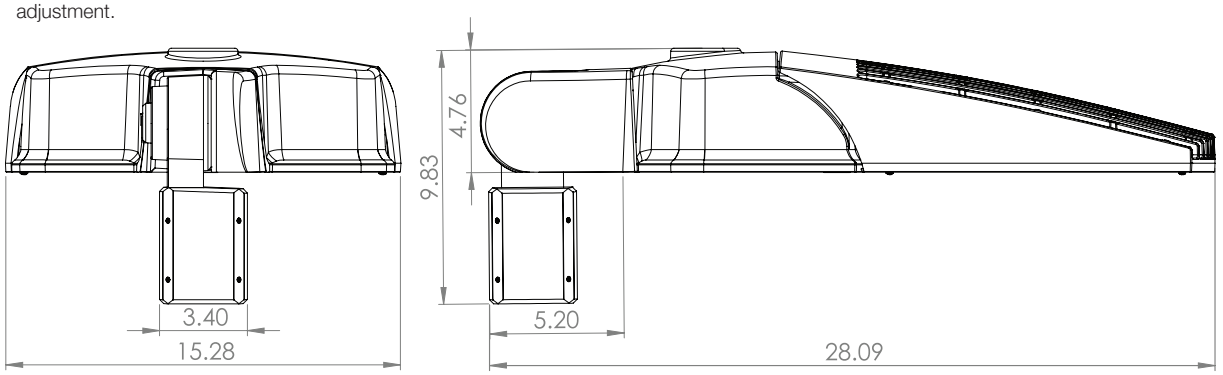
Mast Arm Fitter (MAF)

Mast Arm Fitter fits over a 1 5/8" - 2 3/8" tenon.



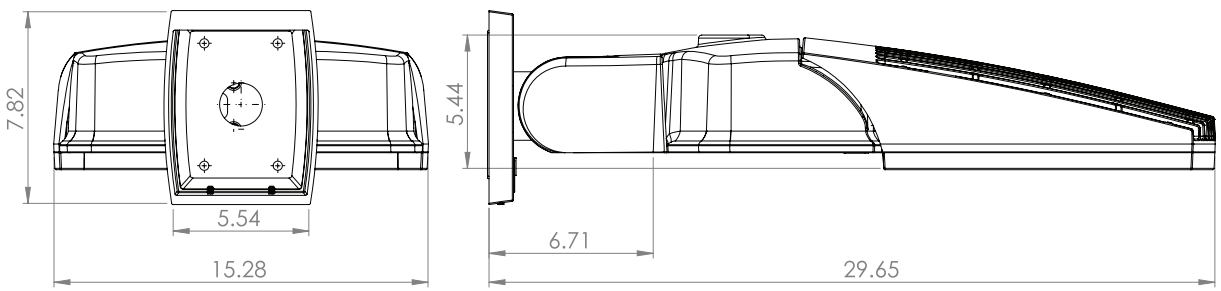
Knuckle Mount (KM)

An adjustable knuckle slip fits over a 2 3/8" Tenon, and allows for up to 90° degrees of vertical adjustment in 10° degree increments from horizontal, as well as full side to side adjustment.



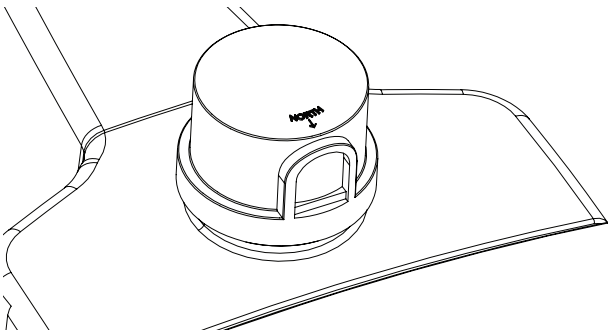
Adjustable Wall Mount (AWM)

Wall Mount - Adjustable up to 50° in 10° increments

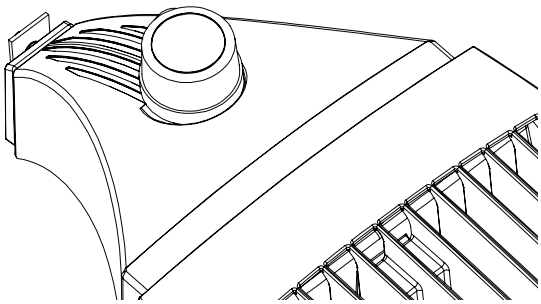


VMX-II LED Specifications

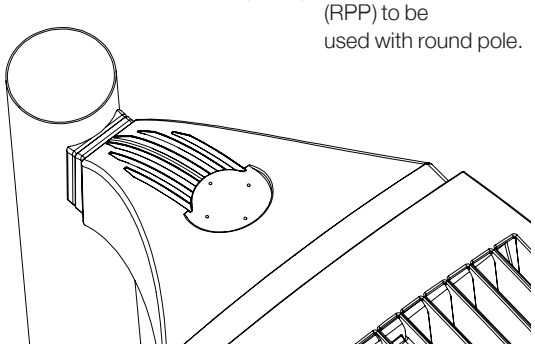
Twist lock Photocell & Receptacle - Dusk to dawn sensor.



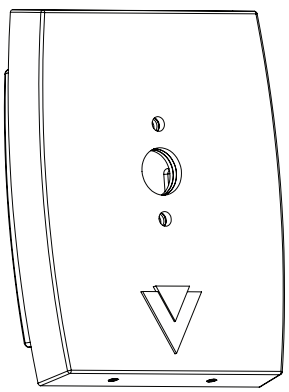
Photocell Receptacle and Shorting Cap



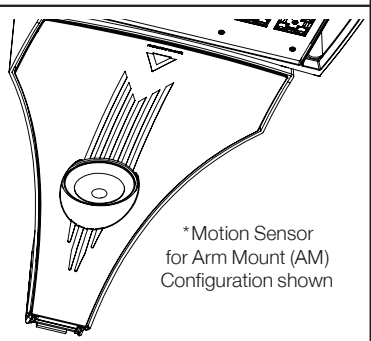
Round Pole Plate Adaptor (RPP) - Round Pole Plate Adaptor (RPP) to be used with round pole.



Cast Wall Plate - Arm Mount Wall Plate is needed to wall mount the VMX-II.

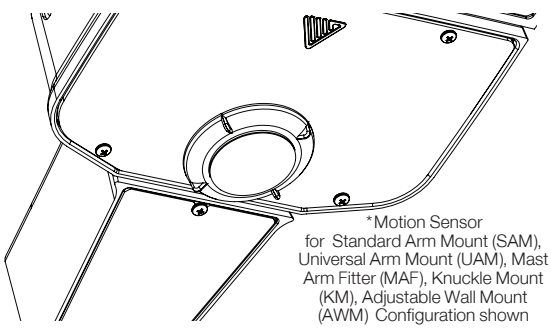


Motion Sensor - *This option will require one FSIR 100 remote for programing.



*Motion Sensor for Arm Mount (AM) Configuration shown

Motion Sensor (for SAM, UAM, MAF, KM, AWM) - *This option will require one FSIR 100 remote for programing.



*Motion Sensor for Standard Arm Mount (SAM), Universal Arm Mount (UAM), Mast Arm Fitter (MAF), Knuckle Mount (KM), Adjustable Wall Mount (AWM) Configuration shown

The FSP-211 by Legrand is integrated into the VMX housing and provides multi-level control based on motion and/or daylight contribution.

Lens Coverage Patterns:	
WSC-8	360° lens, maximum coverage 48'; diameter from 8' height
WSC-20	360° lens, maximum coverage 48'; diameter from 20' height
WSC-40	360° lens, maximum coverage 100'; diameter from 40' height

Motion Sensor Default Settings	
High Mode	0 Volts
Low Mode	1 Volts
Time Delay	5 Minutes
Cut Off	1 Hour
Sensitivity	Maximum
Hold Off Set Point	4ft
Candles	N/A
Ramp Up	None
Fade Down	None
Force Off Set Point With Occupied	Disable

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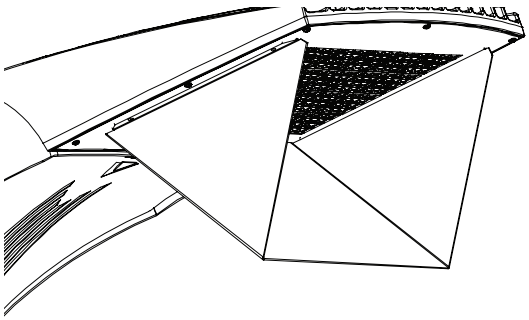
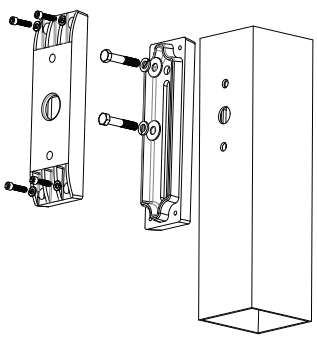
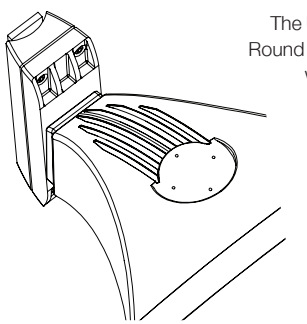
House Shield - Provides solid back light cutoff





UPMA

The Universal Pole Mount Adaptor is ideal for retrofit applications with existing square poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

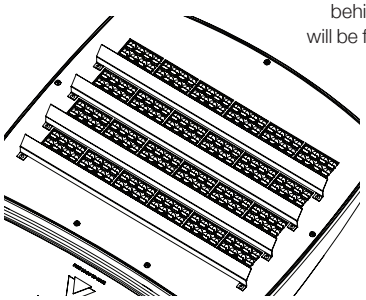


UPMA-R

The Universal Pole Mount Adaptor Round is ideal for retrofit applications with existing round poles. This adaptor is slotted to fit any existing drilling pattern, up to 6 ½" bolt to bolt maximum.

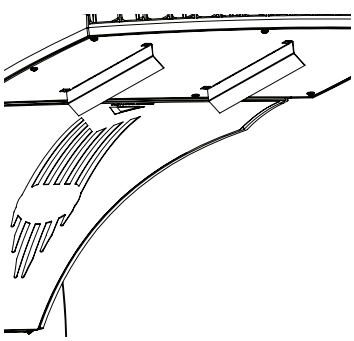
CLS

The Back Side Cutoff Louver Shield will reduce light output behind the fixture, all of the light will be focused in front of the VMX.
*Not to be used with KM



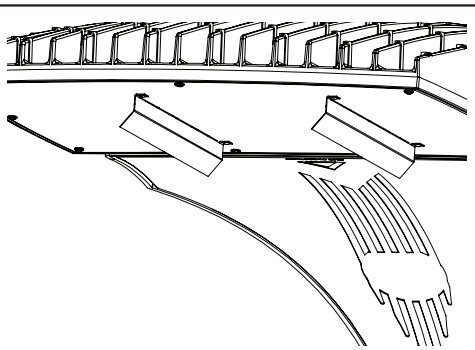
LCLS

The Left Side Cutoff Louver Shield will reduce light output on the left side of the fixture, all of the light be focused on the right side of the VMX.
*Not to be used with KM



RCLS

The Right Side Cutoff Louver Shield will reduce light output on the right side of the fixture, all of the light be focused on the left side of the VMX.
*Not to be used with KM



VMX-II LED Specifications

CONFIRM OUTPUT

VMX-II - 3K Lumen Data										
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	7311	6909	7243	6994	7321	7506	7333	7191	52
	530	9808	9269	9717	9383	9822	10070	9838	9648	78
	700	12786	12084	12668	12232	12805	13128	12826	12578	106
	1050	17509	16547	17347	16750	17534	17977	17563	17223	161
64	350	9309	8798	9223	8906	9323	9558	9338	9158	70
	530	13763	13007	13636	13167	13783	14131	13806	13539	107
	700	16888	15960	16732	16156	16912	17339	16940	16612	142
	1050	23222	21946	23007	22215	23255	23843	23293	22843	218
80	350	11512	10880	11406	11013	11529	11820	11547	11324	87
	530	16640	15726	16486	15918	16664	17084	16691	16368	132
	700	20813	19670	20621	19911	20844	21370	20878	20474	177
	1050	29027	27433	28759	27769	29069	29803	29117	28554	272
96	350	13714	12961	13588	13120	13734	14081	13757	13491	104
	530	19516	18444	19336	18670	19544	20038	19576	19198	157
	700	24739	23380	24511	23667	24775	25400	24815	24336	212
VMX-II - 4K Lumen Data										
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	7695	7273	7624	7362	7707	7901	7719	7627	52
	530	10324	9757	10229	9876	10339	10600	10356	10232	78
	700	13459	12720	13335	12876	13479	13819	13501	13340	106
	1050	18430	17418	18260	17631	18457	18923	18487	18267	161
64	350	9799	9261	9709	9375	9814	10061	9830	9713	70
	530	14487	13692	14354	13860	14509	14875	14532	14359	107
	700	17777	16800	17612	17006	17802	18252	17831	17619	142
	1050	24444	23101	24218	23385	24479	25097	24519	24227	218
80	350	12118	11452	12006	11593	12135	12442	12155	12010	87
	530	17515	16553	17354	16756	17541	17984	17569	17360	132
	700	21909	20705	21707	20959	21941	22495	21977	21715	177
	1050	30555	28876	30273	29231	30599	31372	30649	30284	272
96	350	14436	13643	14303	13811	14457	14822	14481	14308	104
	530	20543	19415	20354	19653	20573	21092	20607	20361	157
	700	26041	24611	25801	24912	26079	26737	26122	25810	212
VMX-II - 5K Lumen Data										
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	7384	6979	7316	7064	7395	7582	7407	7264	52
	530	9907	9362	9815	9477	9921	10172	9937	9745	78
	700	12915	12206	12796	12356	12934	13261	12955	12705	106
	1050	17685	16714	17522	16919	17711	18158	17740	17397	161
64	350	9403	8887	9317	8996	9417	9655	9433	9250	70
	530	13902	13138	13774	13300	13922	14274	13945	13675	107
	700	17058	16121	16901	16319	17083	17514	17111	16780	142
	1050	23456	22168	23240	22440	23490	24083	23529	23074	218
80	350	11628	10989	11521	11124	11645	11939	11664	11439	87
	530	16808	15884	16653	16079	16832	17257	16860	16534	132
	700	21024	19869	20830	20112	21054	21586	21089	20681	177
	1050	29320	27710	29050	28050	29363	30104	29411	28842	272
96	350	13853	13092	13725	13253	13873	14223	13896	13627	104
	530	19713	18630	19531	18859	19742	20240	19774	19392	157
	700	24989	23616	24758	23906	25025	25657	25066	24581	212

LED Specifications **VMX-II**

VMX-II - 3K Lumen Per Watt Data									
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR
48	350	141	133	139	134	141	144	141	138
	530	125	118	124	120	125	129	126	123
	700	121	114	120	115	121	124	121	119
	1050	109	103	108	104	109	112	109	107
64	350	133	126	132	127	133	137	133	131
	530	129	122	127	123	129	132	129	127
	700	119	112	118	114	119	122	119	117
	1050	107	101	106	102	107	109	107	105
80	350	133	125	131	127	133	136	133	130
	530	126	119	125	121	126	130	127	124
	700	118	111	117	112	118	121	118	116
	1050	107	101	106	102	107	110	107	105
96	350	132	125	131	127	132	136	133	130
	530	125	118	123	119	125	128	125	123
	700	117	110	116	112	117	120	117	115
VMX-II - 4K Lumen Per Watt Data									
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR
48	350	148	140	147	142	148	152	148	147
	530	132	125	131	126	132	135	132	131
	700	127	120	126	121	127	130	127	126
	1050	114	108	113	110	115	118	115	113
64	350	140	132	139	134	140	144	140	139
	530	135	128	134	130	136	139	136	134
	700	125	118	124	120	125	129	126	124
	1050	112	106	111	107	112	115	112	111
80	350	140	132	138	133	140	143	140	138
	530	133	126	132	127	133	136	133	132
	700	124	117	123	118	124	127	124	123
	1050	112	106	111	108	113	115	113	111
96	350	139	132	138	133	139	143	140	138
	530	131	124	130	125	131	135	132	130
	700	123	116	122	118	123	126	123	122
VMX-II - 5K Lumen Per Watt Data									
#LED's	mA	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR
48	350	142	134	141	136	142	146	142	140
	530	127	120	125	121	127	130	127	124
	700	122	115	121	117	122	125	122	120
	1050	110	104	109	105	110	113	110	108
64	350	134	127	133	129	135	138	135	132
	530	130	123	129	124	130	133	130	128
	700	120	114	119	115	120	123	121	118
	1050	108	102	107	103	108	110	108	106
80	350	134	127	133	128	134	137	134	132
	530	128	121	126	122	128	131	128	125
	700	119	112	118	114	119	122	119	117
	1050	108	102	107	103	108	111	108	106
96	350	134	126	132	128	134	137	134	131
	530	126	119	125	120	126	129	126	124
	700	118	111	117	113	118	121	118	116

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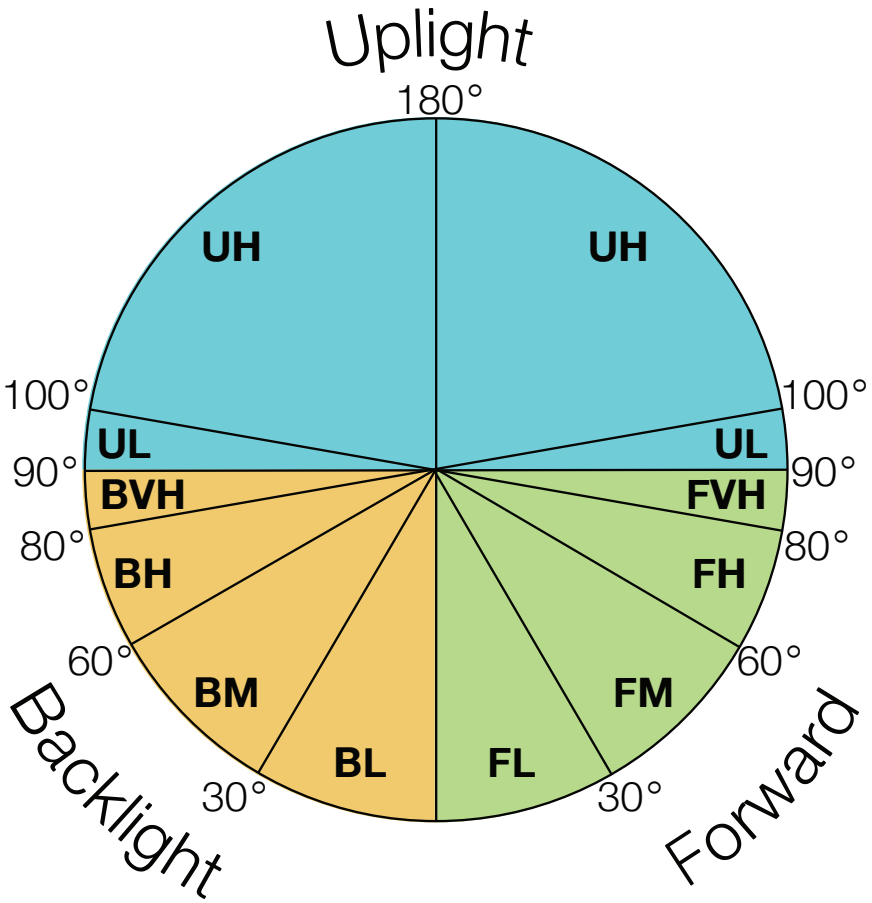
VMX-II LED Specifications

VMX-II - 3K BUG Data																									
LED's	mA	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type T5WR		
		B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G
48	350	2	0	2	2	0	2	1	0	2	2	0	2	1	0	1	3	0	1	3	0	2	3	0	2
	530	3	0	3	2	0	3	1	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	700	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	3	0	2	4	0	2	4	0	2
	1050	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
64	350	3	0	3	2	0	3	1	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	530	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
80	350	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	4	0	2	4	0	2
	530	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
	1050	5	0	4	3	0	4	3	0	4	3	0	4	3	0	3	5	0	3	5	0	3	5	0	4
96	350	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	5	0	3
	700	4	0	4	3	0	4	3	0	4	3	0	4	3	0	2	4	0	2	5	0	3	5	0	3
VMX-II - 4K BUG Data																									
LED's	mA	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type T5WR		
48	350	3	0	3	2	0	2	1	0	2	2	0	2	1	0	1	3	0	1	3	0	2	3	0	2
	530	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	4	0	2	4	0	2
	700	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	5	0	3
64	350	3	0	3	2	0	3	1	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	530	3	0	3	3	0	3	2	0	2	3	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	4	3	0	4	3	0	4	3	0	4	3	0	2	4	0	2	5	0	3	5	0	3
80	350	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	4	0	2	4	0	2
	530	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
	1050	5	0	4	3	0	5	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
96	350	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
	700	4	0	4	3	0	4	3	0	4	3	0	4	3	0	3	5	0	3	5	0	3	5	0	3
VMX-II - 5K BUG Data																									
LED's	mA	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type T5WR		
48	350	2	0	2	2	0	2	1	0	2	2	0	2	1	0	1	3	0	1	3	0	2	3	0	2
	530	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	700	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
64	350	3	0	3	2	0	3	1	0	2	2	0	2	2	0	1	3	0	2	3	0	2	4	0	2
	530	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	1050	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
80	350	3	0	3	2	0	3	2	0	2	2	0	2	2	0	1	3	0	2	4	0	2	4	0	2
	530	4	0	3	3	0	3	2	0	3	3	0	3	3	0	2	4	0	2	4	0	2	4	0	2
	700	4	0	4	3	0	4	3	0	3	3	0	3	3	0	2	4	0	2	5	0	3	5	0	3
	1050	5	0	4	3	0	4	3	0	4	3	0	4	3	0	3	5	0	3	5	0	4	5	0	4
96	350	3	0	3	3	0	3	2	0	2	2	0	3	2	0	2	4	0	2	4	0	2	4	0	2
	530	4	0	4	3	0	3	3	0	3	3	0	3	3	0	2	4	0	2	4	0	3	5	0	3
	700	4	0	4	3	0	4	3	0	4	3	0	4	3	0	2	4	0	2	5	0	3	5	0	3

Bug Rating -

The subzones are individually rated on a scale from 0 to 5, going from lowest to highest luminous flex. The highest rating of a subzone is considered the overall rating for that zone, and these readings are compiled into the BUG lighting classification: for example, B3 U1 G0. The tables below, which are based on the standards established by the IES, show the thresholds for each subzone.



VMX-II LED Specifications

VMX-II Cutoff Louver Shield - 3K Lumen Data *Not to be used with KM										
# of LEDs	Current (mA)	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	4839	4388	4668	4666	5514	4472	3980	3932	52
	530	6491	5886	6262	6260	7398	6000	5339	5275	78
	700	8463	7674	8164	8162	9645	7822	6961	6878	106
	1050	11589	10508	11180	11176	13207	10710	9531	9418	160
64	350	6162	5587	5944	5942	7022	5695	5068	5007	73
	530	9109	8260	8788	8785	10382	8419	7492	7403	106
	700	11178	10135	10783	10779	12739	10331	9193	9084	140
	1050	15370	13937	14828	14822	17516	14205	12641	12491	218
80	350	7619	6909	7351	7348	8684	7042	6267	6192	88
	530	11013	9987	10625	10621	12551	10179	9058	8950	131
	700	13776	12492	13290	13285	15700	12732	11330	11195	176
	1050	19212	17421	18535	18528	21895	17757	15801	15613	274
96	350	9077	8231	8757	8754	10345	8389	7466	7377	104
	530	12917	11713	12462	12457	14721	11939	10624	10497	157
	700	16374	14848	15797	15791	18661	15134	13467	13307	212
VMX-II Cutoff Louver Shield - 4K Lumen Data *Not to be used with KM										
# of LEDs	Current (mA)	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	5093	4619	4914	4912	5805	4707	4189	4139	52
	530	6833	6196	6592	6590	7787	6315	5620	5553	78
	700	8908	8078	8594	8591	10152	8233	7327	7240	106
	1050	12198	11061	11768	11764	13902	11274	10033	9913	160
64	350	6486	5881	6257	6255	7392	5995	5334	5271	73
	530	9589	8695	9251	9247	10928	8862	7887	7793	106
	700	11766	10669	11351	11347	13409	10874	9677	9562	140
	1050	16179	14670	15608	15602	18438	14953	13307	13148	218
80	350	8020	7273	7738	7735	9141	7413	6597	6518	88
	530	11593	10512	11184	11180	13212	10715	9535	9421	131
	700	14501	13149	13989	13984	16526	13402	11927	11784	176
	1050	20224	18338	19510	19503	23048	18691	16633	16435	274
96	350	9555	8664	9218	9215	10889	8831	7859	7765	104
	530	13597	12329	13117	13113	15496	12567	11183	11050	157
	700	17236	15629	16628	16622	19643	15930	14176	14007	212
VMX-II Cutoff Louver Shield - 5K Lumen Data *Not to be used with KM										
# of LEDs	Current (mA)	Type 1	Type 2	Type 3	Type 4	Type 4A	Type 5	Type 5W	Type 5WR	Watts
48	350	5197	4713	5014	5012	5923	4804	4275	4224	52
	530	6973	6322	6727	6724	7946	6444	5735	5666	78
	700	9090	8243	8770	8766	10360	8401	7476	7387	106
	1050	12447	11287	12008	12004	14186	11504	10238	10116	160
64	350	6618	6001	6385	6383	7543	6117	5443	5379	73
	530	9785	8872	9439	9436	11151	9043	8047	7952	106
	700	12006	10887	11583	11578	13683	11096	9875	9757	140
	1050	16509	14970	15927	15921	18814	15258	13578	13416	218
80	350	8184	7421	7895	7893	9327	7564	6731	6651	88
	530	11830	10727	11412	11408	13482	10933	9729	9614	131
	700	14797	13417	14275	14270	16863	13676	12170	12025	176
	1050	20636	18712	19908	19901	23518	19073	16973	16770	274
96	350	9750	8841	9406	9403	11112	9011	8019	7924	104
	530	13875	12581	13385	13380	15812	12823	11411	11275	157
	700	17588	15948	16967	16961	20044	16255	14465	14293	212

LED Specifications **VMX-II**

VMX-II Cutoff Louver Shield - 3K Lumen Per Watt Data *Not to be used with KM										
# of LEDs	**Current (mA)**	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 4A**	**Type 5**	**Type 5W**	**Type 5WR**	**Watts**
48	**350**	93	84	90	90	106	86	77	76	**52**
	530	83	75	80	80	94	77	68	67	**78**
	700	80	72	77	77	91	74	66	65	**106**
	1050	72	66	70	70	83	67	60	59	**160**
64	**350**	85	77	82	82	96	78	70	69	**73**
	530	86	78	83	83	98	79	71	70	**106**
	700	80	72	77	77	91	74	66	65	**140**
	1050	71	64	68	68	80	65	58	57	**218**
80	**350**	86	78	83	83	98	80	71	70	**88**
	530	84	76	81	81	96	77	69	68	**131**
	700	78	71	76	75	89	72	64	64	**176**
	1050	70	64	68	68	80	65	58	57	**274**
96	**350**	88	79	84	84	100	81	72	71	**104**
	530	82	75	80	80	94	76	68	67	**157**
	700	77	70	75	74	88	71	64	63	**212**
VMX-II Cutoff Louver Shield - 4K Lumen Per Watt Data *Not to be used with KM										
# of LEDs	**Current (mA)**	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 4A**	**Type 5**	**Type 5W**	**Type 5WR**	**Watts**
48	**350**	98	89	95	94	112	91	81	80	**52**
	530	87	79	84	84	99	81	72	71	**78**
	700	84	76	81	81	96	78	69	68	**106**
	1050	76	69	74	74	87	70	63	62	**160**
64	**350**	89	81	86	86	101	82	73	72	**73**
	530	90	82	87	87	103	83	74	73	**106**
	700	84	76	81	81	96	78	69	68	**140**
	1050	74	67	72	72	85	69	61	60	**218**
80	**350**	91	82	88	88	104	84	75	74	**88**
	530	88	80	85	85	101	82	73	72	**131**
	700	82	75	79	79	94	76	68	67	**176**
	1050	74	67	71	71	84	68	61	60	**274**
96	**350**	92	84	89	89	105	85	76	75	**104**
	530	87	79	84	84	99	80	71	71	**157**
	700	81	74	78	78	93	75	67	66	**212**
VMX-II Cutoff Louver Shield - 5K Lumen Per Watt Data *Not to be used with KM										
# of LEDs	**Current (mA)**	**Type 1**	**Type 2**	**Type 3**	**Type 4**	**Type 4A**	**Type 5**	**Type 5W**	**Type 5WR**	**Watts**
48	**350**	100	91	96	96	114	92	82	81	**52**
	530	89	81	86	86	101	82	73	72	**78**
	700	86	78	83	83	98	79	71	70	**106**
	1050	78	71	75	75	89	72	64	63	**160**
64	**350**	91	82	88	88	104	84	75	74	**73**
	530	92	84	89	89	105	85	76	75	**106**
	700	86	78	83	83	98	79	71	70	**140**
	1050	76	69	73	73	86	70	62	62	**218**
80	**350**	93	84	89	89	106	86	76	75	**88**
	530	90	82	87	87	103	83	74	73	**131**
	700	84	76	81	81	96	78	69	68	**176**
	1050	75	68	73	73	86	70	62	61	**274**
96	**350**	94	85	91	91	107	87	77	76	**104**
	530	89	80	85	85	101	82	73	72	**157**
	700	83	75	80	80	95	77	68	67	**212**

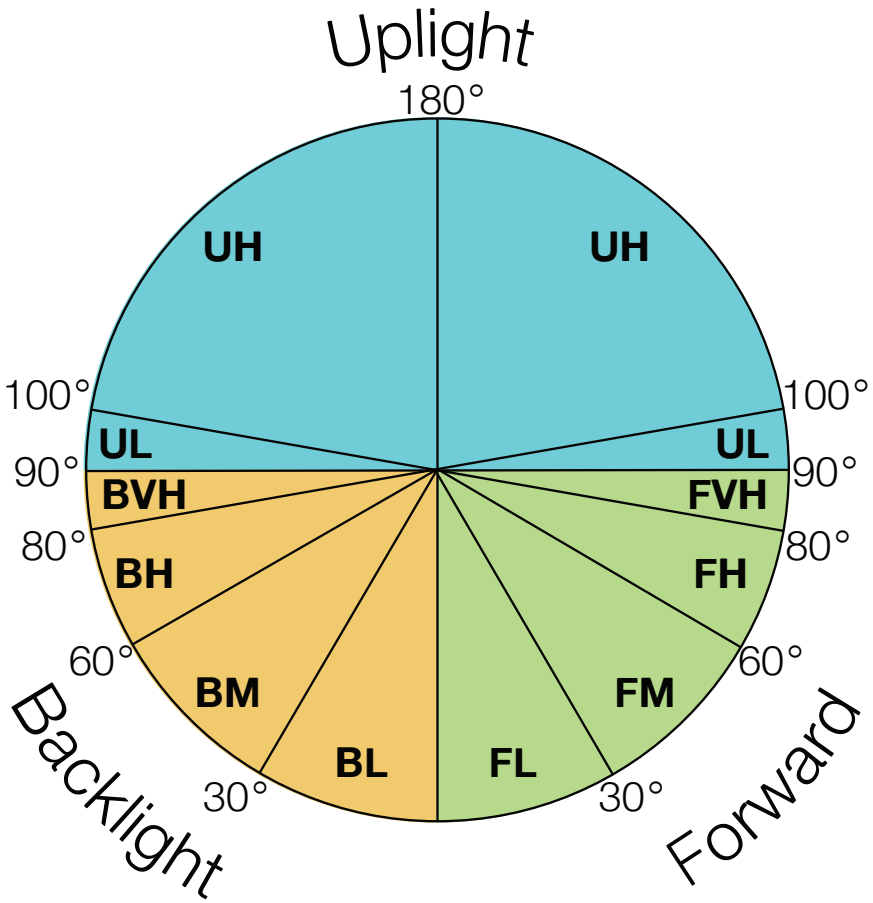
VMX-II LED Specifications

VMX-II Cutoff Louver Shield - 3K BUG Data *Not to be used with KM																									
# of LEDs	Current (mA)	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type 5WR			Watts
		B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
48	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	1	0	1	1	0	1	52
	530	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	2	0	2	2	0	2	78
	700	2	0	2	1	0	3	2	0	2	1	0	2	1	0	2	2	0	2	2	0	2	2	0	2	106
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	160
64	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	2	0	2	2	0	2	73
	530	3	0	3	1	0	3	2	0	2	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	106
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	2	0	2	2	0	2	140
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	218
80	350	2	0	2	1	0	3	1	0	2	1	0	2	1	0	2	2	0	1	2	0	2	2	0	2	88
	530	3	0	3	2	0	3	2	0	3	2	0	3	1	0	3	2	0	2	2	0	2	2	0	2	131
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	176
	1050	3	0	4	2	0	4	3	0	3	3	0	4	2	0	3	3	0	3	3	0	3	3	0	3	274
96	350	3	0	3	1	0	3	2	0	2	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	104
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	157
	700	3	0	3	2	0	3	3	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	212
VMX-II Cutoff Louver Shield - 4K BUG Data *Not to be used with KM																									
# of LEDs	Current (mA)	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type 5WR			Watts
		B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
48	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	1	0	1	1	0	1	52
	530	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	2	0	1	2	0	2	2	0	2	78
	700	3	0	3	1	0	3	2	0	2	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	106
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	160
64	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	2	0	2	2	0	2	73
	530	3	0	3	1	0	3	2	0	3	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	106
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	140
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	218
80	350	2	0	2	1	0	3	1	0	2	1	0	2	1	0	2	2	0	2	2	0	2	2	0	2	88
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	131
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	176
	1050	3	0	4	2	0	4	3	0	3	3	0	4	2	0	3	3	0	3	3	0	3	3	0	3	274
96	350	3	0	3	1	0	3	2	0	3	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	104
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	157
	700	3	0	3	2	0	4	3	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	212
VMX-II Cutoff Louver Shield - 5K BUG Data *Not to be used with KM																									
# of LEDs	Current (mA)	Type 1			Type 2			Type 3			Type 4			Type 4A			Type 5			Type 5W			Type 5WR			Watts
		B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	B	U	G	
48	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	1	0	1	1	0	1	52
	530	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	2	0	1	2	0	2	2	0	2	78
	700	3	0	3	1	0	3	2	0	2	2	0	3	1	0	2	2	0	2	2	0	2	2	0	2	106
	1050	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	160
64	350	2	0	2	1	0	2	1	0	2	1	0	2	1	0	2	1	0	1	2	0	2	2	0	2	73
	530	3	0	3	1	0	3	2	0	3	2	0	3	1	0	3	2	0	2	2	0	2	2	0	2	106
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	140
	1050	3	0	3	2	0	3	3	0	3	2	0	3	2	0	3	3	0	2	3	0	3	3	0	3	218
80	350	2	0	2	1	0	3	2	0	2	1	0	2	1	0	2	2	0	2	2	0	2	2	0	2	88
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	131
	700	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	3	3	0	3	176
	1050	3	0	4	3	0	4	3	0	4	3	0	4	2	0	3	3	0	3	3	0	3	3	0	3	274
96	350	3	0	3	1	0	3	2	0	3	2	0	3	1	0	3	2	0	2	2	0	2	2	0	2	104
	530	3	0	3	2	0	3	2	0	3	2	0	3	2	0	3	2	0	2	3	0	2	3	0	3	157
	700	3	0	3	2	0	4	3	0	3	3	0	3	2	0	3	3	0	2	3	0	3	3	0	3	212

VISIONAIRE LIGHTING

Bug Rating -

The subzones are individually rated on a scale from 0 to 5, going from lowest to highest luminous flex. The highest rating of a subzone is considered the overall rating for that zone, and these readings are compiled into the BUG lighting classification: for example, B3 U1 G0. The tables below, which are based on the standards established by the IES, show the thresholds for each subzone.



Submitted by Sea-Tac Lighting & Controls, LLC

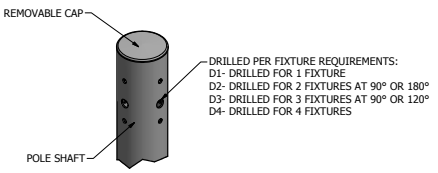
Job Name:
The Chehalis Tribe Chehalis Elder Center

Catalog Number:
RSA-5203-FINISH

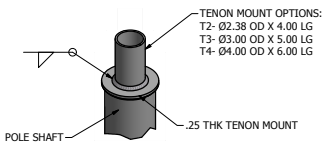
Notes:

Type:
P2-POLE

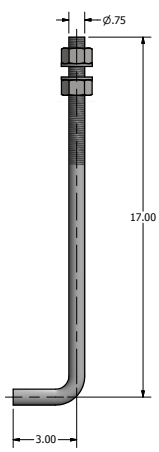
SEATAC-WWA21-113425



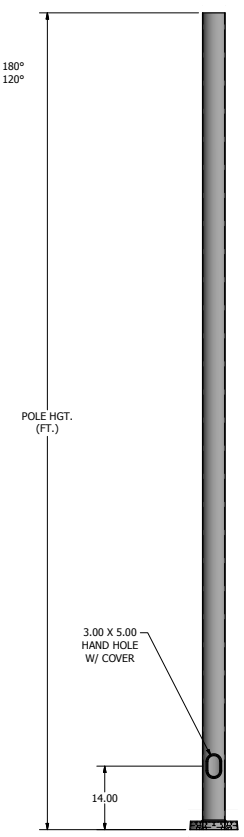
DRILLED MOUNT OPTIONS



TENON MOUNT OPTIONS



Ø.75 X 20.00 ANCHOR BOLT



POLE DETAIL

POLE SPECIFICATIONS		
NO.	COMPONENT	MAT'L DESIGNATION
1.	POLE SHAFT	6063-T6
2.	BASE PLATE	A356-T6
3.	ANCHOR BOLTS	F1554 GR. 55
4.	GALVANIZED HARDWARE	A153

FINISH SPECIFICATIONS
POLES SHALL HAVE A POLYESTER POWDER COAT FINISH IN A STANDARD COLOR.

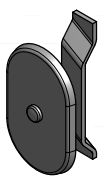
POLE DIMENSIONS				
POLE HGT (FT.)	TOP DIA. (IN.)	BOTTOM DIA. (IN.)	GAGE	MTG. HGT. (FT.)
20'	5.00	5.00	.188	20'

BASE PLATE DIMENSIONS			
BOLT CIRCLE (IN.)	BASE PLATE DIM. (IN.)	BOLT HOLE (IN.)	PLATE THK. (IN.)
7.75	10.62 DIA	.88	.75

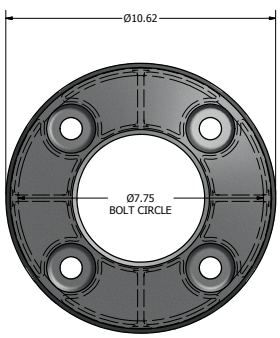
ANCHOR BOLT DIMENSIONS	
ANCHOR BOLT DIA. (IN.)	ANCHOR BOLT LENGTH (IN.)
.75	20.00

ALLOWABLE WIND LOADING (SQ. FT.)					
WIND*	INDICATED EPA	80 MPH	90 MPH	100 MPH	120 MPH
EPA	-	8.2	6.0	4.1	2.5

*WITH 1.3 GUST FACTOR



3.00 X 5.00 HAND HOLE COVER



Ø10.62 X 1.88 THK. BASE CASTING

180° 270° 90° 0° HAND HOLE

DRAWN: M. HARVALA	2/2/2015	
CHECKED		
REVISION:	DATE:	
APPROVED:		
QUOTE:		
S.O.#		
REF:	SCALE: NONE	

UNITED LIGHTING STANDARDS
A DWM COMPANY

23171 Groesbeck Hwy.
Warren, MI 48089
P: (586) 774-5650 | F: (586) 774-5706
www.unitedlightingstandards.com

SOME GEOGRAPHICAL AREAS HAVE SPECIAL WIND CONDITIONS THAT CAN CREATE WIND INDUCED VIBRATIONS CAUSING A FATIGUE PROBLEM. NO METHOD HAS YET BEEN FOUND FOR PREDICTING DESTRUCTIVE LIGHTING POLE VIBRATION. THESE CONDITIONS ARE UNIQUE AND CANNOT BE GUARANTEED AGAINST, AND ARE THE RESPONSIBILITY OF A LOCAL SITE ENGINEER.

TITLE:

CATALOG:

DWG NO: RSA-5203 | SIZE: C | SHEET 1 OF 1

UNITED LIGHTING STANDARDS
A DWM COMPANY

www.unitedlightingstandards.com

POLE ORDERING GUIDE

ORDER NUMBER TEMPLATE

Example Order Number

Fixture			Catalog Number													
Brand	Product	Number	Design	Mounting Height	Shaft Size	Wall Thickness	Mounting Type	Fixture Mounting Arrangement	Finish	Options: Design	Options: Orientation	Options: Height From Base	Accessories: Design	Accessories: Orientation	Accessories: Height From Base
			RPSQ	20	4	11	AB	T2	DB	WB-15	@90	10'	FH	@180	9'

Build Your Order Number

Fixture			Catalog Number													
Brand	Product	Number	Design	Mounting Height	Shaft Size	Wall Thickness	Mounting Type	Fixture Mounting Arrangement	Finish	Options: Design	Options: Orientation	Options: Height From Base	Accessories: Design	Accessories: Orientation	Accessories: Height From Base

Note: N/A = Not Applicable

Mounting Type

AB = Anchor Base

EMB = Embedded (Direct Burial)

Fixture Mounting Arrangement

D1	D4
D2@90	T2
D2@180	T2.5
D3@90	T3
D3@120*	T4

**Round poles only*

Refer to the Mounting Orientation Guide on the next page of this file.

Finish

WH = White
TWH = Textured White
DB = Dark Bronze
TMB = Textured Medium Bronze
HB = Harvest Bronze
NB = New Bronze
SL = Silver
MGY = Medium Gray
GR = Gray
TGR = Textured Gray
GM = Graphite Metallic
DP = Dark Platinum
MA = Matte Aluminum
PSP = Platinum Silver
BK = Black
TBK = Textured Black
MG = Moss Green

Contact us for custom colors.

Options

CMB = Camera Mounting Bracket
CMP = Camera Mounting Plate
WB-15 = Welded Bracket
WC = Welded Coupling (denote size)
WN = Welded Nipple (denote size)
Festoon = Festoon Provision
CSBC = Custom Steel Base Cover
VD = Vibration Dampener
GFCI/IUC = Ground Fault Circuit Interrupter with In-Use Cover
UL = UL Listed**

Accessories

TB = Transformer Base*
ABS-BC = ABS Base Cover*
LW = Lowering Winch
LW-ELECTRIC = Electric Lowering Winch BA = Banner Arm
FH = Flag Holder
PTTA = Pole Top Tenon Adapter*

**See our online product catalog for complete catalog numbers of these options and accessories.*

*** UL Listed labeling is available for catalog steel and aluminum poles—both Commercial & Industrial and Roadway. UL Listed labeling is not available for brackets. UL Listing must be specified at the time of order.*

Submitted by Sea-Tac Lighting & Controls, LLC

Job Name:
The Chehalis Tribe Chehalis Elder Center

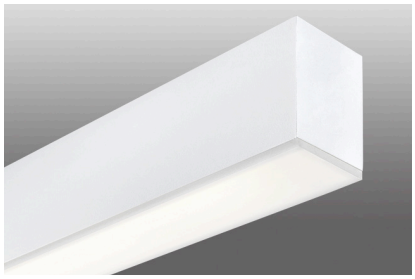
Catalog Number:
EX3WET-N-CL830746LM-4'-IND-PPXX-U-OL2-1-0-FINISH
Notes:

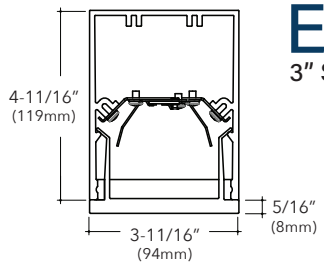
Type:
PL-1
SEATAC-WWA21-113425

PINNACLE ARCHITECTURAL LIGHTING®

Project Name _____

Date _____ Type _____





EDGE EX3WET

3" Suspended Direct Linear WET

Key Features

- Approved for wet location unless otherwise noted. IP65 and IK10 rated
- 6063-T5 Extruded aluminum housing
- Highly reflective die-formed white painted reflector
- All-inclusive module houses all LED system components in one compact unit
- Unit easily releases from the housing for room-side maintenance
- Wiring access available through bottom of housing
- 5-year limited warranty covers LED, driver and fixture
- UL and cUL listed
- Buy American Act compliant

Example Part #: EX3-WET-N-830HO-8'-IND-AC48G1-U-OL2-1-0-W

EX3	- WET	- N	-	-	-	-	-	-	-	-	-	-
	DIRECT SHIELDING	*INDIRECT SHIELDING*	*CRI, CCT & OUTPUT*	*LENGTH*	*MOUNTING*	*VOLTAGE*	*DRIVER*	*CIRCUITING*	*BATTERY & EMERGENCY*	*FINISH*	*FIXTURE OPTIONS*

WET	N	_ _ _ _ _ _	_ _ _ _
DIRECT SHIELDING	**INDIRECT SHIELDING**	**CRI, CCT & OUTPUT[1]**	**LENGTH[2]**
WET - Satine Wet Lens *Shielding pg. 2*	**N** - None *Shielding pg. 2*	**_27_ _** - 2700K **_30_ _** - 3000K **_35_ _** - 3500K **_40_ _** - 4000K **_50_ _** - 5000K CL830746 80 CRI,3000K 746 LM/FT **CL_ _ _ _ _ _** - Custom Lumens **CW_ _ _ _ _ _** - Custom Watts *Lumen Output pg. 2*	**_ _** - Individual Fixture *Length pg. 2* 4'

_ _ _	_ _ _ _ _ _ _	_	_ _ _
POSITION[3]	**MOUNTING[4]**	**VOLTAGE**	**DRIVER**
IND - Individual Fixture **BOR** - Beginning of Row **MOR** - Middle of Row **EOR** - End of Row *Position pg. 3*	**PP_ _JB** - Pendant to J Box **PP_ _ST** - Pendant to Structure **WA** - Wall Mount **S** - Surface Mount *Mounting pg. 3* CONFIRM MOUNTING	**U** - Universal *(120 thru 277V)* **1** - 120V **2** - 277V **3** - 347V *Voltage pg. 3*	**OL2** - Osram *(1%, 0-10v, standard)* **OL3** - Osram 347v *(10%, 0-10v)* **EE1** - eldoLED ECOdrive *(1%, 0-10v)* **ES1** - eldoLED SOLOdrive *(0%, 0-10v)* **LH1** - Lutron Hi-lume *(1%, EcoSystem)* **L51** - Lutron 5-Series *(5%, EcoSystem)* **PL2** - Advance Xitanium *(1%, 0-10v)* **PS1** - Advance Xitanium *(50%/100%)* **ND** - Non-Dimming *Driver pg. 3*

_	_ _ _	_ _	_ _ _ _	
CIRCUITING	**BATTERY & EMERGENCY[5]**	**FINISH**	**FIXTURE OPTIONS**	**CONTROLS**
1 - Single Circuit **M** - Multi Circuit **E** - Emergency *(entire fixture)* **N** - Night Light *(entire fixture)* *Circuiting pg. 4*	**0** - None **_PLL** - Bodine 10w Integral **_ILL** - Iota 10w Integral (CES listed) **_E** - Emergency Section **_N** - Night Light Section **_L** - Life Safety Section **_G** - Bodine GTD *Battery and Emergency pg. 4*	**W** - White **S** - Metallic Silver **BL** - Textured Black **BR** - Bronze **GR** - Graphite **CC** - Custom Color CONFIRM FINISH *Finish pg. 4*	**GLR** - Internal Fast Blow Fuse **EPF** - End Power Feed *Fixture Options pg. 5*	*Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.*

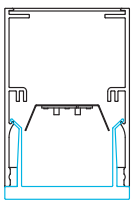
[1]When specifying OUTPUT the first _ is for specifying either 8 - 80CRI or 9 -90CRI. The ending _ _ are for specifying output, example HO - High Output. See output charts for more information. [2]Individual fixtures come in nominal 2', 3', 4', 5', 6', 7', & 8' lengths, see pg. 2 for actual lengths. [3]Specify position of fixture. Use IND for an individual fixture, use BOR, MOR, or EOR for building connected rows. [4]Specify pendant length of either 12", 18" or 24". [5]Enter quantity for Battery and Emergency, Example 2P.

PINNACLE ARCHITECTURAL LIGHTING®

EDGE EX3 Suspended Linear WET

Direct Shielding

WET
Satine Wet Lens



Indirect Shielding

N
None

Output

- Specify either 80 or 90 CRI
- Longer lead-time may apply for 90 CRI. Consult factory
- 80 CRI = R9≥19 and 90 CRI = R9≥61

CL830746
80 CRI,3000K
746 LM/FT

Custom Output- Lumens OR Wattage

CL_ _ _ _ _	Specify CRI, CCT and desired lumens (i.e. CL835500)	*Specify lumens between standard offering listed below. Lumens are specified per color temp*
CW_ _ _ _ _	Specify CRI, CCT and desired wattage (i.e. CW9407)	*Specify watts between standard offering listed below*

80 CRI

	Color	Output	Watts *per foot*	Shielding **WET** Satine Wet *Lumens/ft*	*LPW*
830	3000K	Standard	4.7	436	92.8
830HO	3000K	High	8.7	788	91.1
835	3500K	Standard	4.7	445	94.7
835HO	3500K	High	8.7	804	92.9
840	4000K	Standard	4.7	457	97.2
840HO	4000K	High	8.7	827	95.6
850	5000K	Standard	4.7	456	97.0
850HO	5000K	High	8.7	825	95.4

90 CRI

927	2700K	Standard	4.7	344	73.2
927HO	2700K	High	8.7	623	72.0
930	3000K	Standard	4.7	370	78.7
930HO	3000K	High	8.7	668	77.2
935	3500K	Standard	4.7	391	83.2
935HO	3500K	High	8.7	706	81.6
940	4000K	Standard	4.7	391	83.2
940HO	4000K	High	8.7	706	81.6

Length

2	**3**	**4**	**5**	**6**	**7**	**8**
Individual Fixture	Individual Fixture	Individual Fixture	Individual Fixture	Individual Fixture	Individual Fixture	Individual Fixture
27-1/8" (689mm)						
	39" (991mm)					
		50-3/4" (1289mm)				
			62-5/8" (1591mm)			
				74-5/8" (1895mm)		
					86-1/2" (2197mm)	
						98-3/8" (2499mm)

PINNACLE ARCHITECTURAL LIGHTING®

EDGE EX3 Suspended Linear WET

Position

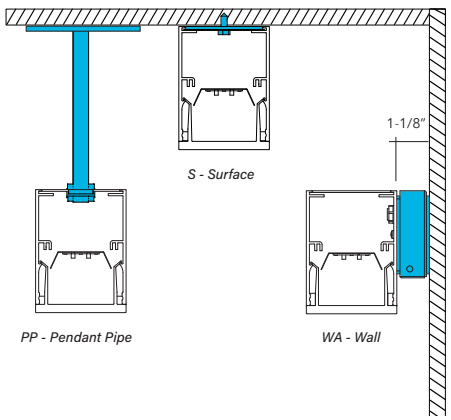
- When making rows with EDGE Wet, the rows must be ordered as individual units with a position specified
- Positions can either be "BOR" - Beginning of Row, "MOR" - Middle of Row, or "EOR" - End of Row
- The connection between fixtures is less than 1/8"
- For single, non-connected units, specify as "IND" for individual

IND	BOR	MOR	EOR
Individual Fixture	Beginning of Row	Middle of Row	End of Row

Mounting

- 1/2" diameter rigid stem pendant and wall mount available
- Specify overall pendant length of 12", 18" or 24"
- Specify pendant length in ordering code (PP12JB)
- Utilize Surface Mount for in-wall application. Building surface waterproofing by others
- End trims and power cord attached at factory
- Canopies and pendants match fixture finish, see Finish section for additional details
- Approved for wet location unless otherwise noted
- Refer to installation instructions during installation at the jobsite
- Fixtures may only be installed with the direct lens facing down. For an in-wall application with the lens facing outward, please see the EDGE Wet Recessed Spec Sheet

PP_ _JB	Pendant Pipe to J-Box	CONFIRM MOUNTING
PP_ _ST	Pendant Pipe to Structure	
WA	Wall Mount	
S	Surface	



Voltage

- Some EDGE Wet configurations will not accommodate all voltage options; consult with factory

U	Universal
1	120 volt
2	277 volt
3	347 volt

Driver

- Standard Driver Option = OL2
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more driver options see Pinnacle Resource Guide
- Some EDGE Wet configurations will not accommodate all driver options; consult with factory

OL2	Osram Optotronic 1%, 0-10v, nominal 1% dimming range
OL3	Osram Optotronic 347v 10%, 0-10v, requires 347v option
EE1	eldoLED ECOdrive 1%, 0-10v Logarithmic
EE2	eldoLED ECOdrive 1%, 0-10v Linear
ES1	eldoLED SOLOdrive 0%, 0-10v Logarithmic
ES2	eldoLED SOLOdrive 0%, 0-10v Linear
LH1	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
L51	Lutron 5-Series 5%, EcoSystem, LDE5
PL2	Advance Xitanium 1%, 0-10v
PS1	Advance Xitanium Step Dimming 50%/100%
ND	Non-Dimming

PINNACLE ARCHITECTURAL LIGHTING®

EDGE EX3 Suspended Linear WET

How to specify Circuiting, Battery and Emergency

1

- Select fixture circuiting from options below
- Some EDGE Wet configurations will not accommodate all circuiting options, consult with factory

Circuiting

1	Single Circuit
M	Multi Circuit
E	Emergency Circuit only
N	Night Light Circuit only

2 + **3**

- Battery and emergency section options are available in addition to fixture circuit
- Select battery and emergency section options below; factory shop drawing required
- Some EDGE Wet configurations will not accommodate all circuiting options, consult with factory

Battery and/or Emergency *If Required*

0	No battery or specific emergency section required

Battery

- Select battery section type if required, indicate total QTY. *Example 2P*
- 90 minute battery runtime; test button is integral to fixture
- No battery option available for 2' lengths
- Entire direct fixture housing is on battery for lengths up to 5'
- Half of direct fixture is on battery for 6', 7' or 8' housing lengths
- For more battery options available, see Pinnacle Resource Guide

0	No battery
_PLL	Bodine 10w Integral Lithium Self Testing (low profile)
_ILL	Iota 10w Integral Lithium Self Testing (CEC listed, low profile)

For Approximate Battery Lumen Output
- Multiply battery wattage X fixture LPW shown on Lumen Table
- 92.3 (LPW) x 10 (watts) = 923 battery lumen output

Battery OR Emergency Ordering Examples

Single circuit, 10w Integral Battery	Ordering Code: 1-1P
Emergency only, 10w Integral Battery	Ordering Code: E-1P
Single circuit, GTD required	Ordering Code: 1-1G

Emergency

- Select emergency section type if required, indicate total QTY. *Example 1E*
- Combine battery and emergency section ordering codes if both options
- are selected

_E	Emergency circuit section
_N	Night Light circuit section
_L	Life Safety circuit section NO THROUGH WIRE
_G	Bodine GTD, Generator Transfer Device section

Combination Section Ordering Examples

Single circuit, (1) 10w battery, (1) emergency section	Ordering Code: 1-1P1E
Multi circuit, (2) 10w battery, (2) emergency sections	Ordering Code: M-2P2E
Single circuit, (1) night light section	Ordering Code: 1-1N

Finish

CONFIRM FINISH

- Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes
- Selecting a fixture finish other than white may impact lumen output; consult factory for more information

W	White *(white pendant & canopy)*
S	Metallic Silver *(silver pendant & canopy)*
BL	Textured Black *(black pendant & canopy)*
BR	Bronze *(bronze pendant & canopy)*
GR	Graphite *(graphite pendant & canopy)*
CC	Custom Color *(color match pendant & canopy)*

PINNACLE ARCHITECTURAL LIGHTING®

EDGE EX3 Suspended Linear WET

Fixture Options

- Specify CC-C or CC-P to match housing. If not specified, canopy will be standard matte white.

GLR	Internal Fast Blow Fuse
EPF	End Power Feed

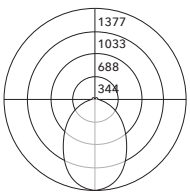
Controls

- Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.

Photometrics

Satine Wet Lens

Test #	Scaled from ITL86500
Catalog #	EX3-WET-N-840HO-4
Lumens	3307
Watts	34.6
Efficacy	95 LPW



Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	1377	1377	1377	1377	1377
5	1367	1367	1367	1366	1363
10	1341	1337	1333	1328	1325
15	1298	1285	1279	1270	1260
20	1236	1215	1206	1190	1177
25	1156	1131	1118	1095	1080
30	1062	1039	1019	989	974
35	961	939	915	882	870
40	855	836	809	775	763
45	747	730	705	672	657
50	635	626	603	573	562
55	531	526	505	480	473
60	432	430	415	394	388
65	337	339	329	316	312
70	252	255	252	247	243
75	171	178	183	183	182
80	102	112	123	127	129
85	46	60	75	84	87
90	3	19	37	49	53

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	8673	7738	7081
55	7587	6670	6078
65	6512	5659	5157
75	5329	4711	4405
85	4082	4074	4177

For all available IES files, please visit our website at pinnacle-ltg.com. Photometry testing in accordance to IESNA-LM-79-08 at an NVLAP accredited testing laboratory. Testing conducted at 25°C ambient conditions

Applications & Certificates

Construction 6063-T5 extruded aluminum housing with welded ends. Internal lens gaskets seal housing to prevent moisture and debris from entering the fixture. Pressure equalizing vent allows fixture to "breathe" preventing condensation.

Shielding Solid acrylic diffuse snap-in lens with matte finish with an EPDM gasketed for complete wet seal.

Mounting Fixtures can be installed individually or connected for a continuous run appearance. IND fixtures are individual fixtures and have no joining holes. IND fixtures cannot be joined. BOR fixtures are used for beginning of row and have joining holes on non-power end of fixture. MOR fixtures are used for middle of row and have joining holes on both ends of fixture. EOR fixtures are used for the end of a row and have no joining holes on power end of fixture. Consult factory for detailed installation instructions.

LED 25°C test environment. Lumen output/wattage has a margin of +/- 5%; 2' or 3' lengths may have a greater wattage deviation. All luminaire configurations tested in accordance with IES LM-79. Diodes tested in accordance with IES LM-80. Lifetime calculated using IES TM-21. Minimum lifetime greater than 60,000 hours. Lifetime Projection L70 = 136,200 hours and L90 = 41,100 hours. MacAdam 3-Step Ellipses. Not all products are Lighting Facts listed. For all available IES files, please visit our website at pinnacle-ltg.com.

CRI, CCT & Lumen Output Two lumen packages available. Standard and High (HO). Custom outputs are available. Specify custom lumens or watts between standard offering listed on CRI, CCT & Output page. 80 CRI is available for 3000K, 3500K, and 4000K. 90 CRI is available for 2700K, 3000K, 3500K, and 4000K. 80 CRI = R9≥19 and 90 CRI = R9≥61.

Voltage Universal (U), 120 volt (1), 277 volt (2) and 347 volt (3) options available. Must specify OL3 in Driver section when 347 volt (3) is selected. Some EDGE Wet configurations will not accommodate all voltage options; consult with factory.

Driver Standard Driver Option is Osram 0-10V, 1% = OL2. Electronic driver, Power factor is >0.9 with a THD <20%. Driver Lifetime: 50,000 hours at 25°C ambient operating conditions. Ambient operating range: -20°F/-30°C to 122°F/55°C. For more driver options, see Pinnacle Resource Guide. Some EDGE Wet configurations will not accommodate all driver options.

Circuiting Select from single circuit (1), Multi circuit - For multiple circuiting and zone control, requires factory shop drawing (M), Emergency circuit (E) or Night Light circuit (N). For emergency circuiting situations that require no through wire or circuit separation, Life Safety Circuit should be selected. This will provide a separate power feed and only the Life Safety Circuit in that section. Some EDGE Wet configurations will not accommodate all circuiting options; consult with factory.

Battery & Emergency Select battery or emergency options if required. If battery or emergency option is not required, enter 0. Battery duration is 90 minutes as standard. Test button is integral to fixture. For more Battery options, see Pinnacle Resource Guide.

Finish Standard powder-coat textured white, metallic silver, textured black, graphite or bronze painted finish; consult factory for chip of standard paint finishes or for additional custom color and finish options.

Controls Consult Factory

Labels UL and cUL Listed, approved for wet location unless otherwise noted. IP65 and IK10 rated.

Buy American Act Compliant

Warranty EDGE Wet LED offered with a 5-year limited warranty. Covers LED, driver and fixture.

Submitted by Sea-Tac Lighting & Controls, LLC			
	Job Name: The Chehalis Tribe Chehalis Elder Center	**Catalog Number:** FCC800-15-SPM-LENGTH-UNV-830-25L-FINISH-40-LD-N/A Notes:	**Type:** **PL-3** SEATAC-WWA21-113425

OUTDOOR LIGHTING

Date:	Approved:
Type:	
Fixture:	
Project:	

FCC800 Down Only, Standard Drivers without Battery Backup

8" Round wall, pendant or surface mount down cylinder outdoor

Made in USA with domestic & globally sourced components

FEATURES

QUICK SHIP PRODUCT

- Up to 6500 lm, Up to 100 LPW
- Numerous mounting capabilities
- Clear anti-glare tempered glass lens (IK09)
- Multiple color finishes with AAMA 2605 option (10 yr. paint warranty)
- 0-10V 1% Dimming (Standard)
- 1.5G Vibration Tested
- 93 CRI with 2 SDCM

PERFORMANCE

Beam Spread: 15° | 25° | 40° | 50° | 72°
CCT Options: 2700K | 3000K | 3500K | 4000K
CRI: 93 CRI
Consistency: 2 SDCM (Fixture to Fixture)
Lumens: 2000-6500 lm
Lifetime: > 70,000 hours / L70 or better

PHYSICAL

Mounting: Mounts directly to standard recessed junction box with wall mount or twist-lock canopy. Additional holes allow unit to be attached directly to mounting surface.
Ingress Protection: Continuous silicone gasket to seal out contaminants, IP65 rated for dry, damp or wet locations
Finish: Six stage chemical iron phosphate conversion pre-treatment. Polyester powder coat finish, 18 µm Min., 5000hr salt spray test (ASTM B117) compliant with Florida / AAMA 2604 specification. AAMA 2605 optional w/ 10 yr. paint warranty.
Warranty: 5-Year limited warranty (refer to website for details)
Housing: Heavy-walled, extruded aluminum housing with high pressure die-cast lens ring and cap with stainless steel hardware.
Lens: IK09 impact compliant, clear anti-glare tempered glass
Vibration Resistance: Compliant with 1.5G ANSI C136.31, Seismic rated AC-156
Weight: 8-12 lbs (Depending on Length)
Operating Temperature: -22°F to 122°F (-30°C to 50°C)

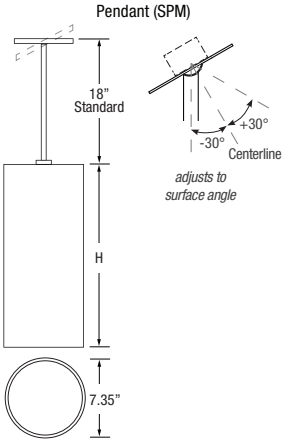
ELECTRICAL

Voltage: Universal 120–277V AC standard, 347V optional
Power Supply: Integral Class II, electronic high-power factor >.90, THD < 20%, FCC Title 47 Part 15 Class A. EldoLED & Lutron optional
Power Consumption: Up to 6500 lm @ 67W
Dimming: Standard: 0-10V, 1% Dimming, Optional: ELV, TRIAC, dim to off, DMX, DALI
Certification: CEC Title 24 - JA8 Compliant (93 CRI Only)
Standards: cETLus Listed, CE, NOM, and RoHS Compliant. Wet location listed for wall or ceiling mount IP65 Ingress protection. 1.5G (ANSI C136.31) Vibration resistance rated. IK09 (IEC6226) Impact resistance rated. IESNA LM79 Photometric testing by NVLAP accredited test lab. IESNA LM80 LED testing by NVLAP accredited test lab. IESNA TM21 Luminaire lumen depreciation projection to >70,000hrs.

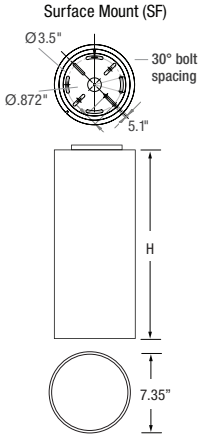
PHYSICAL DIMENSIONS

Fixture	Length (H)
FCC600-13	13" Height (55L Max)
FCC600-15	15" Height (60L Max)
FCC600-17	17" Height
FCC600-19	19" Height
FCC600-21	21" Height

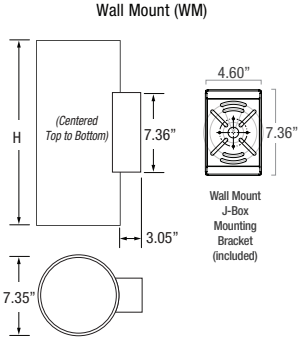
Pendant (SPM)



Surface Mount (SF)



Wall Mount (WM)



US Commercial Lighting Manufacturer Since 1982

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SO-AG-DH-6721

FC OUTDOOR LIGHTING

Date:

Type:

Fixture:

Project:

Approved:

FCC800 Down Only, Standard Drivers without Battery Backup

PRODUCT CODE

EXAMPLE: FCC800-13-SPM-18-UNV-927-20L-BKE-15-ET-CV

MODEL	HEIGHT	MOUNTING	SUSP. LENGTH	VOLTAGE	COLOR	LUMENS	FINISH	OPTIC	DIMMING	OPTIONS	BATTERY
FCC800	–	–		–	–	–	–	–	–	–	–

MODEL

FCC800

HEIGHT

13	13" Height (55L Max)
15	15" Height (60L Max)
17	17" Height
19	19" Height
21	21" Height

MOUNTING

SPM	Slope Pendant
SF	Surface
WM	Wall

SPM LENGTH

CONFIRM LENGTH

Specify the optional suspension length in inches. (Top of fixture to ceiling) (SPM 18" Standard, 4"-120" Max; 61"-120" w/LD & ET Only and stem comes in 2 sections) *Consult factory & price guide for other lengths.

VOLTAGE

UNV	Universal 120-277 Volt AC
347V	347 Volt AC

COLOR

927	(93CRI) 2700K
930	(93CRI) 3000K
935	(93CRI) 3500K
940	(93CRI) 4000K
830	(83CRI) 3000K
840	(83CRI) 4000K

LUMENS nominal

20L	2000 lm
25L	2500 lm
30L	3000 lm
35L	3500 lm
40L	4000 lm
45L	4500 lm
50L	5000 lm
55L	5500 lm
60L	6000 lm (83CRI Only)
65L	6500 lm (83CRI Only)

FINISH

CONFIRM FINISH

BKE	Black (AAMA 2604)
BRE	Bronze (AAMA 2604)
SLE	Silver (AAMA 2604)
WHE	White (AAMA 2604)
CCE	Custom Color (AAMA 2604)
BKED	Black (AAMA 2605)
BRED	Bronze (AAMA 2605)
SLED	Silver (AAMA 2605)
WHED	White (AAMA 2605)
CCED	Custom Color (AAMA 2605)

OPTIC nominal

15	Spot (15°)
25	Narrow Flood (25°)
40	Mid Flood (40°)
50	Flood (50°)
72	Wide Flood (72°)

w/SOFT FIELD

15S	Spot (15°)
25S	Narrow Flood (25°)
40S	Mid Flood (40°)
50S	Flood (50°)
72S	Wide Flood (72°)

DIMMING

ET	ELV or TRIAC Driver (120V Phase Dimming w/ UNV Driver)
LD	0-10V Dimming, 1% (Standard)

OPTIONS

CV	Cut-Off Visor (Down Only)

BATTERY

N/A	(Leave Blank)

OUTDOOR LIGHTING

FCC800 Down Only, Standard Drivers without Battery Backup

LUMENS nominal

Model	Watts	940
FCC800	18 W (Min)	2000 lm
	67 W (Max)	6500 lm

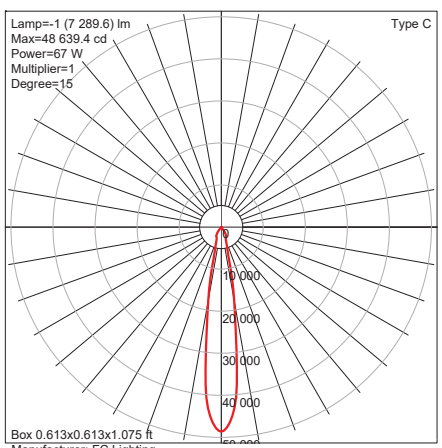
IES Multiplier	
Color	Multiplier
927	0.93
930	0.97
935	0.99
940	1.00

**83CRI≤1.15 Consult factory.*

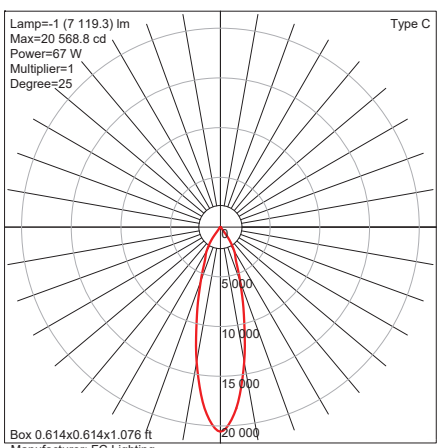
TRIAC & ELV Approved Dimmer List	
Manufacturer	Manufacturer Part Number
Lutron	Glyder GLV-600
	Diva DVLV-600P
	Diva DV-600P
	Diva DVELV-600P(303)
	Maestro MALV-600
	Nova T NT-1000
	Nova T NTELV-600
	Skylark SLV-600P
	RadioRA2-10ND
Leviton	SureSlide 6633
	Illumatech IPE04

0-10V Approved Dimmer List	
Manufacturer	Manufacturer Part Number
Lutron	Diva DVSTV-XX
	Diva DVSTV-453PH-WH1
Leviton	Illumatech 010-IP710-DLZ

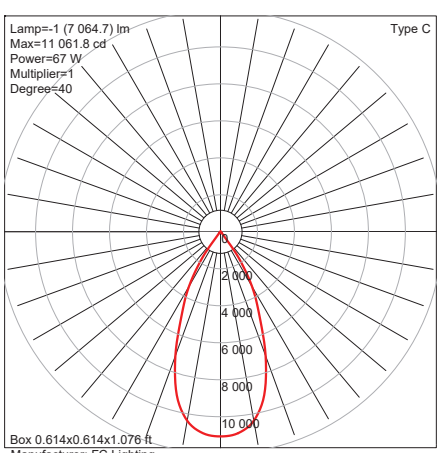
PHOTOMETRICS



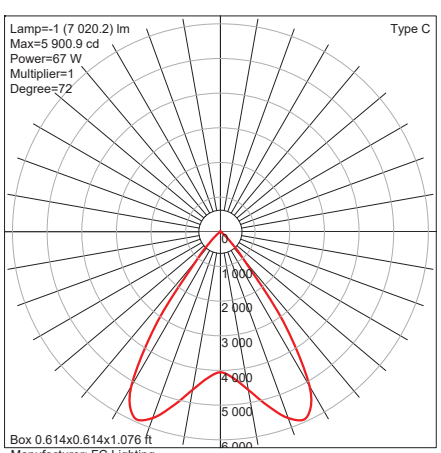
Manufacturer: FC Lighting
Luminaire catalog: F002542FCC8004K70LSP



Manufacturer: FC Lighting
Luminaire catalog: F002543FCC8004K70LNFL



Manufacturer: FC Lighting
Luminaire catalog: F002544FCC8004K70LFL



Manufacturer: FC Lighting
Luminaire catalog: F002545FCC8004K70LWFL

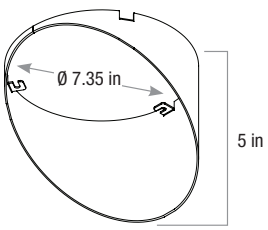
SO-AG-DH-6721

OUTDOOR LIGHTING

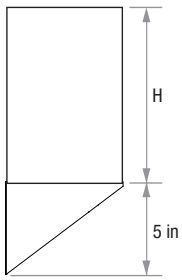
FCC800 Down Only, Standard Drivers without Battery Backup

MORE DIMENSIONS

Cutt-Off Visor (CV) *(Down Only)*



Bottom View



Side View

Portfolio

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESCRIPTION

4 inch LED recessed narrow, medium, or wide beam downlight designed for glare free even illumination. Featuring a two-stage diffused reflector system producing smooth distribution with excellent light control and low aperture brightness. Lumen packages range from 500 to 6000 with color temperatures of 2400K, 2700K, 3000K, 3500K, 4000K, and 5000K. VividTune: Dim-to-warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space. Tunable white technology - adjust the color temperature from warm white to cool white while independently controlling intensity.

SPECIFICATION FEATURES

Lower Shielding Reflector
Painted die cast aluminum or spun aluminum lower reflector with a lensed upper optical chamber providing superior lumen output with minimal source brightness. Spun reflectors are offered in all Portfolio Alzak® finishes. Available with non-conductive polymer trim. Reflector is retained with two torsion springs holding the flange tight to the finished ceiling surface. Plaster lathing ring accessory offered for flush reflector transition.

Plaster Frame / Collar
Die cast aluminum 1-1/2" deep collar accommodates ceiling materials up to 2". Universal mounting bracket accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box
Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring. (4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Lever connectors for simple push in wiring.

Thermal
Aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED
Chip on board with a multitude of highly efficient white LED's, combined with a high reflectance upper reflector and convex transitional lens produce even distribution with no pixilation. Lumen output shall not decrease by more than 10% over the minimum life of 55,000 hours (L90 > 55,000 hours).

Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 2-step MacAdam ellipses. Quick disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80, 90 or 97 CRI.
D2W™ – dim-to-warm shifts CCT from 3000K to1850K as fixture dims mimicking halogen sources.
W2N - Tunable white CCT range 2700K to 6500K or 2000K to 5000K, 90 CRI.

Driver
Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%. Optional 120V leading edge, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.
Distributed low voltage power system combines power, lighting, and controls with ease of installation.

Connected Lighting System Options
Two WaveLinx connected systems to choose from. Refer to WaveLinx system specifications and application guides for details.
WaveLinx Wireless System Tilemount Sensor Kit
- WaveLinx Wireless WTA tile mount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - Real Time Location Services available.

WaveLinx Lite System Tilemount Sensor Kit
- WaveLinx Lite WTK tile mount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinx Tilemount Kits Application
- The WTA and WTK tilemount kits include a control module mounted on the luminaire junction box via 1/2" knock-out, and a tilemount sensor on 54-inch whip; for ceiling installation by direct-mount spring clips or via mounting bracket in octagon ceiling boxes.
- The WTA and WTK tilemount kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.

Code Compliance
Thermally protected and cULus listed for wet locations with covered ceiling. IP66 rated when used with IP66 gasket kit accessory. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. 2000 lumen and above are Non-IC rated - Insulation must be kept 3" from top and sides of housing. IC rated up to 1500 lumens. 5000 lumen and above are marked spacing and must follow spacing requirements. RoHS Compliant. Photometric testing completed in accordance with IES LM 79. Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11.

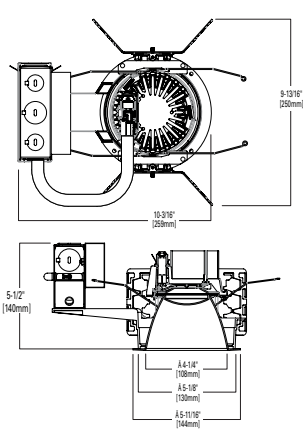
Warranty
5-year warranty

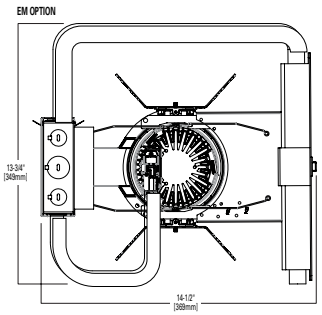
LD4B EU4B 4LBW 4LBM 4LBN

500-6000 Lumen LED

Narrow, Medium, or Wide Beam

New Construction





VividTune color tuning solutions

D2W™

ENERGY STAR

Can be used to comply with T24 California Non-Residential Lighting Controls requirements

RoHS Compliant

Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements.

COOPER Lighting Solutions

LD4B EU4B 4LBW 4LBM 4LBN

SAMPLE NUMBER: LD4B15D010IEMBOD

Housing	Lumens[1]	Voltage	Driver	Options[3]
LD4B=LED Downlight 4" Nominal Aperture **LD4BCP**=LED Downlight 4" Nominal Aperture, Chicago Plenum	**05**=500 lumens[19] **10**=1000 lumens **15**=1500 lumens **20**=2000 lumens **30**=3000 lumens **40**=4000 lumens **50**=5000 lumens[15] **60**=6000 lumens[15]	**Blank**=120-277V **3**=347V (step down transformer)	**500-4000** **D010**=0-10V Dimming, 1% to 100%, 120V-277V **D010TR**=0-10V or Line Voltage Dimming, 5% to 100%, 120V-277V **DE010**=0-10V Linear Dimming, 0% to 100%, 120V-277V **D5LT**=Fifth Light® (DALI) Logarithmic Dimming, 0% to 100%, 120V-277V **DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V[13] **DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, with RJ45 connection **DL2**=Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only **DLE**=Lutron Ecosystem dimming 1% to 100%, 120V-277V **DLV**=Low voltage dimming driver (1-100%) for use with DLVP system (3000 lumen and below)[3,14] **5000-6000** **D010TE**=0-10V 1% or trailing edge 10%, 120-277V (120V only with trailing edge dimming) **Tunable white 1000-2000 Lumens**[16] **1DE010W2N2050**=0-10V dimming, 0% to 100%, 120V, 2000K - 5000K **1DE010W2N2765**=0-10V dimming, 0% to 100%, 120V, 2700K - 6500K **1D5LTW2N2050**=Fifth Light (DALI), 0% to 100%, 120, 2000K - 5000K **1D5LTW2N2765**=Fifth Light (DALI), 0% to 100%, 120V, 2700K - 6500K **2DE010W2N2050**=0-10V dimming, 0% to 100%, 277V, 2000K - 5000K **2DE010W2N2765**=0-10V dimming, 0% to 100%, 277V, 2700K - 6500K **2D5LTW2N2050**=Fifth Light (DALI), 0% to 100%, 277V, 2000K - 5000K **2D5LTW2N2765**=Fifth Light (DALI), 0% to 100%, 277V, 2700K - 6500K	**EMBOD**=Bodine® Emergency Module with Remote Test Switch **EMBOD7ST** =Bodine® Emergency Module with Self Test Remote Test Switch **EM7**=7W Emergency Module with Remote Test Switch **EM14**=14W Emergency Module with Remote Test Switch **IEMBOD**=Bodine® Emergency Module with Integral Test Switch **IEM7**=7W Emergency Module with Integral Test Switch **IEM14**=14W Emergency Module with Integral Test Switch **EMV7**=7W Low Voltage Emergency Module with Remote Test Switch[4] **EMV14**=14W Low Voltage Emergency Module with Remote Test Switch[4] **IEMV7**=7W Low Voltage Emergency Module with Integral Test Switch[4] **IEMV14**=14W Low Voltage Emergency Module with Integral Test Switch[4] **WTA** = Factory installed WaveLinx sensor Kit[14,17] **WTK** = Factory installed WaveLinx Lite Sensor Kit[14,18]

SAMPLE NUMBER: EU4B10208035

Power Module	Lumen Levels[1]	CRI	Color		
EU4B=4" Universal LED Module	**05**=500 lumens **1020**=1000, 1500, 2000 lumens **3040**=3000-4000 lumens **5000**=5000 lumens[15] **6000**=6000 lumens[15] **1015IC**=1000, 1500 lumen IC rated	**80**=80 CRI Minimum **90**=90 CRI Minimum **97**=97 CRI Minimum	**80 CRI** **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**90 CRI** **24**=2400K **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**97 CRI** **27**=2700K **30**=3000K

Dim 2 Warm
109030D2W=1000 lumen, 90 CRI, Dim 2 Warm, IC rated
159030D2W=1500 lumen, 90 CRI, Dim 2 Warm, IC rated
209030D2W=2000 lumen, 90 CRI, Dim 2 Warm
309030D2W=3000 lumen, 90 CRI, Dim 2 Warm

Tunable white[16]
1020W2N902050 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K
1020W2N902765 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K

SAMPLE NUMBER: 4LBM1LIE

Trim	Distribution[5]	Flange	Finish	Options
4LB=4" LED	**N**=Narrow (30° Beam), Spun Aluminum **M**=Medium (50° Beam), Spun Aluminum **W**=Wide (75° Beam), Spun Aluminum **S**=Shallow (75° Beam), Spun Aluminum **PS**=Non-conductive Shallow (75° Beam), Injection Molded white[11] **CS**=Cast Shallow (75° Beam), Die Cast Aluminum **BA**=Baffle, Spun Aluminum[7]	**0**=White Polymer Trim Ring **1**=Self-flanged[12] **2**=White Painted Self-flanged	**LI**=Specular Clear[10] **H**=Semi-Specular Clear[10] **WMH**=Warm Haze[10] **WH**=Wheat[10] **GPH**=Graphite Haze[10] **B**=Specular Black[10] **MW**=Matte White **MB**=Matte Black[9] **MMS**=Matte Metallic Silver[8]	**E**=Integral Emergency Test Switch Hole[6]

CONFIRM DISTRIBTUTION

Accessories

HSA4=Slope Adapter for 4" Aperture Housings, Specify Slope in 5° increments
TRM4=Metal Trim Ring, Specify Color[2]
TRR4=Rimless Trim Ring[2]
LGSKT4IP66=IP66 Gasket Kit
PRR4=Rimless Plaster Ring for Flush Mount[2]

Bar Hangers
HB26=C-channel Bar Hanger, 26" Long, Pair
HB50=C-channel Bar Hanger, 50" Long, Pair
RMB22=Wood Joist Bar Hanger, 22" Long, Pair

Transformers
H347=347 to 120V Step Down Transformer, 75VA
H347200=347 to 120V Step Down Transformer, 200VA

Connected Lighting Systems[3,14]
WTA = Field installed WaveLinx sensor Kit[17]
WTK = Field installed WaveLinx Lite Sensor Kit[18]

Notes:
1. Nominal Lumens will vary depending on selected color, driver and reflector finish.
2. Order spun trim with polymer trim ring or die cast with rimless flange (Consult specification sheet for color ordering information and options).
3. Not available with Chicago Plenum.
4. ULus approved only.
5. Beam angles are nominal with LI finish trims.
6. Only available with Narrow and Medium Spun Aluminum trims. Required for use with all IEMBOD, IEM7, and IEM14 housings.
7. Only available with Matte White and Matte Black Finishes.
8. Only available on CS distribution.
9. Available only on BA and CS distributions.
10. Not available on PS, CS or BA distributions.
11. Matte white and self flanged only, 2000 lumen max.
12. Flange is same finish as the reflector.
13. DMX fixtures default to full on upon loss of DMX signal.
14. Refer to system specifications for additional information, features, and benefits. Order either factory installed option or accessory. Use with 0-10V driver.
15. Product is marked spacing and must be installed with the following minimum spacing
    - Center to center of adjacent luminaires: 36"
    - Center of luminaire to side of building member: 18"
    - Minimum overhead: ½"
16. Non-IC
17. WTA = WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.
18. WTK = WaveLinx Lite tile mount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx Lite system specifications)
19. Limited to D010 drivers.

ENERGY

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: 50/60Hz

1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A

2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: 0.18A	277V Input Current: 0.08A	120V Input Current: 0.23A	277V Input Current: 0.10A

4000 Lumen D010		5000 Lumen D010TE	
Input Power: 41.6W	THD: <13%	Input Power: 57.9W	THD: <14%
120V Input Current: 0.35A	277V Input Current: 0.15A	120V Input Current: 0.49A	277V Input Current: 0.22A

6000 Lumen D010TE	
Input Power: 59.7W	THD: <14%
120V Input Current: 0.50A	277V Input Current: 0.22A

	120V		277V	
Lumens	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03
5000 Lumen D010TE	5.1	0.132	10.2	0.153
6000 Lumen D010TE	5.4	0.123	10.8	0.154

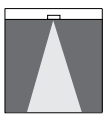
COOPER Lighting Solutions

LD4B EU4B 4LBW 4LBM 4LBN

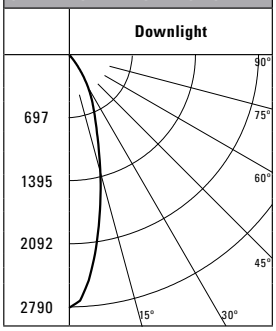
PHOTOMETRY

NARROW (30° BEAM)

Test Number	P201208
Housing	LD4B15D010
Module	EU4B10208035
Trim	4LBN1LI
Lumens	1128
Efficacy	78.9 Lm/W
SC	0.5



CANDLEPOWER DISTRIBUTION



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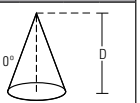


D	FC	L	W
5.5'	92	2.6	2.6
7'	57	3.4	3.4
8'	44	3.8	3.8
9'	34	4.4	4.4
10'	28	4.8	4.8
12'	19	5.8	5.8

CANDELA TABLE

Degrees Vertical	Candela
0	2790
5	2550
15	1421
25	667
35	266
45	32
55	3
65	1
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

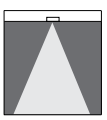
Zone	Lumens	% Fixture
0-30	926	82.1
0-40	1094	97
0-60	1127	99.9
0-90	1128	100
90-180	0	0
0-180	1128	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	489
55	55
65	26
75	0
85	0

MEDIUM (50° BEAM)

Test Number	P201206
Housing	LD4B15D010
Module	EU4B10208035
Trim	4LBM1LI
Lumens	1481
Efficacy	103.6 Lm/W
SC	0.71



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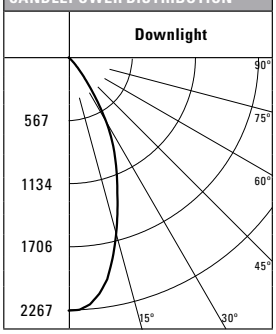

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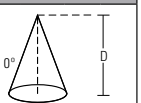


D	FC	L	W
5.5'	75	3.8	3.8
7'	46	5	5
8'	35	5.6	5.6
9'	28	6.4	6.4
10'	23	7	7
12'	16	8.4	8.4

CANDELA TABLE

Degrees Vertical	Candela
0	2267
5	2227
15	1690
25	1027
35	409
45	70
55	8
65	3
75	1
85	0
90	0

ZONAL LUMEN SUMMARY

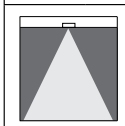
Zone	Lumens	% Fixture
0-30	1144	77.3
0-40	1406	95
0-60	1477	99.7
0-90	1481	100
90-180	0	0
0-180	1481	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	1072
55	151
65	77
75	42
85	0

WIDE (75° BEAM)

Test Number	P201204
Housing	LD4B15D010
Module	EU4B10208035
Trim	4LBW1LI
Lumens	1518
Efficacy	106.2 Lm/W
SC	1.3



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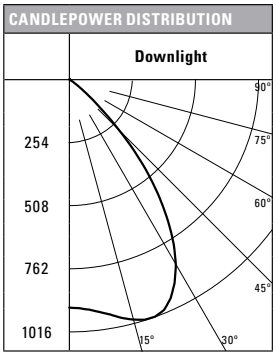

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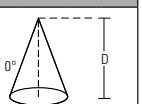


D	FC	L	W
5.5'	30	7	7
7'	19	9	9
8'	14	10.4	10.4
9'	11	11.6	11.6
10'	9	13	13
12'	6	15.6	15.6

CANDELA TABLE

Degrees Vertical	Candela
0	914
5	925
15	998
25	977
35	707
45	286
55	30
65	4
75	1
85	0
90	0

ZONAL LUMEN SUMMARY

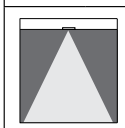
Zone	Lumens	% Fixture
0-30	816	53.8
0-40	1252	82.5
0-60	1513	99.7
0-90	1518	100
90-180	0	0
0-180	1518	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	4372
55	574
65	100
75	42
85	0

SHALLOW (75° BEAM)

Test Number	P201210
Housing	LD4B15D010
Module	EU4B10208035
Trim	4LBCS1MMS
Lumens	1497
Efficacy	104.7 Lm/W
SC	1.16



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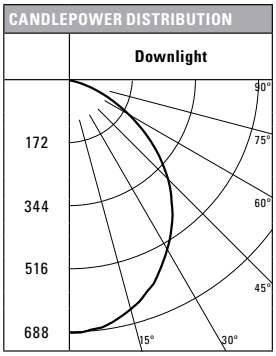

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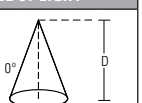


D	FC	L	W
5.5'	23	6.2	6.2
7'	14	8	8
8'	11	9.2	9.2
9'	9	10.4	10.4
10'	7	11.6	11.6
12'	5	13.8	13.8

CANDELA TABLE

Degrees Vertical	Candela
0	688
5	682
15	645
25	577
35	486
45	380
55	253
65	126
75	32
85	1
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	512	34.2
0-40	816	54.5
0-60	1333	89
0-90	1497	100
90-180	0	0
0-180	1497	100

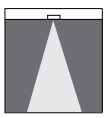
LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	5827
55	4771
65	3226
75	1339
85	124

PHOTOMETRY

NARROW (25° BEAM)

Test Number	PP201209
Housing	LD4B40D010
Module	EU4B30408035
Trim	4LBN1LI
Lumens	3083
Efficacy	73.8 Lm/W
SC	0.5



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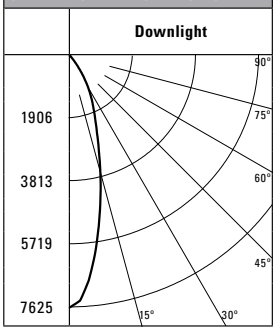

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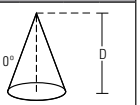


D	FC	L	W
5.5'	252	2.6	2.6
7'	156	3.4	3.4
8'	119	3.8	3.8
9'	94	4.4	4.4
10'	76	4.8	4.8
12'	53	5.8	5.8

CANDELA TABLE

Degrees Vertical	Candela
0	7625
5	6969
15	3883
25	1822
35	727
45	87
55	8
65	3
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

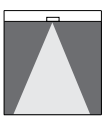
Zone	Lumens	% Fixture
0-30	2531	82.1
0-40	2989	97
0-60	3080	99.9
0-90	3083	100
90-180	0	0
0-180	3083	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	1337
55	149
65	67
75	0
85	0

MEDIUM (50° BEAM)

Test Number	P201207
Housing	LD4B40D010
Module	EU4B30408035
Trim	4LBM1LI
Lumens	3929
Efficacy	94 Lm/W
SC	0.71



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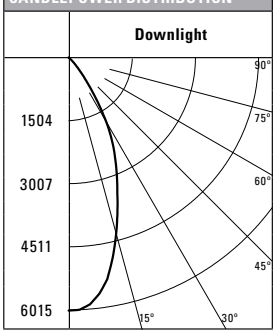
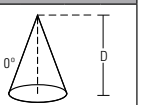


CONE OF LIGHT



D	FC	L	W
5.5'	199	3.8	3.8
7'	123	5	5
8'	94	5.6	5.6
9'	74	6.4	6.4
10'	60	7	7
12'	42	8.4	8.4

CANDELA TABLE

Degrees Vertical	Candela
0	6015
5	5909
15	4484
25	2725
35	1085
45	186
55	21
65	8
75	3
85	0
90	0

ZONAL LUMEN SUMMARY

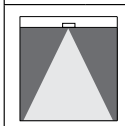
Zone	Lumens	% Fixture
0-30	3036	77.3
0-40	3731	95
0-60	3918	99.7
0-90	3929	100
90-180	0	0
0-180	3929	100

LUMINANCE

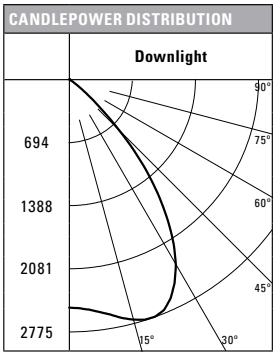
Average Candela Degrees	Average 0° Luminance
45	2844
55	400
65	205
75	113
85	0

WIDE (75° BEAM)

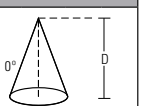
Test Number	P201205
Housing	LD4B40D010
Module	EU4B30408035
Trim	4LBW1LI
Lumens	4148
Efficacy	99.2 Lm/W
SC	1.3



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT



D	FC	L	W
5.5'	83	7	7
7'	51	9	9
8'	39	10.4	10.4
9'	31	11.6	11.6
10'	25	13	13
12'	17	15.6	15.6

CANDELA TABLE

Degrees Vertical	Candela
0	2499
5	2528
15	2727
25	2670
35	1933
45	780
55	83
65	11
75	3
85	0
90	0

ZONAL LUMEN SUMMARY

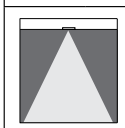
Zone	Lumens	% Fixture
0-30	2230	53.8
0-40	3421	82.5
0-60	4134	99.7
0-90	4148	100
90-180	0	0
0-180	4148	100

LUMINANCE

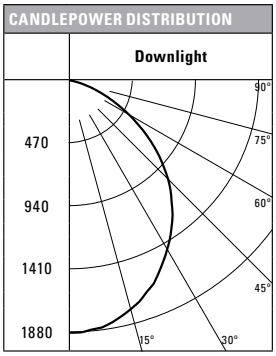
Average Candela Degrees	Average 0° Luminance
45	11948
55	1569
65	274
75	113
85	0

SHALLOW (75° BEAM)

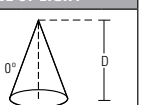
Test Number	P201211
Housing	LD4B40D010
Module	EU4B30508035
Trim	4LBCS1MMS
Lumens	4093
Efficacy	97.9 Lm/W
SC	1.16



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT



D	FC	L	W
5.5'	62	6.2	6.2
7'	38	8	8
8'	29	9.2	9.2
9'	23	10.4	10.4
10'	19	11.6	11.6
12'	13	13.8	13.8

CANDELA TABLE

Degrees Vertical	Candela
0	1880
5	1864
15	1763
25	1578
35	1329
45	1040
55	691
65	344
75	87
85	3
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	1400	34.2
0-40	2230	54.5
0-60	3645	89
0-90	4093	100
90-180	0	0
0-180	4093	100

LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	15933
55	13046
65	8819
75	3657
85	323

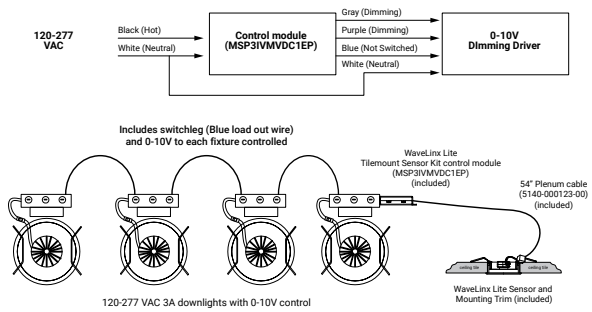
Connected Systems

WaveLinx Lite - WTK Tilemount Sensor

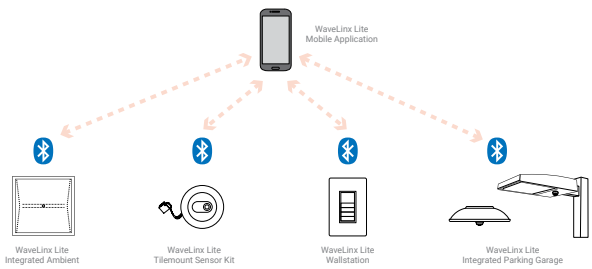
- Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx Lite Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- Automatic occupancy or vacancy, sensor sensitivity, daylight dimming, etc. configurable through the app
- Refer to the WaveLinx system specifications for details

Device Security · Manual Dimmer · Occupancy Sensor · Daylighting Control · Manually Switched ON/OFF · Tuning Control · Lumen Maintenance Control · Scenes

WaveLinx Lite WTK Tilemount Wiring Diagram



WaveLinx Lite Bluetooth Enabled System



WaveLinx Wireless – WTA Tilemount Sensor

- WaveLinx Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with Wireless Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations

Downlights with tilemount sensor wireless communication
Highly efficient LED fixtures

Wireless Area Controller
Provides centralized coordination of multiple area control options

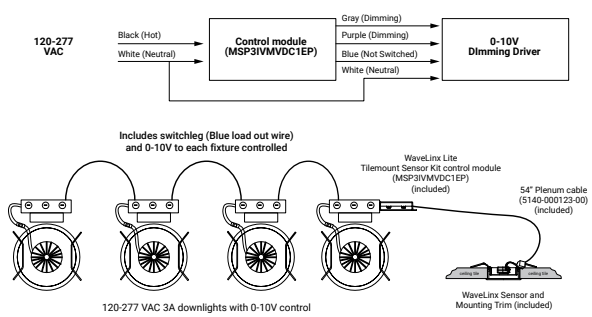
Wireless Wall Station/Receptacle
Provides customized wireless control of each area

Mobile Applications
Provides personalized, local control from a tablet or smartphone

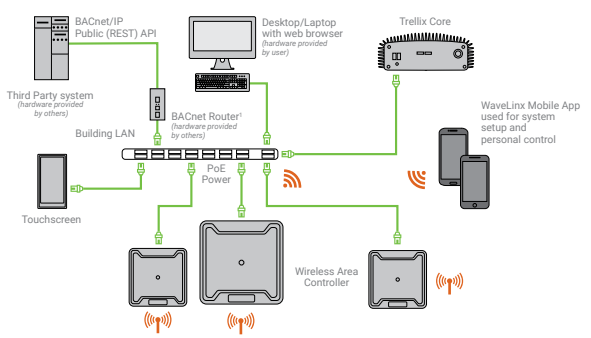
WaveLinx mobile app settings

Manual Dimmer · Occupancy Sensor · Lumen Maintenance Control · Daylighting Control · Receptacle Control · Tuning Control · Scheduling · Manually Switched ON/OFF · Demand Response

WaveLinx Lite WTA Tilemount Wiring Diagram



WaveLinx Wireless Trellix Building Management Integration



Portfolio

Catalog #		Type
Project		
Comments		Date
Prepared by		

DESCRIPTION

2- inch LED recessed downlight with excellent light control and low aperture brightness. Offered with 15°, 25°, 40°, 55° or wall wash optic producing a smooth distribution. Lumen packages ranging from 500 to 2000 with color temperatures of 2400K, 2700K, 3000K, 3500K, 4000K and 5000K, in 80, 90 or 97CRI. Dim to warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space. Tunable white technology - adjust the color temperature from warm white to cool white while independently controlling intensity.

SPECIFICATION FEATURES

Lower Reflector
Round or square painted die cast aluminum or round anodized aluminum lower reflector with a lensed upper optical chamber providing superior lumen output with minimal source brightness. Anodized reflectors are offered in all Portfolio Alzak® finishes. Plaster lathing ring accessory offered for flush reflector transition.

Trim Retention
Reflector is retained with three or four pressure springs holding the flange tight to the finished ceiling surface.

Optic
TIR optic in 15°, 25°, 40, 55° or wall wash provides smooth beam without color separation. Media holder fits onto upper reflector and holds up one lens media. For non-lens trims only.

Plaster Frame / Collar
New Construction
Galvanized steel plaster frame designed for ceiling thickness from 1/2 to 1-1/4-inch.

Retrofit
Installs from below.

Universal Mounting Bracket
Accepts 1/2" EMT, C channel and bar hangers.

Junction Box
(4) 1/2" trade size pry outs positioned to allow straight conduit runs. Listed for (4) #12AWG (two in, two out) 90°C conductors and feed thru branch wiring. Lever connectors for simple push in wiring.

Thermal
Forged aluminum heat sink conducts heat away from the LED COB for optimal performance and long life.

LED
Chip on board with a multitude of highly efficient white LED's, combined with TIR optic produces an even distribution with no pixilation. Lumen output shall not decrease by more than 10% over the minimum life of 55,000 hours (L90 > 55,000 hours). Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 2-step MacAdam ellipses. Flexible disconnect allows for replacement of LED engine from below ceiling. Available in 80, 90 or 97 CRI. D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources. W2N - Tunable white CCT range 2700K to 6500K or 2000K to 5000K, 90 CRI.

Driver
Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%. Optional 120V leading edge, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture with standard D010 driver. Other drivers require above ceiling access.
Distributed low voltage power system combines power, lighting, and controls with ease of installation.

Connected Lighting System Options
Two WaveLinx connected systems to choose from. Refer to WaveLinx system specifications and application guides for details.
WaveLinx Wireless System Tilemount Sensor Kit

- WaveLinx Wireless WTA tile mount sensor kit offers daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS - Real Time Location Services available.

WaveLinx Lite System Tilemount Sensor Kit

- WaveLinx Lite WTK tile mount sensor kit offers daylight dimming and PIR motion sensing, scene and grouping configuration.

WaveLinx Tilemount Kits Application

- The WTA and WTK tilemount kits include a control module mounted on the luminaire junction box via 1/2" knock-out, and a tilemount sensor on 54-inch whip; for ceiling installation by direct-mount spring clips or via mounting bracket in octagon ceiling boxes.
- The WTA and WTK tilemount kits may be ordered as factory installed on the luminaire, or ordered separately as a field installed accessory kit.

Code Compliance
Thermally protected and cULus listed for protected damp locations with open trims and cULus listed for protected wet locations with lensed trims. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. Optional City of Chicago enviromental air (CCEA) marking for plenum applications. 1500 lumen and above are Non-IC rated - Insulation must be kept 3"
from top and sides of housing. IC-rated up to 1000 lumens (except wall wash).
RoHS Compliant. Photometric testing completed in accordance with IES LM 79 and TM-30 standards. Lumen maintenance projections in accordance with IES LM-80-08 and TM-21-11.

Warranty
5-year warranty

LD2B EU2B 2LB

500, 1000, 1500, 2000 Lumens
LED

2-Inch
Spun or Die Cast Aluminum
Downlight or Wall Wash
New Construction or Retrofit
2x4 and 2x6

Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

ENERGY

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: 50/60Hz

500 Lumen D010	
Input Power: 7.38W	THD: <14.4%
120V Input Current: 0.06A	277V Input Current: 0.03A

1000 Lumen D010	
Input Power: 11W	THD: <13.8%
120V Input Current: 0.086A	277V Input Current: 0.042A

1500 Lumen D010	
Input Power: 15.05W	THD: <13.0%
120V Input Current: 0.13A	277V Input Current: 0.06A

2000 Lumen D010	
Input Power: 21.2W	THD: <8.6%
120V Input Current: 0.18A	277V Input Current: 0.081A

	120V		277V	
Lumens	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
500 Lumen D010	0.64	0.05	1.4	0.04
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	1.02	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027

ORDERING INFORMATION

SAMPLE NUMBER: LD2B15D010

Housing	Lumens[1]	Voltage	Driver	Options
LD2B=2" New Construction Downlight **LDRT2B**=2" Remodel Downlight limit to 1500 lumen[13] **LD2BCP**=2" LED Downlight Nominal Aperture, Chicago Plenum[12]	**5**=500 lumens[16] **10**=1000 lumens **15**=1500 lumens **20**=2000 lumens	**Blank**=120-277V **3**=347V 0-10V only 1000-2000 lumens	**500 - 2000 Lumens** **D010**=0-10V Dimming, 1% to 100%, 120V-277V **DLV**=Low voltage dimming driver (1-100%) for use with DLVP system[6] **1000 - 2000 Lumens** **D010TR**=0-10V or Line Voltage Dimming, 1% to 100%, 120V-277V **DE010**=0-10V Linear Dimming, 0% to 100%, 120V-277V[6] **D5LT**=Fifth Light® (DALI) Logarithmic Dimming, 0% to 100%, 120V-277V[6] **DMX**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V[6,9] **DMXC5**=DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V, with RJ45 connection[6,9] **DL2**=Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only[6] **DLE**=Lutron Ecosystem dimming 1% to 100%, 120V-277V[6] **Tunable White** **D5LTW2N2050** = Fifth Light (DALI) 0-100%, 120-277V, 2000K-5000K **D5LTW2N2765** = Fifth Light (DALI) 0-100%, 120-277V, 2000K-5000K **DE010W2N2050** =0-10V dimming, 0-100%, 120-277V, 2000K-5000K **DE010W2N2765** 0-10V dimming, 0-100%, 120-277V, 2700K-6500K	**EMBOD**=Bodine® Emergency Module with Remote Test Switch[6] **EMBOD7ST**=Bodine® Emergency Module with Self Test Remote Test Switch[6] **EM7**=7W Emergency Module with Remote Test Switch[6] **EM14**=14W Emergency Module with Remote Test Switch[6] **EMV7**=7W Low Voltage Emergency Module with Remote Test Switch[6] **EMV14**=14W Low Voltage Emergency Module with Remote Test Switch[6] **WTA** = Factory installed WaveLinx sensor Kit[10,14] **WTK** = Factory installed WaveLinx Lite Sensor Kit[10,15]

CONFIRM OUTPUT & OPTIC

SAMPLE NUMBER: EU2B158035

Power Module	Lumen Levels / Distribution[1] / Optic	CRI	Color		
EU2B=2" Universal LED Module	**05SP15**=500 lumen 15° IC Rated **05WW**=500 lumen wall wash IC Rated[8] **10SP15**=1000 lumen 15° IC Rated **10WW**=1000 lumen wall wash Non-IC Rated[8] **0510NFL25**=500 and 1000 lumen 25° IC Rated **0510FL40**=500 and 1000 lumen 40° IC Rated **0510WFL55**=500 and 1000 lumen 55° IC Rated **15NFL25**=1500 lumen 25° Non IC Rated **15FL40**=1500 lumen 40° Non IC Rated **15WFL55**=1500 lumen 55° Non IC Rated **15WW**=1500 lumen wall wash Non IC Rated[8] **20NFL25**=2000 lumen 25° Non IC Rated **20FL40**=2000 lumen 40° Non IC Rated **20WFL55**=2000 lumen 55° Non IC Rated	**80**=80 CRI minimum **90**=90 CRI minimum **97**=97 CRI minimum	**80 CRI** **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**90 CRI** **24**=2400K **27**=2700K **30**=3000K **35**=3500K **40**=4000K **50**=5000K	**97 CRI** **27**=2700K **30**=3000K
		Dim to Warm (1500 lumens and below) **10NFL259030D2W**=1000 lumen 25° IC Rated **15NFL259030D2W**=1500 lumen 25° Non-IC **10FL409030D2W**=1000 lumen 40° IC Rated **15FL409030D2W**=1500 lumen 40° Non-IC **10WFL559030D2W**=1000 lumen 55° IC Rated **15WFL559030D2W**=1500 lumen 55° Non-IC	Tunable White[11] **W2N902050** = 1000 lumen 40° 2000K-5000K **W2N902765** = 1000 lumen 40° 2700K-6500K		

SAMPLE NUMBER: 2LBD1LI

CONFIRM FINISH

Trim	Reflector	Flange	Finish
2LB=2" LED	**D**=Round downlight spun reflector **SW**=Round lensed Wall Wash, Spun Aluminum, Splay black oculus **SWW**=Round lensed Wall Wash, Spun Aluminum, Splay white oculus **DL**=Round Downlight lensed spun reflector **DC**=Round Cast Downlight[2] **DLC**=Round Lensed cast downlight[2] **PIN**=Round Pinhole downlight black oculus[3] **PINW**=Round Pinhole downlight white oculus[3] **DSQC**=Square Cast Downlight[2] **DSQLC**=Square Lensed cast shallow downlight[2]	**1**=Self-flanged[7] **2**=White Painted Self-flanged[11] **3**=Rimless[3] **Blank**=Pinhole	**LI**=Specular Clear[4] **H**=Semi-Specular Clear[4] **WMH**=Warm Haze[4] **WH**=Wheat[4] **GPH**=Graphite Haze[4] **B**=Specular Black[4] **MW**=Matte White **MB**=Matte Black[3] **MMS**=Matte Metallic Silver[3]

Accessories

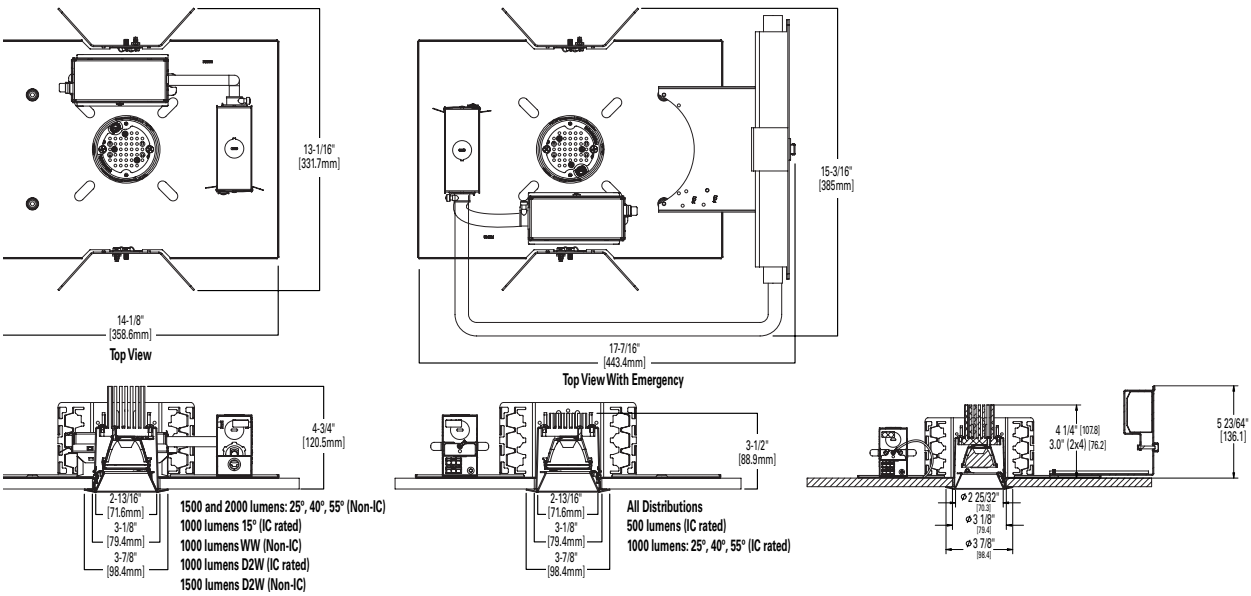
RPR2=Round plaster lathing ring (order with rimless option)
Bar Hangers
HB26=Pair C-channel bar hanger, 26" long
RMB22=Pair wood joist bar hanger 22" long
Connected Lighting Systems[10]
WTA = Field installed WaveLinx sensor Kit[14]
WTK = Field installed WaveLinx Lite Sensor Kit[15]

L100 lenses - optical lenses
L110N=Diffuse Sandblasted Lens: Provides an even beam spread - especially useful in wall washing.
L111=Soft Focus Lens: Smooths irregular beam pattern while maintaining high controlled illumination levels and beam angles.
L113=Prismatic Spread Lens: Provides a symmetrical broadening of lamp beam. Suitable when a wide, uniform light distribution is required.
L115=Linear Spread Lens: Fans out the beam 55° (27-1/2° to each side) to produce a wide rectangular pattern.
L100MB=Black finished metal hexagonal-cell louver - controls light spill while retaining lamp optics.

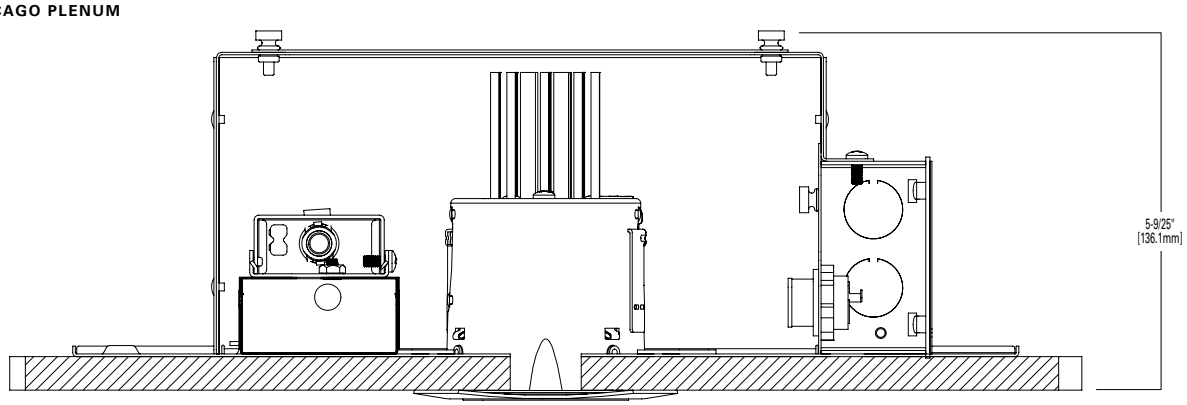
Notes:
1. Nominal Lumens will vary depending on selected distribution, color, driver and reflector finish.
2. Only available with Matte White, Matte metallic silver and Matte Black Finishes.
3. Available on DC, DLC and PIN.
4. Not available on DC or PIN.
6. DMX, D5LT, DE010, DLC, Lutron, connected and emergency module drivers require accessible ceiling.
7. Flange is the same finish as reflector.
8. Order with 2LBSW Wall Wash trim.
9. DMX fixtures default to full on upon loss of DMX signal.
10. Refer to system specifications for additional information, features, and benefits. Order either factory installed option or accessory. Use with 0-10V driver.
11. Not available with Wall Wash.
12. Limited to 1000 lumens.
13. Available with D010 driver only.
14. WTA = WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V only.
15. WTK = WaveLinx Lite tile mount sensor kit for daylight dimming, PIR motion sensing, use with D010 only (Refer to WaveLinx Lite system specifications)
16. Limited to D010 and D010A drivers.

DIMENSIONS

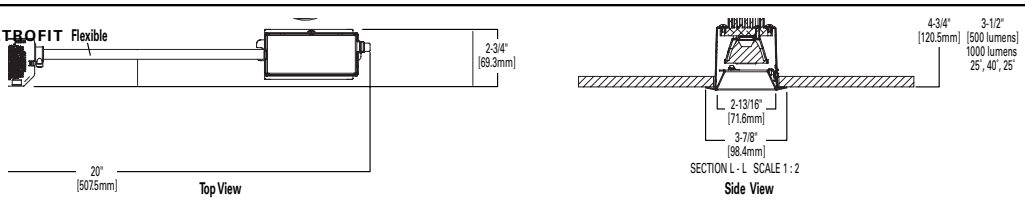
NEW CONSTRUCTION



CHICAGO PLENUM



RETROFIT Flexible

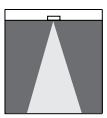


LD2B EU2B 2LB

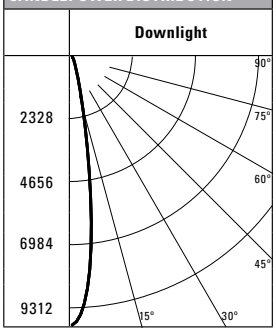
PHOTOMETRY

SPOT (15° BEAM)

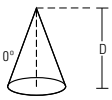
Test Number	P264029
Housing	LD2B10D010
Module	EU2B1010SP158035
Trim	2LBD*LI
Lumens	974
Efficacy	94.6 Lm/W
SC	0.28



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT



D	FC	L	W
4'	582.2	1	1
7'	190.1	1.8	1.8
9'	115	2.4	2.4
13'	55.1	3.6	3.6
16'	36.4	4.4	4.4

CANDELA TABLE

Degrees Vertical	Candela
0	9316
5	7438
15	976
25	141
35	30
45	7
55	2
65	1
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

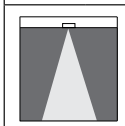
Zone	Lumens	% Fixture
0-30	945	97
0-40	965	99.1
0-60	973	99.9
0-90	974	100
90-180	0	0
0-180	974	100

LUMINANCE

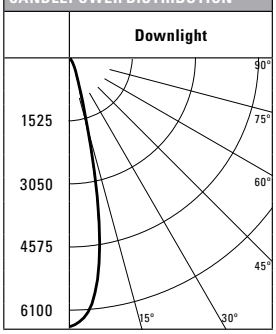
Average Candela Degrees	Average 0° Luminance
45	4884
55	1720
65	1167
75	0
85	0

FLOOD (25° BEAM)

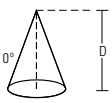
Test Number	P218711
Housing	LD2B10D010
Module	EU2B0510NFL258035
Trim	2LBD*LI
Lumens	1026
Efficacy	99.6 Lm/W
SC	0.39



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT



D	FC	L	W
4'	382	1.4	1.4
7'	125	2.6	2.6
9'	75	3.4	3.4
13'	36	5	5
16'	24	6	6

CANDELA TABLE

Degrees Vertical	Candela
0	6104
5	5611
15	1236
25	229
35	51
45	7
55	1
65	0
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

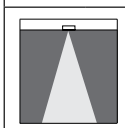
Zone	Lumens	% Fixture
0-30	987	96.2
0-40	1019	99.3
0-60	1026	100
0-90	1026	100
90-180	0	0
0-180	1026	100

LUMINANCE

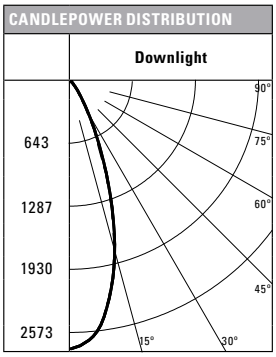
Average Candela Degrees	Average 0° Luminance
45	3836
55	676
65	0
75	0
85	0

FLOOD (40° BEAM)

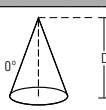
Test Number	P218754
Housing	LD2B10D010
Module	EU2B0510FL408035
Trim	2LBD*LI
Lumens	1041
Efficacy	101 Lm/W
SC	0.59



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT



D	FC	L	W
4'	161	2.2	2.2
7'	53	4	4
9'	32	5.2	5.2
13'	15	7.6	7.6
16'	10	9.4	9.4

CANDELA TABLE

Degrees Vertical	Candela
0	2577
5	2467
15	1626
25	581
35	120
45	19
55	4
65	0
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

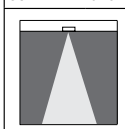
Zone	Lumens	% Fixture
0-30	938	90.2
0-40	1020	98.0
0-60	1040	99.9
0-90	1041	100
90-180	0	0
0-180	1041	100

LUMINANCE

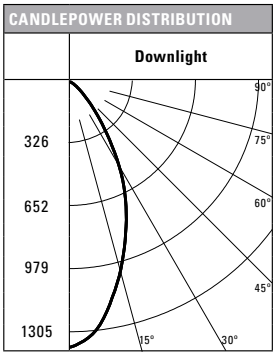
Average Candela Degrees	Average 0° Luminance
45	10412
55	2702
65	0
75	0
85	0

WIDE FLOOD (55° BEAM)

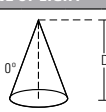
Test Number	P218801
Housing	LD2B10D010
Module	EU2B0510WFL558035
Trim	2LBD*LI
Lumens	985
Efficacy	95.6 Lm/W
SC	0.73



CANDLEPOWER DISTRIBUTION



CONE OF LIGHT



D	FC	L	W
4'	82	2.8	2.8
7'	27	5	5
9'	16	6.6	6.6
13'	8	9.4	9.4
16'	5	11.6	11.6

CANDELA TABLE

Degrees Vertical	Candela
0	1309
5	1250
15	959
25	644
35	313
45	105
55	28
65	0
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

Zone	Lumens	% Fixture
0-30	674	68.5
0-40	873	88.7
0-60	984	99.9
0-90	985	100
90-180	0	0
0-180	985	100

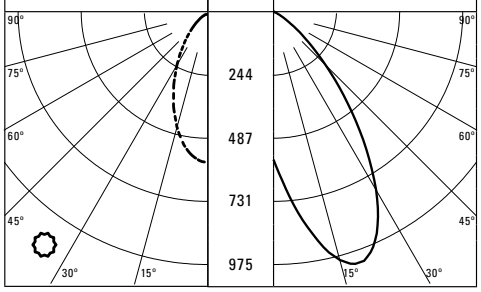
LUMINANCE

Average Candela Degrees	Average 0° Luminance
45	57541
55	18916
65	0
75	0
85	0

PHOTOMETRY

WALL WASH	
Test Number	P14828
Housing	LD2B10D010
Module	EU2B1010WW8035
Trim	2LBSW*XX
Lumens	742
Efficacy	72 Lm/W

CANDLEPOWER DISTRIBUTION



SINGLE UNIT FOOTCANDLES				
	3' FROM WALL (Distance From Fixture Along Wall)			
DD	●	1'	2'	3'
1'	0.5	0.5	0.3	0.2
2'	4.3	3.3	1.4	0.5
3'	10.1	8.1	4.2	1.6
4'	12.2	10.2	5.9	2.8
5'	10.9	9.4	6.1	3.3
6'	8.6	7.6	5.4	3.2
7'	6.4	5.8	4.4	2.9
8'	4.7	4.4	3.5	2.4
9'	3.4	3.3	2.7	2
10'	2.6	2.4	2.1	1.6

MULTIPLE UNIT FOOTCANDLES												
	2.5' FROM WALL (Spacing Between Fixtures)						3' FROM WALL (Spacing Between Fixtures)					
●	3'	●	●	4'	●	●	3'	●	●	4'	●
1.3	1.1	1.3	1.2	0.7	1.2	0.7	0.8	0.7	0.6	0.6	0.6
10.7	8.7	10.7	10.2	4.9	10.2	4.8	4.6	4.8	4.5	2.9	4.5
19.2	18	19.2	17.8	11.5	17.8	11.8	12.1	11.8	10.7	8.3	10.7
19.3	19.9	19.3	17.5	14	17.5	15.1	16.1	15.1	13.4	11.9	13.4
15.6	16.9	15.6	13.8	12.8	13.8	14.2	15.7	14.2	12.5	12.3	12.5
11.7	12.9	11.7	10.2	10.4	10.2	11.8	13.2	11.8	10.3	10.7	10.3
8.5	9.5	8.5	7.5	8	7.5	9.2	10.4	9.2	8.1	8.8	8.1
6.3	7	6.3	5.5	6	5.5	7.1	7.9	7.1	6.3	6.9	6.3
4.6	5.1	4.6	4.1	4.6	4.1	5.4	6	5.4	4.8	5.4	4.8
3.5	3.8	3.5	3.1	3.5	3.1	4.2	4.6	4.2	3.7	4.2	3.7

Project		**Catalog #**		**Type**	
Prepared by		**Notes**		**Date**	

McGraw-Edison

Impact Elite LED

Wall Mount Luminaire

Typical Applications

Outdoor • Wall Mount • Walkways

Interactive Menu

- Ordering Information page 2
- Product Specifications page 2
- Energy and Performance Data page 3
- Control Options page 4

Product Certifications

Quick Facts

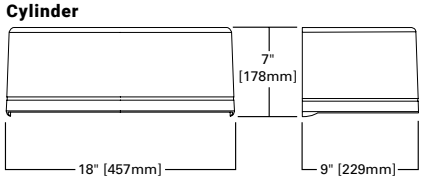
- 10 Optical Distributions
- Lumen packages range from 2,459 to 8,123 (20W - 66W)
- Efficacy up to 143 lumens per watt

Connected Systems

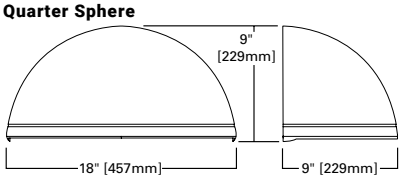
- Enlighted
- WaveLinx

Dimensional Details

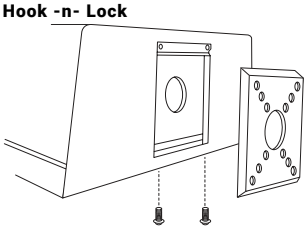
Cylinder



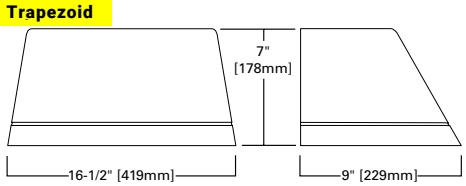
Quarter Sphere



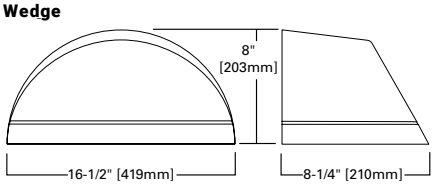
Hook -n- Lock



Trapezoid



Wedge



McGraw-Edison — Impact Elite LED

Ordering Information

SAMPLE NUMBER: **ISC-SA1F-740-U-T3-BZ**

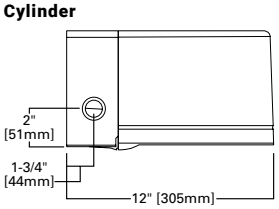
Product Family [1]	Light Engine: Configuration	Light Engine: Drive Current	Color Temperature	Voltage	Distribution	Finish
ISC=Impact Elite LED Small Cylinder **ISS**=Impact Elite LED Small Quarter Sphere **IST**=Impact Elite LED Small Trapezoid **ISW**=Impact Elite LED Small Wedge	**SA1**=1 Square CONFIRM OUTPUT	**A**=350mA **B**=450mA **C**=600mA **D**=800mA **E**=1000mA **F**=1200mA [2]	**722**=70CRI, 2200K **727**=70CRI, 2700K **730**=70CRI, 3000K **735**=70CRI, 3500K **740**=70CRI, 4000K **750**=70CRI, 5000K **760**=70CRI, 6000K **827**=80CRI, 2700K **830**=80CRI, 3000K **AMB**=Amber, 590nm [3,4]	**U**=120-277V **1**=120V **2**=208V **3**=240V **4**=277V **8**=480V [2,5] **9**=347V [2]	**T2**=Type II **T3**=Type III **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **SL2**=Type II w/Spill Control **SL3**=Type III w/Spill Control **SL4**=Type IV w/Spill Control **SLL**=90° Spill Light Eliminator Left **SLR**=90° Spill Light Eliminator Right **RW**=Rectangular Wide Type I	**AP**=Grey **BZ**=Bronze **BK**=Black **DP**=Dark Platinum **GM**=Graphite Metallic **WH**=White CONFIRM FINISH

Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)	Accessories (Order Separately)
HA=50°C High Ambient [8] **AHD145**=After Hours Dim, 5 Hours, 50% [9] **AHD245**=After Hours Dim, 6 Hours, 50% [9] **AHD255**=After Hours Dim, 7 Hours, 50% [9] **AHD355**=After Hours Dim, 8 Hours, 50% [9] **CBP**=Battery Pack with Back Box, Cold Weather Rated [13, 15] **CBP-CEC**=Battery Pack with Back Box, Cold Weather Rated, CEC compliant [13] **LCF**=Light Square Trim Plate Painted to Match Housing **HSS**=Factory Installed House Side Shield [16] **ULG**=Uplight Glow [6, 7] **TR**=Tamper Resistant Hardware **X**=Driver Surge Protection (6kV) Only [17]	**BPC**=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) **PR7**=NEMA 7-PIN Twistlock Photocontrol Receptacle [2, 6, 7] **MS/DIM-LXX**=Motion Sensor for Dimming Operation [7, 10, 11, 12] **LWR-LW**=Enlighted Wireless Sensor, Wide Lens for 8'-16' Mounting Height [6, 12, 13] **LWR-LN**=Enlighted Wireless Sensor, Narrow Lens for 16'-40' Mounting Height [6, 12, 13] **ZW**=WaveLinx-Enabled Module and 4-PIN Receptacle [7] **ZD**=WaveLinx-Enabled Module with DALI Driver and 4-PIN Receptacle [7] **ZW-SWPD4XX**=WaveLinx Control Module and Wireless Sensor – 7'-15' [7, 18, 20] **ZW-SWPD5XX**=WaveLinx Control Module and Wireless Sensor – 15'-40' [7, 18, 20] **ZW-WOBXX**=WaveLinx Control Module and LC Bluetooth Sensor – 7'-15' [7, 18, 20] **ZW-WOFXX**=WaveLinx Control Module and LC Bluetooth Sensor – 15'-40' [7, 18, 20] **ZD-SWPD4XX**=WaveLinx with DALI Driver and Wireless Sensor – 7'-15' [7, 18, 20] **ZD-SWPD5XX**=WaveLinx with DALI Driver and Wireless Sensor – 15'-40' [7, 18, 20] **ZD-WOBXX**=WaveLinx with DALI Driver and LC Bluetooth Sensor – 7'-15' [7, 18, 20] **ZD-WOFXX**=WaveLinx with DALI Driver and LC Bluetooth Sensor – 15'-40' [7, 18, 20]	**MA1253**=10kV Circuit Module Replacement **MA1254-XX**=Thruway Back Box - Impact Elite Trapezoid **MA1255-XX**=Thruway Back Box - Impact Elite Cylinder **MA1256-XX**=Thruway Back Box - Impact Elite Quarter Sphere **MA1257-XX**=Thruway Back Box - Impact Elite Wedge **FSIR-100**=Wireless Configuration Tool for Occupancy Sensor **WOLC-7P-10A**=WaveLinx Outdoor Control Module (7-pin) [7, 19] **SWPD4-XX**=Wavelinx Wireless Sensor, 7' – 15' Mounting Height [7, 18, 20, 21] **SWPD5-XX**=Wavelinx Wireless Sensor, 15' – 40' Mounting Height [7, 18, 20, 21]

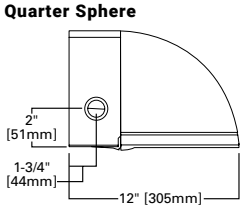
NOTES:
1. DesignLight Consortium® Qualified. Refer to www.designlights.org, Qualified Products List under Family Models for details.
2. Not available with ULG option.
3. Choose Drive Current "B" for Amber 590nm, which is provided at 500mA only
4. Narrow-band 590nm +/- 5nm for wildlife and observatory use.
5. 480V must use Wye system only. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
6. Not available with ISS or ISW.
7. Cannot be used in conjunction with other control options.
8. Suitable for 50°C provided no options other than motion sensor are included and driver output set to 1000mA or less.
9. Requires the use of photocontrol. Not available with 350mA drive current. See After Hours Dim supplemental guide for additional information.
10. Replace LXX with L08 (<8' mounting), L20 (8'-20' mounting) or L40W (21'-40' mounting.)
11. The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
12. Includes integral photocell.
13. Enlighted wireless sensors are factory installed and require network components in appropriate quantities.
14. Battery pack operating temperature of -20C to +40C. Operates downlight for 90-minutes.
15. Must specify 120V or 277V.
16. Not for use with SNQ, SMQ, SWQ or RW optics. A black trim plate is used when HSS is selected.
17. Removes additional surge module.
18. Replace XX with sensor color (WH, BZ, or BK).
19. Requires PR7.
20. For WaveLinx applications, WAC Gateway required to enable field-configurability: Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed. Gateway not required for WaveLinx Lite Commercial (LC) applications.
21. Requires ZW or ZD receptacle.

Thruway Back Box

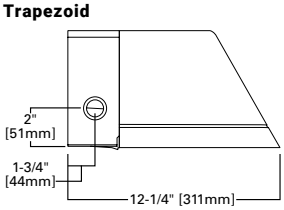
Cylinder



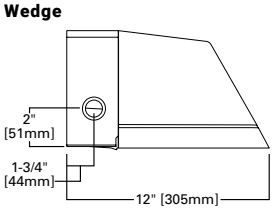
Quarter Sphere



Trapezoid



Wedge



Product Specifications

Construction
- Heavy-wall, die-cast aluminum housing and removable hinged door frame
- Optional tamper-resistant fasteners offer vandal resistant access

Optics
- High-efficiency injection-molded AccuLED optics technology
- 10 optical distributions
- IDA Certified (3000K CCT and warmer only)

Electrical
- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting
- Utilizes "Hook-N-Lock" mounting mechanism, securing to a gasketed and zinc plated mounting attachment
- Two black oxide coated Allen set screws concealed but accessible from below

Finish
- Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness
- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty
- Five year warranty

McGraw-Edison — Impact Elite LED

Energy and Performance Data

1 Light Squares (AF)		Cylinder (ISC) and Quarter Sphere (ISS)						Trapezoid (IST) and Wedge (ISW)					
Drive Current (mA)		350	450	600	800	1000	1200	350	450	600	800	1000	1200
Power (Watts)	120-277V	20.1	25.4	34.2	45.2	58.2	66.0	20.1	25.4	34.2	45.2	58.2	66.0
Current (A)	120	0.17	0.22	0.29	0.38	0.48	0.56	0.17	0.22	0.29	0.38	0.48	0.56
	277V	0.09	0.10	0.13	0.17	0.21	0.25	0.09	0.10	0.13	0.17	0.21	0.25
Power (Watts)	347V or 480V	23.3	28.7	36.6	49.5	60.7	70.1	23.3	28.7	36.6	49.5	60.7	70.1
Current (A)	347V	0.07	0.08	0.11	0.15	0.18	0.21	0.07	0.08	0.11	0.15	0.18	0.21
	480V	0.05	0.06	0.08	0.11	0.13	0.16	0.05	0.06	0.08	0.11	0.13	0.16
Optics (4000K, 70 CRI)													
T2	Lumens	2,802	3,500	4,618	5,778	7,231	7,895	2,772	3,475	4,576	5,733	7,175	7,834
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	139	138	135	128	124	120	138	137	134	127	123	119
T3	Lumens	2,778	3,470	4,578	5,729	7,169	7,827	2,731	3,424	4,508	5,648	7,069	7,718
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	138	137	134	127	123	119	136	135	132	125	121	117
T4FT	Lumens	2,751	3,436	4,534	5,673	7,099	7,751	2,762	3,462	4,559	5,712	7,149	7,805
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	137	135	133	126	122	117	137	136	133	126	123	118
T4W	Lumens	2,780	3,473	4,582	5,733	7,174	7,833	2,739	3,434	4,522	5,665	7,089	7,740
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	138	137	134	127	123	119	136	135	132	125	122	117
SL2	Lumens	2,763	3,451	4,554	5,698	7,130	7,785	2,730	3,422	4,507	5,646	7,066	7,715
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2
	Lumens Per Watt	137	136	133	126	123	118	136	135	132	125	121	117
SL3	Lumens	2,745	3,429	4,524	5,660	7,084	7,734	2,709	3,396	4,472	5,603	7,012	7,655
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	137	135	132	125	122	117	135	134	131	124	120	116
SL4	Lumens	2,680	3,348	4,417	5,526	6,916	7,551	2,666	3,342	4,401	5,514	6,900	7,534
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	133	132	129	122	119	114	133	132	129	122	119	114
SLL	Lumens	2,447	3,057	4,033	5,046	6,315	6,895	2,459	3,083	4,059	5,086	6,365	6,949
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	122	120	118	112	109	104	122	121	119	113	109	105
RW	Lumens	2,883	3,601	4,751	5,945	7,440	8,123	2,818	3,533	4,652	5,828	7,294	7,964
	BUG Rating	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1
	Lumens Per Watt	143	142	139	132	128	123	140	139	136	129	125	121

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

* Supported by IES TM-21 standards
** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99

View Impact Elite IES files

McGraw-Edison — Impact Elite LED

Control Options

0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

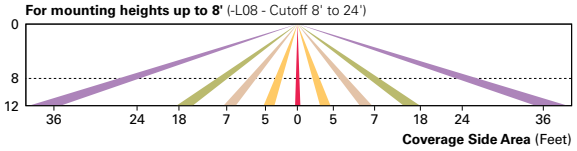
Photocontrol (BPC and PR7)
Optional button-type photocontrol provides a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels.

After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

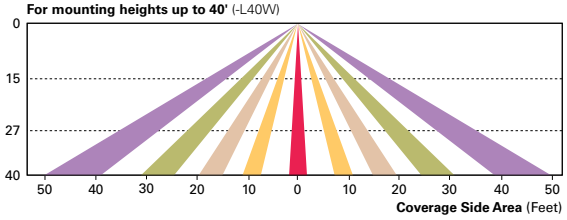
Dimming Occupancy Sensor (MS/DIM-LXX))
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes.

These occupancy sensors includes an integral photocell that can be activated with the FSIR-100 accessory for "dusk-to-dawn" control or daylight harvesting -- the factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters. A variety of sensor lens are available to optimize the coverage pattern for mounting heights from 8'-40'.

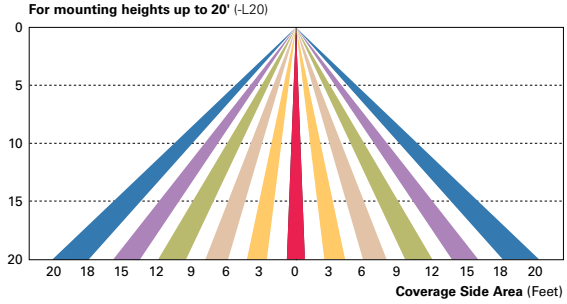
For mounting heights up to 8' (-L08 - Cutoff 8' to 24')



For mounting heights up to 40' (-L40W)

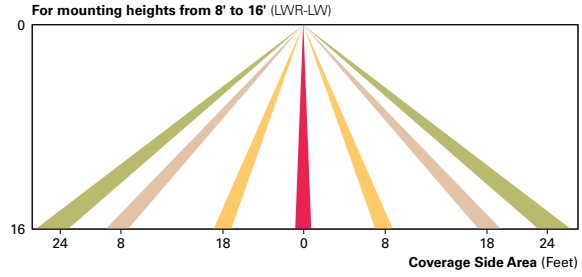


For mounting heights up to 20' (-L20)

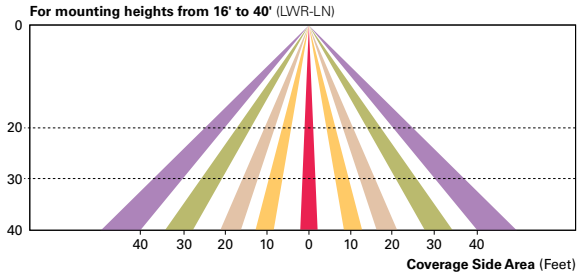


Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)
Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.

For mounting heights from 8' to 16' (LWR-LW)



For mounting heights from 16' to 40' (LWR-LN)



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)
The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.

The Lighting Group LLC
5700 6th Ave South, Ste 215
Seattle WA 98108
Phone: (206) 298-9000
Fax: (206) 763-2764

Date: Jun 9, 2021

Job Name
Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase
LGNW21-81871
Oakville Wa

Bid Date
Jun 21, 2021

Submittal Date
Jun 9, 2021

Architect:
ARC Architects
119 S. Main Street
Seattle WA 98104

Engineer:
TFWB Engineers (Travis Fitzmaurice Wartelle Balangue Engineers, Inc)
1200 Westlake Ave N
Seattle WA 98109

Transmittal

The Lighting Group LLC
5700 6th Ave South, Ste 215
Seattle WA 98108
Phone: (206) 298-9000
From: Chris Hamaker

Project **Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase**
Quote# LGNW21-81871
Location Oakville Wa
To ARC Architects
119 S. Main Street
Suite 200
Seattle WA 98104
Contact:

ATTACHED WE ARE SENDING YOU 1 COPY OF THE FOLLOWING ITEM:

- ☐ Drawings
- ☐ Prints
- ☐ Plans
- ☐ Specifications
- ☐ Information
- ☒ Submittals

Other:

THESE ARE TRANSMITTED FOR:

- ☒ Prior Approval
- ☐ Approval
- ☐ Approval as Submitted
- ☐ Approval as Noted
- ☐ Resubmittal for Approval
- ☐ Corrections
- ☐ Your Use
- ☐ Review and Comment
- ☐ Record

Bids due on:
Other:

Qty	Type	MFG	Part
0			* * *LIGHTING * * *
11	B1	Bega Lighting	84 642-K3-STANDARD FINISH
11	B1	Bega Lighting	99 624-STANDARD FINISH
7	P1	Lithonia Lighting	DSX1 LED P5 30K T4M MVOLT RPA DDBXD
		SINGLE HEAD	
7	P1	Lithonia Lighting	RSA 20 5C DM19AS DDBXD
4	P2	Lithonia Lighting	DSX1 LED P5 30K T4M MVOLT RPA DDBXD
		DOUBLE HEAD	
2	P2	Lithonia Lighting	RSA 20 5C DM28AS DDBXD
2	PL-1	Mark Architectural Lighting	S2LD LLP 4FT MSL4 80CRI 35K 800LMF MIN1 MVOLT WHT ZT F2/72A RDCY WHTCY WCRD DPL
14	PL-2	Lumenwerx	PCROPD-24-ULO-FH-LED-80-4500-35-VOLT-D1-1-5WAC36-WPC-STANDARD FINISH
		VERIFY LUMEN OUTPUT, CRI, COLOR TEMP, VOLTAGE, POWER CORD COLOR, FINISH	
1	PL-6	Besa Lighting	J-T33XL-VENUS-LED-STANDARD FINISH-L
37	RL-1	Liteline Corporation	LEDP-22-9WH-30-30W-2
6	RL-2-10'	Mark Architectural Lighting	SL2L LOP 10FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT
2	RL-2-6'	Mark Architectural Lighting	SL2L LOP 6FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT
2	RL-2-11'	Mark Architectural Lighting	SL2L LOP 11FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT
2	RL-2-14'	Mark Architectural Lighting	SL2L LOP 14FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT

Transmittal

The Lighting Group LLC
5700 6th Ave South, Ste 215
Seattle WA 98108
Phone: (206) 298-9000
From: Chris Hamaker

Qty	Type	MFG	Part
10	RL-2-4'	Mark Architectural Lighting	SL2L LOP 4FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT
3	RL-2-8'	Mark Architectural Lighting	SL2L LOP 8FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT
4	RL-2-7'	Mark Architectural Lighting	SL2L LOP 7FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT
8	WL-1	Bega Lighting	33 242-K3-STANDARD FINISH
4	EXIT	Lithonia Lighting	LE S 1/2 G EL N SD

Knowledge for Creating and Sustaining the Built Environment

SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase)

Project: Elders Center Project

Substitution Request Number:

From: Lighting Group LLC

To: ARC Architects, Paul Curtis

Date: June 9, 2021

TFWB, Kevin Wartelle

A/E Project Number:

Re: Lighting prior submittals

Contract For:

Specification Title: Interior , Exterior Lighting

Description: Interior , Exterior Lighting

Section: 265000 , 265600

Page: 1-6

Article/Paragraph: 1.1 - 3.3

Proposed Substitution: Attached

Manufacturer: Phone:

Address:

Trade Name: Model No.:

Installer: Phone:

Address:

History: ☑ New product ☐ 1-4 years old ☐ 5-10 years old ☐ More than 10 years old

Differences between proposed substitution and specified product:

Proposed is equal or better than the specified product.

☑ Point-by-point comparative data attached — REQUIRED BY A/E

Reason for not providing specified item: Proposed is equal or better than the specified product.

Similar Installation:

Project: N/A Architect:

Address: Owner:

Date Installed:

Proposed substitution affects other parts of Work: ☑ No ☐ Yes; explain

Savings to Owner for accepting substitution: N/A ($).

Proposed substitution changes Contract Time: ☒ No ☐ Yes [Add] [Deduct] days.

Supporting Data Attached: ☐ Drawings ☑ Product Data ☐ Samples ☐ Tests ☐ Reports ☐

Form Version: June 2004
CSI Form 13.1A

SUBSTITUTION REQUEST

(After the Bidding/Negotiating Phase — Continued)

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: Chris Hamaker

Signed by: Chris Hamaker

Firm: Lighting Group LLC

Address: 5700 6th Ave S

Seattle, Washington 98108

Telephone: 206-298-9000

Attachments: [X]

A/E's REVIEW AND ACTION

- [ ] Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- [ ] Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- [ ] Substitution rejected - Use specified materials.
- [ ] Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Additional Comments: [ ] Contractor [ ] Subcontractor [ ] Supplier [ ] Manufacturer [ ] A/E [ ] Other:

Form Version: June 2004
CSI Form 13.1A

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** * * *LIGHTING * * * Notes:	**Type:** LGNW21-81871

* * * LIGHTING * * *

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** 84 642-K3-STANDARD FINISH Notes:	**Type:** **B1** LGNW21-81871

BEGA LED system bollard - luminaire head with shielded 360° light **BEGA**

Application
BEGA LED system bollard luminaire head with fully shielded light distribution. BEGA LED system bollard heads are designed for easy attachment to system bollard tubes using an interlocking mechanism. An accompanying bollard tube must be selected for proper installation, see list of compatible tube options.

Materials
Luminaire housing constructed of die-cast marine grade, copper free (≤0.3% copper content) A360.0 aluminum alloy
Clear safety glass
Reflector made of pure anodized aluminum
High temperature silicone gasket
Mechanically captive stainless steel fasteners
Interlocking system constructed of stainless steel

NRTL listed to North American Standards, suitable for wet locations
Protection class IP 65
Weight: 5.9 lbs

Electrical

Operating voltage	120-277V AC
Minimum start temperature	-30° C
LED module wattage	31.6 W
System wattage	34.0 W
Controllability	0-10V dimmable
Color rendering index	Ra > 80
Luminaire lumens	4,316 lumens (3000K)
Lifetime at Ta = 15° C	>500,000 h (L70)
Lifetime at Ta = 45° C	389,000 h (L70)

LED color temperature

4000K - Product number + **K4**
3500K - Product number + **K35**
3000K - Product number + **K3**
2700K - Product number + **K27**

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish
All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors: Black (BLK), Bronze (BRZ), White (WHT), Silver (SLV), RAL:, CUS:

Type:
BEGA Product:
Project:
Modified:

Compatible bollard tube (select one)

99 615	Without components - low
99 622	Without components - high
99 644	1 LED floodlight 19.3 W
99 626	GFCI outlet
99 658	Passive infrared motion sensor
99 635	Emergency lighting battery 10 W

See individual bollard tube spec sheet for details.

Bollard head · 360° light distribution

	LED	A	B
84 642	31.6 W	15	1¾

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

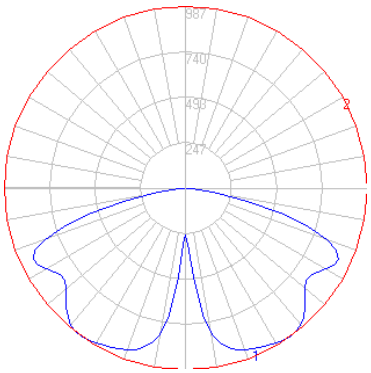
Updated 01/08/19

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** 84 642-K3-STANDARD FINISH Notes:	**Type:** **B1** LGNW21-81871

BEGA

Photometric Filename: 84642.ies

TEST: BE_84642
TEST LAB: BEGA
DATE: 11/23/2016
LUMINAIRE: 84 642
LAMP: 31.6W LED

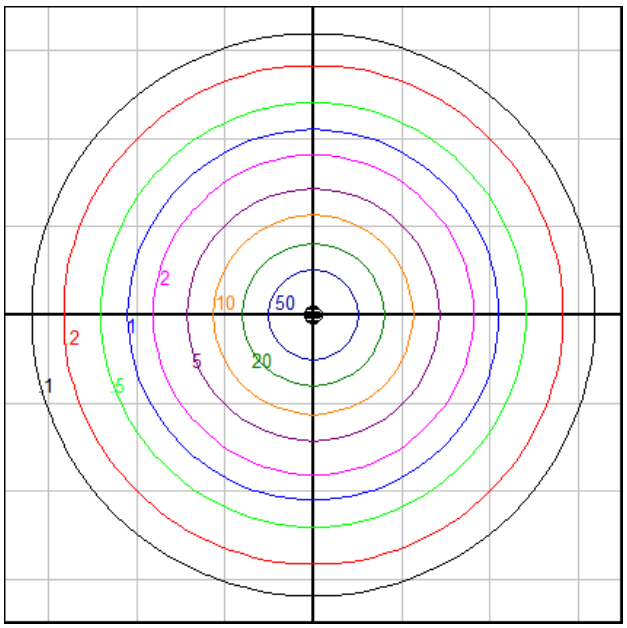


Characteristics

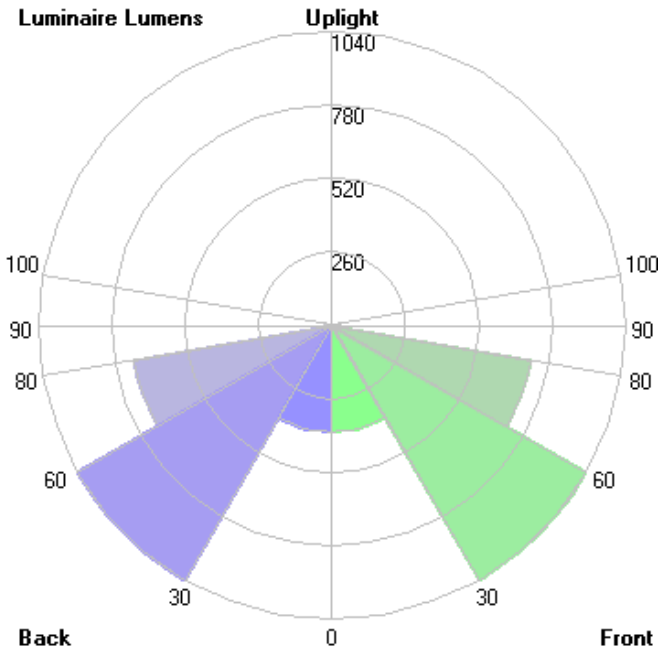
IES Classification	Type V
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4314
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	34
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Max. Cd.	986.8 (0H, 35V)
Max. Cd. (<90 Vert.)	986.8 (0H, 35V)
Max. Cd. (At 90 Deg. Vert.)	0 (0.0%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	179.1 (4.2%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	376.8	N.A.	8.7
FM (30-60)	1040.2	N.A.	24.1
FH (60-80)	713.1	N.A.	16.5
FVH (80-90)	27.2	N.A.	0.6
BL (0-30)	376.8	N.A.	8.7
BM (30-60)	1040.2	N.A.	24.1
BH (60-80)	713.1	N.A.	16.5
BVH (80-90)	27.2	N.A.	0.6
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	4314.6	N.A.	100.0
BUG Rating	**B2-U0-G1**		



Mounting Height = 2.7 ft. Grid Spacing = 5 ft.
*Using 99 622 system bollard tube



In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** 99 624-STANDARD FINISH Notes:	**Type:** **B1** LGNW21-81871

BEGA LED system bollard - bollard tube for luminaire height 43 1/4

Post construction: One piece extruded aluminum, 3/16“ wall thickness with a one peice base, internally welded into an assembly. Provided with access door. Die castings are marine grade, copper free (≤ 0.3% copper content) A360.0 aluminum alloy. Designed to accept BEGA LED system bollard heads of 10 3/8“ in diameter.

Anchor base: Heavy cast aluminum, slotted for precise alignment. Mounts to BEGA 79 818 anchorage kit. Bollard secures to base with one stainless steel set screw. The mounting system allows the luminaire to be adjusted independent of anchor bolt orientation.

Finish: All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

Note: See below for compatible LED system bollard heads. See specifications for details.

CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

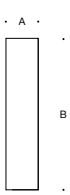
Weight: 24.5 lbs.

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:


99 777


99 778


99 865

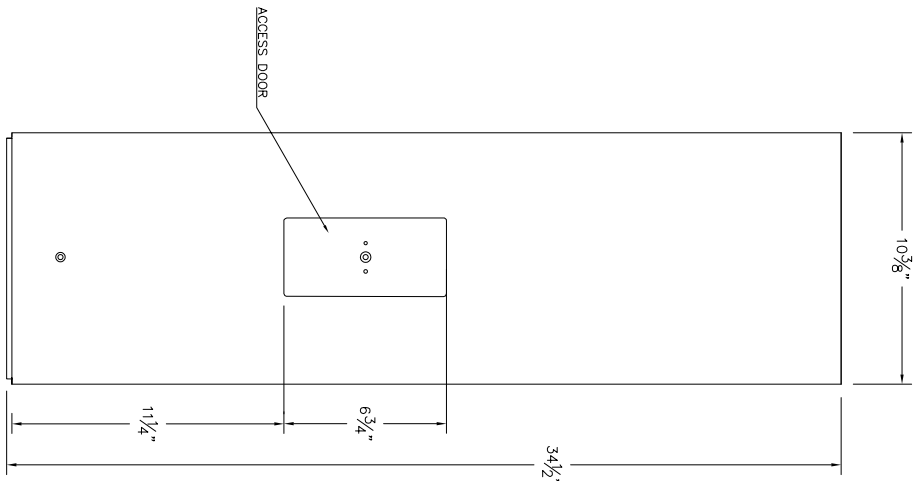


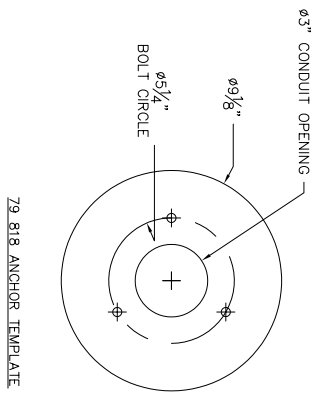
Bollard tubes for luminaire heights **31 ½ · 39 ¼ · 43 ¼**

	Door	A	B	Anch. unit
99 624	✔	10 ⅜	34 ½	**79 818**

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** 99 624-STANDARD FINISH Notes:	**Type:** **B1** LGNW21-81871





NOTE: SYSTEM BOLLARD TUBE # 99 624- SEE SPECIFICATIONS

TYPE: _____

SUBMITTAL APPROVAL

APPROVED BY: _____

SIGNED: DATE:

REV.	DATE	DESCRIPTION

CAT NO.: LUMINARE# 99624

PROJECT: -

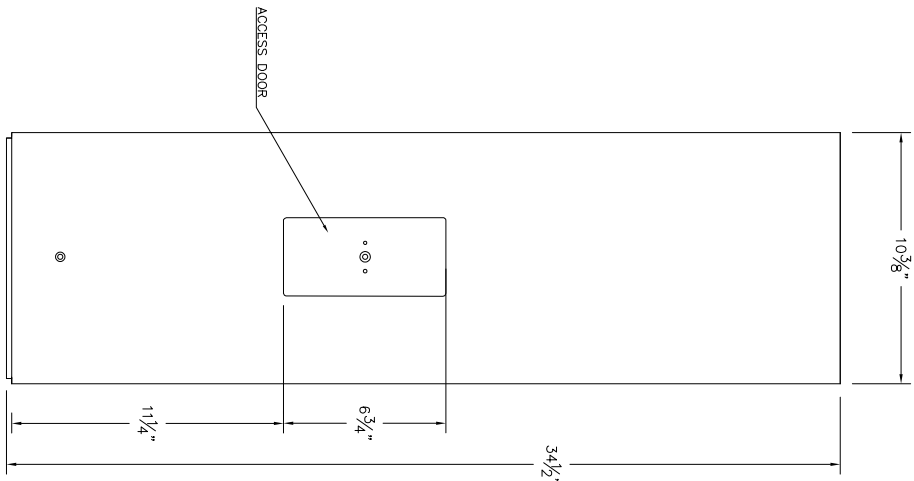
LOCATION: -

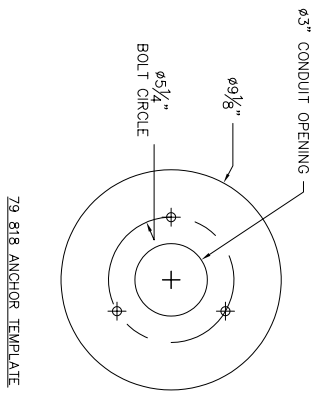
DRAWN: XX DATE: 10/24/2018 FILE NAME: 99624.DXF

BEGA

1000 Bega Way
Carpinteria, Ca. 93013
(805) 684-0533

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** 99 624-STANDARD FINISH Notes:	**Type:** **B1** LGNW21-81871





NOTE: SYSTEM BOLLARD TUBE # 99 624– SEE SPECIFICATIONS

TYPE: _____

SUBMITTAL APPROVAL			CAT NO.: LUMINARE# 99624	BEGA
APPROVED BY: _____			PROJECT: -	
SIGNED:		DATE:	LOCATION: -	1000 Bega Way Carpinteria, Ca. 93013 (805) 684-0533
			DRAWN: XX DATE: 10/24/2018 FILE NAME: 99624.DXF	
REV.	DATE	DESCRIPTION		

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** DSX1 LED P5 30K T4M MVOLT RPA DDBXD Notes:	**Type:** **P1** LGNW21-81871

D-Series Size 1
LED Area Luminaire

Buy American

Catalog Number

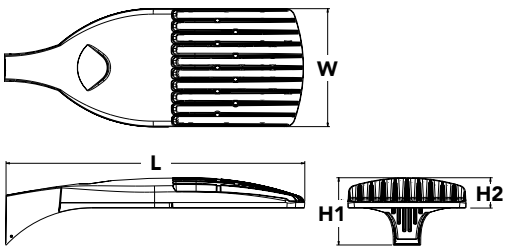
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.01 ft² (0.09 m²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height H1:	7-1/2" (19.0 cm)
Height H2:	3-1/2"
Weight (max):	27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series
- DSX1 LED

LEDs
Forward optics
- P1, P2, P3, P4 [1], P5 [1], P6 [1], P7 [1], P8, P9 [1]

Rotated optics
- P10 [2], P11 [2], P12 [2], P13 [1,2]

Color temperature
- 30K 3000 K
- 40K 4000 K
- 50K 5000 K

Distribution
- T1S Type I short (Automotive)
- T2S Type II short
- T2M Type II medium
- T3S Type III short
- T3M Type III medium
- T4M Type IV medium
- TFTM Forward throw medium
- T5VS Type V very short [3]
- T5S Type V short [3]
- T5M Type V medium [3]
- T5W Type V wide [3]
- BLC Backlight control [4]
- LCCO Left corner cutoff [4]
- RCCO Right corner cutoff [4]

Voltage
- MVOLT [5]
- XVOLT (277V-480V) [6,7,8]
- 120 [9]
- 208 [9]
- 240 [9]
- 277 [9]
- 347 [9]
- 480 [9]

Mounting
Shipped included
- SPA Square pole mounting
- RPA Round pole mounting [10]
- WBA Wall bracket [3]
- SPUMBA Square pole universal mounting adaptor [11]
- RPUMBA Round pole universal mounting adaptor [9]

Shipped separately
- KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [12]

Control options
Shipped installed
- NLTAIR2 nLight AIR generation 2 enabled [13]
- PIRHN Network, high/low motion/ambient sensor [14]
- PER NEMA twist-lock receptacle only (controls ordered separate) [15]
- PER5 Five-pin receptacle only (controls ordered separate) [15,16]
- PER7 Seven-pin receptacle only (controls ordered separate) [15,16]
- DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) [17]
- DS Dual switching [18,19,20]
- PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc [20,21]
- PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc [20,21]
- PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [20,21]
- PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [20,21]
- FAO Field adjustable output [20,21]

Other options
Shipped installed
- HS House-side shield [23]
- SF Single fuse (120, 277, 347V) [9]
- DF Double fuse (208, 240, 480V) [9]
- L90 Left rotated optics [2]
- R90 Right rotated optics [2]
- HA 50°C ambient operations [1]
- BAA Buy America(n) Act Compliant

Shipped separately
- BS Bird spikes [24]
- EGS External glare shield

Finish *(required)*
- DDBXD Dark bronze
- DBLXD Black
- DNAXD Natural aluminum
- DWHXD White
- DDBTXD Textured dark bronze
- DBLBXD Textured black
- DNATXD Textured natural aluminum
- DWHGXD Textured white

Ordering Information

Accessories

Ordered and shipped separately.

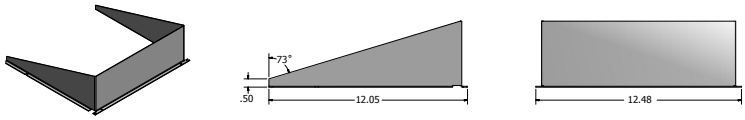
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [25]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [25]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [25]
DSHORT SBK U	Shorting cap [25]
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5 [23]
DSX1HS 40C U	House-side shield for P6 and P7 [23]
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12 [23]
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) [26]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [12]
DSX1EGS (FINISH) U	External glare shield

For more control options, visit DTL and ROAM online.

NOTES
1 HA not available with P4, P5, P6, P7, P9 and P13.
2 P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
3 Any Type 5 distribution with photocell, is not available with WBA.
4 Not available with HS.
5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
6 XVOLT only suitable for use with P3, P5, P6, P7, P9 and P13.
7 XVOLT works with any voltage between 277V and 480V.
8 XVOLT not available with fusing (SF or DF) and not available with PIR, PIRH, PIR1FC3V, PIRH1FC3V.
9 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF.
10 Suitable for mounting to round poles between 3.5" and 12" diameter.
11 Universal mounting brackets intended for retrofit on existing, pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8
12 Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
13 Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
14 Must be ordered with NLTAIR2. For more information on nLight Air 2 visit this link.
15 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting cap included.
16 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.
17 DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
18 Provides 50/50fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
19 Requires (2) separately switched circuits with isolated neutrol.
20 Reference Controls Option Default settings table on page 4.
21 Reference Motion Sensor table on page 4 to see functionality.
22 Not available with other dimming controls options.
23 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
24 Must be ordered with fixture for factory pre-drilling.
25 Requires luminaire to be specified with PER, PER5 or PER7 option. See Control Option Table on page 4.
26 For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8.

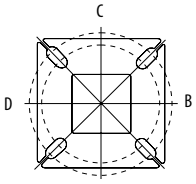
Options

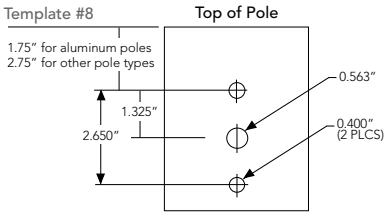
EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION





Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

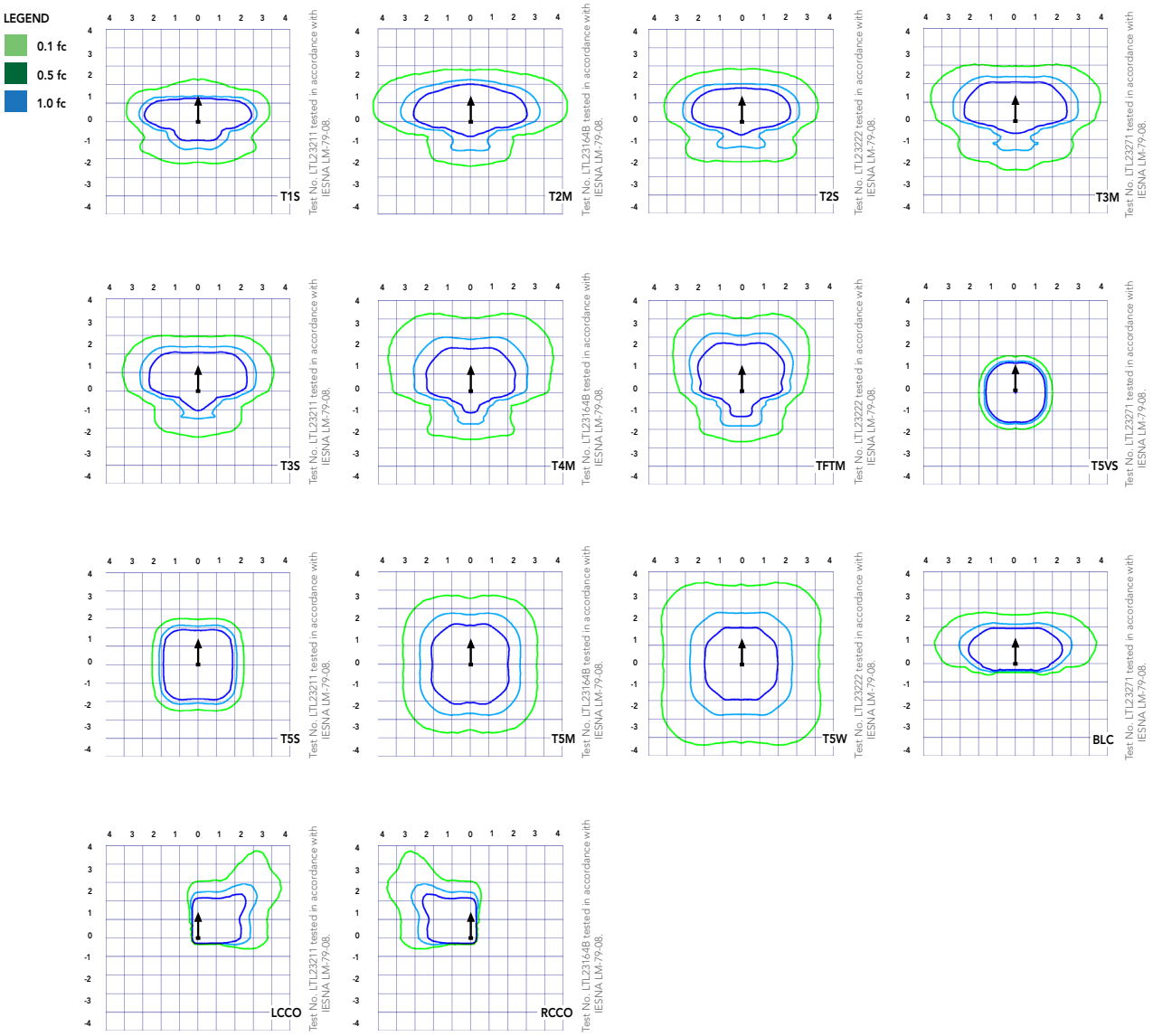
Fixture Quantity & Mounting Con⊠guration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX1 LED	1.013	2.025	1.945	3.038	2.850	3.749

	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).
To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Phototcell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*for use when motion sensor is used as dusk to dawn control.						

Electrical Load

	Performance Package	LED Count	Drive Current	Wattage	Current (A) 120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Controls Options				
Nomenclature	**Description**	**Functionality**	**Primary control device**	**Notes**
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell recepticle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	P1	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131
				T5VS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				T5S	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136
				T5M	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	136
				T5W	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
30	700	P2	70W	T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129
				T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126
				TFTM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129
				T5VS	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	134
				T5S	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				T5M	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				T5W	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
30	1050	P3	102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
				TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
				T5VS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				T5S	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130
				T5M	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130
				T5W	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
30	1250	P4	125W	T1S	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2	117
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115
				TFTM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117
				T5VS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				T5S	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				T5M	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122
				T5W	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
30	1400	P5	138W	T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116
				T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114
				TFTM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116
				T5VS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121
				T5S	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121
				T5M	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				T5W	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71
				RCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	1250	P6	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118
				T5VS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123
				T5S	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123
				T5M	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123
				T5W	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
40	1400	P7	183W	T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115
				T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115
				T5VS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119
				T5S	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119
				T5M	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119
				T5W	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
60	1050	P8	207W	T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118
				T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119
				T5VS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123
				T5S	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				T5W	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
60	1250	P9	241W	T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116
				T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116
				T5VS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121
				T5S	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121
				T5M	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120
				T5W	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
60	530	**P10**	106W	T1S	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	134
				T2S	12,967	4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	133
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	0	3	136
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	131
				T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	136
				T4M	12,944	4	0	4	122	13,945	4	0	4	132	14,121	4	0	4	133
				TFTM	13,279	4	0	4	125	14,305	4	0	4	135	14,486	4	0	4	137
				T5VS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	138
				T5S	13,260	3	0	1	125	14,284	3	0	1	135	14,465	3	0	1	136
				T5M	13,256	4	0	2	125	14,281	4	0	2	135	14,462	4	0	2	136
				T5W	13,137	4	0	3	124	14,153	4	0	3	134	14,332	4	0	3	135
				BLC	10,906	3	0	3	103	11,749	3	0	3	111	11,898	3	0	3	112
				LCCO	7,789	1	0	3	73	8,391	1	0	3	79	8,497	1	0	3	80
				RCCO	7,779	4	0	4	73	8,380	4	0	4	79	8,486	4	0	4	80
60	700	**P11**	137W	T1S	16,556	3	0	3	121	17,835	3	0	3	130	18,061	4	0	4	132
				T2S	16,461	4	0	4	120	17,733	4	0	4	129	17,957	4	0	4	131
				T2M	16,758	4	0	4	122	18,053	4	0	4	132	18,281	4	0	4	133
				T3S	16,205	4	0	4	118	17,457	4	0	4	127	17,678	4	0	4	129
				T3M	16,748	4	0	4	122	18,042	4	0	4	132	18,271	4	0	4	133
				T4M	16,432	4	0	4	120	17,702	4	0	4	129	17,926	4	0	4	131
				TFTM	16,857	4	0	4	123	18,159	4	0	4	133	18,389	4	0	4	134
				T5VS	16,975	4	0	1	124	18,287	4	0	1	133	18,518	4	0	1	135
				T5S	16,832	4	0	1	123	18,133	4	0	2	132	18,362	4	0	2	134
				T5M	16,828	4	0	2	123	18,128	4	0	2	132	18,358	4	0	2	134
				T5W	16,677	4	0	3	122	17,966	5	0	3	131	18,193	5	0	3	133
				BLC	13,845	3	0	3	101	14,915	3	0	3	109	15,103	3	0	3	110
				LCCO	9,888	1	0	3	72	10,652	2	0	3	78	10,787	2	0	3	79
				RCCO	9,875	4	0	4	72	10,638	4	0	4	78	10,773	4	0	4	79
60	1050	**P12**	207W	T1S	22,996	4	0	4	111	24,773	4	0	4	120	25,087	4	0	4	121
				T2S	22,864	4	0	4	110	24,631	5	0	5	119	24,943	5	0	5	120
				T2M	23,277	4	0	4	112	25,075	4	0	4	121	25,393	4	0	4	123
				T3S	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	119
				T3M	23,263	4	0	4	112	25,061	4	0	4	121	25,378	4	0	4	123
				T4M	22,824	5	0	5	110	24,588	5	0	5	119	24,899	5	0	5	120
				TFTM	23,414	5	0	5	113	25,223	5	0	5	122	25,543	5	0	5	123
				T5VS	23,579	5	0	1	114	25,401	5	0	1	123	25,722	5	0	1	124
				T5S	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	123
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				T5W	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	122
				BLC	19,231	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	101
				LCCO	13,734	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,716	4	0	4	66	14,776	4	0	4	71	14,963	4	0	4	72
60	1250	**P13**	231W	T1S	25,400	4	0	4	110	27,363	4	0	4	118	27,709	4	0	4	120
				T2S	25,254	5	0	5	109	27,205	5	0	5	118	27,550	5	0	5	119
				T2M	25,710	4	0	4	111	27,696	4	0	4	120	28,047	4	0	4	121
				T3S	24,862	5	0	5	108	26,783	5	0	5	116	27,122	5	0	5	117
				T3M	25,695	5	0	5	111	27,680	5	0	5	120	28,031	5	0	5	121
				T4M	25,210	5	0	5	109	27,158	5	0	5	118	27,502	5	0	5	119
				TFTM	25,861	5	0	5	112	27,860	5	0	5	121	28,212	5	0	5	122
				T5VS	26,043	5	0	1	113	28,056	5	0	1	121	28,411	5	0	1	123
				T5S	25,824	4	0	2	112	27,819	5	0	2	120	28,172	5	0	2	122
				T5M	25,818	5	0	3	112	27,813	5	0	3	120	28,165	5	0	3	122
				T5W	25,586	5	0	4	111	27,563	5	0	4	119	27,912	5	0	4	121
				BLC	21,241	4	0	4	92	22,882	4	0	4	99	23,172	4	0	4	100
				LCCO	15,170	2	0	4	66	16,342	2	0	4	71	16,549	2	0	4	72
				RCCO	15,150	5	0	5	66	16,321	5	0	5	71	16,527	5	0	5	72

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS
The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40ºC minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** RSA 20 5C DM19AS DDBXD Notes:	**Type:** **P1** LGNW21-81871

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

Anchor Base Poles

RSA

ROUND STRAIGHT ALUMINUM

FEATURES & SPECIFICATIONS

INTENDED USE — **These specifications are for USA standards only.** Round Straight Aluminum is a general purpose light pole for up to 30-foot mounting heights. This pole provides a lighter and naturally corrosion-resistant option for mounting area light fixtures and floodlights.

CONSTRUCTION — **Pole Shaft:** The pole shaft is of uniform wall thickness and is one-piece extruded 6063 aluminum alloy with T6 temper. The shaft is uniform in cross-section down length of pole with no taper. Available shaft diameters are 4", 4.5" 5", and 6".

Pole Top: Options include tenon top, drilled for side mount fixture, tenon with drilling (includes extra handhole) and open top. Side drilled and open top poles include a removable aluminum top cap secured with three stainless-steel screws. The top cap resists intrusion of moisture or environmental contaminants.

Handhole: A non-reinforced handhole with grounding provision is provided near the base. Standard positioning varies with shaft width as follows: 4", 4.5", and 5" shaft, handhole at 12"; 6" shaft, handhole at 18" on side A. Positioning the handhole lower than standard may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. All handholes for a pole specified with openings wfor 4" through 6" shaft width has nominal dimension of 2" x 4" with surface mount overlap design.

Bolt Caps/Base Cover: Pole base plate utilizes cast aluminum bolt caps to cover anchor bolt and nut assembly. Spun aluminum covers available as an option.

Anchor Base/Bolts: Anchor base is cast from 356 alloy aluminum and is heat treated to a T6 temper after welding. Anchor bolts are manufactured to ASTM F1554 Standards Grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Upper portion of anchor bolt is galvanized per ASTM A-153; bolts have an "L" bend on bottom end and are galvanized a minimum of 12" on the threaded end. Each hot-dipped galvanized anchor bolt is furnished with two hex nuts and two flat washers.

HARDWARE – All structural and non-structural fasteners are stainless-steel.

FINISH – Extra durable painted finish is coated with polyester powder that meets 5A and 5B classifications of ASTM D3359. Standard powder-coat finishes include Dark Bronze, White, Black, Medium Bronze and Natural Aluminum colors. Classic finishes include Sandstone, Charcoal Gray, Tennis Green, Bright Red and Steel Blue colors. Other finishes include Brushed Aluminum, and Anodized Dark Bronze, Anodized Natural Aluminum and Anodized Black. Architectural Colors and Special Finishes are available by quote and include, but are not limited to RAL Colors, Custom Colors and Extended Warranty Finishes. Factory-applied primer paint finish is available for customer field-paint applications.

WARRANTY — 1-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** RSA 20 5C DM19AS DDBXD Notes:	**Type:** **P1** LGNW21-81871

RSA Round Straight Aluminum Poles

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative. **Example:** RSA 16 4-5C DM19 BA

RSA **20**

Series	Nominal fixture mounting height	Nominal shaft base size/wall thickness[1]	Mounting[1]	Options	Finish[10]
RSA	8'-30' (for 1/2 ft increments, add - 6 to the pole height. Ex: 20-6 equals 20ft 6in.) (See technical information table for complete ordering information.)	4C 4" (.125") 4-5C 4 1/2" (.125") 4-5G 4 1/2" (.188") 5C 5" (.125") 5E 5" (.156") 5G 5" (.188") 6E 6" (.156") 6G 6" (.188") (See technical information table for complete ordering information.)	Tenon mounting PT Open top T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS)[2] T35 4" O.D. (3-1/2" NPS)[2] KAC/KAD/KSE/KSF/KVR/KVF Drill mounting[3] DM19 1 at 90° DM28 2 at 180° DM28PL 2 at 180° with one side plugged DM29 2 at 90° DM32 3 at 120° DM39 3 at 90° DM49 4 at 90° CSX/DSX/RSX/AERIS™/OMERO™/HLA/KAX Drill mounting[3] DM19AS 1 at 90° DM28AS 2 at 180° DM29AS 2 at 90° DM32AS 3 at 120° DM39AS 3 at 90° DM49AS 4 at 90° RAD drill mounting[3] DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM32RAD 3 at 120° DM39RAD 3 at 90° DM49RAD 4 at 90° ESX Drill mounting[3] DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90° AERIS™ Suspend drill mounting[3,4] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° OMERO™ Suspend drill mounting[3,4] DM19MRT_ 1 at 90° DM28MRT_ 2 at 180° DM29MRT_ 2 at 90° DM39MRT_ 3 at 90° DM49MRT_ 4 at 90°	Shipped installed L/AB Less anchor bolts (Include when anchor bolts are not needed) VD Vibration damper TP Tamper resistant handhole cover fasteners HAxy Horizontal arm bracket (1 fixture)[5,6] FDLxy Festoon outlet less electrical[5] CPL12/xy 1/2" coupling[5] CPL34/xy 3/4" coupling[5] CPL1/xy 1" coupling[5] NPL12/xy 1/2" threaded nipple[5] NPL34/xy 3/4" threaded nipple[5] NPL1/xy 1" threaded nipple[5] EHHxy Extra handhole[5,7] MAEX Match existing[8] USPOM United States point of manufacture[9] UL UL listed with label (Includes NEC compliant cover) NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) Shipped separately (replacement kit available) (blank) BLTC Bolt caps FBC Full base cover (spun aluminum) (blank) TC Top cap (with drill-mount poles) (blank) HHC Handhole cover	Standard colors DDBXD Dark bronze DWH White DBLXD Black DMB Medium bronze DNA Natural aluminum BA Brushed aluminum Classic colors DSS Sandstone DGC Charcoal gray DTG Tennis green DBR Bright red DSB Steel blue Class 1 architectural anodized ABL Black ADB Dark bronze ANA Natural Architectural Colors and Special Finishes[10] Duranodic Anodize, Paint over Duranodic Anodize, RAL Colors, Custom Colors and Extended Warranty Finishes available.

NOTES:
1. Wall thickness will be signified with a "C", "E" or a "G" in nomenclature. "C" - 0.125 | "E" - 0.156 | "G" - 0.188.
2. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, follow this example: DM28/T20. The combination includes a required extra handhole.
3. Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
4. Insert "1" or "2" to designate fixture size; e.g. DM19AST2.
5. Specify location and orientation when ordering option.
   For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
   Example: 5ft = 5 and 20ft 3in = 20-3
   For "y": Specify orientation from handhole (A,B,C,D) Refer to the Handhole Orientation diagram below.
   Example: 1/2" coupling at 5' 8", orientation C = CPL12/5-8C
6. Horizontal arm is 18" x 2-3/8" O.D. tenon standard with radius curve providing 12' rise. If ordering two horizontal arm at the same height, specify with HAxyy. Example: HA20BD
7. Combination of tenon-top and drill mount includes extra handhole.
8. Must add original order number of existing pole(s).
9. Use when mill certifications are required.
10. Additional colors available; see www.lithonia.com/archcolors or Architectural Colors brochure (Form No. 794.3). Available by formal quote only, consult factory for details.

Submitted by The Lighting Group LLCChris Hamaker

Job Name:
Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase
Architect: ARC Architects (Seattle)
Engineer: TFWB Engineers (Travis Fitzmaurice

Catalog Number:
RSA 20 5C DM19AS DDBXD

Notes:

Type:
P1

LGNW21-81871

RSA Round Straight Aluminum Poles

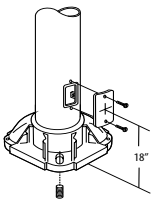
TECHNICAL INFORMATION — EPA (ft^2) with 1.3 gust									
Catalog number	Nominal mount ht. (ft) *	Pole shaft size (in x ft)	Wall thick (in)	EPA (ft^2) with 1.3 gust			Max. weight (lbs)	Bolt size (in. x in. x in.)	Approximate ship (lbs.)
				80 mph	90 mph	100 mph			
RSA 8 4C	8	4 x 8	0.125	11.2	8.6	6.8	125	3/4 x 18 x 3	22
RSA 8 4-5C	8	4-1/2 x 8	0.125	14.6	11.3	9.1	175	3/4 x 18 x 3	30
RSA 8 4-5G	8	4-1/2 x 8	0.188	21.8	17	13.7	225	3/4 x 18 x 3	38
RSA 10 4C	10	4 x 10	0.125	8.2	6.1	4.7	100	3/4 x 18 x 3	26
RSA 10 4-5C	10	4-1/2 x 10	0.125	10.6	8.1	6.5	133	3/4 x 18 x 3	34
RSA 10 4-5G	10	4-1/2 x 10	0.188	16.3	12.6	10.1	175	3/4 x 18 x 3	43
RSA 10 5C	10	5 x 10	0.125	13.6	10.6	8.5	150	3/4 x 18 x 3	36
RSA 12 4C	12	4 x 12	0.125	6	4.3	3.2	110	3/4 x 18 x 3	30
RSA 12 4-5C	12	4-1/2 x 12	0.125	8.1	6	4.8	80	3/4 x 18 x 3	38
RSA 12 4-5G	12	4-1/2 x 12	0.188	12.7	9.7	7.7	185	3/4 x 18 x 3	50
RSA 12 5C	12	5 x 12	0.125	10.3	8	6.3	150	3/4 x 18 x 3	36
RSA 12 5E	12	5 x 12	0.156	13.2	10.3	8.2	200	3/4 x 18 x 3	44
RSA 12 5G	12	5 x 12	0.188	16.2	12.6	10.1	225	3/4 x 18 x 3	53
RSA 14 4C	14	4 x 14	0.125	4.1	2.8	1.9	75	3/4 x 18 x 3	35
RSA 14 4-5C	14	4-1/2 x 14	0.125	5.8	4.2	3.3	60	3/4 x 18 x 3	39
RSA 14 4-5G	14	4-1/2 x 14	0.188	9.7	7.3	5.8	190	3/4 x 18 x 3	56
RSA 14 5C	14	5 x 14	0.125	7.8	6	4.7	100	3/4 x 18 x 3	42
RSA 14 5E	14	5 x 14	0.156	10.3	8	6.3	125	3/4 x 18 x 3	47
RSA 14 5G	14	5 x 14	0.188	12.8	9.9	7.9	150	3/4 x 18 x 3	56
RSA 16 4C	16	4 x 16	0.125	2.8	1.6	1	150	3/4 x 18 x 3	38
RSA 16 4-5C	16	4-1/2 x 16	0.125	3.3	2.2	1.6	100	3/4 x 18 x 3	46
RSA 16 4-5G	16	4-1/2 x 16	0.188	7.5	5.5	4.3	155	3/4 x 18 x 3	62
RSA 16 5C	16	5 x 16	0.125	5.9	4.4	3.4	175	3/4 x 18 x 3	46
RSA 16 5E	16	5 x 16	0.156	8	6.1	4.8	190	3/4 x 18 x 3	53
RSA 16 5G	16	5 x 16	0.188	10.1	7.8	6.1	200	3/4 x 18 x 3	60
RSA 16 6E	16	6 x 16	0.156	13.6	10.6	8.4	225	3/4 x 30 x 3	53
RSA 16 6G	16	6 x 16	0.188	16.8	13	10.4	245	3/4 x 30 x 3	78
RSA 18 5G	18	5 x 18	0.188	8	6.8	4.7	225	3/4 x 18 x 3	68
RSA 18 5C	18	5 x 18	0.125	4.3	3.1	2.4	150	3/4 x 18 x 3	48
RSA 18 5E	18	5 x 18	0.156	6.1	4.6	3.5	175	3/4 x 18 x 3	58
RSA 18 4-5G	18	4-1/2 x 18	0.188	5.7	4	3.1	123	3/4 x 18 x 3	68
RSA 18 6G	18	6 x 18	0.188	13.9	10.7	8.5	225	3/4 x 30 x 3	86
RSA 20 4-5G	20	4-1/2 x 20	0.188	4.3	2.9	2.1	95	3/4 x 18 x 3	74
RSA 20 5C	20	5 x 20	0.125	3	2.1	1.5	150	3/4 x 18 x 3	54
RSA 20 5E	20	5 x 20	0.156	4.7	3.4	2.6	150	3/4 x 18 x 3	68
RSA 20 5G	20	5 x 20	0.188	6.4	4.8	3.6	150	3/4 x 18 x 3	82
RSA 20 6E	20	6 x 20	0.156	9.3	7.1	5.5	175	3/4 x 30 x 3	95
RSA 20 6G	20	6 x 20	0.188	11.8	9.1	7.1	200	3/4 x 30 x 3	110
RSA 25 4-5G	25	4-1/2 x 25	0.188	1.3	--	--	100	3/4 x 18 x 3	89
RSA 25 6E	25	6 x 25	0.156	5.2	3.8	2.8	150	3/4 x 30 x 3	108
RSA 25 6G	25	6 x 25	0.188	7.1	5.3	4	150	3/4 x 30 x 3	128
RSA 30 6G	30	6 x 30	0.188	3.5	2.4	1.6	200	3/4 x 30 x 3	146

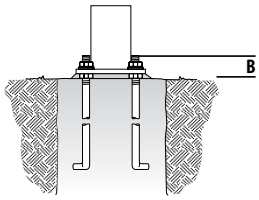
* TECHNICAL INFORMATION — EPA (ft2) with 1.3 gust. For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

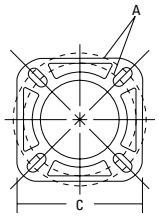
Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** RSA 20 5C DM19AS DDBXD Notes:	**Type:** **P1** LGNW21-81871

RSA Round Straight Aluminum Poles

BASE DETAIL

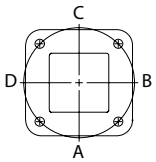






POLE DATA					
Shaft base size	**Bolt circle A**	**Bolt projection B**	**Base square C**	**Template description**	**Anchor bolt description**
4"	6.75" - 8.00"	3.25"	8.91"	ABTEMPLATE PJ50057	AB18-0
4.5"	7.06" - 8.62"	3.25"	9.26"	ABTEMPLATE PJ50040	AB18-0
5"	7.75" - 8.00"	3.25"	9.61"	ABTEMPLATE PJ50058	AB18-0
6"	9.00"-10.00"	3.50"	10.32"	ABTEMPLATE PJ50059	AB30-0

HANDHOLE ORIENTATION



Default DM19 is on side B.

Handhole

IMPORTANT INSTALLATION NOTES:

- Do not erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use factory template.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** DSX1 LED P5 30K T4M MVOLT RPA DDBXD Notes:	**Type:** **P2** LGNW21-81871

D-Series Size 1
LED Area Luminaire

Buy American

Catalog Number

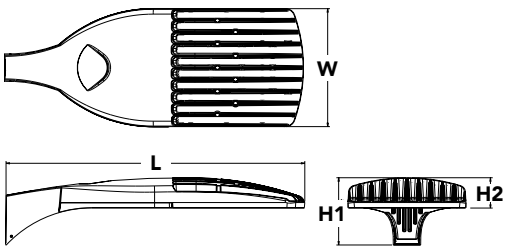
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.01 ft² (0.09 m²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height H1:	7-1/2" (19.0 cm)
Height H2:	3-1/2"
Weight (max):	27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series
- DSX1 LED

LEDs
Forward optics
- P1, P2, P3, P4 [1], P5 [1], P6 [1], P7 [1], P8, P9 [1]

Rotated optics
- P10 [2], P11 [2], P12 [2], P13 [1,2]

Color temperature
- 30K 3000 K
- 40K 4000 K
- 50K 5000 K

Distribution
- T1S Type I short (Automotive)
- T2S Type II short
- T2M Type II medium
- T3S Type III short
- T3M Type III medium
- T4M Type IV medium
- TFTM Forward throw medium
- T5VS Type V very short [3]
- T5S Type V short [3]
- T5M Type V medium [3]
- T5W Type V wide [3]
- BLC Backlight control [4]
- LCCO Left corner cutoff [4]
- RCCO Right corner cutoff [4]

Voltage
- MVOLT [5]
- XVOLT (277V-480V) [6,7,8]
- 120 [9]
- 208 [9]
- 240 [9]
- 277 [9]
- 347 [9]
- 480 [9]

Mounting
Shipped included
- SPA Square pole mounting
- RPA Round pole mounting [10]
- WBA Wall bracket [3]
- SPUMBA Square pole universal mounting adaptor [11]
- RPUMBA Round pole universal mounting adaptor [9]

Shipped separately
- KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [12]

Control options
Shipped installed
- NLTAIR2 nLight AIR generation 2 enabled [13]
- PIRHN Network, high/low motion/ambient sensor [14]
- PER NEMA twist-lock receptacle only (controls ordered separate) [15]
- PER5 Five-pin receptacle only (controls ordered separate) [15,16]
- PER7 Seven-pin receptacle only (controls ordered separate) [15,16]
- DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) [17]
- DS Dual switching [18,19,20]
- PIR High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc [20,21]
- PIRH High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc [20,21]
- PIR1FC3V High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc [20,21]
- PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc [20,21]
- FAO Field adjustable output [20,21]

Other options
Shipped installed
- HS House-side shield [23]
- SF Single fuse (120, 277, 347V) [9]
- DF Double fuse (208, 240, 480V) [9]
- L90 Left rotated optics [2]
- R90 Right rotated optics [2]
- HA 50°C ambient operations [1]
- BAA Buy America(n) Act Compliant

Shipped separately
- BS Bird spikes [24]
- EGS External glare shield

Finish *(required)*
- DDBXD Dark bronze
- DBLXD Black
- DNAXD Natural aluminum
- DWHXD White
- DDBTXD Textured dark bronze
- DBLBXD Textured black
- DNATXD Textured natural aluminum
- DWHGXD Textured white

Ordering Information

Accessories

Ordered and shipped separately.

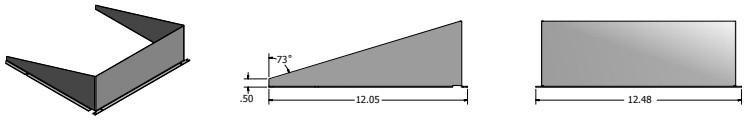
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [25]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [25]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [25]
DSHORT SBK U	Shorting cap [25]
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5 [23]
DSX1HS 40C U	House-side shield for P6 and P7 [23]
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12 [23]
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) [26]
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [12]
DSX1EGS (FINISH) U	External glare shield

For more control options, visit DTL and ROAM online.

NOTES
1 HA not available with P4, P5, P6, P7, P9 and P13.
2 P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
3 Any Type 5 distribution with photocell, is not available with WBA.
4 Not available with HS.
5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
6 XVOLT only suitable for use with P3, P5, P6, P7, P9 and P13.
7 XVOLT works with any voltage between 277V and 480V.
8 XVOLT not available with fusing (SF or DF) and not available with PIR, PIRH, PIR1FC3V, PIRH1FC3V.
9 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF.
10 Suitable for mounting to round poles between 3.5" and 12" diameter.
11 Universal mounting brackets intended for retrofit on existing, pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8
12 Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
13 Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
14 Must be ordered with NLTAIR2. For more information on nLight Air 2 visit this link.
15 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting cap included.
16 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.
17 DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
18 Provides 50/50fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
19 Requires (2) separately switched circuits with isolated neutrol.
20 Reference Controls Option Default settings table on page 4.
21 Reference Motion Sensor table on page 4 to see functionality.
22 Not available with other dimming controls options.
23 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
24 Must be ordered with fixture for factory pre-drilling.
25 Requires luminaire to be specified with PER, PER5 or PER7 option. See Control Option Table on page 4.
26 For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8.

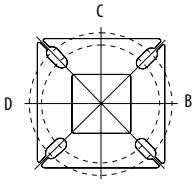
Options

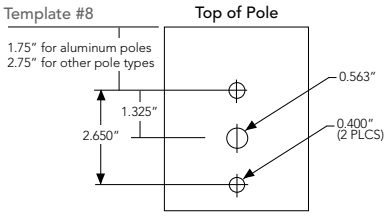
EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION





Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

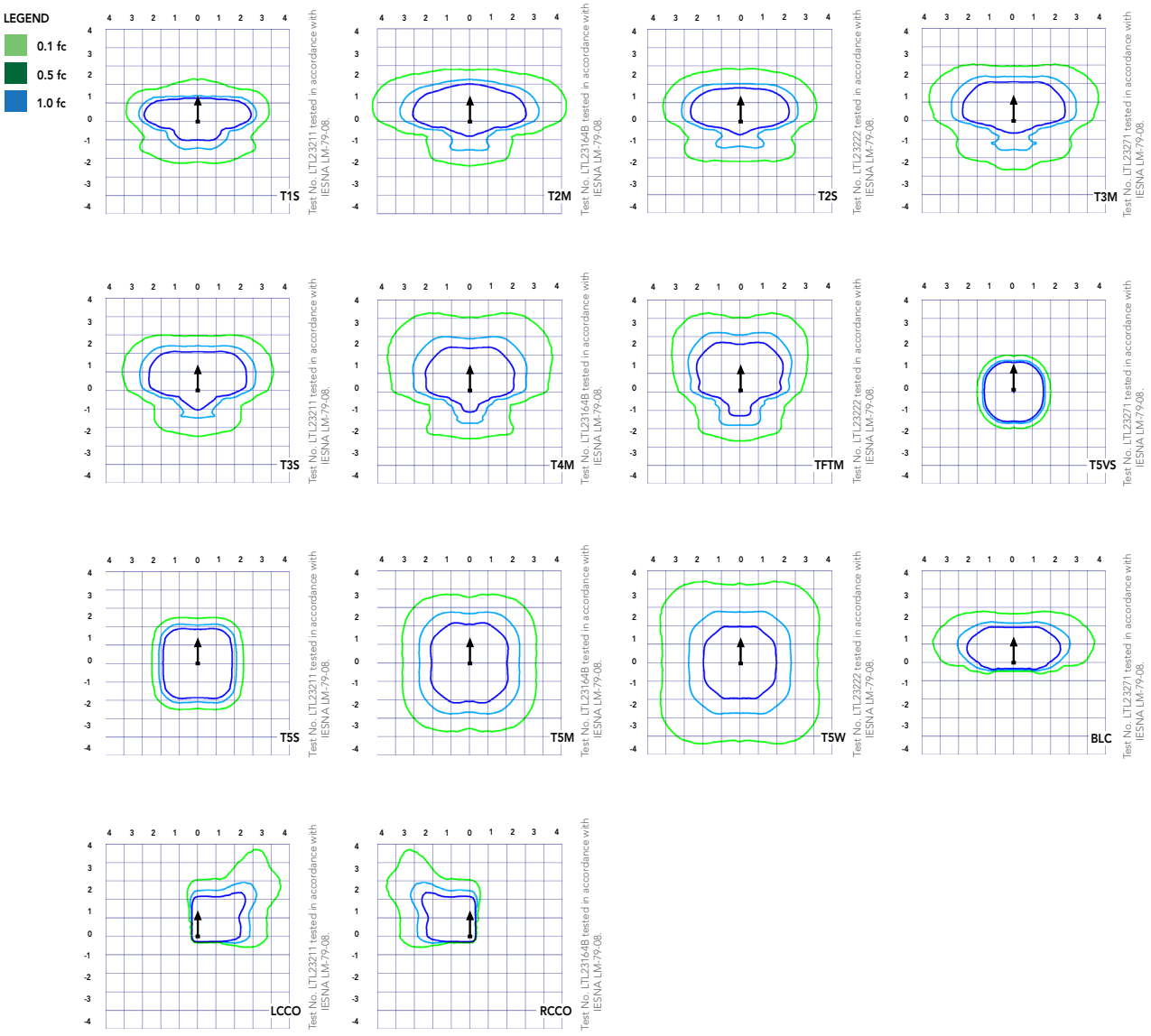
Fixture Quantity & Mounting Con⊠guration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX1 LED	1.013	2.025	1.945	3.038	2.850	3.749

	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	50°F	1.02
20°C	68°F	1.01
25°C	**77°F**	**1.00**
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).
To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Phototcell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min
*for use when motion sensor is used as dusk to dawn control.						

Electrical Load

	Performance Package	LED Count	Drive Current	Wattage	Current (A) 120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Controls Options				
Nomenclature	**Description**	**Functionality**	**Primary control device**	**Notes**
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell recepticle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclypse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	P1	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131
				T5VS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				T5S	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136
				T5M	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	136
				T5W	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
30	700	P2	70W	T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129
				T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126
				TFTM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129
				T5VS	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	134
				T5S	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				T5M	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				T5W	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
30	1050	P3	102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
				TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
				T5VS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				T5S	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130
				T5M	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130
				T5W	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
30	1250	P4	125W	T1S	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2	117
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115
				TFTM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117
				T5VS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				T5S	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				T5M	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122
				T5W	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
30	1400	P5	138W	T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116
				T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114
				TFTM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116
				T5VS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121
				T5S	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121
				T5M	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				T5W	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71
				RCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	1250	**P6**	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118
				T5VS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123
				T5S	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123
				T5M	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123
				T5W	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
40	1400	**P7**	183W	T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115
				T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115
				T5VS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119
				T5S	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119
				T5M	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119
				T5W	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
60	1050	**P8**	207W	T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118
				T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119
				T5VS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123
				T5S	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				T5W	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
60	1250	**P9**	241W	T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116
				T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116
				T5VS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121
				T5S	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121
				T5M	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120
				T5W	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
60	530	**P10**	106W	T1S	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	134
				T2S	12,967	4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	133
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	0	3	136
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	131
				T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	136
				T4M	12,944	4	0	4	122	13,945	4	0	4	132	14,121	4	0	4	133
				TFTM	13,279	4	0	4	125	14,305	4	0	4	135	14,486	4	0	4	137
				T5VS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	138
				T5S	13,260	3	0	1	125	14,284	3	0	1	135	14,465	3	0	1	136
				T5M	13,256	4	0	2	125	14,281	4	0	2	135	14,462	4	0	2	136
				T5W	13,137	4	0	3	124	14,153	4	0	3	134	14,332	4	0	3	135
				BLC	10,906	3	0	3	103	11,749	3	0	3	111	11,898	3	0	3	112
				LCCO	7,789	1	0	3	73	8,391	1	0	3	79	8,497	1	0	3	80
				RCCO	7,779	4	0	4	73	8,380	4	0	4	79	8,486	4	0	4	80
60	700	**P11**	137W	T1S	16,556	3	0	3	121	17,835	3	0	3	130	18,061	4	0	4	132
				T2S	16,461	4	0	4	120	17,733	4	0	4	129	17,957	4	0	4	131
				T2M	16,758	4	0	4	122	18,053	4	0	4	132	18,281	4	0	4	133
				T3S	16,205	4	0	4	118	17,457	4	0	4	127	17,678	4	0	4	129
				T3M	16,748	4	0	4	122	18,042	4	0	4	132	18,271	4	0	4	133
				T4M	16,432	4	0	4	120	17,702	4	0	4	129	17,926	4	0	4	131
				TFTM	16,857	4	0	4	123	18,159	4	0	4	133	18,389	4	0	4	134
				T5VS	16,975	4	0	1	124	18,287	4	0	1	133	18,518	4	0	1	135
				T5S	16,832	4	0	1	123	18,133	4	0	2	132	18,362	4	0	2	134
				T5M	16,828	4	0	2	123	18,128	4	0	2	132	18,358	4	0	2	134
				T5W	16,677	4	0	3	122	17,966	5	0	3	131	18,193	5	0	3	133
				BLC	13,845	3	0	3	101	14,915	3	0	3	109	15,103	3	0	3	110
				LCCO	9,888	1	0	3	72	10,652	2	0	3	78	10,787	2	0	3	79
				RCCO	9,875	4	0	4	72	10,638	4	0	4	78	10,773	4	0	4	79
60	1050	**P12**	207W	T1S	22,996	4	0	4	111	24,773	4	0	4	120	25,087	4	0	4	121
				T2S	22,864	4	0	4	110	24,631	5	0	5	119	24,943	5	0	5	120
				T2M	23,277	4	0	4	112	25,075	4	0	4	121	25,393	4	0	4	123
				T3S	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	119
				T3M	23,263	4	0	4	112	25,061	4	0	4	121	25,378	4	0	4	123
				T4M	22,824	5	0	5	110	24,588	5	0	5	119	24,899	5	0	5	120
				TFTM	23,414	5	0	5	113	25,223	5	0	5	122	25,543	5	0	5	123
				T5VS	23,579	5	0	1	114	25,401	5	0	1	123	25,722	5	0	1	124
				T5S	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	123
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				T5W	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	122
				BLC	19,231	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	101
				LCCO	13,734	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,716	4	0	4	66	14,776	4	0	4	71	14,963	4	0	4	72
60	1250	**P13**	231W	T1S	25,400	4	0	4	110	27,363	4	0	4	118	27,709	4	0	4	120
				T2S	25,254	5	0	5	109	27,205	5	0	5	118	27,550	5	0	5	119
				T2M	25,710	4	0	4	111	27,696	4	0	4	120	28,047	4	0	4	121
				T3S	24,862	5	0	5	108	26,783	5	0	5	116	27,122	5	0	5	117
				T3M	25,695	5	0	5	111	27,680	5	0	5	120	28,031	5	0	5	121
				T4M	25,210	5	0	5	109	27,158	5	0	5	118	27,502	5	0	5	119
				TFTM	25,861	5	0	5	112	27,860	5	0	5	121	28,212	5	0	5	122
				T5VS	26,043	5	0	1	113	28,056	5	0	1	121	28,411	5	0	1	123
				T5S	25,824	4	0	2	112	27,819	5	0	2	120	28,172	5	0	2	122
				T5M	25,818	5	0	3	112	27,813	5	0	3	120	28,165	5	0	3	122
				T5W	25,586	5	0	4	111	27,563	5	0	4	119	27,912	5	0	4	121
				BLC	21,241	4	0	4	92	22,882	4	0	4	99	23,172	4	0	4	100
				LCCO	15,170	2	0	4	66	16,342	2	0	4	71	16,549	2	0	4	72
				RCCO	15,150	5	0	5	66	16,321	5	0	5	71	16,527	5	0	5	72

FEATURES & SPECIFICATIONS

INTENDED USE
The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft^2) for optimized pole wind loading.

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL
Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS
The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS
The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40ºC minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** RSA 20 5C DM28AS DDBXD Notes:	**Type:** **P2** LGNW21-81871

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

FEATURES & SPECIFICATIONS

INTENDED USE — **These specifications are for USA standards only.** Round Straight Aluminum is a general purpose light pole for up to 30-foot mounting heights. This pole provides a lighter and naturally corrosion-resistant option for mounting area light fixtures and floodlights.

CONSTRUCTION — **Pole Shaft:** The pole shaft is of uniform wall thickness and is one-piece extruded 6063 aluminum alloy with T6 temper. The shaft is uniform in cross-section down length of pole with no taper. Available shaft diameters are 4", 4.5" 5", and 6".

Pole Top: Options include tenon top, drilled for side mount fixture, tenon with drilling (includes extra handhole) and open top. Side drilled and open top poles include a removable aluminum top cap secured with three stainless-steel screws. The top cap resists intrusion of moisture or environmental contaminants.

Handhole: A non-reinforced handhole with grounding provision is provided near the base. Standard positioning varies with shaft width as follows: 4", 4.5", and 5" shaft, handhole at 12"; 6" shaft, handhole at 18" on side A. Positioning the handhole lower than standard may not be possible and requires engineering review; consult Tech Support-Outdoor for further information. All handholes for a pole specified with openings wfor 4" through 6" shaft width has nominal dimension of 2" x 4" with surface mount overlap design.

Bolt Caps/Base Cover: Pole base plate utilizes cast aluminum bolt caps to cover anchor bolt and nut assembly. Spun aluminum covers available as an option.

Anchor Base/Bolts: Anchor base is cast from 356 alloy aluminum and is heat treated to a T6 temper after welding. Anchor bolts are manufactured to ASTM F1554 Standards Grade 55, (55 KSI minimum yield strength and tensile strength of 75-95 KSI). Upper portion of anchor bolt is galvanized per ASTM A-153; bolts have an "L" bend on bottom end and are galvanized a minimum of 12" on the threaded end. Each hot-dipped galvanized anchor bolt is furnished with two hex nuts and two flat washers.

HARDWARE – All structural and non-structural fasteners are stainless-steel.

FINISH – Extra durable painted finish is coated with polyester powder that meets 5A and 5B classifications of ASTM D3359. Standard powder-coat finishes include Dark Bronze, White, Black, Medium Bronze and Natural Aluminum colors. Classic finishes include Sandstone, Charcoal Gray, Tennis Green, Bright Red and Steel Blue colors. Other finishes include Brushed Aluminum, and Anodized Dark Bronze, Anodized Natural Aluminum and Anodized Black. Architectural Colors and Special Finishes are available by quote and include, but are not limited to RAL Colors, Custom Colors and Extended Warranty Finishes. Factory-applied primer paint finish is available for customer field-paint applications.

WARRANTY — 1-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.

Anchor Base Poles

RSA

ROUND STRAIGHT ALUMINUM

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** RSA 20 5C DM28AS DDBXD Notes:	**Type:** **P2** LGNW21-81871

RSA Round Straight Aluminum Poles

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative. **Example:** RSA 16 4-5C DM19 BA

RSA **20**

Series	Nominal fixture mounting height	Nominal shaft base size/wall thickness[1]	Mounting[1]	Options	Finish[10]
RSA	8'-30' (for 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.) (See technical information table for complete ordering information.)	4C 4" (.125") 4-5C 4 1/2" (.125") 4-5G 4 1/2" (.188") **5C 5" (.125")** 5E 5" (.156") 5G 5" (.188") 6E 6" (.156") 6G 6" (.188") (See technical information table for complete ordering information.)	Tenon mounting PT Open top T20 2-3/8" O.D. (2" NPS) T25 2-7/8" O.D. (2-1/2" NPS) T30 3-1/2" O.D. (3" NPS)[2] T35 4" O.D. (3-1/2" NPS)[2] KAC/KAD/KSE/KSF/KVR/KVF Drill mounting[3] DM19 1 at 90° DM28 2 at 180° DM28PL 2 at 180° with one side plugged DM29 2 at 90° DM32 3 at 120° DM39 3 at 90° DM49 4 at 90° CSX/DSX/RSX/AERIS™/OMERO™/HLA/KAX Drill mounting[3] DM19AS 1 at 90° **DM28AS 2 at 180°** DM29AS 2 at 90° DM32AS 3 at 120° DM39AS 3 at 90° DM49AS 4 at 90° RAD drill mounting[3] DM19RAD 1 at 90° DM28RAD 2 at 180° DM29RAD 2 at 90° DM32RAD 3 at 120° DM39RAD 3 at 90° DM49RAD 4 at 90° ESX Drill mounting[3] DM19ESX 1 at 90° DM28ESX 2 at 180° DM29ESX 2 at 90° DM39ESX 3 at 90° DM49ESX 4 at 90° AERIS™ Suspend drill mounting[3,4] DM19AST_ 1 at 90° DM28AST_ 2 at 180° DM29AST_ 2 at 90° DM39AST_ 3 at 90° DM49AST_ 4 at 90° OMERO™ Suspend drill mounting[3,4] DM19MRT_ 1 at 90° DM28MRT_ 2 at 180° DM29MRT_ 2 at 90° DM39MRT_ 3 at 90° DM49MRT_ 4 at 90°	Shipped installed L/AB Less anchor bolts (Include when anchor bolts are not needed) VD Vibration damper TP Tamper resistant handhole cover fasteners HAxy Horizontal arm bracket (1 fixture)[5,6] FDLxy Festoon outlet less electrical[5] CPL12/xy 1/2" coupling[5] CPL34/xy 3/4" coupling[5] CPL1/xy 1" coupling[5] NPL12/xy 1/2" threaded nipple[5] NPL34/xy 3/4" threaded nipple[5] NPL1/xy 1" threaded nipple[5] EHHxy Extra handhole[5,7] MAEX Match existing[8] USPOM United States point of manufacture[9] UL UL listed with label (Includes NEC compliant cover) NEC NEC 410.30 compliant gasketed handhole (Not UL Labeled) Shipped separately (replacement kit available) (blank) BLTC Bolt caps FBC Full base cover (spun aluminum) (blank) TC Top cap (with drill-mount poles) (blank) HHC Handhole cover	Standard colors **DDBXD Dark bronze** DWH White DBLXD Black DMB Medium bronze DNA Natural aluminum BA Brushed aluminum Classic colors DSS Sandstone DGC Charcoal gray DTG Tennis green DBR Bright red DSB Steel blue Class 1 architectural anodized ABL Black ADB Dark bronze ANA Natural Architectural Colors and Special Finishes[10] Duranodic Anodize, Paint over Duranodic Anodize, RAL Colors, Custom Colors and Extended Warranty Finishes available.

NOTES:

1. Wall thickness will be signified with a "C", "E" or a "G" in nomenclature. "C" - 0.125 | "E" - 0.156 | "G" - 0.188.
2. PT open top poles include top cap. When ordering tenon mounting and drill mounting for the same pole, follow this example: DM28/T20. The combination includes a required extra handhole.
3. Refer to the fixture spec sheet for the correct drilling template pattern and orientation compatibility.
4. Insert "1" or "2" to designate fixture size; e.g. DM19AST2.
5. Specify location and orientation when ordering option.
   For "x": Specify the height above the base of pole in feet or feet and inches; separate feet and inches with a "-".
   Example: 5ft = 5 and 20ft 3in = 20-3
   For "y": Specify orientation from handhole (A,B,C,D) Refer to the Handhole Orientation diagram below.
   Example: 1/2" coupling at 5' 8", orientation C = CPL12/5-8C
6. Horizontal arm is 18" x 2-3/8" O.D. tenon standard with radius curve providing 12' rise. If ordering two horizontal arm at the same height, specify with HAxyy. Example: HA20BD
7. Combination of tenon-top and drill mount includes extra handhole.
8. Must add original order number of existing pole(s).
9. Use when mill certifications are required.
10. Additional colors available; see www.lithonia.com/archcolors or Architectural Colors brochure (Form No. 794.3). Available by formal quote only, consult factory for details.

Submitted by The Lighting Group LLCChris Hamaker

Job Name:
Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase
Architect: ARC Architects (Seattle)
Engineer: TFWB Engineers (Travis Fitzmaurice

Catalog Number:
RSA 20 5C DM28AS DDBXD

Notes:

Type:
P2

LGNW21-81871

RSA Round Straight Aluminum Poles

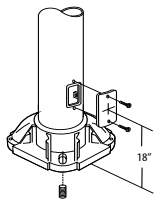
TECHNICAL INFORMATION — EPA (ft^2) with 1.3 gust									
Catalog number	Nominal mount ht. (ft) *	Pole shaft size (in x ft)	Wall thick (in)	EPA (ft^2) with 1.3 gust			Max. weight (lbs)	Bolt size (in. x in. x in.)	Approximate ship (lbs.)
				80 mph	90 mph	100 mph			
RSA 8 4C	8	4 x 8	0.125	11.2	8.6	6.8	125	3/4 x 18 x 3	22
RSA 8 4-5C	8	4-1/2 x 8	0.125	14.6	11.3	9.1	175	3/4 x 18 x 3	30
RSA 8 4-5G	8	4-1/2 x 8	0.188	21.8	17	13.7	225	3/4 x 18 x 3	38
RSA 10 4C	10	4 x 10	0.125	8.2	6.1	4.7	100	3/4 x 18 x 3	26
RSA 10 4-5C	10	4-1/2 x 10	0.125	10.6	8.1	6.5	133	3/4 x 18 x 3	34
RSA 10 4-5G	10	4-1/2 x 10	0.188	16.3	12.6	10.1	175	3/4 x 18 x 3	43
RSA 10 5C	10	5 x 10	0.125	13.6	10.6	8.5	150	3/4 x 18 x 3	36
RSA 12 4C	12	4 x 12	0.125	6	4.3	3.2	110	3/4 x 18 x 3	30
RSA 12 4-5C	12	4-1/2 x 12	0.125	8.1	6	4.8	80	3/4 x 18 x 3	38
RSA 12 4-5G	12	4-1/2 x 12	0.188	12.7	9.7	7.7	185	3/4 x 18 x 3	50
RSA 12 5C	12	5 x 12	0.125	10.3	8	6.3	150	3/4 x 18 x 3	36
RSA 12 5E	12	5 x 12	0.156	13.2	10.3	8.2	200	3/4 x 18 x 3	44
RSA 12 5G	12	5 x 12	0.188	16.2	12.6	10.1	225	3/4 x 18 x 3	53
RSA 14 4C	14	4 x 14	0.125	4.1	2.8	1.9	75	3/4 x 18 x 3	35
RSA 14 4-5C	14	4-1/2 x 14	0.125	5.8	4.2	3.3	60	3/4 x 18 x 3	39
RSA 14 4-5G	14	4-1/2 x 14	0.188	9.7	7.3	5.8	190	3/4 x 18 x 3	56
RSA 14 5C	14	5 x 14	0.125	7.8	6	4.7	100	3/4 x 18 x 3	42
RSA 14 5E	14	5 x 14	0.156	10.3	8	6.3	125	3/4 x 18 x 3	47
RSA 14 5G	14	5 x 14	0.188	12.8	9.9	7.9	150	3/4 x 18 x 3	56
RSA 16 4C	16	4 x 16	0.125	2.8	1.6	1	150	3/4 x 18 x 3	38
RSA 16 4-5C	16	4-1/2 x 16	0.125	3.3	2.2	1.6	100	3/4 x 18 x 3	46
RSA 16 4-5G	16	4-1/2 x 16	0.188	7.5	5.5	4.3	155	3/4 x 18 x 3	62
RSA 16 5C	16	5 x 16	0.125	5.9	4.4	3.4	175	3/4 x 18 x 3	46
RSA 16 5E	16	5 x 16	0.156	8	6.1	4.8	190	3/4 x 18 x 3	53
RSA 16 5G	16	5 x 16	0.188	10.1	7.8	6.1	200	3/4 x 18 x 3	60
RSA 16 6E	16	6 x 16	0.156	13.6	10.6	8.4	225	3/4 x 30 x 3	53
RSA 16 6G	16	6 x 16	0.188	16.8	13	10.4	245	3/4 x 30 x 3	78
RSA 18 5G	18	5 x 18	0.188	8	6.8	4.7	225	3/4 x 18 x 3	68
RSA 18 5C	18	5 x 18	0.125	4.3	3.1	2.4	150	3/4 x 18 x 3	48
RSA 18 5E	18	5 x 18	0.156	6.1	4.6	3.5	175	3/4 x 18 x 3	58
RSA 18 4-5G	18	4-1/2 x 18	0.188	5.7	4	3.1	123	3/4 x 18 x 3	68
RSA 18 6G	18	6 x 18	0.188	13.9	10.7	8.5	225	3/4 x 30 x 3	86
RSA 20 4-5G	20	4-1/2 x 20	0.188	4.3	2.9	2.1	95	3/4 x 18 x 3	74
RSA 20 5C	20	5 x 20	0.125	3	2.1	1.5	150	3/4 x 18 x 3	54
RSA 20 5E	20	5 x 20	0.156	4.7	3.4	2.6	150	3/4 x 18 x 3	68
RSA 20 5G	20	5 x 20	0.188	6.4	4.8	3.6	150	3/4 x 18 x 3	82
RSA 20 6E	20	6 x 20	0.156	9.3	7.1	5.5	175	3/4 x 30 x 3	95
RSA 20 6G	20	6 x 20	0.188	11.8	9.1	7.1	200	3/4 x 30 x 3	110
RSA 25 4-5G	25	4-1/2 x 25	0.188	1.3	--	--	100	3/4 x 18 x 3	89
RSA 25 6E	25	6 x 25	0.156	5.2	3.8	2.8	150	3/4 x 30 x 3	108
RSA 25 6G	25	6 x 25	0.188	7.1	5.3	4	150	3/4 x 30 x 3	128
RSA 30 6G	30	6 x 30	0.188	3.5	2.4	1.6	200	3/4 x 30 x 3	146

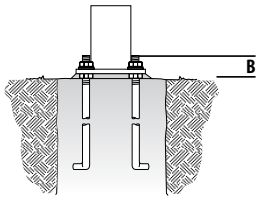
* TECHNICAL INFORMATION — EPA (ft2) with 1.3 gust. For 1/2 ft increments, add -6 to the pole height. Ex: 20-6 equals 20ft 6in.

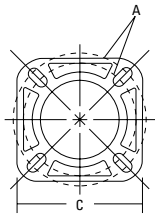
Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** RSA 20 5C DM28AS DDBXD Notes:	**Type:** **P2** LGNW21-81871

RSA Round Straight Aluminum Poles

BASE DETAIL

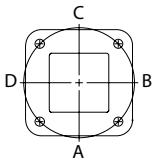






POLE DATA					
Shaft base size	**Bolt circle A**	**Bolt projection B**	**Base square C**	**Template description**	**Anchor bolt description**
4"	6.75" - 8.00"	3.25"	8.91"	ABTEMPLATE PJ50057	AB18-0
4.5"	7.06" - 8.62"	3.25"	9.26"	ABTEMPLATE PJ50040	AB18-0
5"	7.75" - 8.00"	3.25"	9.61"	ABTEMPLATE PJ50058	AB18-0
6"	9.00"-10.00"	3.50"	10.32"	ABTEMPLATE PJ50059	AB30-0

HANDHOLE ORIENTATION



Default DM19 is on side B.

Handhole

IMPORTANT INSTALLATION NOTES:

- Do not erect poles without having fixtures installed.
- Factory-supplied templates must be used when setting anchor bolts. Lithonia Lighting will not accept claim for incorrect anchorage placement due to failure to use factory template.
- If poles are stored outside, all protective wrapping must be removed immediately upon delivery to prevent finish damage.
- Lithonia Lighting is not responsible for the foundation design.

Submitted by The Lighting Group LLCChris Hamaker	**Catalog Number:**	**Type:**
Job Name: Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	S2LD LLP 4FT MSL4 80CRI 35K 800LMF MIN1 MVOLT WHT ZT F2/72A RDCY WHTCY WCRD DPL Notes:	**PL-1** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Direct Pendant

The Slot LED family of luminaires offers an unparalleled package of performance and features for your next lighting project. Precision lumen DIRECTIR optics deliver optimized light where needed for ceilings and walls. With other key features such as simplified installation, seamless controls integration and superior color constancy, the Slot LED family from Mark Lighting offers exceptional quality and design flexibility.

Type:

Project:

Catalog Number:
DO NOT TYPE HERE. Autopopulated field.

Specification Features

Housing
Nominal 2.5" x 3.75" extruded aluminum housing

Finish
White, Black or Silver powdercoat

Reflector
Formed steel with high reflectance white

Distribution/Shielding
Extruded 90% transmissive acrylic lens with a textured surface providing diffuse illumination and a uniform appearance for direct lambertian distribution (No Optics). Wall Wash (WW) and Wall Graze (WG) distribution options incorporate co-extruded lenses. Shielding is available as an external blade louver for WW or WG options, or an internal blade louver in lieu of lambertian distribution diffuser.

LED Components
Linear: Nichia®- 757 series LED chips (>80 CRI)

Electrical
Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 80% LED lumen maintenance at 60,000 hours (L80/60,000).

Color Consistency
The Acuity Brands circuit boards for the linear LED components use a precise binning algorithm which creates a consistent color temperature from board to board. The color a variation of no greater than a 2.5 Step MacAdam (2.5SDCM) along the black body locus from board to board.

Driver
eldoLED® driver provides natural dimming with smooth, continuous and flicker-free deep dimming. Supports operation between 120VAC and 277 VAC, with low inrush current (NEMA 410) and THD < 20%. Meets FCC Title 47 C.F.R. 15 Class A or Class B requirements. Lutron high performance driver options also available.

Certification
CSA tested to UL 1598 standards, assembled in the USA. Damp Location Listed.

Listings
DesignLights Consortium® (DLC) Premium qualified product. Not all versions of this product may be DLC Premium qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

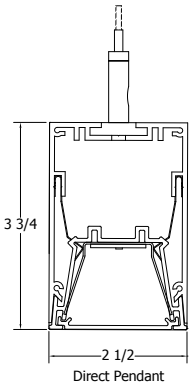
Warranty
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: *Actual performance may differ as a result of end-user environment and application.*

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Technical Drawing



Direct Pendant

Buy American

nLIGHT

Buy American:
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

Fixture Performance

4FT INDIVIDUAL (35K)	DIRECT			
Lumens Output	**400LMF**	**600LMF**	**800LMF**	**1000LMF**
Delivered Lumens	1766	2710	3577	4225
Input Watts	14.4	22.5	30.6	37.1
Lumen/Watt	122	120	116	113

** Consult factory for customized lumen output and wattage between 350LMF and 1050LMF.*

A+ Capable Luminaire
This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

Submitted by The Lighting Group LLCChris Hamaker

Job Name:
Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase
Architect: ARC Architects (Seattle)
Engineer: TFWB Engineers (Travis Fitzmaurice

Catalog Number:
S2LD LLP 4FT MSL4 80CRI 35K 800LMF MIN1 MVOLT WHT ZT F2/72A RDCY WHTCY WCRD DPL

Notes:

Type:
PL-1
LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Direct Pendant

A+ Capable options indicated by this color background.

Ordering

Example: S2LD 32FT MSL8 80CRI 30K 400LMF MIN1 MVOLT WHT ZT F1/36A RDCY WHTCY WCRD

Series
- **S2LD** Slot 2 Pendant - Direct

Plan
- **LCB** Linear center balanced
- **LLP** Linear longest possible

Total Run Length
- **4FT** Specify continuous run length (in whole feet, 2' minimum)

Unit length may affect available options.
2' & 3' only available as individual units

For runs longer than 8FT: ALWAYS order the run by the TOTAL RUN LENGTH. Ordering the sections individually will not provide the correct joining hardware to allow connection in the field.

Max Section Length
- **MSL4** 4'
- **MSL5** 5'
- **MSL6** 6'
- **MSL7** 7'
- **MSL8** 8'

Direct Light Source Color Rendering
- **80CRI** 80 CRI
- **90CRI** 90 CRI

Direct LED Color Temp
- **27K** 2700K
- **30K** 3000K
- **35K** 3500K
- **40K** 4000K
- **50K** 5000K

Direct LED Light Output
- **400LMF** 400 Lumens per FT
- **600LMF** 600 Lumens per FT
- **800LMF** 800 Lumens per FT
- **1000LMF** 1000 Lumens per FT
- **_LMF**[1] ## Lumens per FT

Direct Distribution (Optics)
- **(blank)** Standard Lambertian Distribution
- **WW** Wallwash Distribution
- **WG** Wall Graze Distribution

WW and WG not available with Downlights, EGLD, LVRR or LVRRA.

Downlight
- **(blank)** No Downlight modules in fixture
- **2DL** LED Downlights (2 per unit)
- **_DL** LED Downlights per run (3DL, 4DL, etc)

Must select all Downlight options.
Specify number of downlights modules.
Not available on 2' or 3' units.
Not available with 347V.

Downlight Shape
- **(blank)** No Downlight modules in fixture
- **RDD** Round
- **SQD** Square

Maximum of 2DL in 4' & 5' units.
Maximum of 3DL in 6', 7' & 8' units.
Not available with emergency options. Not available with any sensors on the same unit.

Downlight Color Rendering
- **(blank)** No Downlight modules in fixture
- **S80CRI** 80CRI

Downlight Color Temp
- **(blank)** No Downlight modules in fixture
- **S27K** 2700K
- **S30K** 3000K
- **S35K** 3500K
- **S40K** 4000K

Minimum Dimming Level
- **NODIM**[2] Non-dimming
- **MIN1** Constant current, dimming to 1%
- **DARK** Constant current, dimming to 0.1%

Optional Shielding
- **(blank)** No louver
- **LVRD**[3] Dropped louver
- **LVRR**[4] Regressed louver painted to match fixture finish
- **LVRRA**[4] Regressed louver, aluminum finish
- **EGLD**[3] Edge View direct lens

Not available with Downlights.
Not available with NLTAIR2

Voltage
- **MVOLT** Multi-volt, 120-277V
- **120** 120V
- **277** 277V
- **347**[5] 347V

Finish
- **WHT** White (gloss)
- **BLK** Black (gloss)
- **SLV** Silver (gloss)
- **WHTT** White (textured)
- **BLKT** Black (textured)
- **SLVT** Silver (textured)
- **RALTBD** RAL paint finishes

Emergency Options
- **E10WLCP**[6] 4' emergency section w/ battery pack, 1250 lumens
- **_E10WLCP**[6] 4' emergency section w/ battery pack, 1250 lumens
- **_EC**[7] # of emergency circuits
- **BGTD**[7,8] Generator transfer device

Not available with 347V.

Control Input
- **(blank)** Non-dimming, line voltage
- **ZT** 0-10V control
- **NLIGHT**[9] nLight enabled
- **NLTAIR2**[16] nLight Air Wireless Enabled
- **DALI**[10] DALI compatible
- **DMX**[10,11] DMX compatible
- **ECOD**[11,12] Lutron Hi-Lume digital driver
- **ECOD2**[11,12,13] Lutron Hi-Lume 2-wire (1% dimming)
- **ECOD5**[11,12] Lutron 5-series digital driver (5% dimming)

Sensor
- **(blank)** Select if single zone/no zone without sensor
- **NS** Select if multi-zone fixture with no sensor in main zone
- **PDT_**[14] Occupancy sensor - dual technology (passive infrared & microphonics)
- **ADC_**[14] Photocell-daylight dimming sensor
- **API_**[14] PIR occupancy sensor & photocell
- **APD_**[14] PDT occupancy sensor & photocell

Not available with Downlights.
Not available with 347V & nLight. (Use ZT Control Inputs where applicable.)
Not available on 2' or 3' units.

Secondary Sensor
- **(blank)** No additional zones/sensors
- **SNS** Select if multi-zone fixture with no sensor in secondary zone
- **SPDT_**[14] Occupancy sensor - dual technology (passive infrared & microphonics)
- **SADC_**[14] Photocell-daylight dimming sensor
- **SAPI_**[14] PIR occupancy sensor & photocell
- **SAPD_**[14] PDT occupancy sensor & photocell

Not available with Downlights.
Not available with 347V & nLight. (Use ZT Control Inputs where applicable.)
Not available on 2' or 3' units.

Tertiary Sensor
- **(blank)** No additional zones/sensors
- **TNS** Select if multi-zone fixture with no sensor in tertiary zone

Mounting Type
- **F1/** T-bar ceiling (universal mounting bracket)
- **F1A/** T-bar ceiling (UMB with integrated J-box)
- **F2/** Hard ceiling (horizontal J-box)

Overall Suspension
- **36A** 36" adjustable
- **72A** 72" adjustable
- **144A** 144" adjustable

* Measured from ceiling to bottom of luminaire.

Canopy Form
- **RDCY** Round canopy
- **SQCY** Square canopy

Canopy Color
- **BLKCY** Black canopy
- **WHTCY** White canopy
- **SLVCY** Silver canopy

Cord Color
- **WCRD** White cord
- **CCRD** Clear cord
- **BCRD**[15] Black cord

Options
- **BAA** Buy America(n) Compliant
- **DPL** Damp location listing
- **GLR**[13] Fast-blow fuse
- **GMF**[13] Slow-blow fuse
- **MCS** 5" support canopy to match feed canopy
- **PIF** Power Feed Installed

Notes:
1. Limited to 350LMF to 1050LMF in 50LMF increments. Not available with ECOD, ECOD2, ECOD5 or DMX control input.
2. Not available with Control Input.
3. Not available with Sensor Options.
4. Not available with sensors on 2', 3' & 5' units.
5. DCT & 347V not available with 2' & 3' units, 347V also not available with ZT & sensors, emergency options, NLIGHT in 5' units, & NLIGHT with downlights. Only available with WCRD.
6. Not available with 2' or 3' units. Not available with DMX control option. One battery pack per unit. Only available on 8' unit with ECOD, ECOD2, ECOD5. If with ZT & API or APD, only available in 7' & 8' units.
7. Powers entire direct unit. Not available with DMX.
8. Must select 120 or 277 volt. Remote mounted. Not available with sensor and BGTD in same unit. Not available with DMX.
9. Comes with white CAT5 cord in addition to the standard power cord. Will require remote mounted nIO on 2' unit. One nLight device per zone or sensor, for multiple zones consult factory.
10. Must select DARK Dim Level.
11. Not available with 347V.
12. Must select MIN1 Dim Level. Not available on 2', 3' or 5' units.
13. 120V only.
14. Requires ZT or NLIGHT Control Input.
15. Longer lead time item.
16. Must select MIN1 or DARK Dim Level. Not available with 347. Not available with 347, WW, 2' or 3' units. If ordered with E10WLCP, only available in 7' & 8' units. One NLTAIR2 device per zone or sensor, for multiple zones consult factory. For antenna location, see page 10.

Submitted by The Lighting Group LLCChris Hamaker		
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** S2LD LLP 4FT MSL4 80CRI 35K 800LMF MIN1 MVOLT WHT ZT F2/72A RDCY WHTCY WCRD DPL Notes:

Type:

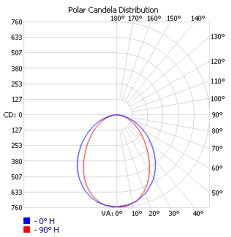
PL-1

LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Direct Pendant

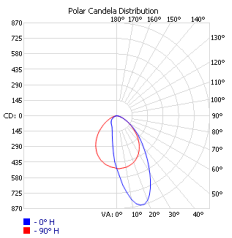
PHOTOMETRICS



Test Report: ISF 37224P0
IES LM 79-08
S2LD 4FT 80CRI 30K 400LMF
Lumens: 1697
Wattage: 14.44
Efficacy: 117.5

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	559.6	33%
0-40	879	51.80%
0-60	1415.1	83.40%
60-90	281.4	16.60%
70-100	115.5	6.80%
90-120	0.3	0%
0-90	1696.6	100%
90-180	0.4	0%
0-180	1697	100%

Angle	Candlepower Distribution Plane								
	0	22.5	45	67.5	90	112.5	135	157.5	180
0	753	753	753	753	753	753	753	753	753
5	745	748	749	749	753	749	751	751	747
10	734	739	737	735	735	736	740	742	738
15	712	714	710	705	708	706	711	721	718
20	684	685	676	662	662	663	677	689	689
25	643	642	627	606	603	610	630	649	653
30	601	596	574	544	535	545	575	602	609
35	548	539	510	475	462	474	512	548	557
40	490	479	443	408	393	406	447	488	500
45	428	416	379	339	328	344	384	427	438
50	366	354	314	282	271	284	322	363	378
55	308	295	257	231	223	233	263	303	314
60	248	236	205	183	177	187	212	244	256
65	193	184	161	142	137	143	163	190	201
70	143	133	117	105	102	107	122	141	151
75	96	89	78	72	69	73	84	95	101
80	53	51	46	41	41	44	49	55	59
85	20	19	19	19	19	20	22	24	24
90	0	0	1	1	1	2	2	2	2



Test Report: ISF 37225P0
IES LM 79-08
S2LD 4FT 80CRI 30K 400LMF WW
Lumens: 1047
Wattage: 14.5
Efficacy: 72.2

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	390.8	37.30%
0-40	605.7	57.90%
0-60	921.1	88%
60-90	119.6	11.40%
70-100	44.5	4.20%
90-120	3.1	0.30%
0-90	1040.7	99.40%
90-180	6.3	0.60%
0-180	1047	100%

Angle	Candlepower Distribution Plane								
	0	22.5	45	67.5	90	112.5	135	157.5	180
0	493	493	493	493	493	493	493	493	493
5	652	637	603	558	493	443	391	362	353
10	796	773	715	619	490	378	296	250	236
15	866	853	791	666	479	321	222	178	164
20	843	843	818	693	464	270	172	136	128
25	745	766	792	697	439	225	138	114	108
30	620	645	718	672	408	191	116	100	97
35	499	525	616	614	367	161	101	90	89
40	392	420	506	538	322	136	90	83	81
45	311	331	400	448	270	114	79	73	73
50	241	255	314	353	217	96	69	65	64
55	177	191	238	265	166	79	58	54	54
60	126	136	171	191	123	61	47	43	43
65	85	91	117	131	86	47	36	34	33
70	57	60	76	84	56	34	26	24	24
75	36	38	45	50	35	22	17	16	16
80	20	20	23	25	19	11	9	9	9
85	8	8	8	8	7	5	4	4	5
90	1	1	0	0	0	0	0	1	1

EXPECTED LIFE: L85 @ 60,000
CALCULATED LIFE: L70 @ 120,000

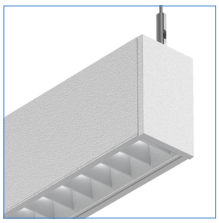
Shielding

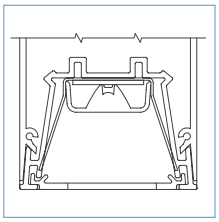

Co-Extruded WG

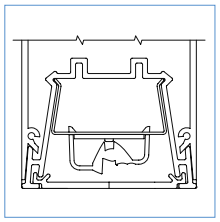

Co-Extruded WW

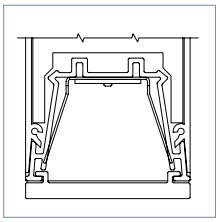

Edge View Lens

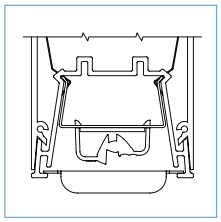

External Louver

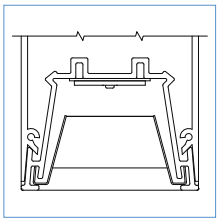

Regressed Louver


Co-Extruded WG (Standard)


Co-Extruded WW (Standard)


Edge View Lens (Optional)


External Louver WW (Painted to Match Housing)


Regressed Louver (Natural Aluminum or Painted to Match Housing)

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Direct Pendant

LINEAR PLAN:

Mark Lighting offers the ability to provide a continuous run plan to suit your requirements by optionally offering three different methods of configuration.

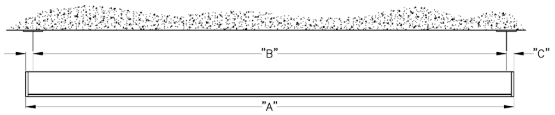
LLP- Linear Longest Possible
In this configuration, the longest length available is optimized, resulting in the fewest segments and mounting locations. Caution, should be used where balanced appearance is a concern. Example: 20 FT run would have 2, 8 FT segment and 1, 4 FT segment at the end of the run.

LLP	8 FT	8 FT	4FT

LCB- Linear Center Balanced:
This configuration incorporates the longest center segment(s) along with any additional lengths required to fill the run length, added to the run ends. Example: 16 FT run would have 2, 4 FT segments (one at each end) and 1, 8 FT segment in the center.

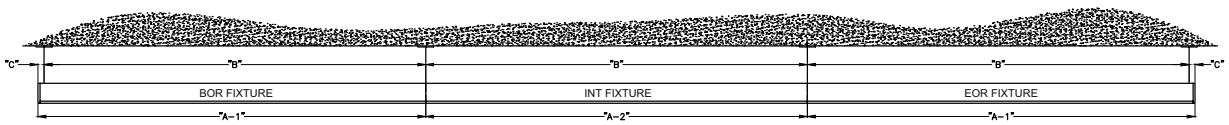
LCB	4 FT	8 FT	4FT

Individual Fixture Configurations



INDIVIDUAL UNITS (MOUNTING)			
LENGTH	"A" O.A.L.	"B" O.C.	"C" FROM END
2FT	2'- 5/8"	2'-0"	5/16"
3FT	3'- 5/8"	3'-0"	5/16"
4FT	4'- 5/8"	4'-0"	5/16"
5FT	5'- 5/8"	5'-0"	5/16"
6FT	6'- 5/8"	6-0"	5/16"
7FT	7'- 5/8"	7'-0"	5/16"
8FT	8'- 5/8"	8'-0"	5/16"

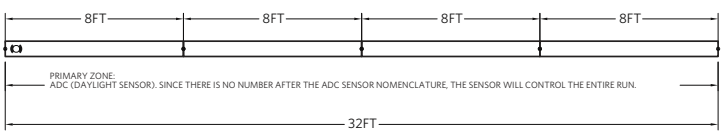
Run Configurations



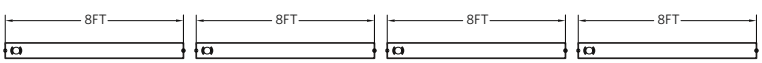
RUN LAYOUT (MOUNTING)				
LENGTH	"A-1" O.A.L.	"A-2" O.A.L.	"B" O.C.	"C" FROM END
4FT	4'-0 5/16"	4'-0"	4'-0"	5/16"
5FT	5'-0 5/16"	5'-0"	5'-0"	5/16"
6FT	6'-0 5/16"	6'-0"	6-0"	5/16"
7FT	7'-0 5/16"	7'-0"	7'-0"	5/16"
8FT	8'-0 5/16"	8'-0"	8'-0"	5/16"

TOTAL RUN LENGTH

This system is not modular. Runs longer that 8FT will be automatically configured with Starter, Middle and Ender sections, based on how you specify the TOTAL RUN LENGTH and MAXIMUM SECTION LENGTH parameters in the ordering information. Always order the total run length, not the individual sections



Example: This run must be ordered as 1pc "S2LD LLP 32FT MSL8..."



Example: If you order as 4pcs "S2LD LLP 8FT MSL8... you will receive these INDIVIDUAL sections that cannot be joined together

MAXIMUM SECTION LENGTH

The run will be broken out using as many sections at the chosen MSL length as possible. Shorter sections will then complete the desired run length.

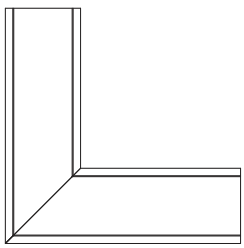
Examples:
S2LD LLP 21FT MSL5... = 5FT / 4FT / 4FT / 4FT / 4FT
S2LD LLP 21FT MSL6... = 6FT / 6FT / 5FT / 4FT
S2LD LLP 21FT MSL7... = 7FT / 7FT / 7FT
S2LD LLP 21FT MSL8... = 8FT / 8FT / 5FT

MARK ARCHITECTURAL LIGHTING™

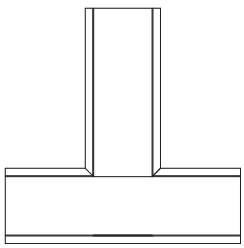
Slot 2 LED
Direct Pendant

Run Patterns, Corners and Junction

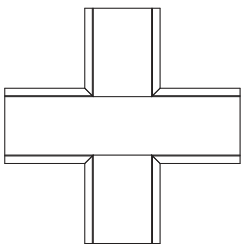
Slot 2 LED patterns can be configured in 1' increments with illuminated 90° inside and outside corners, T junctions, and X junctions with standard 2' corner and junction lengths. For custom angles, corner or junction lengths, consult factory.
See separate patterns spec sheets for more details.



90° Corner



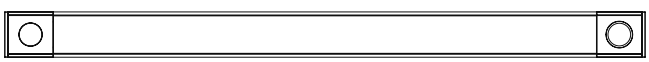
T Junction



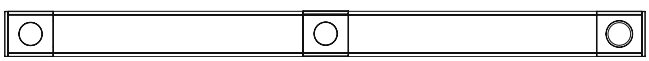
X Junction

Downlights

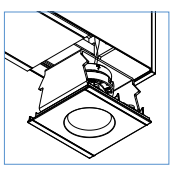
Optional downlights powered by Xicato Spot Modules are available with 4', 5', 6', and 8' length luminaires, maximum (2) Xicato downlights per length. Each downlight module is 10W with 700 lumens delivered, 28 degree beam spread. Downlights are supplied with a dedicated feed-point and will be controlled separately.



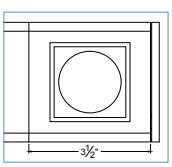
Standard Downlight Location



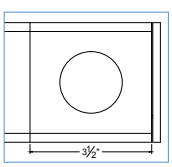
Other Downlight Configuration (consult factory)



Downlight Module



Square Downlight Plate (SQ)



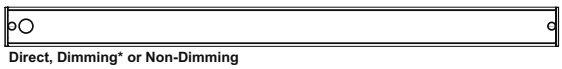
Round Downlight Plate (RD)

MARK ARCHITECTURAL LIGHTING™

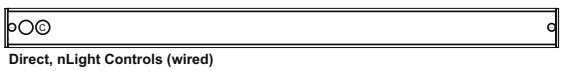
Slot 2 LED
Direct Pendant

Feed Point Locations

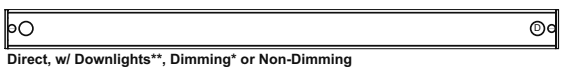
Non-Power Feed Point / Aircraft Cable
A Power Feed
B Battery Power Feed
C CAT5
D Downlight Power Feed



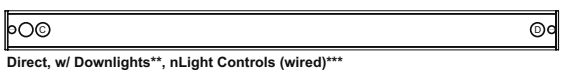
Direct, Dimming* or Non-Dimming



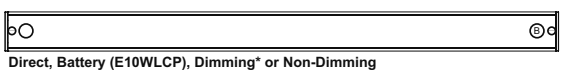
Direct, nLight Controls (wired)



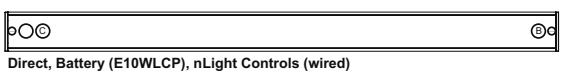
Direct, w/ Downlights, Dimming* or Non-Dimming**



Direct, w/ Downlights, nLight Controls (wired)*****



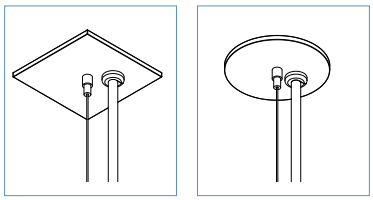
Direct, Battery (E10WLCP), Dimming* or Non-Dimming



Direct, Battery (E10WLCP), nLight Controls (wired)

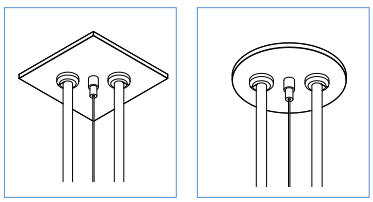
* 2-Wire Dimming (ZT, DALI, and Lutron EcoSystem)
** Downlights are supplied with a dedicated feed-point and will be controlled separately.
*** Downlights with nLight wired controls will use a J-Box mounted control module outside of fixture.

Single Feed Points



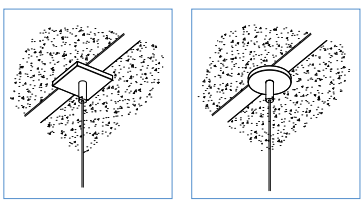
5" Square 5" Round

Feed and Cat 5 points



5" Square 5" Round

Non-Feed Points for T-Bar Mounting

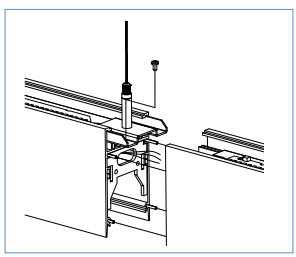


2" Square 2" Round

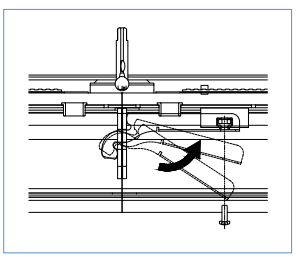
Refer to page 7 for mounting details.

Joiners

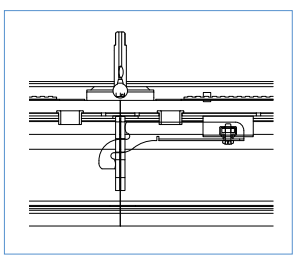
AEL Precision Row-Mount 3-step fixture-to-fixture connection method



Step 1: Align



Step 2: Engage



Step 3: Lock

Continuous Runs

Slot 2 LED continuous rows can be configured in 1' increments and featuring the AEL precision joiner to create a hairline seam between luminaires, providing a monolithic visual aesthetic. For custom run lengths less than a 1' increment, consult factory.

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Direct Pendant

MOST COMMON MOUNTING TYPES AND OPTIONS
Options available for this specific luminaire are checked in the boxes below.

Mounting Type

F1/ For use with most T-Bar and screw slot grid ceilings. Designed for on-grid and off-grid applications.

F2/ For use with recessed or surface mount horizontal J-box applications.

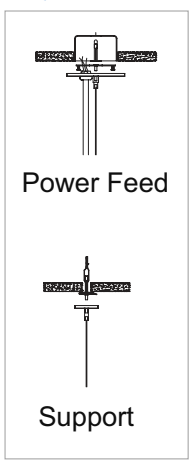
F1A/ For use with most T-Bar grid ceilings. Designed for on-grid applications. *Comes complete with J-box with built-in cutout to go over grid.*

Mounting Options

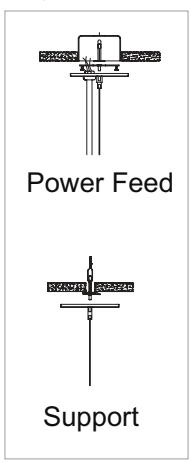
MCS Matching canopy at support for aesthetics.

☑ **Indicates mounting options available with this luminaire.**

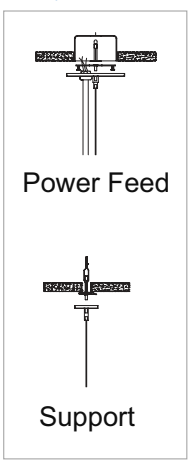
☑ **F1/**



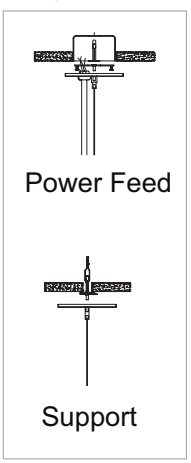
☑ **F1/ ordered with MCS**



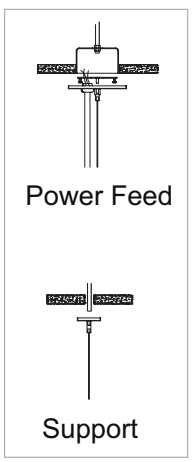
☑ **F1A/**



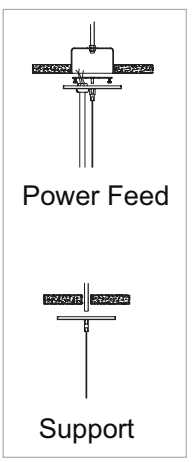
☑ **F1A/ ordered with MCS**



☑ **F2/**



☑ **F2/ ordered with MCS**



MARK ARCHITECTURAL LIGHTING™

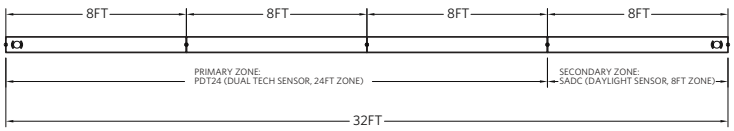
Slot 2 LED
Direct Pendant

INTEGRATED SENSOR LAYOUT

For runs longer than 8FT:
ALWAYS order the run by the TOTAL RUN LENGTH. Ordering the sections individually will not provide the correct joining hardware to allow connection in the field.

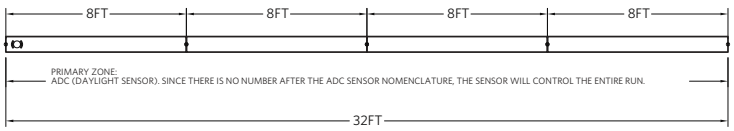
CORRECT:

32FT MSL8 RUN WITH 2 SENSORS WITH PRIMARY ZONE 24FT AND SECONDARY ZONE 8FT -- PDT24 SADC8



Total Run Length to Order

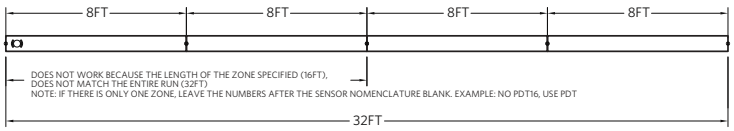
32FT MSL8 RUN WITH 1 SENSOR ALL ONE ZONE -- ADC



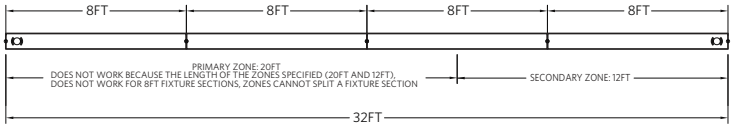
Total Run Length to Order

INCORRECT:

32FT MSL8 RUN WITH 1 SENSOR ALL ONE ZONE -- PDT16



32FT MSL8 RUN WITH 2 SENSORS WITH PRIMARY ZONE 20FT AND SECONDARY ZONE 12FT -- PDT20 SADC12



Notes:
- Only one sensor per zone
- At the most, the entire run can only have 2 sensors (thus 2 sensors zones at the most)
- Sensor zone can not split fixture sections
- No overlapping zones

OCCUPANCY DETECTION COVERAGE

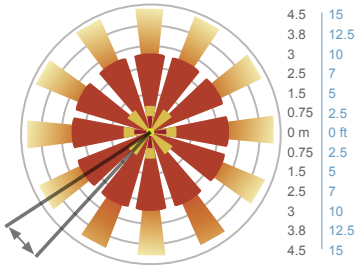
At the 7.5 ft (2.9 m) hanging height of a typical pendant mount fixture the sensor provides 10 ft (3.05 m) radial detection of small motion. At a 9 ft (2.74 m) hanging height the radius is 12 ft (3.66 m) for small motion.

Adequate for walking motion detection from mounting heights between 7.5 ft (2.29 m) and 20 ft (6.10 m).

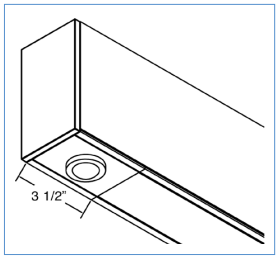
Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor.

Initial detection of walking motion into long coverage segment will occur at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m). Lens assembly rotates 15° to enable adjustment in order to line up long segments.

Lens rotates 15° to enable adjustment



Integrated Controls
Optional nLight® integrated controls make Slot LED luminaires addressable- allowing them to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight enabled control devices using standard CAT5 Cabling.



Occupancy Sensor and/or Photocell

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Direct Pendant

Intelligent Luminaire Technology Guide

Choose nomenclature from these columns

Driver Configurations

Minimum Dimming Level		Control Input		Driver	Dimming Range	Notes
NODIM	+	(blank)	=	0 10V Generic Driver	-	Includes no 0 10V leads from the driver.
MIN10	+	ZT	=	0 10V Generic Driver	100 to 10%	Linear dimming
MIN1	+	ZT	=	0 10V eldoLED ECOdrive	100 to 1%	Formerly (EZ1) nomenclature. Linear dimming
MIN1	+	NLIGHT	=	0 10V eldoLED ECOdrive	100 to 1%	Logarithmic dimming
MIN1	+	ECOD2	=	Lutron forward phase control	100 to 1%	LUTRON Hi-lume 1% 2-wire (model LTEA4U1U)
MIN1	+	ECOD5	=	Lutron Ecosystem	100 to 5%	LUTRON 5 Seires EcoSystem LED Driver (model LDE5)
MIN1		ECOD		Lutron Ecosystem	100 to 1%	LUTRON Hi-lume 1% EcoSystem LED Driver with Soft-on, Fade-to-Black (model LDE1)
DARK		ZT		0 10V eldoLED SOLOdrive	100 to 0.1%	Formerly (EZB) nomenclature. Linear dimming
DARK		NLIGHT		0 10V eldoLED SOLOdrive	100 to 0.1%	Logarithmic dimming
DARK		DALI		DALI compatible eldoLED SOLOdrive	100 to 0.1%	"Compatible with DALI. Formerly (EDB & EDAB) nomenclature." Logarithmic dimming
DARK		DMX		DMX compatible eldoLED POWERdrive	100 to 0.1%	"Compatible with DMX / Remote Device Management. Formerly (EXB & EDXB) nomenclature." Linear dimming

Choose nomenclature from these columns

Control / Sensor Configurations

Control Input		Sensor		Sensor	Notes
ZT	+	API	=	MSD 7 ADCX	Individual fixture control only. PIR integral occupancy sensor with automatic dimming control photocell. (Old nomenclature: ZT + PIR + ADC)
ZT	+	APD	=	MSD PDT 7 ADCX	Individual fixture control only. PDT integral occupancy sensor with automatic dimming control photocell. (Old nomenclature: ZT + PDT + ADC)
NLIGHT	+	(blank)	=	nIO EZ PH	nLight enabled only. No onboard sensor.
NLIGHT		EMG	=	nIO EZ PH ER	Emergency nLight enabled only. No onboard sensor.
NLIGHT	+	API	=	nIO EZ PH + nES 7 ADCX	nLight nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell. (Old nomenclature: NLIGHT + PIR + ADC)
NLIGHT	+	PDT	=	nIO EZ PH + nES PDT 7	nLight nES PDT 7 dual technology integral occupancy sensor. (Old nomenclature: NLIGHT + PDT)
NLIGHT	+	APD	=	nIO EZ PH + nES PDT 7 ADCX	nLight nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell. (Old nomenclature: NLIGHT + PDT + ADC)
NLTAIR2		(blank)		RIO EZDL 90D G2	https://www.acuitybrands.com/products/detail/778845/nLight/rIO/Fixture-embedded-nLight-AIR-network-interface
NLTAIR2		API		RES7 G2	https://www.acuitybrands.com/products/detail/593899/nLight/RES7 Sensor/nLight-AIR Fixture-Integrated-Wireless-Sensor
NLTAIR2		APD		RES7 PDT G2	https://www.acuitybrands.com/products/detail/593899/nLight/RES7 Sensor/nLight-AIR Fixture-Integrated-Wireless-Sensor

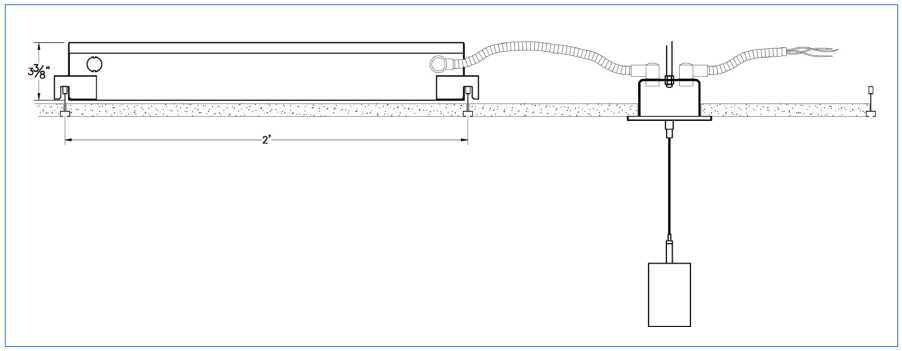
MARK ARCHITECTURAL LIGHTING™

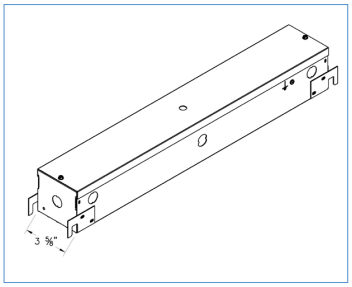
Slot 2 LED
Direct Pendant

Remote BGTD Mounting Option

Recessed in sheetrock ceiling; rod mounted to structure. Consult factory for other ceiling types or canopy options.

6 foot flexible conduit included, BGTD option should be mounted within 6 feet of junction box above fixture.





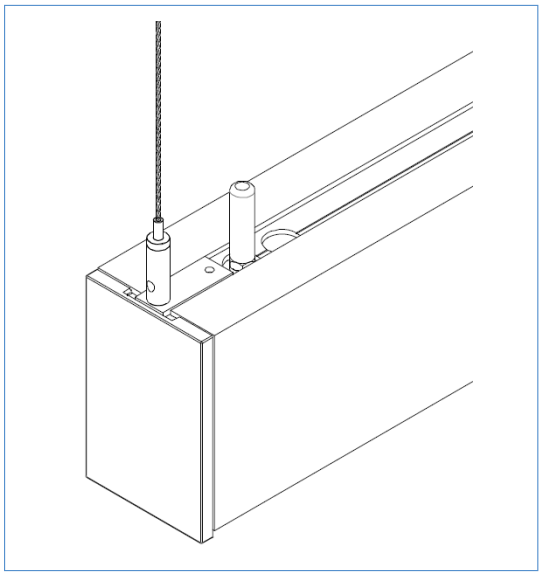
Accessible Ceiling

Emergency Battery Packs

The PS1055LCP battery is integral to the fixture and comes standard with a remote test switch and self-diagnostics.

nLight Air Wireless Antenna Location

Note: Antenna will be shipped separately and will need to be attached to the coax connector.



Submitted by The Lighting Group LLCChris Hamaker		
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** PCROPD-24-ULO-FH-LED-80-4500-35-VOLT-D1-1-5WAC36-WPC-STANDARD FINISH Notes:

Type:

PL-2

LGNW21-81871

POP COLOR ROUND 24 LED

5 YEAR WARRANTY

LUMENWERX
WWW.LUMENWERX.COM

PENDANT DIRECT

PROJECT: _____

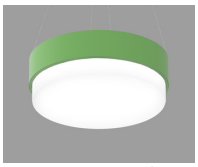
TYPE: _____

NOTES: _____

Flush lens


Drop 1" lens


Drop 2" lens


Drop 3" lens


Drop 4" lens

DESCRIPTION

POP Color features a painted housing with a uniformly luminous diffuser that sits flush or drops up to 4" below. The diffuser and light engine form a fully enclosed unit secured by a twist-and-lock mechanism for easy maintenance with no exposed hardware. POP Color delivers up to 109 LPW and is available in nine standard housing colors.

ORDER GUIDE

up to 109 lm/W performance

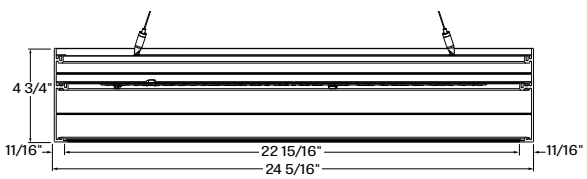
PCROPD	24	ULO		LED		
LUMINAIRE ID	**SIZE**	**OPTIC**	**DROP LENS**	**LIGHT SOURCE**	**CRI**	**LUMEN PACKAGE**
PCROPD - Pop Color Round Pendant Direct	**24** - 24" diameter	**ULO** - Uniform Lambertian Optic	**FH** - Flush **1D** - 1" drop **2D** - 2" drop **3D** - 3" drop **4D** - 4" drop	**LED** - High performance LED	**80** - 80CRI **90** - 90CRI	**2500** - Min. low output 2500lm **3500** - Medium output 3500lm **4500** - Max. high output 4500lm **####** - Other required lm

	SPECIFY			5WAC36		SPECIFY STANDARD FINISH
COLOR TEMP.	**VOLTAGE**	**DRIVER**	**ELECTRICAL**	**MOUNTING**	**POWER CORD COLOR**	**FINISH**
27 - 2700K **30** - 3000K **35** - 3500K **40** - 4000K	**120** - 120V **277** - 277V **UNV** - 120V-277V **347** - 347V	**D1** - 1% 0-10V **DA** - DALI **LTEA2W** - Lutron 1% - 2 wire FP 120V **LDE1** - Lutron Hi-lume 1% Eco **LDE5** - Lutron 5% EcoSystem	**1** - 1 circuit **+EB** - Emergency battery pack **+GTD** - Generator transfer device	**5WAC36** - Power 5" white canopy (36" aircraft cable) For all other options refer to our Pendant Mounting Guide	**BPC** - Black power cord **WPC** - White power cord	**W** - Matte white **AL** - Aluminum **BK** - Black **RAL 1028** - Yellow **RAL 2004** - Orange **RAL 3020** - Red **RAL 4010** - Magenta **RAL 5002** - Blue **RAL 6018** - Green **CF#** - Custom finish specify RAL#

See page 3 for ordering code detailed information

OPTION
FU - Fuse

CROSS SECTION



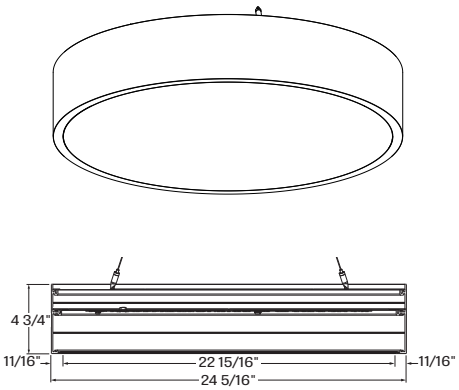
PCROPD + FH - Pop Color Round Pendant with flush lens

POP COLOR ROUND 24 LED

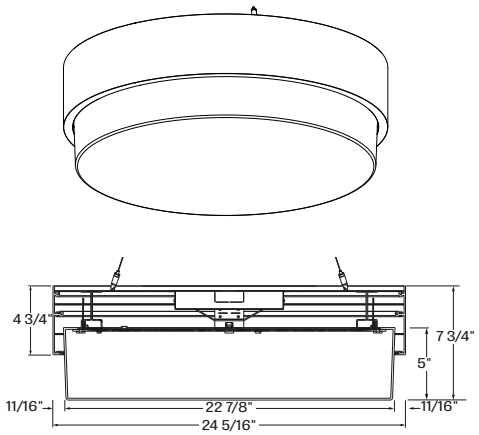
LUMENWERX
WWW.LUMENWERX.COM

PENDANT DIRECT

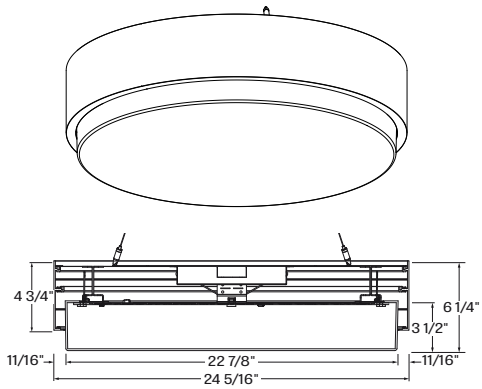
POP COLOR FH - FLUSH



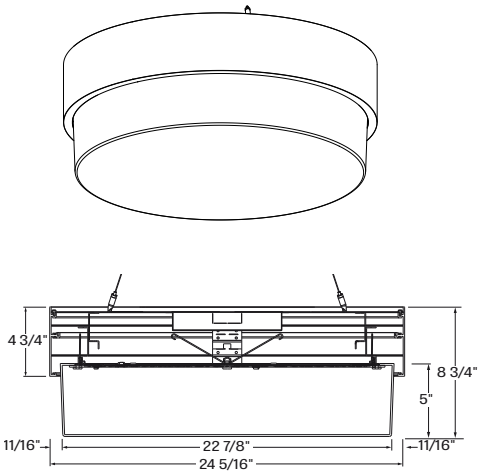
POP COLOR 3D - 3" DROP



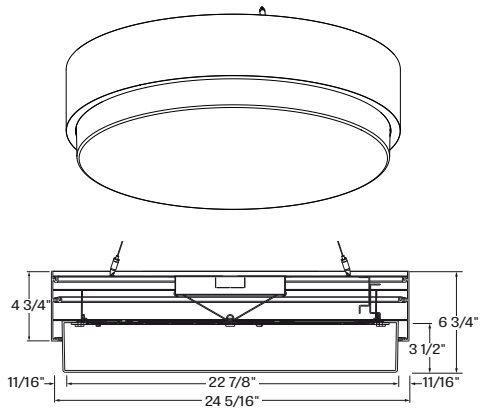
POP COLOR 1D - 1" DROP



POP COLOR 4D - 4" DROP



POP COLOR 2D - 2" DROP



POP COLOR ROUND 24 LED

LUMENWERX
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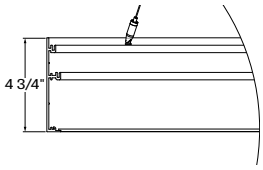
PENDANT DIRECT

OPTIC

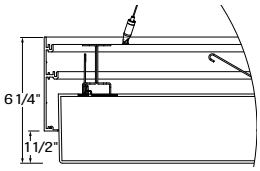
Uniform Efficiency Lambertian Optic (ULO) - Made of formed impact modified white PMMA, the optic provides an even light distribution with up to 88% transmission. Its unique enclosed shell design protects LEDs against Electrostatic Discharge and dust while its back surface project a soft glow on the mounting surface.

DROP LENS

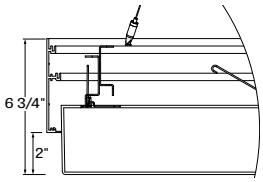
Pop Color Round 24 pendant is available in 5 lens configurations.



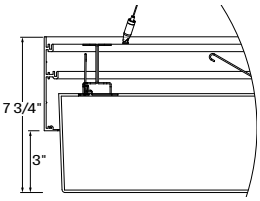
PCROPD + FH - Flush lens



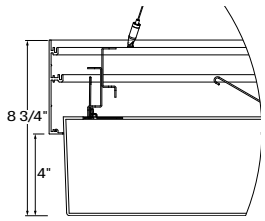
PCROPD + 1D - 1" drop lens



PCROPD + 2D - 2" drop lens



PCROPD + 3D - 3" drop lens



PCROPD + 4D - 4" drop lens

LIGHT SOURCE

Custom array of mid-flux LEDs are mounted directly to the housing for optimal thermal performance. Available in 2700K, 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Low output	4000K	23	2500	109
Medium output	4000K	33.5	3500	105
High output	4000K	44.5	4500	101

ELECTRICAL

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other specifiable options include DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant.

EMERGENCY

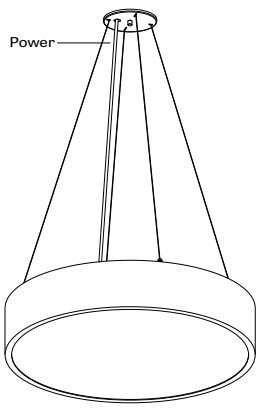
Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1300 lumens (25°C) emergency lighting output. Recharge time of 24 hours.

MOUNTING OPTIONS

Fixtures are pendant-mounted, using aircraft cables. Unless otherwise specified, Lumenwerx provides the following hardware:

For cable-mounted fixtures - 5WAC36, 5" white canopy with a 36" cable.

For all other options, see our website for a detailed Pendant Mounting Guide



POP COLOR ROUND 24 LED

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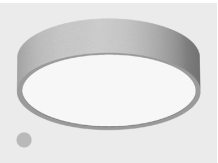
PENDANT DIRECT

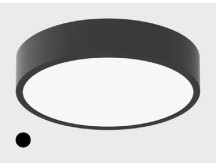
FINISH

Interior - 95% reflective, matte white powder coating
Exterior - Side trim is offered in a range of vibrant color powder coating.

W - Matte white



AL - Aluminum



BK - Black

RAL 1028 - Yellow

RAL 2004 - Orange

RAL 3020 - Red

RAL 4010 - Magenta

RAL 5002 - Blue

RAL 6018 - Green

CONSTRUCTION

Housing - Rolled and seamlessly welded aluminum extrusion .125in thick, wide variety of colored powder coating
Diffuser - Uniform Lambertian Optic, thermoformed impact modified acrylic, completely enclosed

WEIGHT

RD 24 Flush, 1D, 2D - 16.26lbs - 7.39kg
RD 24 3D, 4D - 17.16lbs - 7.8kg

CERTIFICATIONS

ETL - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

WARRANTY

Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

Submitted by The Lighting Group LLCChris Hamaker		
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** PCROPD-24-ULO-FH-LED-80-4500-35-VOLT-D1-1-5WAC36-WPC-STANDARD FINISH Notes:

Type:

PL-2

LGNW21-81871

POP COLOR ROUND 24 LED

LUMENWERX
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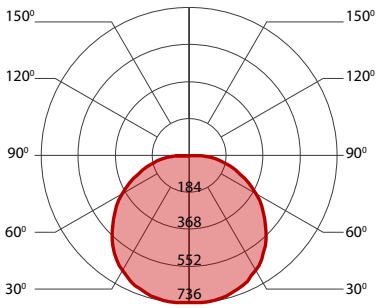
PENDANT DIRECT

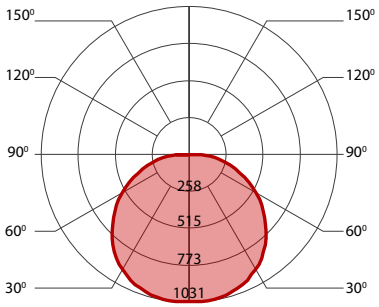
2500 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Low output	2700K	25	2500	100
Low output	3000K	24.5	2500	102
Low output	3500K	23.5	2500	106
Low output	4000K	23	2500	109

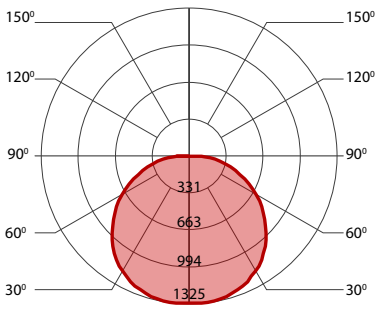
3500 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Medium output	2700K	36.5	3500	96
Medium output	3000K	35.5	3500	98
Medium output	3500K	34.5	3500	102
Medium output	4000K	33.5	3500	105

4500 LUMEN AT 80CRI - HIGH OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
High output	2700K	48.5	4500	93
High output	3000K	47.5	4500	95
High output	3500K	46	4500	98
High output	4000K	44.5	4500	101

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** J-T33XL-VENUS-LED-STANDARD FINISH-L Notes:	**Type:** **PL-6** LGNW21-81871

BESALIGHTING

VENUS

120V PENDANTS

location:
DAMP

SPECIFICATIONS:

DESCRIPTION
Cord-hung, cable-hung or stem-mount pendant with corregated cardboard shade and removable white acrylic shield.

LAMPING
LED: 9W Replaceable source, 120V, dimmable, 90+ CRI, 3000°K CCT, 800 lumens, 25,000 hours. Lamp included.

SHADE
Shade shall be of corregated cardboard material and includes a removable white acrylic shield. 17.75" Dia. x 7.5" H

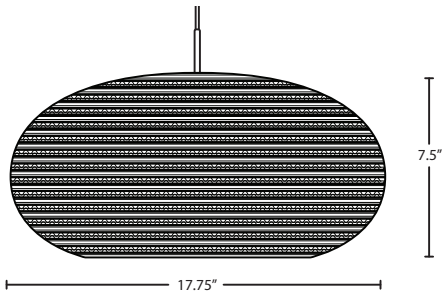
SUSPENSION
Cord-hung: 10' SVT-type cord, complete with 5" decorative sleeve at the socketholder. Jacket coordinates with metal finish. Plated stamped steel construction. Bronze or Satin Nickel. See next page for mulit light options.

Stem-mount: 4 connectable stem sections (3", 6", 12" and 18" lengths) plus telescoping piece for up to 3" adjustment, 10' max. 5" Dia. canopy (with swivel) and stem sections are plated steel. Bronze or Satin Nickel.

MOUNTING
Installs directly to a 4" octagonal ceiling box. Suitable for sloped ceilings.

LABELS
UL or ETL Listed. Suitable for Dry Locations (interior use only).
Consult factory concerning lower wattage labeling for energy requirements.

VENUS



Project Information:

For ordering information, see next page

All dimensions provided are nominal.
Allowance must be made for dimensional tolerance in handcrafted glasses.

REV 12/18

Submitted by The Lighting Group LLCChris Hamaker	**Catalog Number:** J-T33XL-VENUS-LED-STANDARD FINISH-L	**Type:** **PL-6**
Job Name: Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	Notes:	LGNW21-81871

BESA LIGHTING

VENUS
120V PENDANTS

ORDERING:

CONNECTION	SHADE OPTIONS	LAMP OPTIONS	METAL FINISH	OPTIONS
Pendant Fixtures **1JC** Dome Canopy **1JT** Flat Canopy Stem Fixtures **1TT** Flat Canopy	**VENUS** Venus	**LED** 9W LED 120V dimmable	**BR** Bronze **SN** Satin Nickel	**L** 15' cord **LW** Low wattage labeling

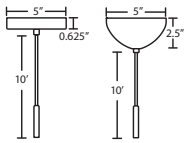
Ex. 1JT-VENUS-LED-SN
Venus Pendant,
Satin Nickel Finish

Multi light (pg. 11)
J For Multi light Canopy

Multilight Canopies Available, see page. 11

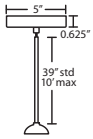
PENDANT OPTIONS:

1JT / 1JC / J MONOPOINT PENDANT CANOPY



- Flat (1JT) or Dome (1JC) Canopy styles. Dome style allows adjustment without cutting cord.
- "J" option is pendant less canopy for multiport canopy (options to the right)
- Suitable for sloped ceilings
- Cord: 10' SVT, 5" sleeve at socketholder (V Series utilizes SJT-type)
- Bronze or Satin Nickel

1TT STEM PENDANT



- Swivel at canopy, suitable for sloped ceilings
- Includes telescoping section plus 4 connectable stem sections, (1x 3", 1x 6", 1x 12", 1x 18"), 10' max
- Bronze or Satin Nickel

ACCESSORIES:

ADDITIONAL STEM SECTIONS:
Additional connecting stems are available to increase overall length, up to 10' max. Telescoping adjustable section allows up to 3" movement.

T20A-SN or **T20A-BR** Adj. Section
T203-SN or **T203-BR** 3" Section
T206-SN or **T206-BR** 6" Section
T212-SN or **T212-BR** 12" Section
T218-SN or **T218-BR** 18" Section

LONGER CORD LENGTHS:
Longer cord length of 15' available. Add an "**L**" to the end of the item number, i.e. 1JC-169707-SN**L**.

LOW WATTAGE LABELING:
Incandescent fixture supplied with 16 watt relamp label.
Add an "**LW**" to the end of the item number, i.e. 1JC-169707-SN-**LW**.

CORD SLEEVES:
If concealing the cord is desired, order our 0.25" dia. metal sleeves. Each sleeve is 18" long and may be field cut.

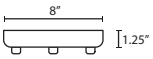
T118-SN Satin Nickel
T118-BR Bronze

STEMHOOKS:
Suspension hooks allow cord drops to be placed wherever desired. Suitable for sloped ceilings.

T103BR Bronze
T103SN Satin Nickel

MULTIPORT CANOPY OPTIONS:

T33X 3 LIGHT ROUND CANOPY

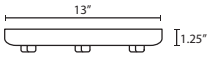


- Suitable for sloped ceilings
- Bronze or Satin Nickel
- 10" Dia. shades MAX, with staggered heights

T33XL 3 LIGHT LARGE ROUND CANOPY

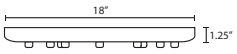
- Suitable for sloped ceilings
- Bronze or Satin Nickel
- 16" Dia. shades MAX, with staggered heights

T36X 6 LIGHT ROUND CANOPY



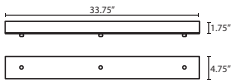
- Suitable for sloped ceilings
- Bronze or Satin Nickel
- 10" Dia. shades MAX, with staggered heights

T39X 9 LIGHT ROUND CANOPY



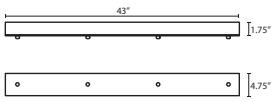
- Suitable for sloped ceilings
- Bronze or Satin Nickel
- 10" Dia. shades MAX, with staggered heights

T33V 3 LIGHT BAR CANOPY



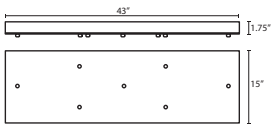
- Suitable for sloped ceilings
- Bronze or Satin Nickel
- 20" Dia. shades MAX, with staggered heights

T34V 4 LIGHT BAR CANOPY



- Suitable for sloped ceilings
- Bronze or Satin Nickel
- 20" Dia. shades MAX, with staggered heights

T37V 7 LIGHT BAR CANOPY



- Suitable for sloped ceilings
- Bronze or Satin Nickel
- 14" Dia. shades MAX, with staggered heights

HOW TO ORDER A MULTILIGHT FIXTURE

Order your canopy with the selected 120V multi light pendants (indicated by "B" or "J" prefix) for the complete fixture:

Example: 1x T33X-SN *(3 Light Round Canopy)*
1x J-VENUS-SN *(Venus Pendant)*
1x J-VENUS-SN *(Venus Pendant)*
1x J-VENUS-SN *(Venus Pendant)*

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** LEDP-22-9WH-30-30W-2 Notes:	**Type:** **RL-1** LGNW21-81871

Liteline

FORUM PANEL

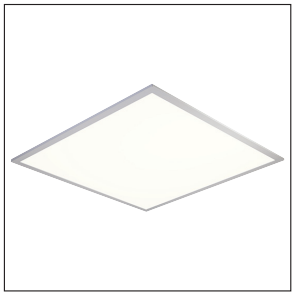
1900-6930 Lumens, 20-50W, Color Selectable

Track, Surface & Suspended

Job Information		
Project Name		Type
Location		
Quantity		Date
Contact/Phone		
Notes		

Description

The FORUM panel lights are designed to provide an optimal and modern alternative from traditional troffers. Elegantly designed for uniform light across the entire panel with low glare and shadows. Suitable for use in commercial and residential applications.



Features

Body
The LED panel light features a lightweight aluminum frame, designed to prevent light leakage. The frame houses three layers, LED chips, a light guide and an opal PMMA lens for soft illumination.

LED Characteristics
Bright LED modules that maintains uniform intensity producing up to 6,930 lumens[1]; with a typical CRI of 80+. Field changeable CCTs with Classic (3000 K, 3500 K and 4000 K) or high CCT (4000 K, 5000 K and 6000 K) color temperatures, as well as a white tunable (3000 K ~ 4000 K or 4000 K ~ 6000 K) option.

Dimming
100%-10% dimming capability. This fixture is compatible with industry standard 0-10V dimmers (contact factory for listing of compatible dimmers).

Beam Spread
The fixture lens provides 110° beam spread.

Mounting
Easy mounting in T-bar ceilings with standard dimensions.

LED Driver
Liteline proprietary driver technology available in 120-347V, 50 / 60Hz input. Driver power factor is 0.95 min with less than 20% THD. cULus listed Class 2 Class P driver enclosed with four ½" trade knockouts suitable for branch wiring (2 in and 2 out) #12 AWG. NEMA 410 Compliant.

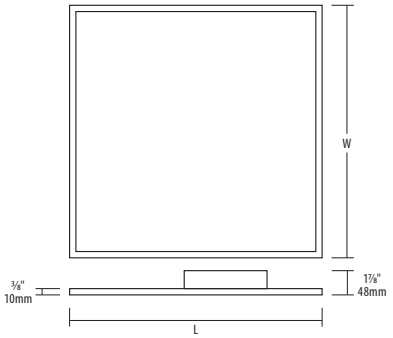
Optional Occupancy Sensor
The microwave detector provides occupancy/motion detection with simple adjustment of the detection range, time out and switching light levels (step-dimming). The discrete detector is integrated into the luminaire. This design solution also helps to maximize energy savings and enhance the user experience, whilst ensuring compliance with all relevant safety regulations.

Operating Temperature
-20°C~40°C (-4°F~104°F)

Environment
- For indoor use only.
- Suitable for damp locations.
- I.C. rated.

SPECIFICATION	
Application	Drop-Ceiling / Recessed / Flushmount / Suspension / Trimless
Approved Location	Damp
Beam Angle	110°
CCT (for LEDP)	3000 K / 3500 K / 4000 K
CCT (for LEDPH)	4000 K / 5000 K / 6000 K
Certification	cETLus
Class II	Yes
Color	WH
CRI	80+
Dimming	Yes
Dimming Tech	0-10V
Input	120-347V AC
LM79	Yes
LM80	Yes
Lumens	Up to 6,930[1]
Power Factor	>0.95
Projected Life	70% @ 50,000 hrs
Warranty	7 Years
Wattage	20W / 30W / 40W / 50W[2]

Technical Drawings



Size	Length (L)	Width (W)
1'×1'	11¾" (299mm)	11¾" (299mm)
1'×2'	23¾" (603mm)	11¾" (299mm)
1'×4'	47¾" (1213mm)	11¾" (299mm)
2'×2'	23¾" (603mm)	23¾" (603mm)
2'×4'	47¾" (1213mm)	23¾" (603mm)
20"×60"	59¾" (1518mm)	19¾" (502mm)
30"×30"	29¾" (756mm)	29¾" (756mm)
30"×60"	59¾" (1518mm)	29¾" (756mm)

Lumens Chart

Size	Wattage	Color Temp					
		Classic (LEDP)			High CCT (LEDPH)		
		3000 K	3500 K	4000 K	4000 K	5000 K	6000 K
1'×1'	20W	1,900	2,100	2,050	2,000	2,210	2,100
1'×2'	30W	2,900	3,150	3,050	3,470	3,840	3,680
1'×4'	20W	1,980	2,190	2,330	2,210	2,310	2,260
	30W	3,100	3,420	3,190	3,310	3,470	3,390
	40W	4,210	4,660	4,350	4,410	4,620	4,520
2'×2'	20W	2,590	2,860	2,780	2,310	2,520	2,370
	30W	3,490	3,860	3,750	3,470	3,780	3,550
	40W	4,390	4,850	4,720	4,620	5,040	4,730
2'×4'	30W	3,300	3,600	3,430	3,850	4,160	3,910
	40W	4,810	5,240	4,860	5,130	5,550	5,210
	50W	6,320	6,890	6,580	6,410	6,930	6,510
20"×60"	30W	3,340	3,550	3,610	–	–	–
	40W	4,650	4,990	5,020	–	–	–
	50W	5,710	6,200	6,200	–	–	–
30"×30"	20W	2,160	2,290	2,320	–	–	–
	30W	3,210	3,780	3,470	–	–	–
	40W	4,330	4,980	2,690	–	–	–
30"×60"	30W	3,340	3,550	3,610	–	–	–
	40W	4,650	4,990	5,020	–	–	–
	50W	5,710	6,200	6,200	–	–	–

Intertek · LED 7 YEAR WARRANTY · LUTRON

[1] Consult "Lumens Chart" for actual lumen values. [2] Consult "Lumens Chart" for wattage options per size. [3] Only on certain models for 1'×4', 2'×2' and 2'×4', consult "DLC Qualified Models" chart for specific models.

Liteline Corporation
Telephone 416.996.1856 1.866.730.7704
Fax 905.709.5255 1.888.738.9736
LITELINE.COM

REV 1.25.21

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** LEDP-22-9WH-30-30W-2 Notes:	**Type:** **RL-1** LGNW21-81871

Ordering Guide – Base Model

CCT Style	Size	Color	Options
LEDP : Classic	**11 :** 1'×1'	**WH :** White	Leave blank for no options
LEDPH : High CCT[1]	**12 :** 1'×2'	**BK :** Black	**PE :** PoE, No Driver
	14 : 1'×4'		**EM :** Emergency Backup[4]
	22 : 2'×2'		**WP :** 6' 5-wire whip
	24 : 2'×4'		**EW :** Emergency Backup and 6' 5-wire whip
	26 : 20"×60"[2]		**VE :** Lutron Vive[9]
	33 : 30"×30"[2]		
	36 : 30"×60"[2]		

QUICKSHIP 7-DAY

Highlighted option denotes QuickShip.

Ordering Guide – Non-Standard Drivers

CCT Style	Size	Color	Options[3]	CCT	Wattage[8]	Voltage
LEDP : Classic	**11 :** 1'×1'	**WH :** White	**D :** Dali	**30 :** 3000 K	**2 :** 20W	**1 :** 120V
LEDPH : High CCT[1]	**12 :** 1'×2'	**BK :** Black	**D2 :** Dali 2.0	**35 :** 3500 K[5]	**3 :** 30W	**2 :** 120-277V
	14 : 1'×4'		**EN :** CLM Encilium by OSRAM	**40 :** 4000 K[5,6]	**4 :** 40W	**3 :** 347V
	22 : 2'×2'		**L :** Lutron Hi-Lume® 1% EcoSystem[9]	**50 :** 5000 K[6]	**5 :** 50W	
	24 : 2'×4'		**M :** Lutron Hi-Lume® 1% 2-Wire[9]	**60 :** 6000 K[6]		
	26 : 20"×60"[2]		**MT :** White Tunable Moons Dual series, Dual 0-10V	**TW :** White Tunable[7]		
	33 : 30"×30"[2]		**OS :** Occupancy Sensor[4]			
	36 : 30"×60"[2]		**QX :** Casambi			
			T : White Tunable Lutron T-series 1% 2-channel[9]			

QUICKSHIP 7-DAY

Highlighted option denotes QuickShip.

Notes:

[1] High CCT (4000 K / 5000 K / 6000 K). [2] Not available in high CCT (LEDPH) CCT Style. [3] Must Select CCT, Wattage and Voltage. [4] Options EM and OS not available for 1'×1' size. [5] Available only for CCT Style LEDP. [6] Available only for CCT Style LEDPH. [7] Only available with Options "D2", "MT" and "T". [8] Consult "Lumens Chart" for wattage options per size. [9] Only available in 120-277V.
QuickShip option is available on orders of 100 pieces or less, and will ship within 7 business days. Options must be selected from QuickShip section to qualify.
For additional options consult your Liteline representative. All trademarks are the property of their respective owners. Lutron is a trademark of Lutron Electronics Co., Inc.
Due to our continued efforts to improve our products, product specifications are subject to change without notice.

DLC Qualified Models

The FORUM panel can be commissioned on-site in a wide variety of colour temperature, wattage and voltage configurations. To qualify for DLC 5.0, applications must be commissioned with an approved colour temperature, power and voltage combination. The table below outlines complete DLC 5.0 qualified item numbers, energy-efficiency and performance requirements. To construct the model number for the specification application, refer to the following example.

CCT Style	Size		Color Temperature	Wattage	Voltage
LEDP	24	WH	30	30	120/277

Voltage	DLC 5.0 Premium		DLC 5.0 Standard	
	Classic	High Output	Classic	High Output
120 / 277V	LEDP-14-WH-35-20-120/277 LEDP-22-WH-30-20-120/277 LEDP-22-WH-35-20-120/277 LEDP-22-WH-35-30-120/277 LEDP-22-WH-35-40-120/277 LEDP-24-WH-30-30-120/277 LEDP-24-WH-35-30-120/277 LEDP-24-WH-35-40-120/277 LEDP-24-WH-35-50-120/277	LEDPH-14-WH-50-20-120/277 LEDPH-22-WH-40-20-120/277 LEDPH-22-WH-50-20-120/277 LEDPH-22-WH-50-30-120/277 LEDPH-22-WH-50-40-120/277 LEDPH-24-WH-40-30-120/277 LEDPH-24-WH-40-40-120/277 LEDPH-24-WH-40-50-120/277 LEDPH-24-WH-50-30-120/277 LEDPH-24-WH-50-40-120/277 LEDPH-24-WH-50-50-120/277	LEDP-14-WH-30-20-120/277 LEDP-14-WH-35-30-120/277 LEDP-14-WH-35-40-120/277 LEDP-22-WH-30-30-120/277 LEDP-22-WH-30-40-120/277 LEDP-24-WH-30-40-120/277 LEDP-24-WH-30-50-120/277	LEDPH-14-WH-40-20-120/277 LEDPH-14-WH-40-30-120/277 LEDPH-14-WH-40-40-120/277 LEDPH-14-WH-50-30-120/277 LEDPH-14-WH-50-40-120/277 LEDPH-22-WH-40-30-120/277 LEDPH-22-WH-40-40-120/277
347V	LEDP-22-WH-35-30-347 LEDP-24-WH-35-40-347 LEDP-24-WH-35-50-347	LEDPH-22-WH-50-30-347 LEDPH-24-WH-50-40-347 LEDPH-24-WH-50-50-347	LEDP-14-WH-35-30-347 LEDP-14-WH-35-40-347 LEDP-22-WH-30-30-347 LEDP-22-WH-30-40-347 LEDP-22-WH-35-40-347 LEDP-24-WH-30-40-347 LEDP-24-WH-30-50-347	LEDPH-14-WH-40-30-347 LEDPH-14-WH-40-40-347 LEDPH-14-WH-50-30-347 LEDPH-14-WH-50-40-347 LEDPH-22-WH-40-30-347 LEDPH-22-WH-40-40-347 LEDPH-22-WH-50-40-347 LEDPH-24-WH-40-40-347 LEDPH-24-WH-40-50-347

Submitted by The Lighting Group LLCChris Hamaker	**Catalog Number:**	**Type:**
Job Name: Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	LEDP-22-9WH-30-30W-2 Notes:	**RL-1** LGNW21-81871

Accessories

LEDP-CLIPS
Recessed mounting clips for use with FORUM LED panels.

LEDP-PDW1-11
½" PrecisionPro trimless drywall adapter, 20"×20".

LEDP-PDW5-11
⅝" PrecisionPro trimless drywall adapter, 20"×20".

LEDP-PDW1-12
½" PrecisionPro trimless drywall adapter, 20"×32".

LEDP-PDW5-12
⅝" PrecisionPro trimless drywall adapter, 20"×32".

LEDP-PDW1-14
½" PrecisionPro trimless drywall adapter, 20"×56".

LEDP-PDW5-14
⅝" PrecisionPro trimless drywall adapter, 20"×56".

LEDP-PDW1-22
½" PrecisionPro trimless drywall adapter, 32"×32".

LEDP-PDW5-22
⅝" PrecisionPro trimless drywall adapter, 32"×32".

LEDP-PDW1-24
½" PrecisionPro trimless drywall adapter, 32"×56".

LEDP-PDW5-24
⅝" PrecisionPro trimless drywall adapter, 32"×56".

LEDP-MUD-11
Trimless adapter for use with 1'×1' FORUM panels. Includes 2 recessed clips with 4 screws.

LEDP-MUD-12
Trimless adapter for use with 1'×2' FORUM panels. Includes 4 recessed clips with 8 screws.

LEDP-MUD-14
Trimless adapter for use with 1'×4' FORUM panels. Includes 6 recessed clips with 12 screws.

LEDP-MUD-22
Trimless adapter for use with 2'×2' FORUM LED panels. Includes 4 recessed clips with 8 screws.

LEDP-MUD-24
Trimless adapter for use with 2×4 FORUM LED panels. Includes 6 recessed clips with 12 screws.

XTLR-11-WH-FKT
Surface mount kit for use with 1'×1' FORUM panels. Consult factory for additional colors.

XTLR-12-WH-FKT
Surface mount kit for use with 1'×2' FORUM panels. Consult factory for additional colors.

XTLR-14-WH-FKT
Surface mount kit for use with 1'×4' FORUM panels. Consult factory for additional colors.

XTLR-22-WH-FKT
Surface mount kit for use with 2'×2' FORUM panels. Consult factory for additional colors.

XTLR-24-WH-FKT
Surface mount kit for use with 2'×4' FORUM panels. Consult factory for additional colors.

PWF-XTLR
Power feed kit for FORUM surface mount kit.

XTLS-120
120" Aircraft cable. Power feed not included.

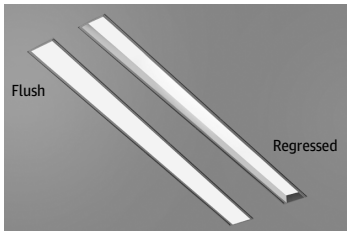
XTLS-120-5SJT
120" Suspension kit. Aircraft cable with canopy and power feed.

XTLS-120Y-5SJT
120" Y-Suspension kit. Aircraft Y-cable with canopy and power feed.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** SL2L LOP 10FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**Type:** **RL-2-10'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear



Slot 2 LED takes both form and function a step further with increased efficacy and integral controls creating a digitally addressable luminaire that is perfect where visually harmonious illumination and energy efficiency are desired.

Slot 2 LED is the ideal choice for spaces that emphasize lines and clean contemporary design. It is a perfect fit for Armstrong TechZone™ ceiling systems. A regressed lens option provides added dimension to the sleek, slender design and the flush lens now has a Wet Label option.

Type:

Project:

Catalog Number:

DO NOT TYPE HERE. Autopopulated field.

Specification Features (continued on page 2)

Housing
Nominal 2" x 2', 3', 4', 5', 6', 7', 8' and continuous rows in 1" increments as standard, upper housing fabricated from cold-rolled steel with extruded aluminum ceiling trim.

Finish
Painted high reflectance matte white powder coat.

Reflector
Precision-formed steel; high reflectance matte white powder coat; 93% reflectivity.

Shielding
Flush Lens: Snap-in 90% transmissive satin acrylic lens.

Regressed Lens: Lay-in 90% transmissive satin acrylic lens.

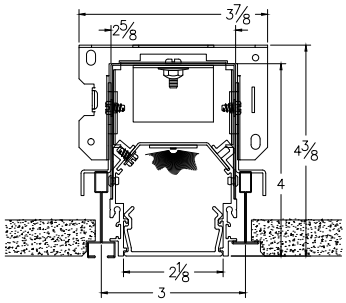
Mounting
Recessed. Available for sheetrock, 9/16" slot grid or 15/16" inverted tee ceilings, or 9/16" inverted tee.

Certification
CSA tested to UL 1598 standards. Optional Damp or Wet location listings available, see ordering tree. This product is IC rated.

Warranty
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: *Actual performance may differ as a result of end-user environment and application.*
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Technical Drawing



Flush - (FLP)

Fixture Performance - SL2L*

Lumens Output	400 LMF		600 LMF**		800LMF**		1000LMF	
Fixture Style	RLP	FLP	RLP	FLP	RLP	FLP	RLP	FLP
Delivered Lumens/FT	234	308	404	533	534	705	654	862
Input Watts/FT	4	4	6	6	8	8	11	11
Lumen/Watt	68	89	69	91	67	88	62	82

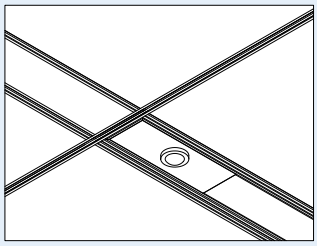
** CCT (35K)*
** Consult factory for customized lumen output and wattage*
***Based on calculated values*

LED Components
Linear: Nichia® - 757 Series LED chips (available in 80 or 90 CRI)

LED Life
Rated 65,000 hours (L80) at 25 °C ambient temperature.

Color Consistency
The Acuity Brands circuit boards for the linear LED components use a precise binning algorithm which creates a consistent color temperature from board to board. Color variation is no greater than a 2.5 Step MacAdam (2.5SDCM) along the black body locus from board to board.

Driver
eldoLED constant current driver options delivers ultra-smooth dimming resolution from 100% to 0.1%, while assuring flicker free, low current inrush, 89% efficiency and low EMI.


Occupancy Sensor (PDT) and/or Photocell (ADC)

Integrated Controls
Optional nLight® embedded controls make luminaire addressable- allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight enabled control devices using standard CAT5 Cabling. (Input option: NLIGHT)

Photometry
For photometric information refer to www.marklighting.com.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** SL2L LOP 10FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**Type:** **RL-2-10'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

A+ Capable options indicated by this color background.

Ordering

Example: SL2L LOP 4FT FLP FL 80CRI 30K 600LMF DARK 277 EC NLIGHT

Series

SL2L	Slot 2 LED Linear Recessed

Linear Length Plan

LOP	Linear Optimized Plan

Total Run Length

2FT	2′	**7FT**	7′
3FT	3′	**8FT**	8′
4FT	4′	**_FT_ 10**	*Specify continuous linear feet in 1" increments (7FT6 = 7FT 6IN)
5FT	5′		
6FT	6′		

Fixture Style

RLP[1,3]	Regressed Lens
FLP[2]	Flush Lens

Ceiling Trim

FL[4]	5/8" Flange(sheetrock)
TG	9/16" or 15/16" Flat or Inverted Tee
GB[4]	Trimless (sheetrock)
WFL	Perimeter Mount, 5/8" Flange (Sheetrock)
WTG	9/16" Flat or Inverted Tee, Perimeter Mount

Direct Light Source Color Rendering

80CRI	80 CRI
90CRI	90 CRI

Direct LED Color Temp

27K*	2700K
30K	3000K
35K	3500K
40K	4000K
50K*	5000K

Direct LED Light Output

400LMF	400 Lumens per FT
600LMF	600 Lumens per FT
800LMF	800 Lumens per FT
1000LMF	1000 Lumens per FT
_LMF* [9]	## Lumens per FT (Limited to 300LMF to 1000LMF in 50LMF increments)

Direct Distribution

(blank)	Standard Distribution
WW[5]	Wall Wash

Minimum Dimming Level

NODIM	Non - Dim
MIN1	Constant current, dimming to 1%
DARK	Constant current, dimming to 0.1%
MIN5[6]	Constant current, dimming to 5%
MIN10[15]	Constant current, dimming to 10%

Voltage

120	120V
277	277V
347[7]	347V

Finish

(blank)	White, textured
xxx/BLKT	Black, textured
xxx/SLVT	Silver, textured
xxx/RALTBD	RAL paint finish

xxx = fill in with the appropriate ceiling trim. Only trims are painted. RALTBD is for pricing only. Replace with applicable RAL number and texture when placing order.

Emergency Options

(blank)	No Emergency
__E10WLCP[8]	Number of 4ft Emergency Section(s) with battery pack
_EC[10]	# of Emergency Circuits

Control Input

(blank)	Non-dim[11]
ZT	0-10V
NLIGHT	nLight enabled
NLTAIR2[17]	nLight Air (Wireless Enabled)
ECOD*[,16]	Lutron Hi-Lume digital driver
ECOD2*[,16]	Lutron Hi-Lume 2-wire (1% dimming)
ECOD5*[,6]	Lutron 5-series digital driver (5% dimming)
DALI[19]	Dali

Primary Sensor[12]

(blank)	Single Zone, No Sensor
NS	Multi-zone, No Sensor Main Zone
PDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
ADC[13]	Daylight Dimming Sensor
API[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
APD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Secondary Sensor[12]

(blank)	No additional zones/sensors
SNS	Multi-zone, with no sensor in secondary zone
SPDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
SADC[13]	Daylight Dimming Sensor
SAPI[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
SAPD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Tertiary Zone

(blank)	No additional zones/sensors
TNS	Multi-zone, with no sensor in tertiary zone

Options

CP[18]	Chicago Plenum
USPOM	US point of assembly
WL[3,9]	Wet Location Listing
DPL	Damp Location Listing
PWS	6' Pre-Wire, 3/8" Diameter, 18 Gauge

* Requires longer lead time.

Notes

1. Supplied with lift and shift lay-in lens.
2. Supplied with snap-in lens.
3. Wet Location label not available with regressed lens, sensor options or PWS. Cannot be installed on vertical surfaces.
4. Not intended for post sheetrock installation.
5. Wall wash not available with RLP lens option.
6. MIN5 requires ECOD5 Control Input. ECOD5 only available with MIN5 dimming.
7. Not available with 2ft fixture sections or with E10WLCP, NLIGHT, sensors, or ECO options. Must select MIN1 option.
8. Remote mounted, not available with CP option. Battery kit is not wet listed, but can be used with WL fixture if installed in a dry location. If with ZT & API, APD or NLTAIR2, only available in 7′ or 8′ units.
9. Not available with ECOD, ECOD2 and ECOD5.
10. Standard 4′ EC section, defaults to end of run. 2ft, 3ft and 5ft powers entire fixture, 6ft powers 3ft EC section.
11. Only available with NODIM option.
12. Sensors not available with WW, NODIM driver, WL, RLP, downlights or 2′ or 3′ units. Not available with 347 & NLIGHT together. Default location for sensor is the left side of the fixture. For runs, the first fixture will include the sensor.
13. Requires ZT or NLIGHT Control Input.
14. Requires ZT, NLIGHT or NLTAIR2 Control Input.
15. MIN10 not available with 347, sensors, NLIGHT or NLTAIR2, requires ZT
16. ECOD and ECOD2 not available with sensors, requires MIN1 dimming. Must use 120 volt for ECOD2.
17. Must select MIN1 or DARK. Not available with RLP, WW, PDT, ADC or 347, DPL or WL. If with EC, cannot be on individual units, and on runs, the EC cannot be on the same section as NLTAIR2.
18. CP not available with NLTAIR2.
19. DALI is only available with DARK or MIN1. It is not available with sensors or downlights.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

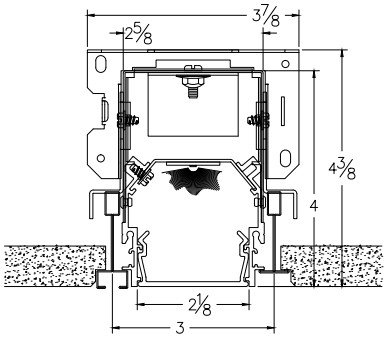
To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

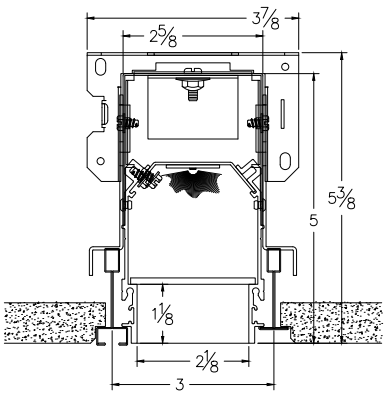
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

Technical Drawing

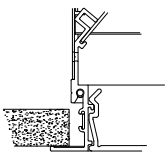


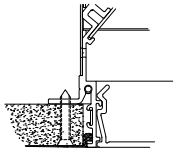
Flush - (FLP)

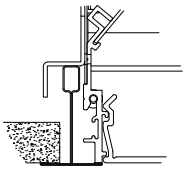


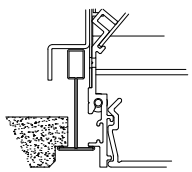
Regressed - (RLP)

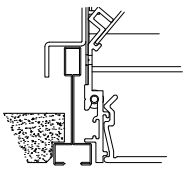
Ceiling Trim


FL
(Flanged sheetrock)

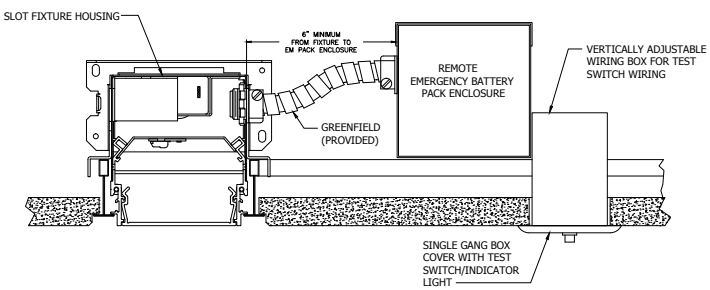

GB
(Flangeless sheetrock)


TG
(15/16" Grid)


TG
(9/16" Grid)


TG
(9/16" Slot Grid)

Remote Emergency Battery Mounting



Notes

- Delivers 700 lumens per 4FT length. Default location is the right side of fixture and end of run.
- Provided with 4FT of flexible conduit. Maximum of 25FT remote distance if extended. Extension provided by others.

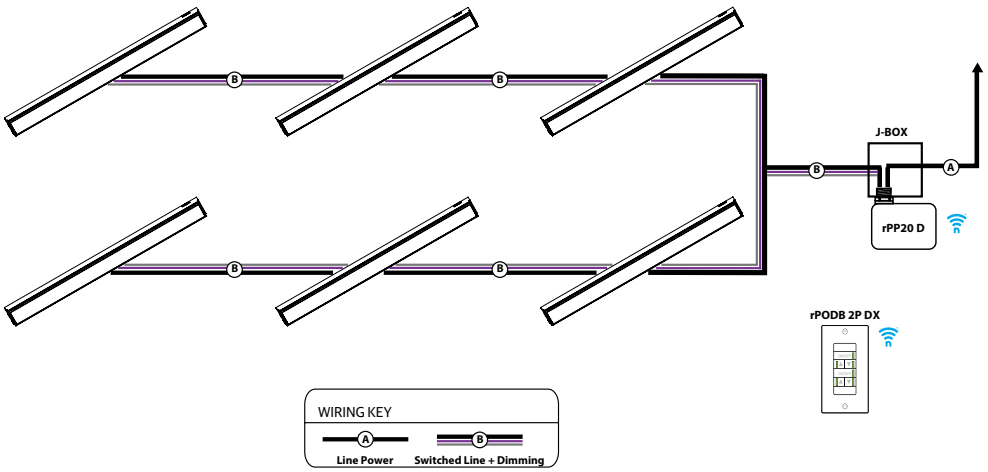
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

nLight Air Wireless

To Make fixture NLTAIR2 compatible the following components are required:

1) rpp20 D
2) rPODB 2P DX

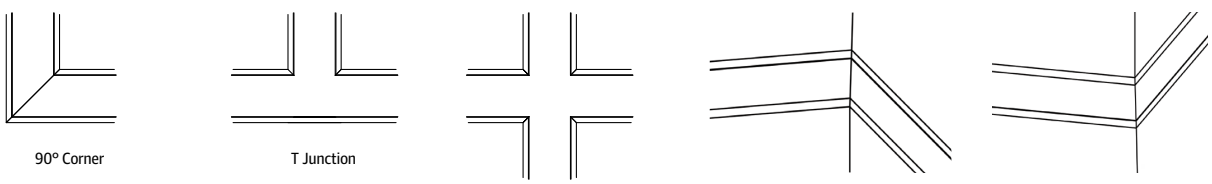


Continuous Runs

Slot 2 LED continuous rows can be configured in 1" increments.

Run Patterns, Corners and Junction

Slot 2 LED patterns be configured in 1' increments with illuminated 90° inside and outside corners, T junctions, and X junctions with standard 2' corner and junction lengths. For custom angles, corner or junction lengths, consult factory.



Layout Sketch

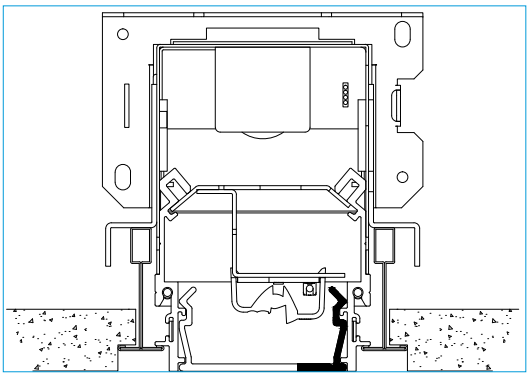
Please draw and configure your linear run below.

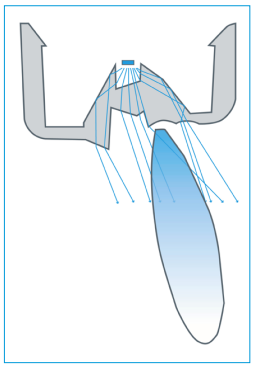
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

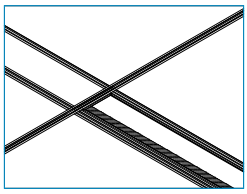
OPTICS

Slot LED's patent-pending, precision lumen DIRECTIR optics condition and refract light to deliver accurately controlled, striation-free, and uniform white light. All lumen DIRECTIR optics are injection-molded, optical grade, UV-resistant acrylic with selective finishing/polishing treatment.

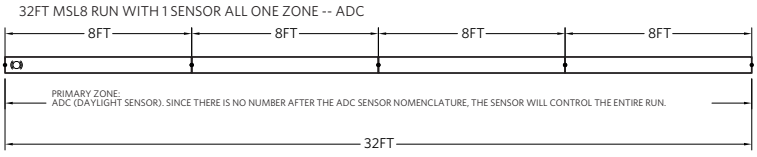




Optional Wall Wash (WW)



INTEGRATED SENSOR LAYOUT



Notes:
- Only one sensor per zone

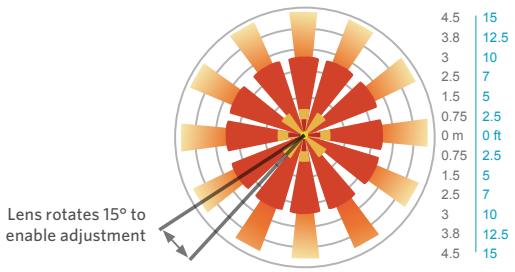
OCCUPANCY DETECTION COVERAGE

At the 7.5 ft (2.9 m) hanging height of a typical pendant mount fixture the sensor provides 10 ft (3.05 m) radial detection of small motion. At a 9 ft (2.74 m) hanging height the radius is 12 ft (3.66 m) for small motion.

Adequate for walking motion detection from mounting heights between 7.5 ft (2.29 m) and 20 ft (6.10 m).

Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor.

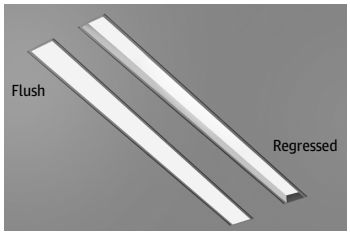
Initial detection of walking motion into long coverage segment will occur at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m). Lens assembly rotates 15° to enable adjustment in order to line up long segments.



Submitted by The Lighting Group LLCChris Hamaker	Catalog Number:	Type:
Job Name: Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	SL2L LOP 6FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**RL-2-6'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear



Slot 2 LED takes both form and function a step further with increased efficacy and integral controls creating a digitally addressable luminaire that is perfect where visually harmonious illumination and energy efficiency are desired.

Slot 2 LED is the ideal choice for spaces that emphasize lines and clean contemporary design. It is a perfect fit for Armstrong TechZone™ ceiling systems. A regressed lens option provides added dimension to the sleek, slender design and the flush lens now has a Wet Label option.

Type:

Project:

Catalog Number:
DO NOT TYPE HERE. Autopopulated field.

Specification Features (continued on page 2)

Housing
Nominal 2" x 2', 3', 4', 5', 6', 7', 8' and continuous rows in 1" increments as standard, upper housing fabricated from cold-rolled steel with extruded aluminum ceiling trim.

Finish
Painted high reflectance matte white powder coat.

Reflector
Precision-formed steel; high reflectance matte white powder coat; 93% reflectivity.

Shielding
Flush Lens: Snap-in 90% transmissive satin acrylic lens.

Regressed Lens: Lay-in 90% transmissive satin acrylic lens.

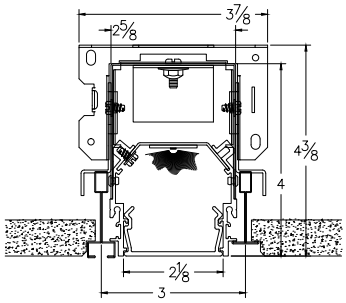
Mounting
Recessed. Available for sheetrock, 9/16" slot grid or 15/16" inverted tee ceilings, or 9/16" inverted tee.

Certification
CSA tested to UL 1598 standards. Optional Damp or Wet location listings available, see ordering tree. This product is IC rated.

Warranty
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: *Actual performance may differ as a result of end-user environment and application.*
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Technical Drawing



Flush - (FLP)

Fixture Performance - SL2L*

Lumens Output	400 LMF		600 LMF**		800LMF**		1000LMF	
Fixture Style	RLP	FLP	RLP	FLP	RLP	FLP	RLP	FLP
Delivered Lumens/FT	234	308	404	533	534	705	654	862
Input Watts/FT	4	4	6	6	8	8	11	11
Lumen/Watt	68	89	69	91	67	88	62	82

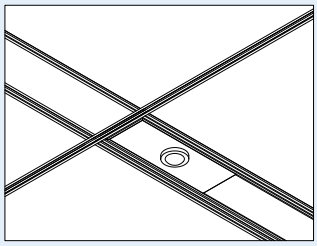
** CCT (35K)*
** Consult factory for customized lumen output and wattage*
***Based on calculated values*

LED Components
Linear: Nichia® - 757 Series LED chips (available in 80 or 90 CRI)

LED Life
Rated 65,000 hours (L80) at 25 °C ambient temperature.

Color Consistency
The Acuity Brands circuit boards for the linear LED components use a precise binning algorithm which creates a consistent color temperature from board to board. Color variation is no greater than a 2.5 Step MacAdam (2.5SDCM) along the black body locus from board to board.

Driver
eldoLED constant current driver options delivers ultra-smooth dimming resolution from 100% to 0.1%, while assuring flicker free, low current inrush, 89% efficiency and low EMI.


Occupancy Sensor (PDT) and/or Photocell (ADC)

Integrated Controls
Optional nLight® embedded controls make luminaire addressable- allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight enabled control devices using standard CAT5 Cabling. (Input option: NLIGHT)

Photometry
For photometric information refer to www.marklighting.com.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** SL2L LOP 6FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**Type:** **RL-2-6'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

A+ Capable options indicated by this color background.

Ordering

Example: SL2L LOP 4FT FLP FL 80CRI 30K 600LMF DARK 277 EC NLIGHT

Series

SL2L	Slot 2 LED Linear Recessed

Linear Length Plan

LOP	Linear Optimized Plan

Total Run Length

2FT	2′	**7FT**	7′
3FT	3′	**8FT**	8′
4FT	4′	**__FT__**	*Specify continuous linear feet in 1" increments (7FT6 = 7FT 6IN)
5FT	5′	**6**	
6FT	6′		

Fixture Style

RLP[1,3]	Regressed Lens
FLP[2]	Flush Lens

Ceiling Trim

FL[4]	5/8" Flange(sheetrock)
TG	9/16" or 15/16" Flat or Inverted Tee
GB[4]	Trimless (sheetrock)
WFL	Perimeter Mount, 5/8" Flange (Sheetrock)
WTG	9/16" Flat or Inverted Tee, Perimeter Mount

Direct Light Source Color Rendering

80CRI	80 CRI
90CRI	90 CRI

Direct LED Color Temp

27K*	2700K
30K	3000K
35K	3500K
40K	4000K
50K*	5000K

Direct LED Light Output

400LMF	400 Lumens per FT
600LMF	600 Lumens per FT
800LMF	800 Lumens per FT
1000LMF	1000 Lumens per FT
_LMF* [9]	## Lumens per FT (Limited to 300LMF to 1000LMF in 50LMF increments)

Direct Distribution

(blank)	Standard Distribution
WW[5]	Wall Wash

Minimum Dimming Level

NODIM	Non - Dim
MIN1	Constant current, dimming to 1%
DARK	Constant current, dimming to 0.1%
MIN5[6]	Constant current, dimming to 5%
MIN10[15]	Constant current, dimming to 10%

Voltage

120	120V
277	277V
347[7]	347V

Finish

(blank)	White, textured
xxx/BLKT	Black, textured
xxx/SLVT	Silver, textured
xxx/RALTBD	RAL paint finish

xxx = fill in with the appropriate ceiling trim. Only trims are painted. RALTBD is for pricing only. Replace with applicable RAL number and texture when placing order.

Emergency Options

(blank)	No Emergency
__E10WLCP[8]	Number of 4ft Emergency Section(s) with battery pack
_EC[10]	# of Emergency Circuits

Control Input

(blank)	Non-dim[11]
ZT	0-10V
NLIGHT	nLight enabled
NLTAIR2[17]	nLight Air (Wireless Enabled)
ECOD*[,16]	Lutron Hi-Lume digital driver
ECOD2*[,16]	Lutron Hi-Lume 2-wire (1% dimming)
ECOD5*[,6]	Lutron 5-series digital driver (5% dimming)
DALI[19]	Dali

Primary Sensor[12]

(blank)	Single Zone, No Sensor
NS	Multi-zone, No Sensor Main Zone
PDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
ADC[13]	Daylight Dimming Sensor
API[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
APD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Secondary Sensor[12]

(blank)	No additional zones/sensors
SNS	Multi-zone, with no sensor in secondary zone
SPDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
SADC[13]	Daylight Dimming Sensor
SAPI[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
SAPD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Tertiary Zone

(blank)	No additional zones/sensors
TNS	Multi-zone, with no sensor in tertiary zone

Options

CP[18]	Chicago Plenum
USPOM	US point of assembly
WL[3,9]	Wet Location Listing
DPL	Damp Location Listing
PWS	6' Pre-Wire, 3/8" Diameter, 18 Gauge

* Requires longer lead time.

Notes

1. Supplied with lift and shift lay-in lens.
2. Supplied with snap-in lens.
3. Wet Location label not available with regressed lens, sensor options or PWS. Cannot be installed on vertical surfaces.
4. Not intended for post sheetrock installation.
5. Wall wash not available with RLP lens option.
6. MIN5 requires ECOD5 Control Input. ECOD5 only available with MIN5 dimming.
7. Not available with 2ft fixture sections or with E10WLCP, NLIGHT, sensors, or ECO options. Must select MIN1 option.
8. Remote mounted, not available with CP option. Battery kit is not wet listed, but can be used with WL fixture if installed in a dry location. If with ZT & API, APD or NLTAIR2, only available in 7′ or 8′ units.
9. Not available with ECOD, ECOD2 and ECOD5.
10. Standard 4′ EC section, defaults to end of run. 2ft, 3ft and 5ft powers entire fixture, 6ft powers 3ft EC section.
11. Only available with NODIM option.
12. Sensors not available with WW, NODIM driver, WL, RLP, downlights or 2′ or 3′ units. Not available with 347 & NLIGHT together. Default location for sensor is the left side of the fixture. For runs, the first fixture will include the sensor.
13. Requires ZT or NLIGHT Control Input.
14. Requires ZT, NLIGHT or NLTAIR2 Control Input.
15. MIN10 not available with 347, sensors, NLIGHT or NLTAIR2, requires ZT
16. ECOD and ECOD2 not available with sensors, requires MIN1 dimming. Must use 120 volt for ECOD2.
17. Must select MIN1 or DARK. Not available with RLP, WW, PDT, ADC or 347, DPL or WL. If with EC, cannot be on individual units, and on runs, the EC cannot be on the same section as NLTAIR2.
18. CP not available with NLTAIR2.
19. DALI is only available with DARK or MIN1. It is not available with sensors or downlights.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

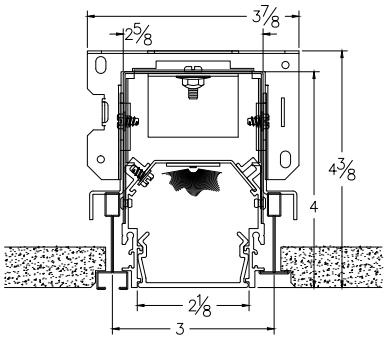
To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

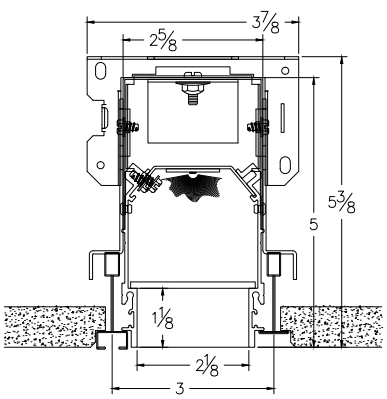
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

Technical Drawing

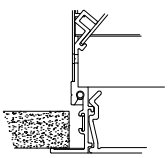


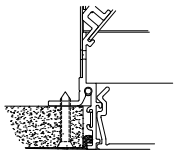
Flush - (FLP)

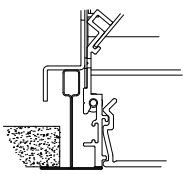


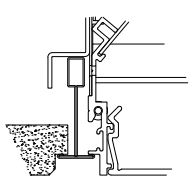
Regressed - (RLP)

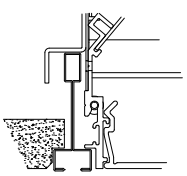
Ceiling Trim


FL
(Flanged sheetrock)

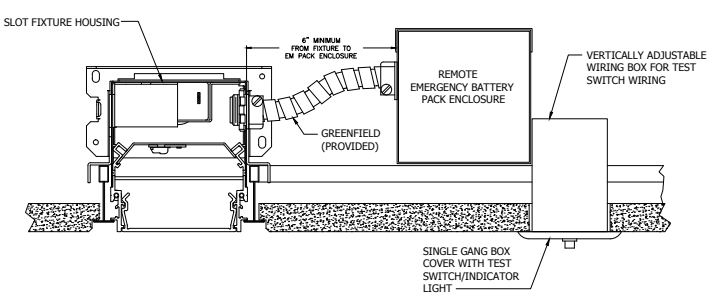

GB
(Flangeless sheetrock)


TG
(15/16" Grid)


TG
(9/16" Grid)


TG
(9/16" Slot Grid)

Remote Emergency Battery Mounting



Notes

- Delivers 700 lumens per 4FT length. Default location is the right side of fixture and end of run.
- Provided with 4FT of flexible conduit. Maximum of 25FT remote distance if extended. Extension provided by others.

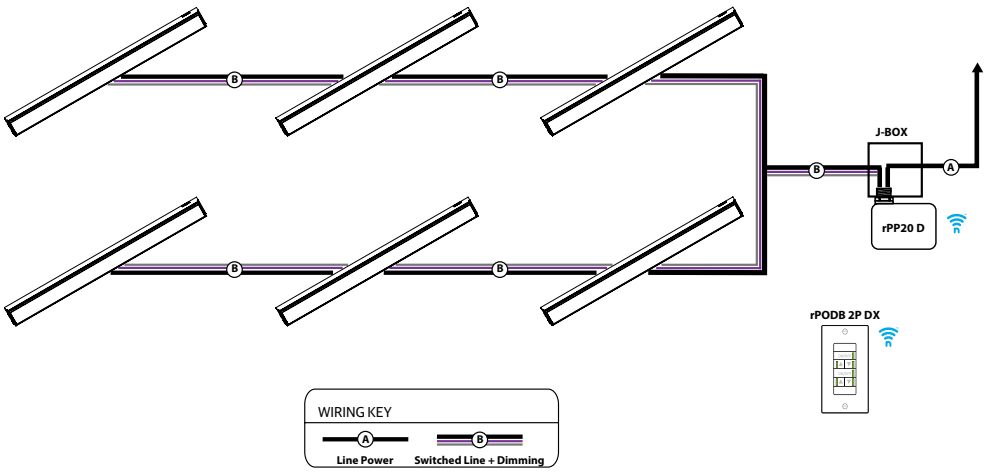
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

nLight Air Wireless

To Make fixture NLTAIR2 compatible the following components are required:

1) rpp20 D
2) rPODB 2P DX

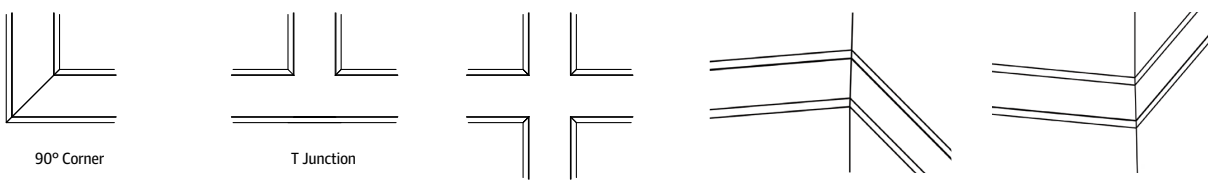


Continuous Runs

Slot 2 LED continuous rows can be configured in 1" increments.

Run Patterns, Corners and Junction

Slot 2 LED patterns be configured in 1' increments with illuminated 90° inside and outside corners, T junctions, and X junctions with standard 2' corner and junction lengths. For custom angles, corner or junction lengths, consult factory.



Layout Sketch

Please draw and configure your linear run below.

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

OPTICS

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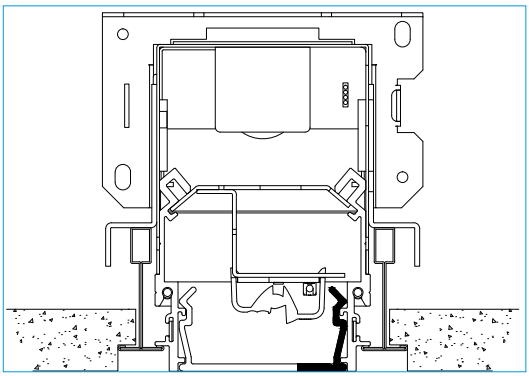

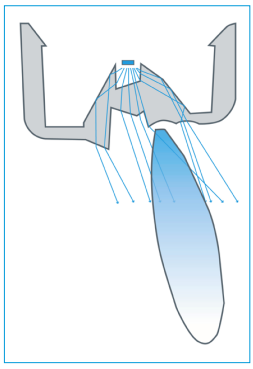

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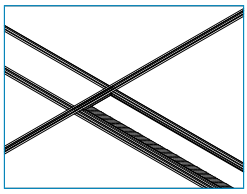

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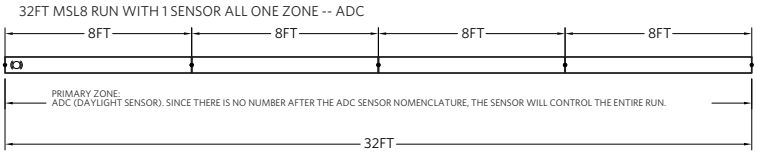

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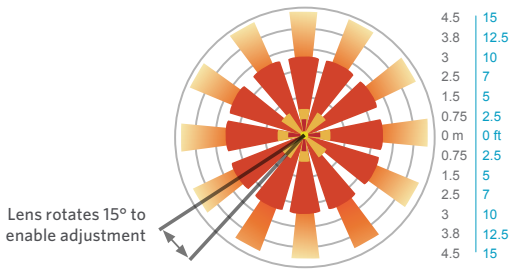
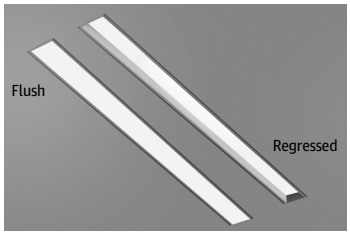


Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** SL2L LOP 11FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**Type:** **RL-2-11'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear



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Type:

Project:

Catalog Number:

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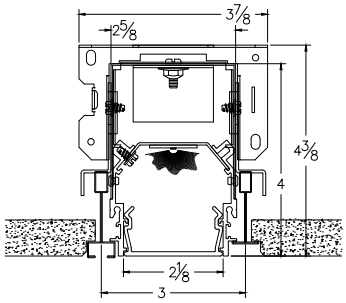

Flush - (FLP)

Fixture Performance - SL2L*

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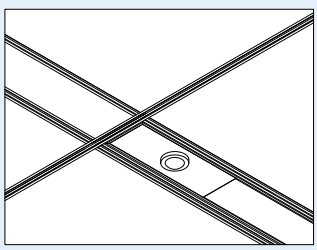
eldoLED constant current driver options delivers ultra-smooth dimming resolution from 100% to 0.1%, while assuring flicker free, low current inrush, 89% efficiency and low EMI.


Occupancy Sensor (PDT) and/or Photocell (ADC)

Integrated Controls
Optional nLight® embedded controls make luminaire addressable- allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight enabled control devices using standard CAT5 Cabling. (Input option: NLIGHT)

Photometry
For photometric information refer to www.marklighting.com.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** SL2L LOP 11FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**Type:** **RL-2-11'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

A+ Capable options indicated by this color background.

Ordering

Example: SL2L LOP 4FT FLP FL 80CRI 30K 600LMF DARK 277 EC NLIGHT

Series

SL2L	Slot 2 LED Linear Recessed

Linear Length Plan

LOP	Linear Optimized Plan

Total Run Length

2FT	2′	**7FT**	7′
3FT	3′	**8FT**	8′
4FT	4′	**_FT_**	*Specify continuous linear feet in 1" increments (7FT6 = 7FT 6IN)
5FT	5′	**11**	
6FT	6′		

Fixture Style

RLP[1,3]	Regressed Lens
FLP[2]	Flush Lens

Ceiling Trim

FL[4]	5/8" Flange(sheetrock)
TG	9/16" or 15/16" Flat or Inverted Tee
GB[4]	Trimless (sheetrock)
WFL	Perimeter Mount, 5/8" Flange (Sheetrock)
WTG	9/16" Flat or Inverted Tee, Perimeter Mount

Direct Light Source Color Rendering

80CRI	80 CRI
90CRI	90 CRI

Direct LED Color Temp

27K*	2700K
30K	3000K
35K	3500K
40K	4000K
50K*	5000K

Direct LED Light Output

400LMF	400 Lumens per FT
600LMF	600 Lumens per FT
800LMF	800 Lumens per FT
1000LMF	1000 Lumens per FT
_LMF* [9]	## Lumens per FT (Limited to 300LMF to 1000LMF in 50LMF increments)

Direct Distribution

(blank)	Standard Distribution
WW[5]	Wall Wash

Minimum Dimming Level

NODIM	Non - Dim
MIN1	Constant current, dimming to 1%
DARK	Constant current, dimming to 0.1%
MIN5[6]	Constant current, dimming to 5%
MIN10[15]	Constant current, dimming to 10%

Voltage

120	120V
277	277V
347[7]	347V

Finish

(blank)	White, textured
xxx/BLKT	Black, textured
xxx/SLVT	Silver, textured
xxx/RALTBD	RAL paint finish

xxx = fill in with the appropriate ceiling trim. Only trims are painted. RALTBD is for pricing only. Replace with applicable RAL number and texture when placing order.

Emergency Options

(blank)	No Emergency
__E10WLCP[8]	Number of 4ft Emergency Section(s) with battery pack
_EC[10]	# of Emergency Circuits

Control Input

(blank)	Non-dim[11]
ZT	0-10V
NLIGHT	nLight enabled
NLTAIR2[17]	nLight Air (Wireless Enabled)
ECOD*[,16]	Lutron Hi-Lume digital driver
ECOD2*[,16]	Lutron Hi-Lume 2-wire (1% dimming)
ECOD5*[,6]	Lutron 5-series digital driver (5% dimming)
DALI[19]	Dali

Primary Sensor[12]

(blank)	Single Zone, No Sensor
NS	Multi-zone, No Sensor Main Zone
PDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
ADC[13]	Daylight Dimming Sensor
API[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
APD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Secondary Sensor[12]

(blank)	No additional zones/sensors
SNS	Multi-zone, with no sensor in secondary zone
SPDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
SADC[13]	Daylight Dimming Sensor
SAPI[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
SAPD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Tertiary Zone

(blank)	No additional zones/sensors
TNS	Multi-zone, with no sensor in tertiary zone

Options

CP[18]	Chicago Plenum
USPOM	US point of assembly
WL[3,9]	Wet Location Listing
DPL	Damp Location Listing
PWS	6' Pre-Wire, 3/8" Diameter, 18 Gauge

* Requires longer lead time.

Notes

1. Supplied with lift and shift lay-in lens.
2. Supplied with snap-in lens.
3. Wet Location label not available with regressed lens, sensor options or PWS. Cannot be installed on vertical surfaces.
4. Not intended for post sheetrock installation.
5. Wall wash not available with RLP lens option.
6. MIN5 requires ECOD5 Control Input. ECOD5 only available with MIN5 dimming.
7. Not available with 2ft fixture sections or with E10WLCP, NLIGHT, sensors, or ECO options. Must select MIN1 option.
8. Remote mounted, not available with CP option. Battery kit is not wet listed, but can be used with WL fixture if installed in a dry location. If with ZT & API, APD or NLTAIR2, only available in 7′ or 8′ units.
9. Not available with ECOD, ECOD2 and ECOD5.
10. Standard 4′ EC section, defaults to end of run. 2ft, 3ft and 5ft powers entire fixture, 6ft powers 3ft EC section.
11. Only available with NODIM option.
12. Sensors not available with WW, NODIM driver, WL, RLP, downlights or 2′ or 3′ units. Not available with 347 & NLIGHT together. Default location for sensor is the left side of the fixture. For runs, the first fixture will include the sensor.
13. Requires ZT or NLIGHT Control Input.
14. Requires ZT, NLIGHT or NLTAIR2 Control Input.
15. MIN10 not available with 347, sensors, NLIGHT or NLTAIR2, requires ZT
16. ECOD and ECOD2 not available with sensors, requires MIN1 dimming. Must use 120 volt for ECOD2.
17. Must select MIN1 or DARK. Not available with RLP, WW, PDT, ADC or 347, DPL or WL. If with EC, cannot be on individual units, and on runs, the EC cannot be on the same section as NLTAIR2.
18. CP not available with NLTAIR2.
19. DALI is only available with DARK or MIN1. It is not available with sensors or downlights.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

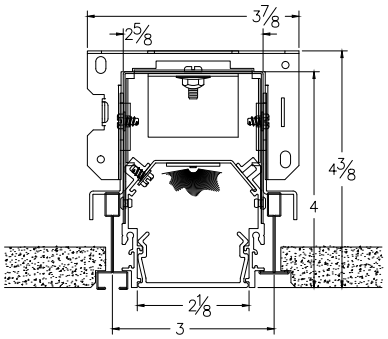
To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

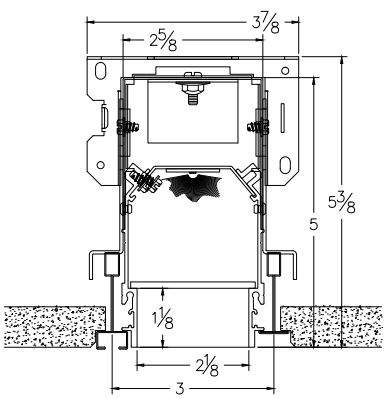
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

Technical Drawing

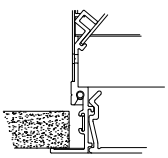


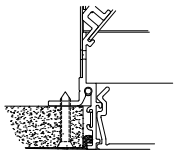
Flush - (FLP)

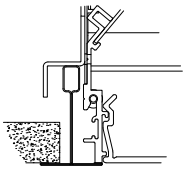


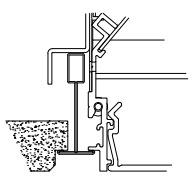
Regressed - (RLP)

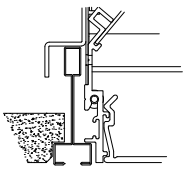
Ceiling Trim


FL
(Flanged sheetrock)

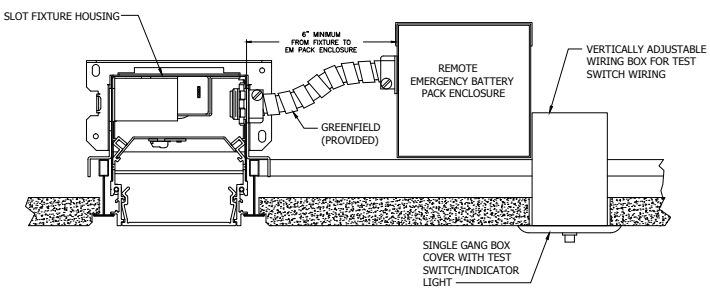

GB
(Flangeless sheetrock)


TG
(15/16" Grid)


TG
(9/16" Grid)


TG
(9/16" Slot Grid)

Remote Emergency Battery Mounting



Notes

- Delivers 700 lumens per 4FT length. Default location is the right side of fixture and end of run.
- Provided with 4FT of flexible conduit. Maximum of 25FT remote distance if extended. Extension provided by others.

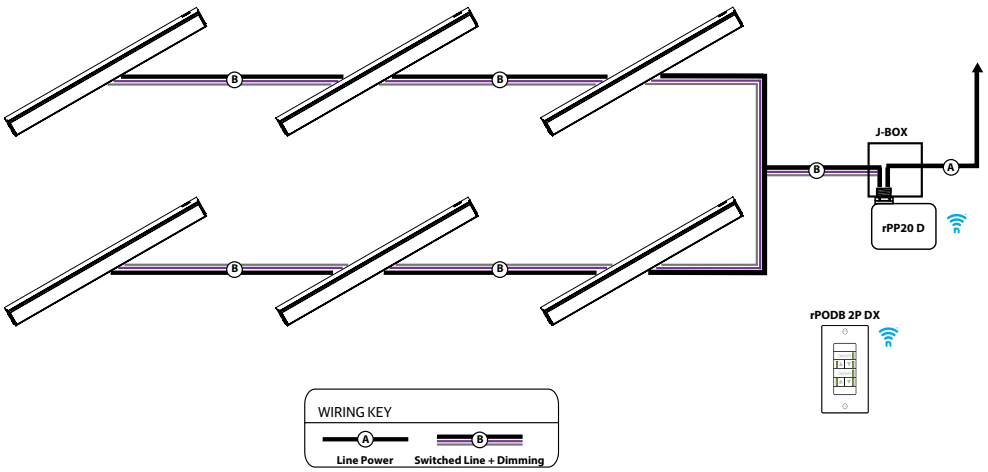
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

nLight Air Wireless

To Make fixture NLTAIR2 compatible the following components are required:

1) rpp20 D
2) rPODB 2P DX

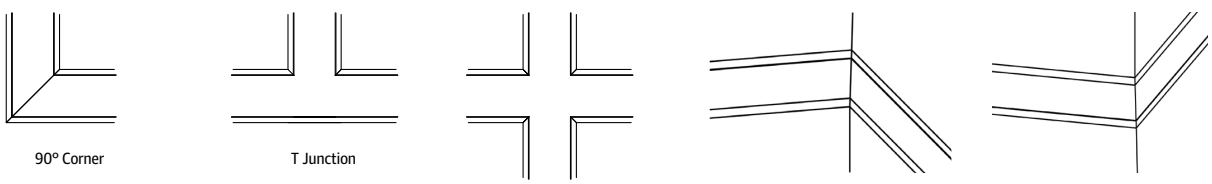


Continuous Runs

Slot 2 LED continuous rows can be configured in 1" increments.

Run Patterns, Corners and Junction

Slot 2 LED patterns be configured in 1' increments with illuminated 90° inside and outside corners, T junctions, and X junctions with standard 2' corner and junction lengths. For custom angles, corner or junction lengths, consult factory.



Layout Sketch

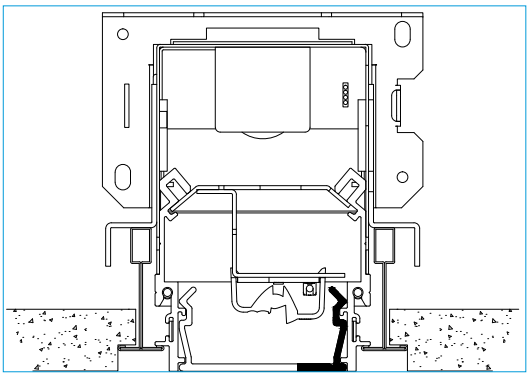
Please draw and configure your linear run below.

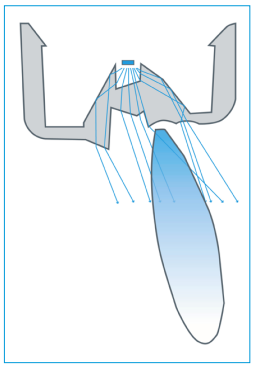
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

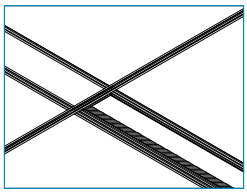
OPTICS

Slot LED's patent-pending, precision lumen DIRECTIR optics condition and refract light to deliver accurately controlled, striation-free, and uniform white light. All lumen DIRECTIR optics are injection-molded, optical grade, UV-resistant acrylic with selective finishing/polishing treatment.

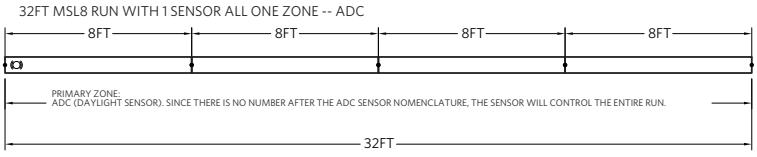




Optional Wall Wash (WW)



INTEGRATED SENSOR LAYOUT



Notes:
- Only one sensor per zone

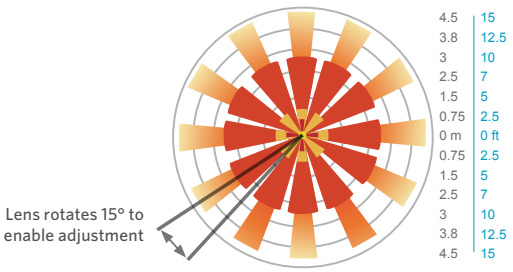
OCCUPANCY DETECTION COVERAGE

At the 7.5 ft (2.9 m) hanging height of a typical pendant mount fixture the sensor provides 10 ft (3.05 m) radial detection of small motion. At a 9 ft (2.74 m) hanging height the radius is 12 ft (3.66 m) for small motion.

Adequate for walking motion detection from mounting heights between 7.5 ft (2.29 m) and 20 ft (6.10 m).

Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor.

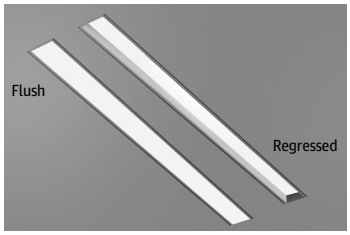
Initial detection of walking motion into long coverage segment will occur at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m). Lens assembly rotates 15° to enable adjustment in order to line up long segments.



Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** SL2L LOP 14FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**Type:** **RL-2-14'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear



Slot 2 LED takes both form and function a step further with increased efficacy and integral controls creating a digitally addressable luminaire that is perfect where visually harmonious illumination and energy efficiency are desired.

Slot 2 LED is the ideal choice for spaces that emphasize lines and clean contemporary design. It is a perfect fit for Armstrong TechZone™ ceiling systems. A regressed lens option provides added dimension to the sleek, slender design and the flush lens now has a Wet Label option.

Type:

Project:

Catalog Number:

DO NOT TYPE HERE. Autopopulated field.

Specification Features (continued on page 2)

Housing
Nominal 2" x 2', 3', 4', 5', 6', 7', 8' and continuous rows in 1" increments as standard, upper housing fabricated from cold-rolled steel with extruded aluminum ceiling trim.

Finish
Painted high reflectance matte white powder coat.

Reflector
Precision-formed steel; high reflectance matte white powder coat; 93% reflectivity.

Shielding
Flush Lens: Snap-in 90% transmissive satin acrylic lens.

Regressed Lens: Lay-in 90% transmissive satin acrylic lens.

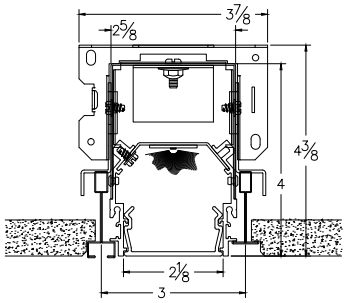
Mounting
Recessed. Available for sheetrock, 9/16" slot grid or 15/16" inverted tee ceilings, or 9/16" inverted tee.

Certification
CSA tested to UL 1598 standards. Optional Damp or Wet location listings available, see ordering tree. This product is IC rated.

Warranty
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: *Actual performance may differ as a result of end-user environment and application.*
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Technical Drawing



Flush - (FLP)

Fixture Performance - SL2L*

Lumens Output	400 LMF		600 LMF**		800LMF**		1000LMF	
Fixture Style	RLP	FLP	RLP	FLP	RLP	FLP	RLP	FLP
Delivered Lumens/FT	234	308	404	533	534	705	654	862
Input Watts/FT	4	4	6	6	8	8	11	11
Lumen/Watt	68	89	69	91	67	88	62	82

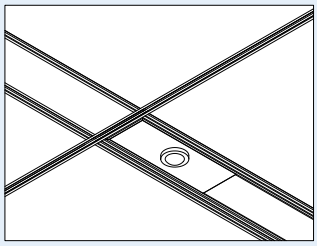
** CCT (35K)*
** Consult factory for customized lumen output and wattage*
***Based on calculated values*

LED Components
Linear: Nichia® - 757 Series LED chips (available in 80 or 90 CRI)

LED Life
Rated 65,000 hours (L80) at 25 °C ambient temperature.

Color Consistency
The Acuity Brands circuit boards for the linear LED components use a precise binning algorithm which creates a consistent color temperature from board to board. Color variation is no greater than a 2.5 Step MacAdam (2.5SDCM) along the black body locus from board to board.

Driver
eldoLED constant current driver options delivers ultra-smooth dimming resolution from 100% to 0.1%, while assuring flicker free, low current inrush, 89% efficiency and low EMI.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Submitted by The Lighting Group LLCChris Hamaker			
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MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

A+ Capable options indicated by this color background.

Ordering

Example: SL2L LOP 4FT FLP FL 80CRI 30K 600LMF DARK 277 EC NLIGHT

Series

SL2L	Slot 2 LED Linear Recessed

Linear Length Plan

LOP	Linear Optimized Plan

Total Run Length

2FT	2′	**7FT**	7′
3FT	3′	**8FT**	8′
4FT	4′	**_FT_**	*Specify continuous linear feet in 1" increments (7FT6 = 7FT 6IN)
5FT	5′	**14**	
6FT	6′		

Fixture Style

RLP[1,3]	Regressed Lens
FLP[2]	Flush Lens

Ceiling Trim

FL[4]	5/8" Flange(sheetrock)
TG	9/16" or 15/16" Flat or Inverted Tee
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1000LMF	1000 Lumens per FT
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(blank)	Standard Distribution
WW[5]	Wall Wash

Minimum Dimming Level

NODIM	Non - Dim
MIN1	Constant current, dimming to 1%
DARK	Constant current, dimming to 0.1%
MIN5[6]	Constant current, dimming to 5%
MIN10[15]	Constant current, dimming to 10%

Voltage

120	120V
277	277V
347[7]	347V

Finish

(blank)	White, textured
xxx/BLKT	Black, textured
xxx/SLVT	Silver, textured
xxx/RALTBD	RAL paint finish

xxx = fill in with the appropriate ceiling trim. Only trims are painted. RALTBD is for pricing only. Replace with applicable RAL number and texture when placing order.

Emergency Options

(blank)	No Emergency
__E10WLCP[8]	Number of 4ft Emergency Section(s) with battery pack
_EC[10]	# of Emergency Circuits

Control Input

(blank)	Non-dim[11]
ZT	0-10V
NLIGHT	nLight enabled
NLTAIR2[17]	nLight Air (Wireless Enabled)
ECOD*[,16]	Lutron Hi-Lume digital driver
ECOD2*[,16]	Lutron Hi-Lume 2-wire (1% dimming)
ECOD5*[,6]	Lutron 5-series digital driver (5% dimming)
DALI[19]	Dali

Primary Sensor[12]

(blank)	Single Zone, No Sensor
NS	Multi-zone, No Sensor Main Zone
PDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
ADC[13]	Daylight Dimming Sensor
API[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
APD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Secondary Sensor[12]

(blank)	No additional zones/sensors
SNS	Multi-zone, with no sensor in secondary zone
SPDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
SADC[13]	Daylight Dimming Sensor
SAPI[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
SAPD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Tertiary Zone

(blank)	No additional zones/sensors
TNS	Multi-zone, with no sensor in tertiary zone

Options

CP[18]	Chicago Plenum
USPOM	US point of assembly
WL[3,9]	Wet Location Listing
DPL	Damp Location Listing
PWS	6' Pre-Wire, 3/8" Diameter, 18 Gauge

* Requires longer lead time.

Notes

1. Supplied with lift and shift lay-in lens.
2. Supplied with snap-in lens.
3. Wet Location label not available with regressed lens, sensor options or PWS. Cannot be installed on vertical surfaces.
4. Not intended for post sheetrock installation.
5. Wall wash not available with RLP lens option.
6. MIN5 requires ECOD5 Control Input. ECOD5 only available with MIN5 dimming.
7. Not available with 2ft fixture sections or with E10WLCP, NLIGHT, sensors, or ECO options. Must select MIN1 option.
8. Remote mounted, not available with CP option. Battery kit is not wet listed, but can be used with WL fixture if installed in a dry location. If with ZT & API, APD or NLTAIR2, only available in 7′ or 8′ units.
9. Not available with ECOD, ECOD2 and ECOD5.
10. Standard 4′ EC section, defaults to end of run. 2ft, 3ft and 5ft powers entire fixture, 6ft powers 3ft EC section.
11. Only available with NODIM option.
12. Sensors not available with WW, NODIM driver, WL, RLP, downlights or 2′ or 3′ units. Not available with 347 & NLIGHT together. Default location for sensor is the left side of the fixture. For runs, the first fixture will include the sensor.
13. Requires ZT or NLIGHT Control Input.
14. Requires ZT, NLIGHT or NLTAIR2 Control Input.
15. MIN10 not available with 347, sensors, NLIGHT or NLTAIR2, requires ZT
16. ECOD and ECOD2 not available with sensors, requires MIN1 dimming. Must use 120 volt for ECOD2.
17. Must select MIN1 or DARK. Not available with RLP, WW, PDT, ADC or 347, DPL or WL. If with EC, cannot be on individual units, and on runs, the EC cannot be on the same section as NLTAIR2.
18. CP not available with NLTAIR2.
19. DALI is only available with DARK or MIN1. It is not available with sensors or downlights.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

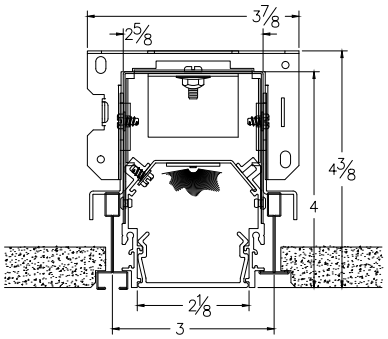
To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

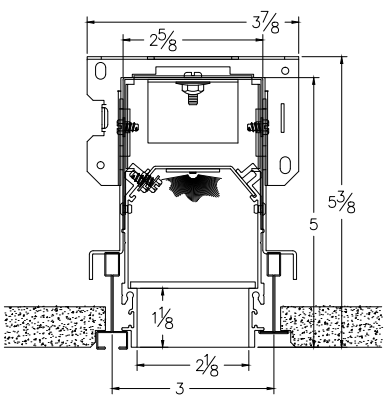
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

Technical Drawing

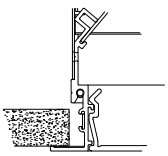


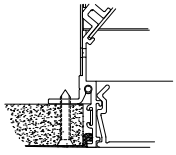
Flush - (FLP)

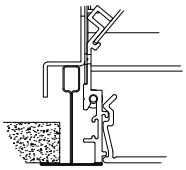


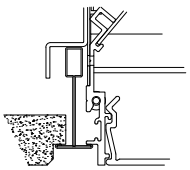
Regressed - (RLP)

Ceiling Trim


FL
(Flanged sheetrock)


GB
(Flangeless sheetrock)


TG
(15/16" Grid)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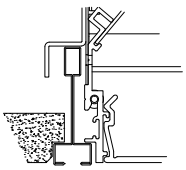
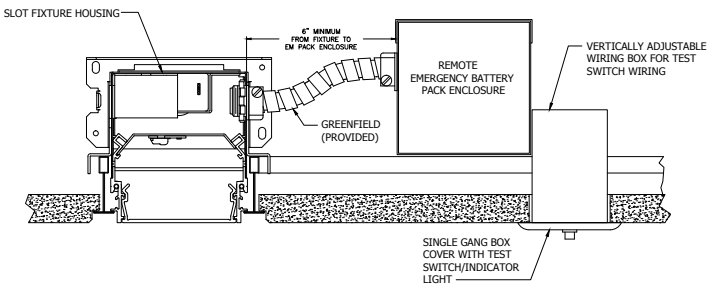

TG
(9/16" Slot Grid)

Remote Emergency Battery Mounting



Notes

- Delivers 700 lumens per 4FT length. Default location is the right side of fixture and end of run.
- Provided with 4FT of flexible conduit. Maximum of 25FT remote distance if extended. Extension provided by others.

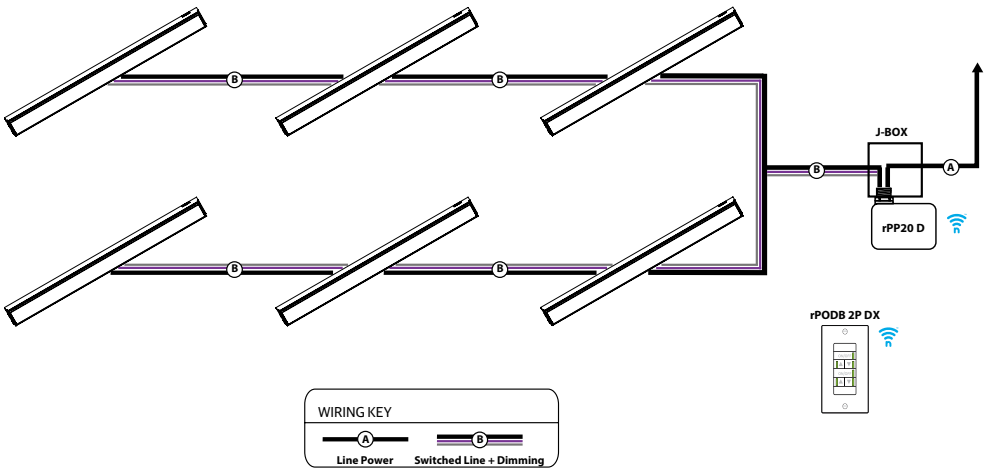
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

nLight Air Wireless

To Make fixture NLTAIR2 compatible the following components are required:

1) rpp20 D
2) rPODB 2P DX

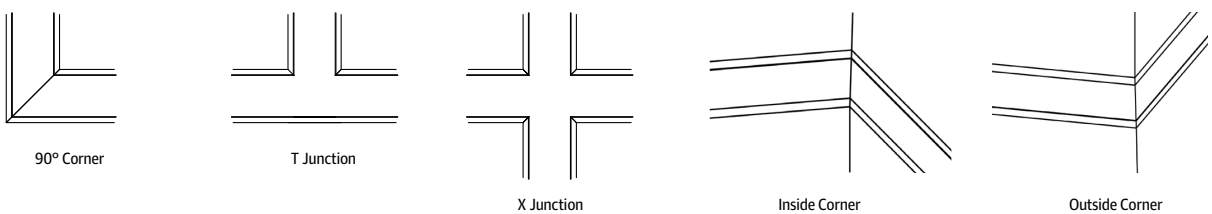


Continuous Runs

Slot 2 LED continuous rows can be configured in 1" increments.

Run Patterns, Corners and Junction

Slot 2 LED patterns be configured in 1' increments with illuminated 90° inside and outside corners, T junctions, and X junctions with standard 2' corner and junction lengths. For custom angles, corner or junction lengths, consult factory.



Layout Sketch

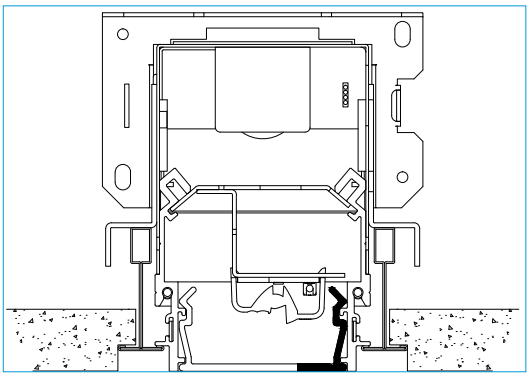
Please draw and configure your linear run below.

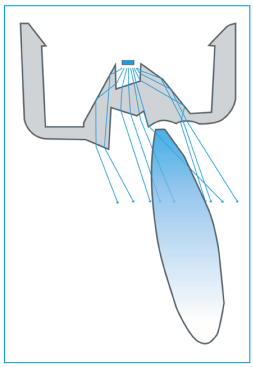
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

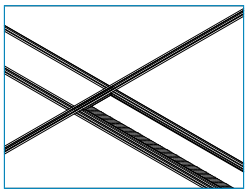
OPTICS

Slot LED's patent-pending, precision lumen DIRECTIR optics condition and refract light to deliver accurately controlled, striation-free, and uniform white light. All lumen DIRECTIR optics are injection-molded, optical grade, UV-resistant acrylic with selective finishing/polishing treatment.

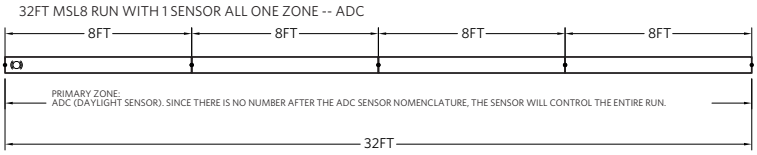




Optional Wall Wash (WW)



INTEGRATED SENSOR LAYOUT



Notes:
- Only one sensor per zone

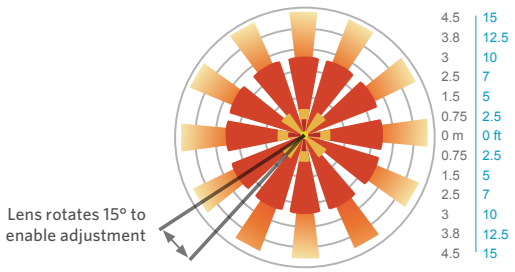
OCCUPANCY DETECTION COVERAGE

At the 7.5 ft (2.9 m) hanging height of a typical pendant mount fixture the sensor provides 10 ft (3.05 m) radial detection of small motion. At a 9 ft (2.74 m) hanging height the radius is 12 ft (3.66 m) for small motion.

Adequate for walking motion detection from mounting heights between 7.5 ft (2.29 m) and 20 ft (6.10 m).

Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor.

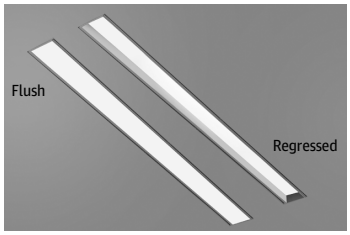
Initial detection of walking motion into long coverage segment will occur at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m). Lens assembly rotates 15° to enable adjustment in order to line up long segments.



Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** SL2L LOP 4FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**Type:** **RL-2-4'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear



Slot 2 LED takes both form and function a step further with increased efficacy and integral controls creating a digitally addressable luminaire that is perfect where visually harmonious illumination and energy efficiency are desired.

Slot 2 LED is the ideal choice for spaces that emphasize lines and clean contemporary design. It is a perfect fit for Armstrong TechZone™ ceiling systems. A regressed lens option provides added dimension to the sleek, slender design and the flush lens now has a Wet Label option.

Type:

Project:

Catalog Number:

DO NOT TYPE HERE. Autopopulated field.

Specification Features (continued on page 2)

Housing
Nominal 2" x 2', 3', 4', 5', 6', 7', 8' and continuous rows in 1" increments as standard, upper housing fabricated from cold-rolled steel with extruded aluminum ceiling trim.

Finish
Painted high reflectance matte white powder coat.

Reflector
Precision-formed steel; high reflectance matte white powder coat; 93% reflectivity.

Shielding
Flush Lens: Snap-in 90% transmissive satin acrylic lens.

Regressed Lens: Lay-in 90% transmissive satin acrylic lens.

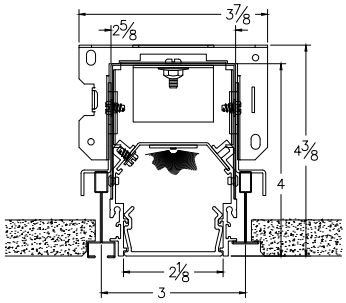
Mounting
Recessed. Available for sheetrock, 9/16" slot grid or 15/16" inverted tee ceilings, or 9/16" inverted tee.

Certification
CSA tested to UL 1598 standards. Optional Damp or Wet location listings available, see ordering tree. This product is IC rated.

Warranty
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: *Actual performance may differ as a result of end-user environment and application.*
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Technical Drawing



Flush - (FLP)

Fixture Performance - SL2L*

Lumens Output	400 LMF		600 LMF**		800LMF**		1000LMF	
Fixture Style	RLP	FLP	RLP	FLP	RLP	FLP	RLP	FLP
Delivered Lumens/FT	234	308	404	533	534	705	654	862
Input Watts/FT	4	4	6	6	8	8	11	11
Lumen/Watt	68	89	69	91	67	88	62	82

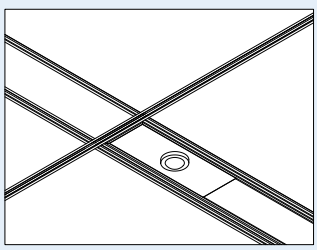
** CCT (35K)*
** Consult factory for customized lumen output and wattage*
***Based on calculated values*

LED Components
Linear: Nichia® - 757 Series LED chips (available in 80 or 90 CRI)

LED Life
Rated 65,000 hours (L80) at 25 °C ambient temperature.

Color Consistency
The Acuity Brands circuit boards for the linear LED components use a precise binning algorithm which creates a consistent color temperature from board to board. Color variation is no greater than a 2.5 Step MacAdam (2.5SDCM) along the black body locus from board to board.

Driver
eldoLED constant current driver options delivers ultra-smooth dimming resolution from 100% to 0.1%, while assuring flicker free, low current inrush, 89% efficiency and low EMI.


Occupancy Sensor (PDT) and/or Photocell (ADC)

Integrated Controls
Optional nLight® embedded controls make luminaire addressable- allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight enabled control devices using standard CAT5 Cabling. (Input option: NLIGHT)

Photometry
For photometric information refer to www.marklighting.com.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** SL2L LOP 4FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**Type:** **RL-2-4'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

A+ Capable options indicated by this color background.

Ordering

Example: SL2L LOP 4FT FLP FL 80CRI 30K 600LMF DARK 277 EC NLIGHT

Series

SL2L	Slot 2 LED Linear Recessed

Linear Length Plan

LOP	Linear Optimized Plan

Total Run Length

2FT	2′	**7FT**	7′
3FT	3′	**8FT**	8′
4FT	4′	**_FT_**	*Specify continuous linear feet in 1″ increments (7FT6 = 7FT 6IN)
5FT	5′		
6FT	6′		

Fixture Style

RLP[1,3]	Regressed Lens
FLP[2]	Flush Lens

Ceiling Trim

FL[4]	5/8″ Flange(sheetrock)
TG	9/16″ or 15/16″ Flat or Inverted Tee
GB[4]	Trimless (sheetrock)
WFL	Perimeter Mount, 5/8″ Flange (Sheetrock)
WTG	9/16″ Flat or Inverted Tee, Perimeter Mount

Direct Light Source Color Rendering

80CRI	80 CRI
90CRI	90 CRI

Direct LED Color Temp

27K*	2700K
30K	3000K
35K	3500K
40K	4000K
50K*	5000K

Direct LED Light Output

400LMF	400 Lumens per FT
600LMF	600 Lumens per FT
800LMF	800 Lumens per FT
1000LMF	1000 Lumens per FT
_LMF* [9]	## Lumens per FT (Limited to 300LMF to 1000LMF in 50LMF increments)

Direct Distribution

(blank)	Standard Distribution
WW[5]	Wall Wash

Minimum Dimming Level

NODIM	Non - Dim
MIN1	Constant current, dimming to 1%
DARK	Constant current, dimming to 0.1%
MIN5[6]	Constant current, dimming to 5%
MIN10[15]	Constant current, dimming to 10%

Voltage

120	120V
277	277V
347[7]	347V

Finish

(blank)	White, textured
xxx/BLKT	Black, textured
xxx/SLVT	Silver, textured
xxx/RALTBD	RAL paint finish

xxx = fill in with the appropriate ceiling trim. Only trims are painted. RALTBD is for pricing only. Replace with applicable RAL number and texture when placing order.

Emergency Options

(blank)	No Emergency
__E10WLCP[8]	Number of 4ft Emergency Section(s) with battery pack
_EC[10]	# of Emergency Circuits

Control Input

(blank)	Non-dim[11]
ZT	0-10V
NLIGHT	nLight enabled
NLTAIR2[17]	nLight Air (Wireless Enabled)
ECOD*[,16]	Lutron Hi-Lume digital driver
ECOD2*[,16]	Lutron Hi-Lume 2-wire (1% dimming)
ECOD5*[,6]	Lutron 5-series digital driver (5% dimming)
DALI[19]	Dali

Primary Sensor[12]

(blank)	Single Zone, No Sensor
NS	Multi-zone, No Sensor Main Zone
PDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
ADC[13]	Daylight Dimming Sensor
API[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
APD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Secondary Sensor[12]

(blank)	No additional zones/sensors
SNS	Multi-zone, with no sensor in secondary zone
SPDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
SADC[13]	Daylight Dimming Sensor
SAPI[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
SAPD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Tertiary Zone

(blank)	No additional zones/sensors
TNS	Multi-zone, with no sensor in tertiary zone

Options

CP[18]	Chicago Plenum
USPOM	US point of assembly
WL[3,9]	Wet Location Listing
DPL	Damp Location Listing
PWS	6' Pre-Wire, 3/8" Diameter, 18 Gauge

* Requires longer lead time.

Notes

1. Supplied with lift and shift lay-in lens.
2. Supplied with snap-in lens.
3. Wet Location label not available with regressed lens, sensor options or PWS. Cannot be installed on vertical surfaces.
4. Not intended for post sheetrock installation.
5. Wall wash not available with RLP lens option.
6. MIN5 requires ECOD5 Control Input. ECOD5 only available with MIN5 dimming.
7. Not available with 2ft fixture sections or with E10WLCP, NLIGHT, sensors, or ECO options. Must select MIN1 option.
8. Remote mounted, not available with CP option. Battery kit is not wet listed, but can be used with WL fixture if installed in a dry location. If with ZT & API, APD or NLTAIR2, only available in 7′ or 8′ units.
9. Not available with ECOD, ECOD2 and ECOD5.
10. Standard 4′ EC section, defaults to end of run. 2ft, 3ft and 5ft powers entire fixture, 6ft powers 3ft EC section.
11. Only available with NODIM option.
12. Sensors not available with WW, NODIM driver, WL, RLP, downlights or 2′ or 3′ units. Not available with 347 & NLIGHT together. Default location for sensor is the left side of the fixture. For runs, the first fixture will include the sensor.
13. Requires ZT or NLIGHT Control Input.
14. Requires ZT, NLIGHT or NLTAIR2 Control Input.
15. MIN10 not available with 347, sensors, NLIGHT or NLTAIR2, requires ZT
16. ECOD and ECOD2 not available with sensors, requires MIN1 dimming. Must use 120 volt for ECOD2.
17. Must select MIN1 or DARK. Not available with RLP, WW, PDT, ADC or 347, DPL or WL. If with EC, cannot be on individual units, and on runs, the EC cannot be on the same section as NLTAIR2.
18. CP not available with NLTAIR2.
19. DALI is only available with DARK or MIN1. It is not available with sensors or downlights.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
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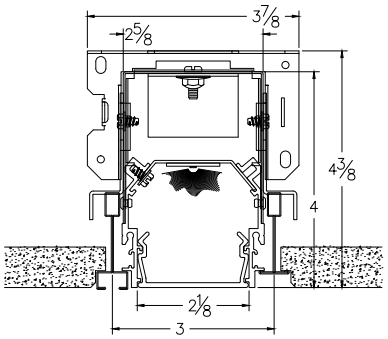
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

Technical Drawing



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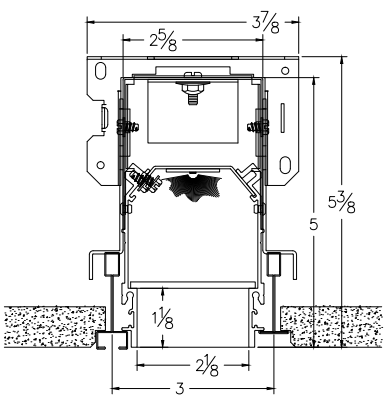

Regressed - (RLP)

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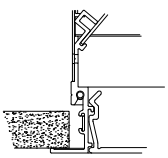
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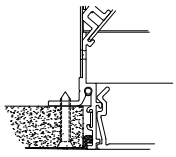
(Flanged sheetrock)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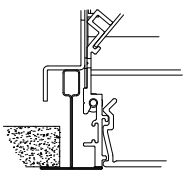
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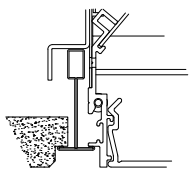
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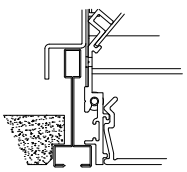
TG
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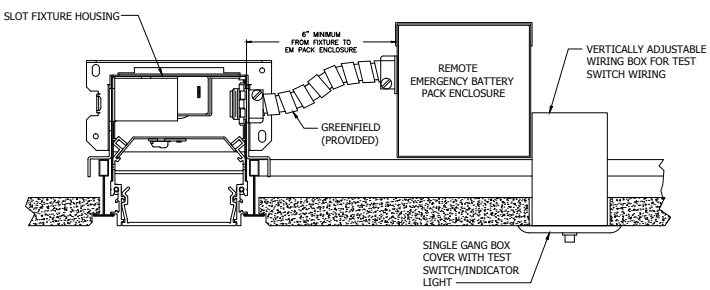

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MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

nLight Air Wireless

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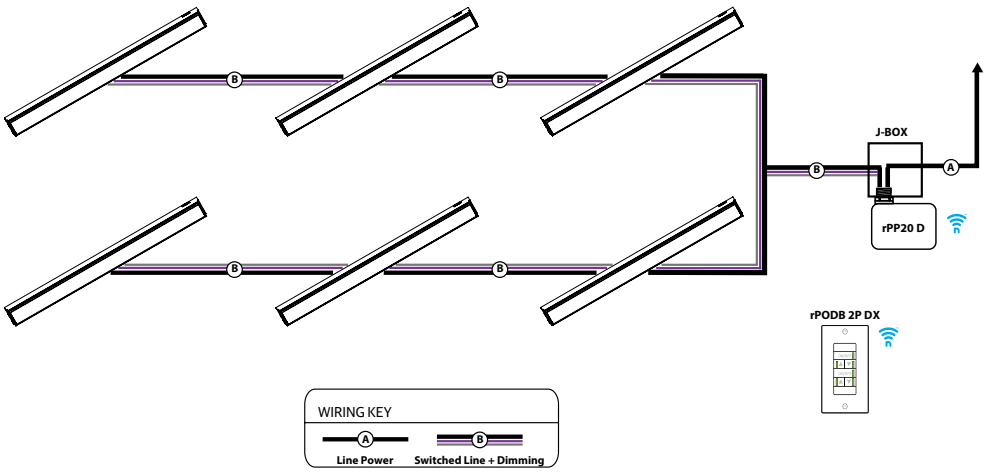

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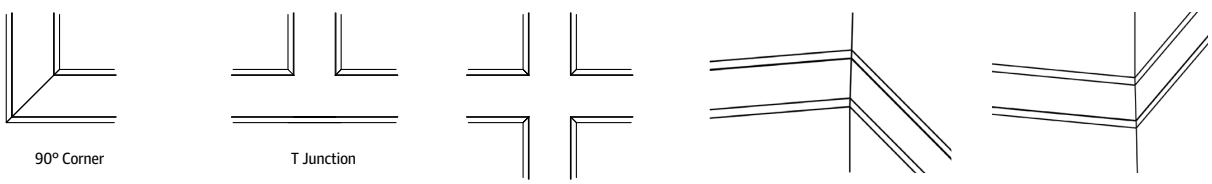

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Slot 2 LED
Recessed Linear

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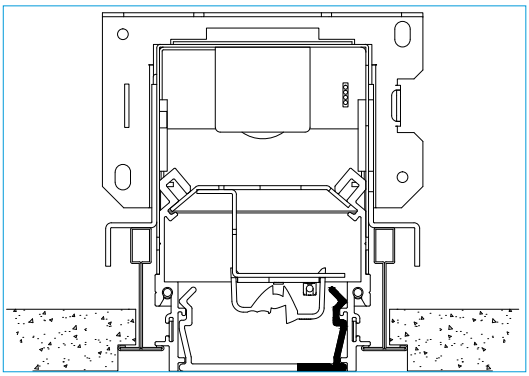

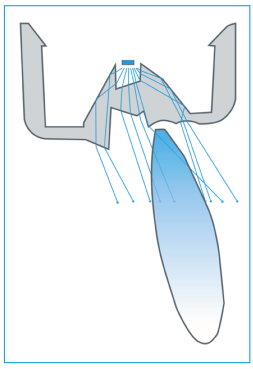

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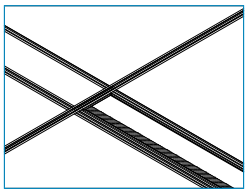
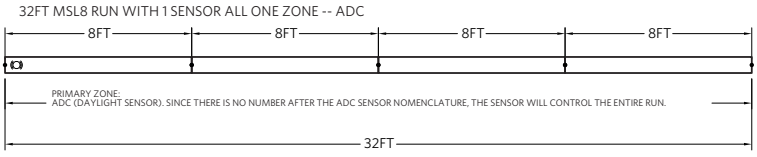


INTEGRATED SENSOR LAYOUT



Notes:
- Only one sensor per zone

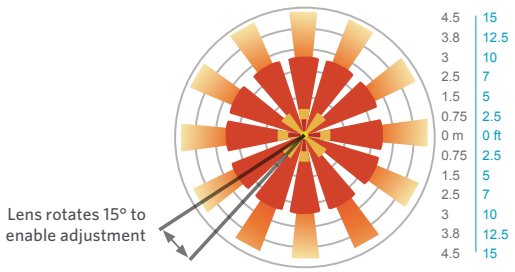
OCCUPANCY DETECTION COVERAGE

At the 7.5 ft (2.9 m) hanging height of a typical pendant mount fixture the sensor provides 10 ft (3.05 m) radial detection of small motion. At a 9 ft (2.74 m) hanging height the radius is 12 ft (3.66 m) for small motion.

Adequate for walking motion detection from mounting heights between 7.5 ft (2.29 m) and 20 ft (6.10 m).

Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor.

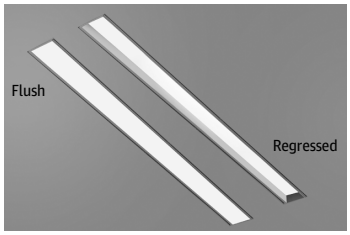
Initial detection of walking motion into long coverage segment will occur at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m). Lens assembly rotates 15° to enable adjustment in order to line up long segments.



Submitted by The Lighting Group LLCChris Hamaker	**Catalog Number:**	**Type:**
Job Name: Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	SL2L LOP 8FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**RL-2-8'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear



Slot 2 LED takes both form and function a step further with increased efficacy and integral controls creating a digitally addressable luminaire that is perfect where visually harmonious illumination and energy efficiency are desired.

Slot 2 LED is the ideal choice for spaces that emphasize lines and clean contemporary design. It is a perfect fit for Armstrong TechZone™ ceiling systems. A regressed lens option provides added dimension to the sleek, slender design and the flush lens now has a Wet Label option.

Type:

Project:

Catalog Number:
DO NOT TYPE HERE. Autopopulated field.

Specification Features (continued on page 2)

Housing
Nominal 2" x 2', 3', 4', 5', 6', 7', 8' and continuous rows in 1" increments as standard, upper housing fabricated from cold-rolled steel with extruded aluminum ceiling trim.

Finish
Painted high reflectance matte white powder coat.

Reflector
Precision-formed steel; high reflectance matte white powder coat; 93% reflectivity.

Shielding
Flush Lens: Snap-in 90% transmissive satin acrylic lens.

Regressed Lens: Lay-in 90% transmissive satin acrylic lens.

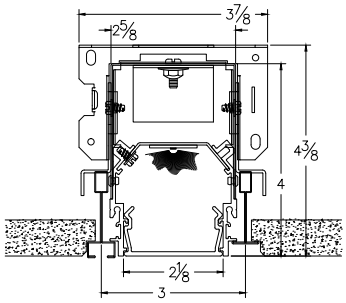
Mounting
Recessed. Available for sheetrock, 9/16" slot grid or 15/16" inverted tee ceilings, or 9/16" inverted tee.

Certification
CSA tested to UL 1598 standards. Optional Damp or Wet location listings available, see ordering tree. This product is IC rated.

Warranty
5-year limited warranty. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

Note: *Actual performance may differ as a result of end-user environment and application.*
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Technical Drawing



Flush - (FLP)

Fixture Performance - SL2L*

Lumens Output	400 LMF		600 LMF**		800LMF**		1000LMF	
Fixture Style	RLP	FLP	RLP	FLP	RLP	FLP	RLP	FLP
Delivered Lumens/FT	234	308	404	533	534	705	654	862
Input Watts/FT	4	4	6	6	8	8	11	11
Lumen/Watt	68	89	69	91	67	88	62	82

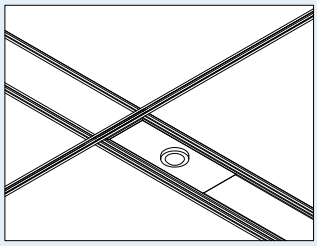
** CCT (35K)*
** Consult factory for customized lumen output and wattage*
***Based on calculated values*

LED Components
Linear: Nichia® - 757 Series LED chips (available in 80 or 90 CRI)

LED Life
Rated 65,000 hours (L80) at 25 °C ambient temperature.

Color Consistency
The Acuity Brands circuit boards for the linear LED components use a precise binning algorithm which creates a consistent color temperature from board to board. Color variation is no greater than a 2.5 Step MacAdam (2.5SDCM) along the black body locus from board to board.

Driver
eldoLED constant current driver options delivers ultra-smooth dimming resolution from 100% to 0.1%, while assuring flicker free, low current inrush, 89% efficiency and low EMI.


Occupancy Sensor (PDT) and/or Photocell (ADC)

Integrated Controls
Optional nLight® embedded controls make luminaire addressable- allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight enabled control devices using standard CAT5 Cabling. (Input option: NLIGHT)

Photometry
For photometric information refer to www.marklighting.com.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** SL2L LOP 8FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**Type:** **RL-2-8'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

A+ Capable options indicated by this color background.

Ordering

Example: SL2L LOP 4FT FLP FL 80CRI 30K 600LMF DARK 277 EC NLIGHT

Series

SL2L	Slot 2 LED Linear Recessed

Linear Length Plan

LOP	Linear Optimized Plan

Total Run Length

2FT	2′	**7FT**	7′
3FT	3′	**8FT**	8′
4FT	4′	**_FT_**	*Specify continuous linear feet in 1" increments (7FT6 = 7FT 6IN)
5FT	5′	**8**	
6FT	6′		

Fixture Style

RLP[1,3]	Regressed Lens
FLP[2]	Flush Lens

Ceiling Trim

FL[4]	5/8" Flange(sheetrock)
TG	9/16" or 15/16" Flat or Inverted Tee
GB[4]	Trimless (sheetrock)
WFL	Perimeter Mount, 5/8" Flange (Sheetrock)
WTG	9/16" Flat or Inverted Tee, Perimeter Mount

Direct Light Source Color Rendering

80CRI	80 CRI
90CRI	90 CRI

Direct LED Color Temp

27K*	2700K
30K	3000K
35K	3500K
40K	4000K
50K*	5000K

Direct LED Light Output

400LMF	400 Lumens per FT
600LMF	600 Lumens per FT
800LMF	800 Lumens per FT
1000LMF	1000 Lumens per FT
_LMF[*,9]	## Lumens per FT (Limited to 300LMF to 1000LMF in 50LMF increments)

Direct Distribution

(blank)	Standard Distribution
WW[5]	Wall Wash

Minimum Dimming Level

NODIM	Non - Dim
MIN1	Constant current, dimming to 1%
DARK	Constant current, dimming to 0.1%
MIN5[6]	Constant current, dimming to 5%
MIN10[15]	Constant current, dimming to 10%

Voltage

120	120V
277	277V
347[7]	347V

Finish

(blank)	White, textured
xxx/BLKT	Black, textured
xxx/SLVT	Silver, textured
xxx/RALTBD	RAL paint finish

xxx = fill in with the appropriate ceiling trim. Only trims are painted. RALTBD is for pricing only. Replace with applicable RAL number and texture when placing order.

Emergency Options

(blank)	No Emergency
__E10WLCP[8]	Number of 4ft Emergency Section(s) with battery pack
_EC[10]	# of Emergency Circuits

Control Input

(blank)	Non-dim[11]
ZT	0-10V
NLIGHT	nLight enabled
NLTAIR2[17]	nLight Air (Wireless Enabled)
ECOD*[,16]	Lutron Hi-Lume digital driver
ECOD2*[,16]	Lutron Hi-Lume 2-wire (1% dimming)
ECOD5*[,6]	Lutron 5-series digital driver (5% dimming)
DALI[19]	Dali

Primary Sensor[12]

(blank)	Single Zone, No Sensor
NS	Multi-zone, No Sensor Main Zone
PDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
ADC[13]	Daylight Dimming Sensor
API[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
APD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Secondary Sensor[12]

(blank)	No additional zones/sensors
SNS	Multi-zone, with no sensor in secondary zone
SPDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
SADC[13]	Daylight Dimming Sensor
SAPI[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
SAPD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Tertiary Zone

(blank)	No additional zones/sensors
TNS	Multi-zone, with no sensor in tertiary zone

Options

CP[18]	Chicago Plenum
USPOM	US point of assembly
WL[3,9]	Wet Location Listing
DPL	Damp Location Listing
PWS	6' Pre-Wire, 3/8" Diameter, 18 Gauge

* Requires longer lead time.

Notes

1. Supplied with lift and shift lay-in lens.
2. Supplied with snap-in lens.
3. Wet Location label not available with regressed lens, sensor options or PWS. Cannot be installed on vertical surfaces.
4. Not intended for post sheetrock installation.
5. Wall wash not available with RLP lens option.
6. MIN5 requires ECOD5 Control Input. ECOD5 only available with MIN5 dimming.
7. Not available with 2ft fixture sections or with E10WLCP, NLIGHT, sensors, or ECO options. Must select MIN1 option.
8. Remote mounted, not available with CP option. Battery kit is not wet listed, but can be used with WL fixture if installed in a dry location. If with ZT & API, APD or NLTAIR2, only available in 7′ or 8′ units.
9. Not available with ECOD, ECOD2 and ECOD5.
10. Standard 4′ EC section, defaults to end of run. 2ft, 3ft and 5ft powers entire fixture, 6ft powers 3ft EC section.
11. Only available with NODIM option.
12. Sensors not available with WW, NODIM driver, WL, RLP, downlights or 2′ or 3′ units. Not available with 347 & NLIGHT together. Default location for sensor is the left side of the fixture. For runs, the first fixture will include the sensor.
13. Requires ZT or NLIGHT Control Input.
14. Requires ZT, NLIGHT or NLTAIR2 Control Input.
15. MIN10 not available with 347, sensors, NLIGHT or NLTAIR2, requires ZT
16. ECOD and ECOD2 not available with sensors, requires MIN1 dimming. Must use 120 volt for ECOD2.
17. Must select MIN1 or DARK. Not available with RLP, WW, PDT, ADC or 347, DPL or WL. If with EC, cannot be on individual units, and on runs, the EC cannot be on the same section as NLTAIR2.
18. CP not available with NLTAIR2.
19. DALI is only available with DARK or MIN1. It is not available with sensors or downlights.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

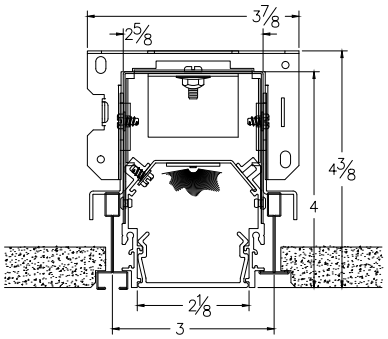
To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

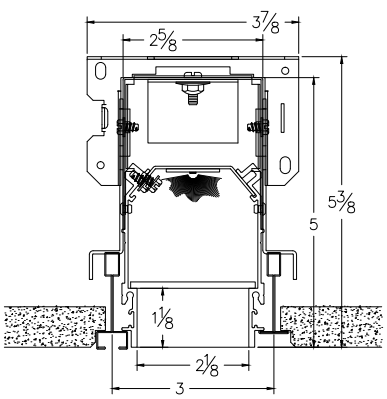
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

Technical Drawing

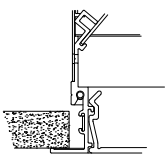


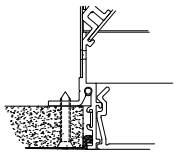
Flush - (FLP)

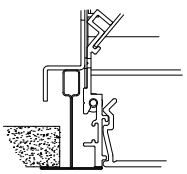


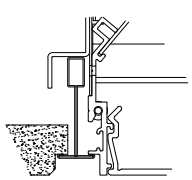
Regressed - (RLP)

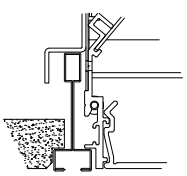
Ceiling Trim


FL
(Flanged sheetrock)

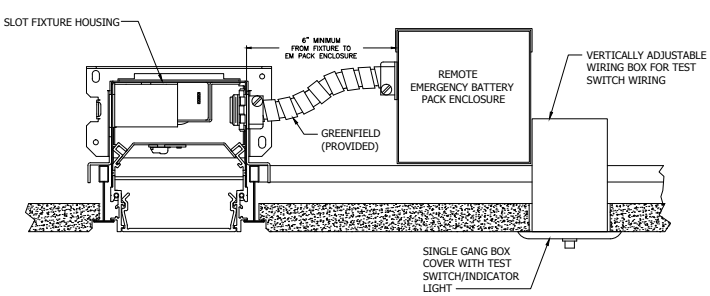

GB
(Flangeless sheetrock)


TG
(15/16" Grid)


TG
(9/16" Grid)


TG
(9/16" Slot Grid)

Remote Emergency Battery Mounting



Notes

- Delivers 700 lumens per 4FT length. Default location is the right side of fixture and end of run.
- Provided with 4FT of flexible conduit. Maximum of 25FT remote distance if extended. Extension provided by others.

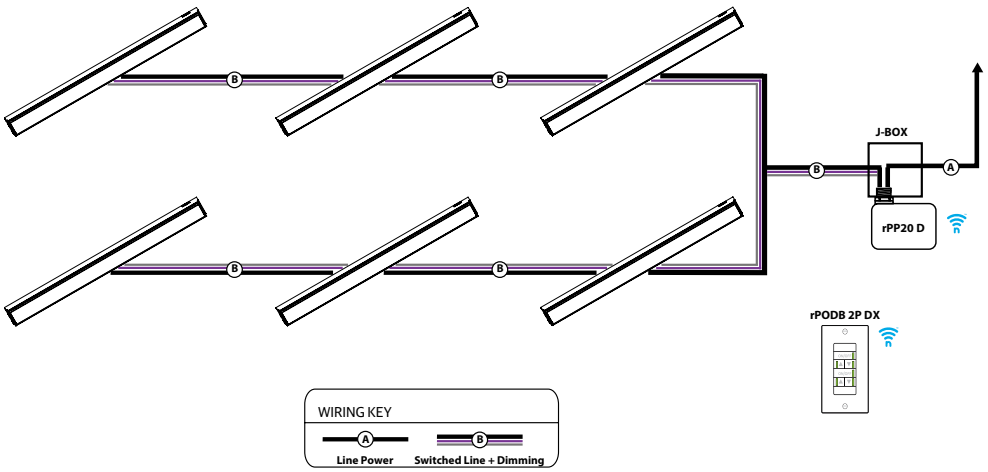
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

nLight Air Wireless

To Make fixture NLTAIR2 compatible the following components are required:

1) rpp20 D
2) rPODB 2P DX

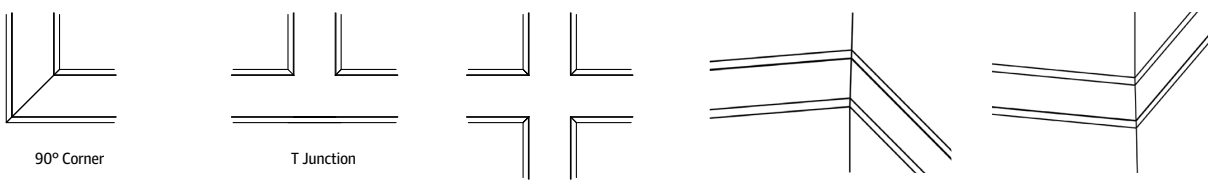


Continuous Runs

Slot 2 LED continuous rows can be configured in 1" increments.

Run Patterns, Corners and Junction

Slot 2 LED patterns be configured in 1' increments with illuminated 90° inside and outside corners, T junctions, and X junctions with standard 2' corner and junction lengths. For custom angles, corner or junction lengths, consult factory.



Layout Sketch

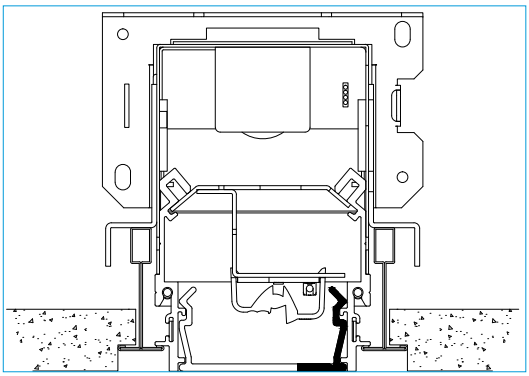
Please draw and configure your linear run below.

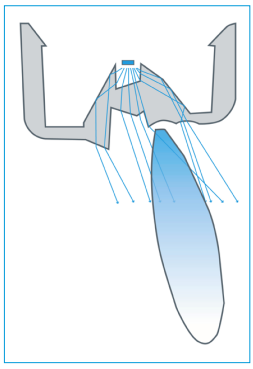
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

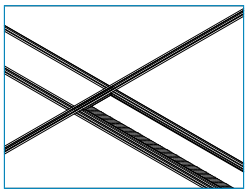
OPTICS

Slot LED's patent-pending, precision lumen DIRECTIR optics condition and refract light to deliver accurately controlled, striation-free, and uniform white light. All lumen DIRECTIR optics are injection-molded, optical grade, UV-resistant acrylic with selective finishing/polishing treatment.





Optional Wall Wash (WW)



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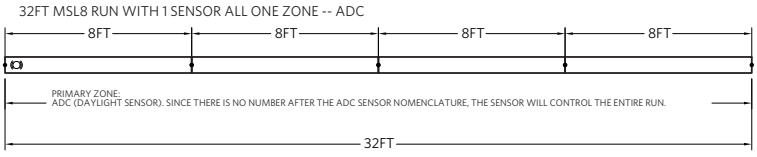

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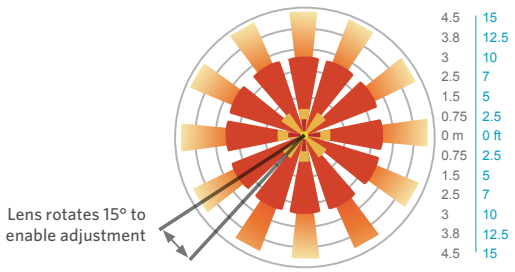
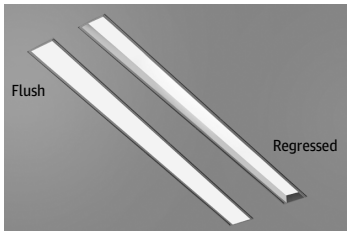


Submitted by The Lighting Group LLCChris Hamaker	Catalog Number:	Type:
Job Name: Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	SL2L LOP 7FT FLP FL 80CRI 30K 1000LMF MIN1 VOLT ZT Notes:	**RL-2-7'** LGNW21-81871

MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear



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Project:

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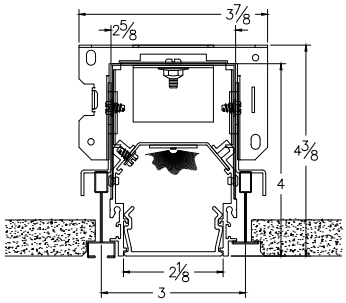

Flush - (FLP)

Fixture Performance - SL2L*

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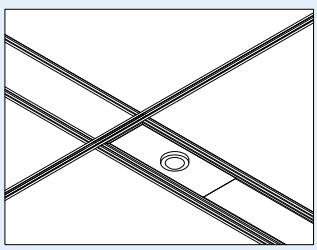
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MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

A+ Capable options indicated by this color background.

Ordering

Example: SL2L LOP 4FT FLP FL 80CRI 30K 600LMF DARK 277 EC NLIGHT

Series

SL2L	Slot 2 LED Linear Recessed

Linear Length Plan

LOP	Linear Optimized Plan

Total Run Length

2FT	2′	**7FT**	7′
3FT	3′	**8FT**	8′
4FT	4′	**_FT_**	*Specify continuous linear feet in 1" increments (7FT6 = 7FT 6IN)
5FT	5′	**7**	
6FT	6′		

Fixture Style

RLP[1,3]	Regressed Lens
FLP[2]	Flush Lens

Ceiling Trim

FL[4]	5/8" Flange(sheetrock)
TG	9/16" or 15/16" Flat or Inverted Tee
GB[4]	Trimless (sheetrock)
WFL	Perimeter Mount, 5/8" Flange (Sheetrock)
WTG	9/16" Flat or Inverted Tee, Perimeter Mount

Direct Light Source Color Rendering

80CRI	80 CRI
90CRI	90 CRI

Direct LED Color Temp

27K*	2700K
30K	3000K
35K	3500K
40K	4000K
50K*	5000K

Direct LED Light Output

400LMF	400 Lumens per FT
600LMF	600 Lumens per FT
800LMF	800 Lumens per FT
1000LMF	1000 Lumens per FT
_LMF[*,9]	## Lumens per FT (Limited to 300LMF to 1000LMF in 50LMF increments)

Direct Distribution

(blank)	Standard Distribution
WW[5]	Wall Wash

Minimum Dimming Level

NODIM	Non - Dim
MIN1	Constant current, dimming to 1%
DARK	Constant current, dimming to 0.1%
MIN5[6]	Constant current, dimming to 5%
MIN10[15]	Constant current, dimming to 10%

Voltage

120	120V
277	277V
347[7]	347V

Finish

(blank)	White, textured
xxx/BLKT	Black, textured
xxx/SLVT	Silver, textured
xxx/RALTBD	RAL paint finish

xxx = fill in with the appropriate ceiling trim. Only trims are painted. RALTBD is for pricing only. Replace with applicable RAL number and texture when placing order.

Emergency Options

(blank)	No Emergency
__E10WLCP[8]	Number of 4ft Emergency Section(s) with battery pack
_EC[10]	# of Emergency Circuits

Control Input

(blank)	Non-dim[11]
ZT	0-10V
NLIGHT	nLight enabled
NLTAIR2[17]	nLight Air (Wireless Enabled)
ECOD*[,16]	Lutron Hi-Lume digital driver
ECOD2*[,16]	Lutron Hi-Lume 2-wire (1% dimming)
ECOD5*[,6]	Lutron 5-series digital driver (5% dimming)
DALI[19]	Dali

Primary Sensor[12]

(blank)	Single Zone, No Sensor
NS	Multi-zone, No Sensor Main Zone
PDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
ADC[13]	Daylight Dimming Sensor
API[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
APD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Secondary Sensor[12]

(blank)	No additional zones/sensors
SNS	Multi-zone, with no sensor in secondary zone
SPDT[13]	Dual Technology Occupancy Sensor, PIR and Microphonics Sensor
SADC[13]	Daylight Dimming Sensor
SAPI[14]	Passive Infrared Occupancy Sensor and Daylight Dimming Sensor
SAPD[14]	Dual Technology Occupancy Sensor and Daylight Dimming Sensor

Tertiary Zone

(blank)	No additional zones/sensors
TNS	Multi-zone, with no sensor in tertiary zone

Options

CP[18]	Chicago Plenum
USPOM	US point of assembly
WL[3,9]	Wet Location Listing
DPL	Damp Location Listing
PWS	6' Pre-Wire, 3/8" Diameter, 18 Gauge

* Requires longer lead time.

Notes

1. Supplied with lift and shift lay-in lens.
2. Supplied with snap-in lens.
3. Wet Location label not available with regressed lens, sensor options or PWS. Cannot be installed on vertical surfaces.
4. Not intended for post sheetrock installation.
5. Wall wash not available with RLP lens option.
6. MIN5 requires ECOD5 Control Input. ECOD5 only available with MIN5 dimming.
7. Not available with 2ft fixture sections or with E10WLCP, NLIGHT, sensors, or ECO options. Must select MIN1 option.
8. Remote mounted, not available with CP option. Battery kit is not wet listed, but can be used with WL fixture if installed in a dry location. If with ZT & API, APD or NLTAIR2, only available in 7′ or 8′ units.
9. Not available with ECOD, ECOD2 and ECOD5.
10. Standard 4′ EC section, defaults to end of run. 2ft, 3ft and 5ft powers entire fixture, 6ft powers 3ft EC section.
11. Only available with NODIM option.
12. Sensors not available with WW, NODIM driver, WL, RLP, downlights or 2′ or 3′ units. Not available with 347 & NLIGHT together. Default location for sensor is the left side of the fixture. For runs, the first fixture will include the sensor.
13. Requires ZT or NLIGHT Control Input.
14. Requires ZT, NLIGHT or NLTAIR2 Control Input.
15. MIN10 not available with 347, sensors, NLIGHT or NLTAIR2, requires ZT
16. ECOD and ECOD2 not available with sensors, requires MIN1 dimming. Must use 120 volt for ECOD2.
17. Must select MIN1 or DARK. Not available with RLP, WW, PDT, ADC or 347, DPL or WL. If with EC, cannot be on individual units, and on runs, the EC cannot be on the same section as NLTAIR2.
18. CP not available with NLTAIR2.
19. DALI is only available with DARK or MIN1. It is not available with sensors or downlights.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

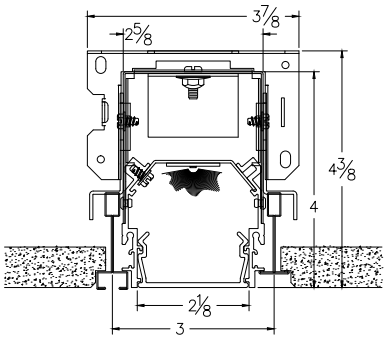
To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

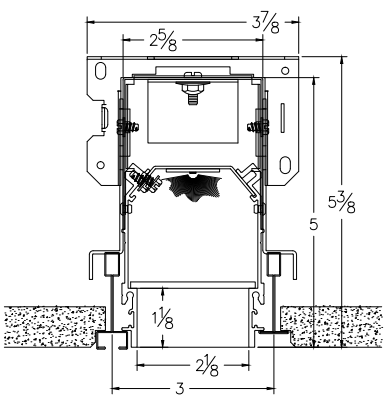
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

Technical Drawing

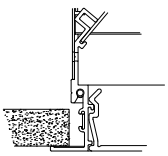


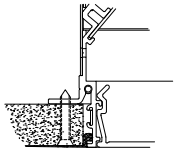
Flush - (FLP)

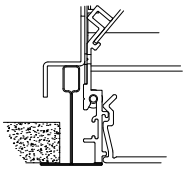


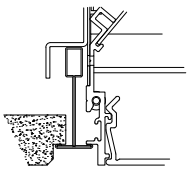
Regressed - (RLP)

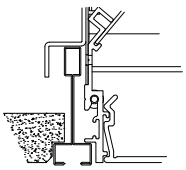
Ceiling Trim


FL
(Flanged sheetrock)

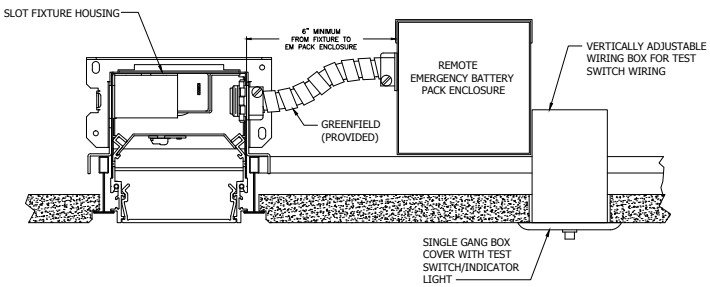

GB
(Flangeless sheetrock)


TG
(15/16" Grid)


TG
(9/16" Grid)


TG
(9/16" Slot Grid)

Remote Emergency Battery Mounting



Notes

- Delivers 700 lumens per 4FT length. Default location is the right side of fixture and end of run.
- Provided with 4FT of flexible conduit. Maximum of 25FT remote distance if extended. Extension provided by others.

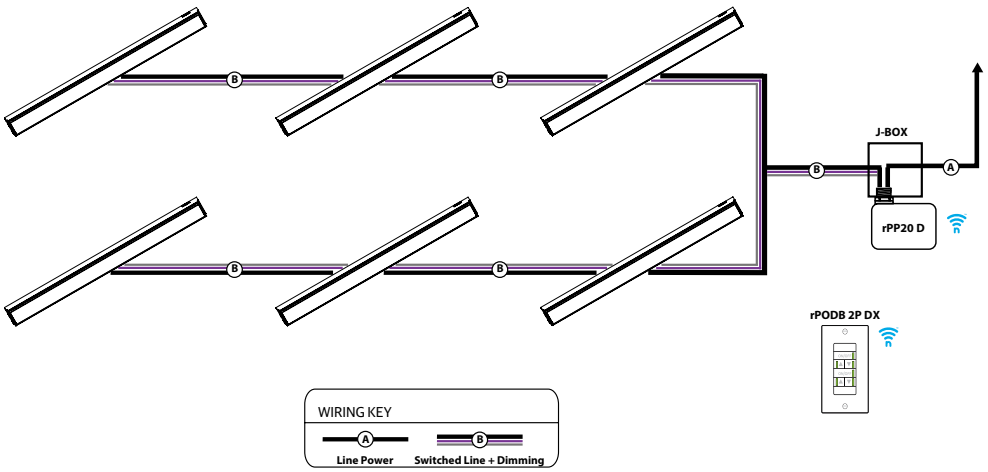
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

nLight Air Wireless

To Make fixture NLTAIR2 compatible the following components are required:

1) rpp20 D
2) rPODB 2P DX

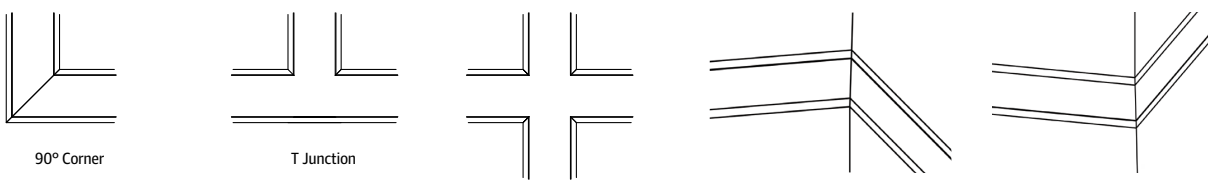


Continuous Runs

Slot 2 LED continuous rows can be configured in 1" increments.

Run Patterns, Corners and Junction

Slot 2 LED patterns be configured in 1' increments with illuminated 90° inside and outside corners, T junctions, and X junctions with standard 2' corner and junction lengths. For custom angles, corner or junction lengths, consult factory.



Layout Sketch

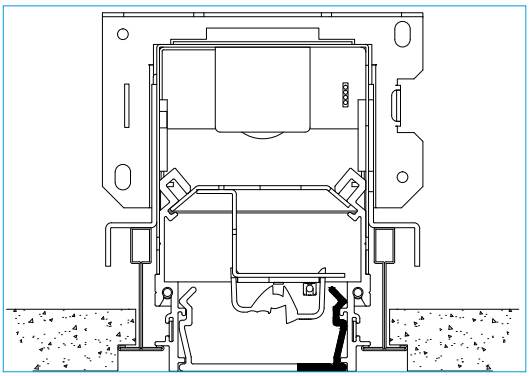
Please draw and configure your linear run below.

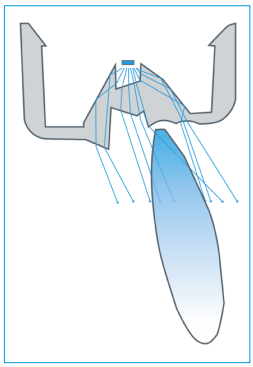
MARK ARCHITECTURAL LIGHTING™

Slot 2 LED
Recessed Linear

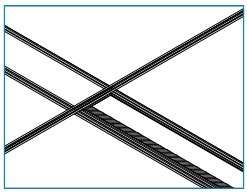
OPTICS

Slot LED's patent-pending, precision lumen DIRECTIR optics condition and refract light to deliver accurately controlled, striation-free, and uniform white light. All lumen DIRECTIR optics are injection-molded, optical grade, UV-resistant acrylic with selective finishing/polishing treatment.

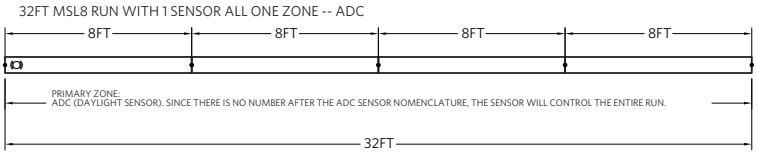




Optional Wall Wash (WW)



INTEGRATED SENSOR LAYOUT



Notes:
- Only one sensor per zone

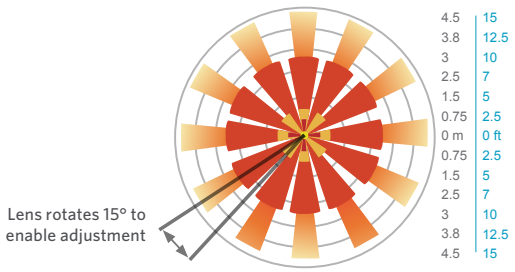
OCCUPANCY DETECTION COVERAGE

At the 7.5 ft (2.9 m) hanging height of a typical pendant mount fixture the sensor provides 10 ft (3.05 m) radial detection of small motion. At a 9 ft (2.74 m) hanging height the radius is 12 ft (3.66 m) for small motion.

Adequate for walking motion detection from mounting heights between 7.5 ft (2.29 m) and 20 ft (6.10 m).

Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor.

Initial detection of walking motion into long coverage segment will occur at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m). Lens assembly rotates 15° to enable adjustment in order to line up long segments.



Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** 33 242-K3-STANDARD FINISH Notes:	**Type:** **WL-1** LGNW21-81871

Wall luminaires with directed light

Housing: One piece die-cast aluminum supplied with universal mounting bracket for direct attachment to 3½" or 4" octagonal wiring box. Die castings are marine grade, copper free (≤ 0.3% copper content) A360.0 aluminum alloy.

Enclosure: One piece die-cast aluminum cover frame secured by captive socket head, stainless steel screws threaded into stainless steel inserts. Semi-specular, anodized aluminum internal reflector. Stippled tempered clear glass. Fully gasketed for weather tight operation using a molded silicone rubber O-ring gasket.

Electrical: 17.9W LED luminaire, 22.9 total system watts, -30°C start temperature. Integral 120V through 277V electronic LED driver, 0-10V dimming. LED module(s) are available from factory for easy replacement. Standard LED color temperature is 3000K with an 90 CRI. Available in 4000K (90 CRI); add suffix K4 to order.

Note: LEDs supplied with luminaire. Due to the dynamic nature of LED technology, LED luminaire data on this sheet is subject to change at the discretion of BEGA-US. For the most current technical data, please refer to www.bega-us.com.

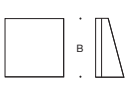
Finish All BEGA standard finishes are polyester powder coat with minimum 3 mil thickness. Available in four standard BEGA colors: Black (BLK); White (WHT); Bronze (BRZ); Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order

CSA certified to U.S. and Canadian standards, suitable for wet locations. Protection class IP65

Weight: lbs.

Luminaire Lumens: 1893

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:



		Lamp	A	B	C
33 242	ADA	17.9W LED	8	8	3¾

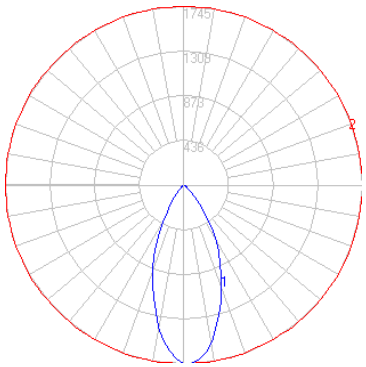
BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 FAX (805) 566-9474 www.bega-us.com

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** 33 242-K3-STANDARD FINISH Notes:	**Type:** **WL-1** LGNW21-81871

BEGA

Photometric Filename: 33242.ies

TEST:	BE_33242
TEST LAB:	BEGA
DATE:	4/2/2013
LUMINAIRE:	33 242
LAMP:	17.9W LED



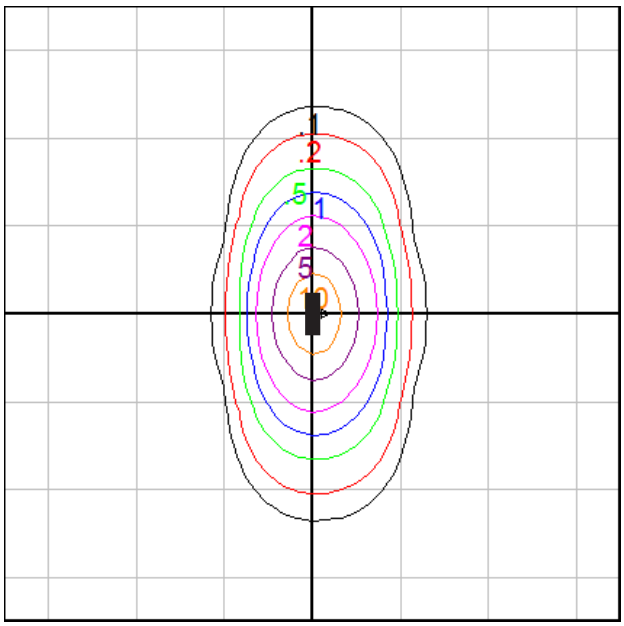
Characteristics

IES Classification	Type I
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1893
Downward Total Efficiency	N.A.
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	83
Total Luminaire Watts	22.9
Ballast Factor	1.00
Upward Waste Light Ratio	0.00
Max. Cd.	1745.055 (360H, 0V)
Max. Cd. (<90 Vert.)	1745.055 (360H, 0V)
Max. Cd. (At 90 Deg. Vert.)	0 (0.0%Lum)
Max. Cd. (80 to <90 Deg. Vert.)	3.901 (0.2%Lum)
Cutoff Classification (deprecated)	N.A. (absolute)

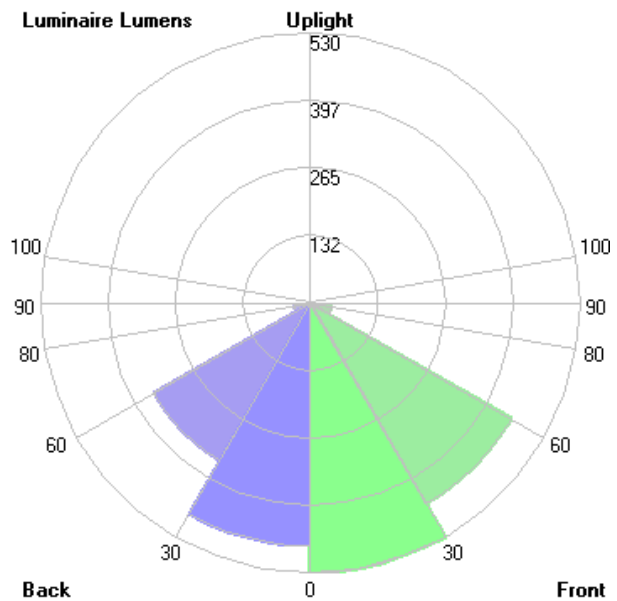
Lum. Classification System (LCS)

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	529.9	N.A.	28.0
FM (30-60)	455.2	N.A.	24.0
FH (60-80)	42.2	N.A.	2.2
FVH (80-90)	0.1	N.A.	0.0
BL (0-30)	477.6	N.A.	25.2
BM (30-60)	356.1	N.A.	18.8
BH (60-80)	31.7	N.A.	1.7
BVH (80-90)	0.1	N.A.	0.0
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	1892.9	N.A.	100.0

BUG Rating **B1-U0-G0**



Mounting Height = 10 ft. Grid Spacing = 10 ft.



In the interest of product improvement, BEGA reserves the right to make technical changes without notice.

Submitted by The Lighting Group LLCChris Hamaker			
TLG	**Job Name:** Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	**Catalog Number:** LE S 1/2 G EL N SD Notes:	**Type:** **EXIT** LGNW21-81871

LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	

LE surface

Signature®

Die-Cast Aluminum Exits

LE and LRE

LRE recessed

CERTIFIED IN TITLE 20 †

LED

FEATURES & SPECIFICATIONS

INTENDED USE — Ideal for applications requiring attractive die-cast aluminum signage, superior illumination and low energy consumption.

CONSTRUCTION — Precision-molded, die-cast aluminum construction — ultra-slim, compact housing. Fine-grain brushed aluminum faceplate with matte black electrostatic polymeric trim. Clear lacquer finish on brushed face inhibits fingerprints and other surface contaminants.

All electronics located inside housing.

Fully overlapping light seal prevents light leaks. Universal directional chevron knockouts are completely concealed and easily removed. Hinged faceplate and spring latches for easy lamp compartment access, no exposed hardware.

Letters 6" high with 3/4" stroke, with 100 ft viewing distance rating, based upon UL924 standards.

U.S. Patent No. 5,739,639, 5,954,423 and 6,502,044. Canada Patent No. 2,204,218. Other patents pending.

OPTICS — Lamp is constructed using new LED technology. Provides perfectly uniform illumination to meet 3/4" letter stroke required by code.

The typical life of the exit LED lamp is 10 years, based on continuous operation. Unique LED lamp platform accommodates both single-face and double-face exits.

Low energy consumption — red exit consumes std .81W, 1.3W (120V), green exit consumes std is 1W, 1.5W (120V). Universal input voltage capabilities (120V through 277V, 50 or 60 HZ).

ELECTRICAL — Solid-state electronic elements to eliminate risk of electromechanical failures.

Surge protection meets ANSI/IEEE C62.41 category B and IEC 1000 immunity standards for high voltage surges, electrostatic discharges, high frequency electrical fast transients and line voltage dips/swells.

Emergency Operation (for EL N option only): Battery: Sealed, maintenance-free nickel-cadmium battery delivers 90 minutes capacity to lamp.

Self-diagnostics (SD option only): Two-state constant-current charger maximizes battery life and automatically recharges after battery discharge. Test switch provided for manual testing.

Self-diagnostic testing for five minutes every 30 days, 30 minutes at 180-day interval, and 90 minutes annually.

Diagnostic evaluation of LED light source, AC to DC transfer, charging and battery condition.

Continuously monitors AC functionality.

Low voltage disconnect prevents excessive deep discharge that can permanently damage the battery.

Single-point microcomputer control for all electronic features.

Crystal oscillator timing system with watchdog protection for precision accuracy.

AC/LVD reset allows battery connection before AC power is applied and prevents battery damage from deep discharge.

Brownout protection is automatically switched to emergency mode when supply voltage drops below 80% of nominal.

Single multi-chromatic LED indicator to display two-state charging, test activation and three-state diagnostic status.

Test switch provides manual activation of 30-second diagnostic testing for on-demand visual inspection.

INSTALLATION — Universal mounting (top, end or back). Double face available with top or end mounting only. LRE: Trim ring has 3/4" depth adjustment to ensure a flush fit against the surface. Protrudes 1/10" from the surface. No exposed hardware.

Die-cast aluminum canopy provided for surface mount only.

LISTINGS — UL damp location listed 50°F - 104°F (10°C - 40°C). Meets UL 924, NFPA 101 (current Life Safety Code), NEC and OSHA illumination standards. North Carolina Department of Insurance.

WARRANTY — 5-year limited warranty. (Battery is prorated.) Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

† Small Battery Chargers Certified in the CA Title 20 Appliance Efficiency Database.

ORDERING INFORMATION

For shortest lead times, configure products using **bolded options**.

Example: LE S 1 R EL N SD

SPECIFY

Series	Face type	Housing color	Number of faces	Letter color	Input voltage	Operation	Options
LE LED, surface mount	**S** Stencil	**(blank)** Matte black, brushed aluminum face	**1** Single face	**R** Red	**(blank)** Universal input voltage (120-277V, 50 or 60 HZ)	**(blank)** AC only	(blank) None
LRE LED, recessed	P Panel [1]	BZ Dark bronze	**2** Double face [2]	**G** Green		EL N Nickel-cadmium battery back-up	TP Two tamper proof Torx-head screws
		W White				X2 Lamp wired on two separate AC circuits [3]	VR Vandal-resistant shield (1/8" thick polycarbonate) [4]
		B Matte black					FI FA Field selectable fire alarm interface or flashing emergency operation with intermittent audible alarm (one flash per minute) [5]
							FI Fire alarm flashing interface [6]
							FA Flashing emergency operation and intermittent audible alarm [7]
							SD Self-diagnostics [7]

Accessories: *Order as separate catalog number.*

ELA US12	12" stem kit (see spec sheet ELA-StemKits) [2,8]	ELA ERK	Recess mounting rough-in kit for LRE only (see spec sheet ELA-ERK)
ELA WG1	Back-mount wire guard (see spec sheet ELA-WG) [2]		
ELA WGEXT	Top-mount wire guard (see spec sheet ELA-WG) [2]		
ELA WGEXE	End-mount wire guard (see spec sheet ELA-WG) [2]		

Notes

1. Panel face available for special wording only (see Custom Signage spec sheet).
2. Not available with LRE models.
3. UL Listed as emergency lighting.
4. VR contains tamper proof screws.
5. Available with SD option only.
6. Available with AC only or EL N operation only.
7. Available with EL N option only.
8. Add W for white.

Submitted by The Lighting Group LLCChris Hamaker	Catalog Number:	Type:
Job Name: Confederated Tribes of Chehalis Indian Reservation - Elders Center Project Phase Architect: ARC Architects (Seattle) Engineer: TFWB Engineers (Travis Fitzmaurice	LE S 1/2 G EL N SD Notes:	**EXIT** LGNW21-81871

LE-LRE LED, Signature

SPECIFICATIONS

ELECTRICAL				
Primary circuit				
Type	**Typical LED life[1]**	**Supply voltage**	**Input watts**	**Max. amps**
Red LED AC only	10 Years	120	0.81	0.05
		277	1.2	0.06
Green LED AC only	10 Years	120	1.05	0.05
		277	1.32	0.06
Red LED emergency	10 Years	120	1.3	0.06
		277	1.4	0.07
Green LED emergency	10 Years	120	1.5	0.07
		277	1.7	0.07

BATTERY			
Sealed Nickel-Cadmium			
Shelf life[2]	**Typical life[2]**	**Maintenance[3]**	**Temperature range[4]**
3 years	7-9 years	none	50°F – 104°F (10°C – 40°C)

Notes

1 The typical life of the exit LED lamp is 10 years, based on continuous operation.

2 At 77°F (25°C).

3 All life safety equipment, including emergency lighting for path of egress must be maintained, serviced, and tested in accordance with all National Fire Protection Association (NFPA) and local codes. Failure to perform the required maintenance, service, or testing could jeopardize the safety of occupants and will void all warranties.

4 Optimum ambient temperature range where unit will provide capacity for 90 minutes. Higher and lower temperatures affect life and capacity.

SELF-DIAGNOSTICS
(SD option only)

- Five-minute test every 30 days
- 30-minute test every six months
- 90-minute test annually
- Diagnostics evaluate the battery, lamp, charger and AC to DC transfer.

Condition	Indication
Normal mode	Steady green
Self-testing	Flashing green
Emergency mode	Off
Hi-charge	Steady red
Battery failure	Single-flash red
Lamp failure	Double-flash red
Circuit failure	Triple-flash red

KEY FEATURE

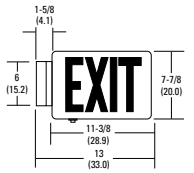
The typical life of the exit LED lamp is 10 years.

MOUNTING

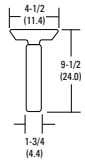
All dimensions are in inches (centimeters). For VR option, add 1/4" to height and width. Add 1/8" depth for single face; 1/4" depth for double face.

Shipping weight: LE - 4 lbs (1.8 kgs)
LE EL N- 5 lbs (2.3 kgs)
LRE - 4 lbs (1.8 kgs)
LRE EL N - 5 lbs (2.3 kgs)

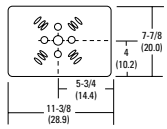
LE - End Mounting



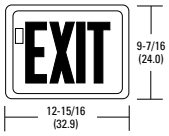
LE - Top Mounting

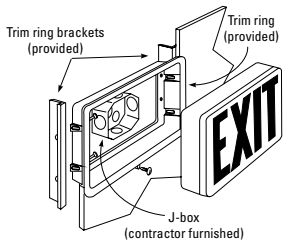


LE - Back Mounting



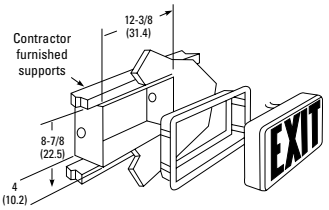
STANDARD MOUNTING





Wall opening dimensions: 8-3/4" H x 12-3/8" W x 1-3/4" D

MOUNTING WITH OPTIONAL ROUGH-IN KIT (ELA ERK)



Wall opening dimensions: 8-7/8" H x 12-3/8" W x 4" D

Advancement of Construction Technology

Print Form

SUBSTITUTION REQUEST

(During The Bidding Phase)

Project:	Chehalis Tribal Elders Center	Substitution Request Nbr:	
	Niederman Rd Oakville WA	From:	Automatic Door Solutions
To:	Pacific Northern Environmental	Date:	Jun 8, 2021
	1121 Columbia Blvd Longview WA	A/E Project Number	2020006.100
Re:	Doug Palmer	Contract For:	15,106.00

Specification Title:	Automatic Door Operators			Description:	Low Energy Operators
Section:	08 71 13	Page:	371	Article/Paragraph:	2.1 Manufacturer

Proposed Substitution: Tormax 1301 Swing Door Operator

Manufacturer:	Tormax	Address:	San Antonio Texas	Phone:	888-685-3707
Trade Name:	Door Operator			Model No:	TX 1301

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted By:	Troy Dearing		
Signed By:	Troy C Dearing		
Firm:	Automatic Door Solutions		
Address:	10811 153rd St Ct E	Telephone:	253-797-6569
	Puyallup WA 98374		

A/E's REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Section 01330.

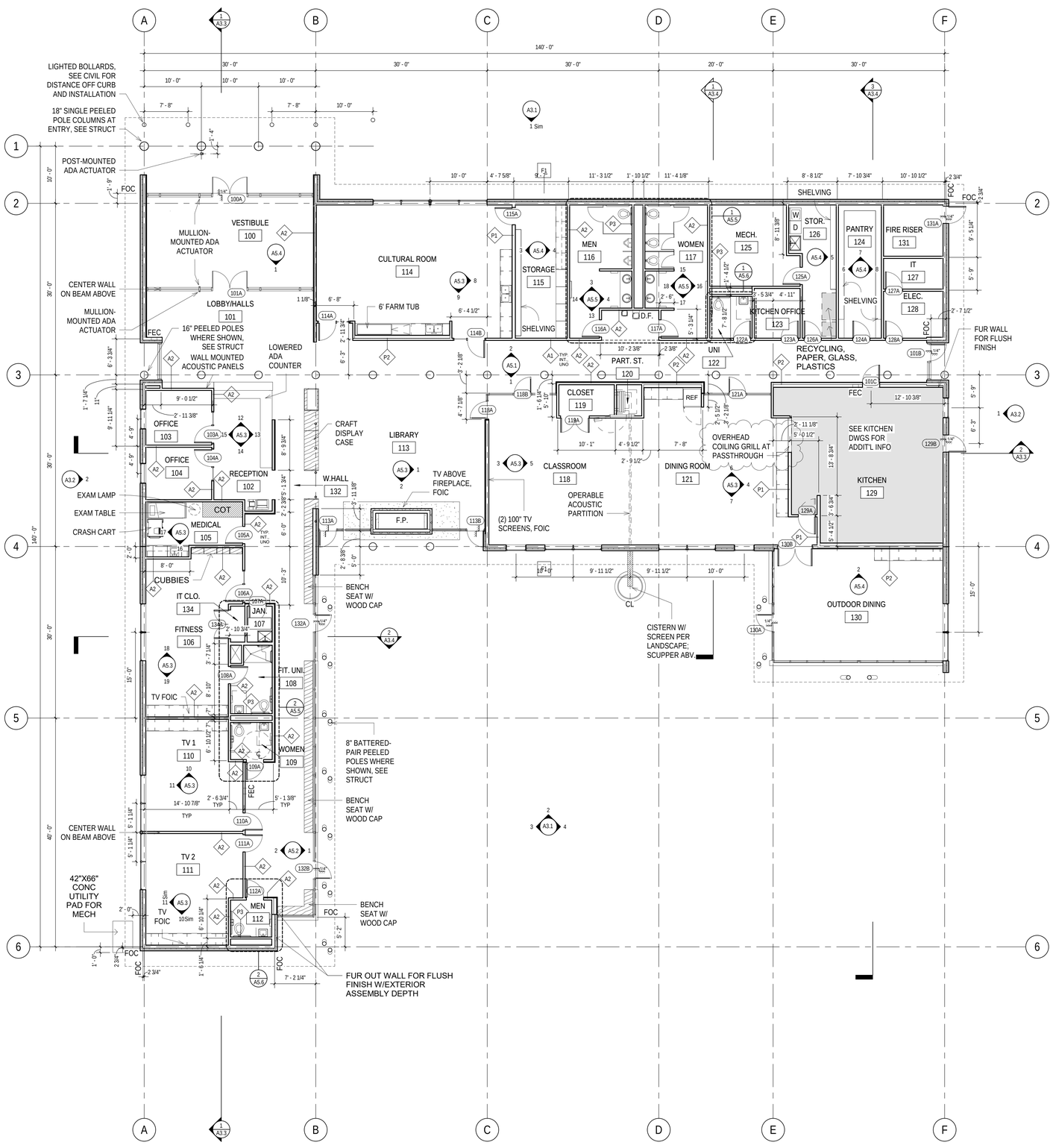
☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01330.

☐ Substitution rejected - Use specified materials.

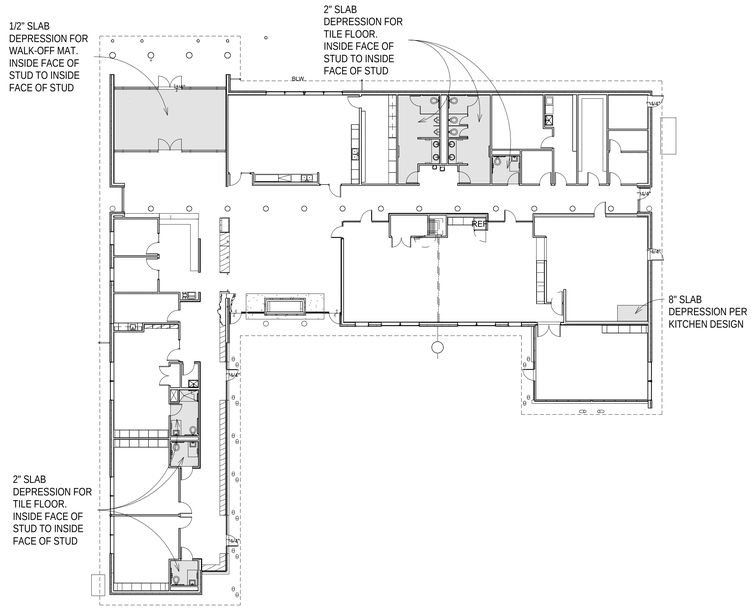
☐ Substitution Request received too late - Use specified materials.

Signed By: _____ Date: _____

Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports



1 FLOOR PLAN
1/8" = 1'-0"



2 SLAB PLAN
1/16" = 1'-0"

PLAN NOTES:

1. REFER TO T1.0 FOR GENERAL NOTES.
2. SEE CIVIL & LANDSCAPE DRAWINGS FOR EXTERIOR OF BUILDING CONDITIONS BEYOND THE BUILDING PERIMETER.
3. SEE A7.1 FOR TYPICAL INTERIOR PARTITIONS. ALL PARTITIONS ARE TYPE 'A1', U.N.O.
4. SEE BUILDING SECTIONS FOR TYPICAL WALL, FLOOR, AND SLAB BUILDING ASSEMBLIES, U.O.N.
5. SEE BUILDING ELEVATIONS FOR WINDOW TYPES AND DESCRIPTIONS
6. REFER TO SCHEDULE SHEETS FOR ADDITIONAL INFORMATION.
7. NOT ALL REQUIRED ACCESS PANELS HAVE BEEN SHOWN. PROVIDE ACCESS PANELS AS REQUIRED. COORDINATE THEIR LOCATION WITH ALL MECHANICAL AND ELECTRICAL ITEMS LOCATED IN CEILINGS AND PAINT TO MATCH ADJACENT SURFACES.
8. SEE FINISH PLANS FOR CONTROL JOINT AND EXPANSION JOINT LOCATIONS AT EXPOSED TO VIEW CONCRETE FLOORS.
9. ROOMS WITH CAPACITY GREATER THAN 50 OCCUPANTS SHALL HAVE CLEARLY VISIBLE SIGNAGE INDICATING OCCUPANT CAPACITY FOR THAT ROOM.
10. AT LOCATIONS WHERE SHEAR WALLS OCCUR ALONG A PORTION OF A WALL, CONTRACTOR IS TO PROVIDE ADDITIONAL PLYWOOD FOR NON-SHEAR LENGTH OF WALL TO NEAREST CORNER SO AS TO PROVIDE A SMOOTH AND FLUSH SURFACE.

LEGEND

ROOM NAME
101
ROOM NAME
ROOM NUMBER

DIMENSION POINT OR ELEVATION

F.E.C.
FIRE EXTINGUISHER RECESSED MOUNTED

EXTERIOR ELEVATION — 1 Ref — A1.1 — DRAWING # SHEET #

INTERIOR ELEVATION — 1 Ref — A1.1 — DRAWING # SHEET #

BUILDING SECTION — 1 — A1.1 — DRAWING # SHEET #

DETAILS — 1 — A1.1 — DETAIL # SHEET #

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BID DOCUMENTS

ISSUE DATE: APRIL 16, 2021

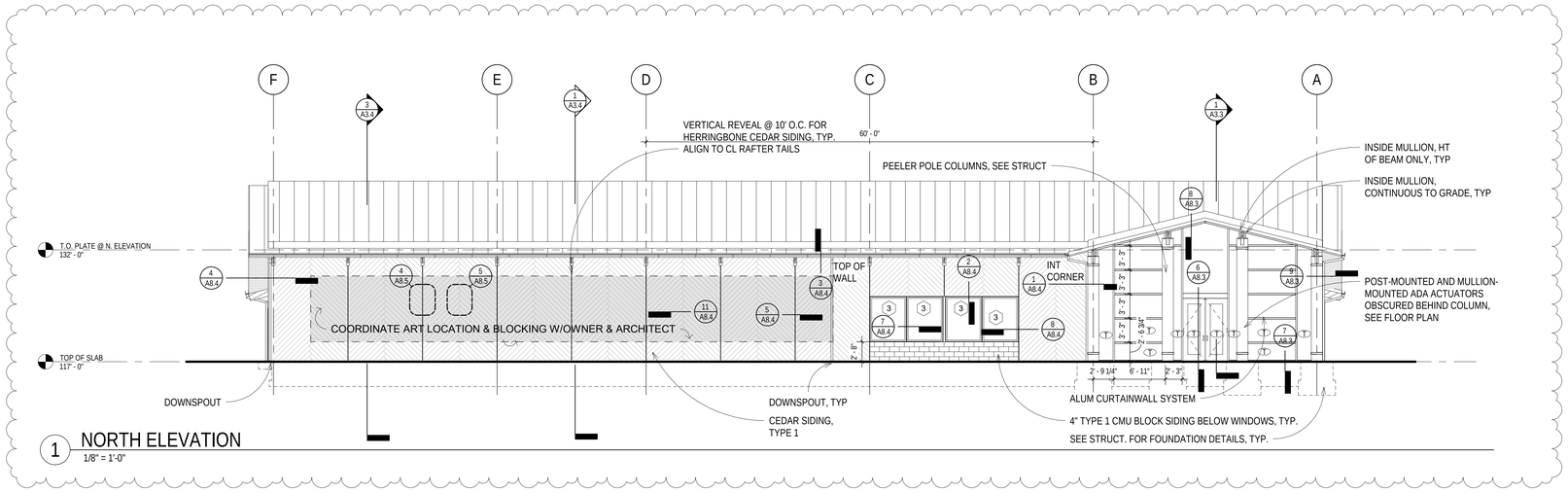
REVISION	DATE	DESCRIPTION
BIDDERS	JUNE 14, 2021	ADDENDUM 1

CONTENTS:

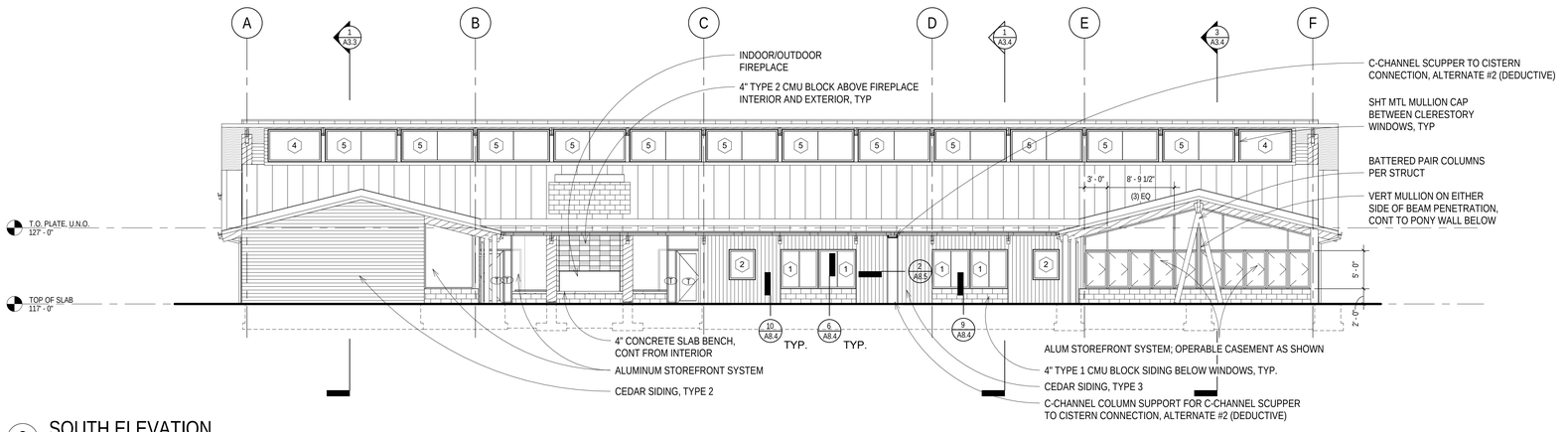
1st FLOOR PLAN

SCALE:	**As indicated**
DRAWN:	**AW**
CHECKED:	**PRC**
PROJECT NO:	2020006.100

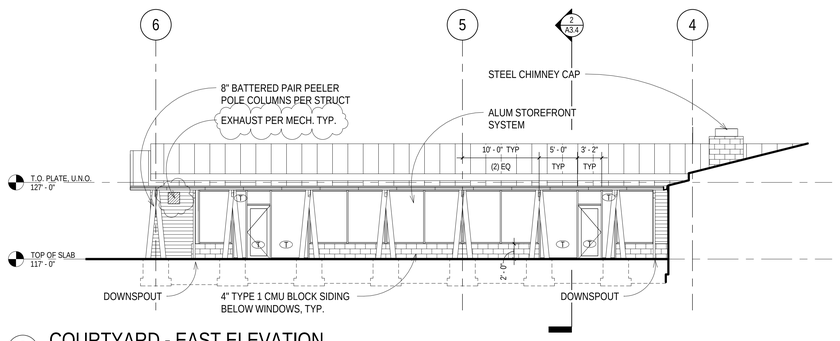
SHEET:
A2.1



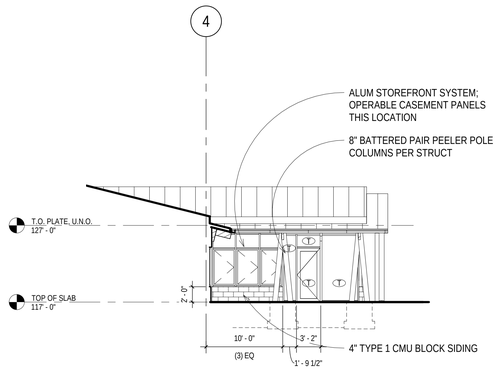
1 NORTH ELEVATION
1/8" = 1'-0"



2 SOUTH ELEVATION
1/8" = 1'-0"



3 COURTYARD - EAST ELEVATION
1/8" = 1'-0"



4 COURTYARD - WEST ELEVATION
1/8" = 1'-0"

GLAZING TO WALL RATIO

GLAZING TOTAL:	2,581 SF	30%
WALL TOTAL:	6,029 SF	70%
GRAND TOTAL:	8,610 SF	100%

ELEVATION LEGEND

CLEAR, UN-TEMPERED GLASS

TEMPERED GLASS

ELEVATION NOTES:

1. REFER TO T1.0 FOR PROJECT GENERAL NOTES.
2. REFER TO A8.1 FOR SEALING OF WALL OPENINGS & PENETRATIONS
3. SEE BUILDING SECTIONS FOR EXTERIOR WALL AND ROOF ASSEMBLIES
4. REFER TO ROOF PLANS FOR ROOF DETAIL CALLOUTS AND DESCRIPTIONS
5. DRAWINGS INDICATE GENERAL & TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER, TYPICAL DETAILS SHALL APPLY.
6. SEE A10.1 FOR FINISHES ON EXTERIOR BUILDING COMPONENTS SCHEDULE.
7. STOREFRONT AND CURTAINWALL ALUMINUM WINDOW SYSTEMS NOT INCLUDED IN WINDOW SCHEDULE. REFER TO ELEVATIONS.

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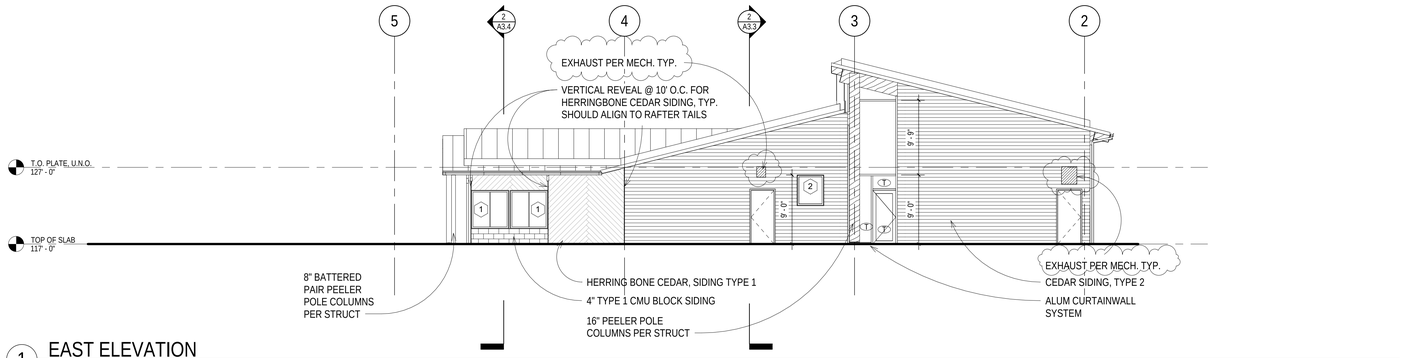
CONTENTS:

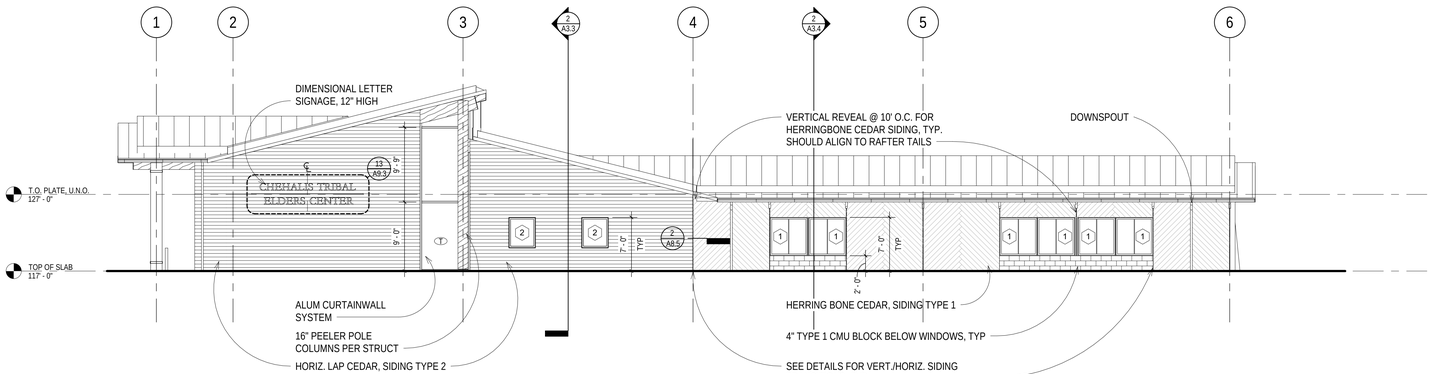
EXTERIOR ELEVATIONS

SCALE:	As indicated
DRAWN:	AW
CHECKED:	PRC
PROJECT NO:	2020006.100

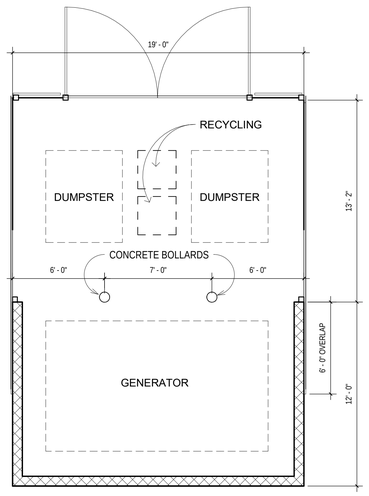
SHEET: A3.1



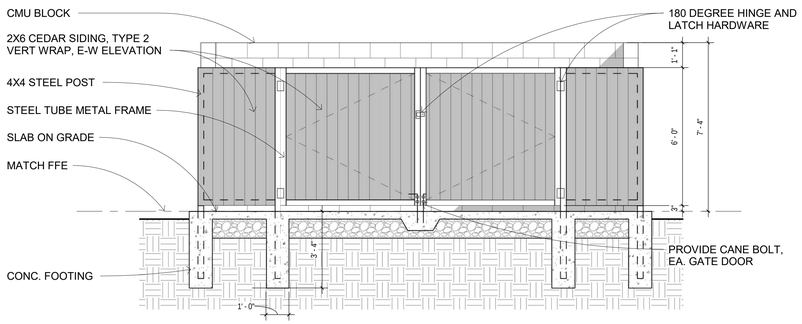
1 EAST ELEVATION
1/8" = 1'-0"



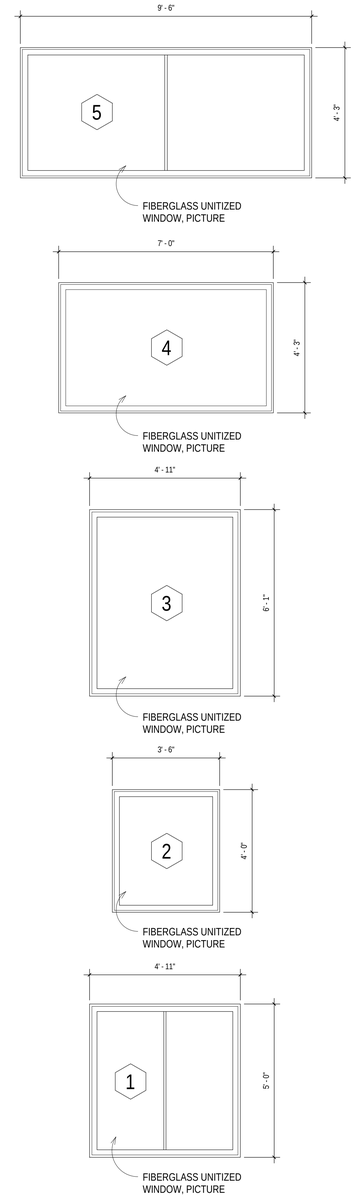
2 WEST ELEVATION
1/8" = 1'-0"



4 TRASH AND GENERATOR ENCLOSURE
1/4" = 1'-0"



5 TRASH ENCLOSURE NORTH
3/8" = 1'-0"



3 WINDOW SCHEDULE
1/2" = 1'-0"

ELEVATION LEGEND

- CLEAR, UN-TEMPERED GLASS
- TEMPERED GLASS

GLAZING TO WALL RATIO

GLAZING TOTAL:	2,581 SF	30%
WALL TOTAL:	6,029 SF	70%
GRAND TOTAL:	8,610 SF	100%

ELEVATION NOTES:

1. REFER TO T1.0 FOR PROJECT GENERAL NOTES.
2. REFER TO A8.1 FOR SEALING OF WALL OPENINGS & PENETRATIONS
3. SEE BUILDING SECTIONS FOR EXTERIOR WALL AND ROOF ASSEMBLIES
4. REFER TO ROOF PLANS FOR ROOF DETAIL CALLOUTS AND DESCRIPTIONS
5. DRAWINGS INDICATE GENERAL & TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER, TYPICAL DETAILS SHALL APPLY.
6. SEE A10.1 FOR FINISHES ON EXTERIOR BUILDING COMPONENTS SCHEDULE.
7. STOREFRONT AND CURTAINWALL ALUMINUM WINDOW SYSTEMS NOT INCLUDED IN WINDOW SCHEDULE. REFER TO ELEVATIONS.

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EXTERIOR ELEVATIONS

SCALE:	As indicated
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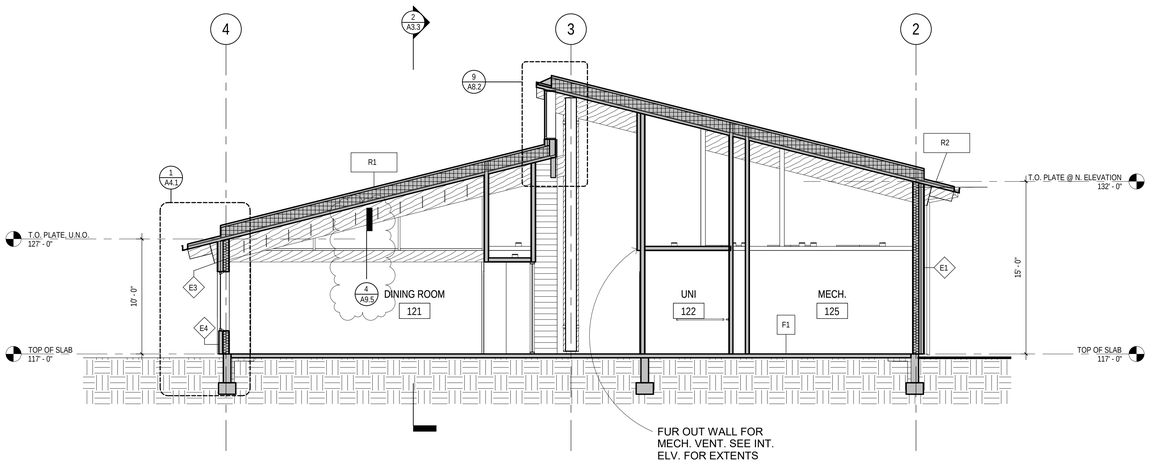
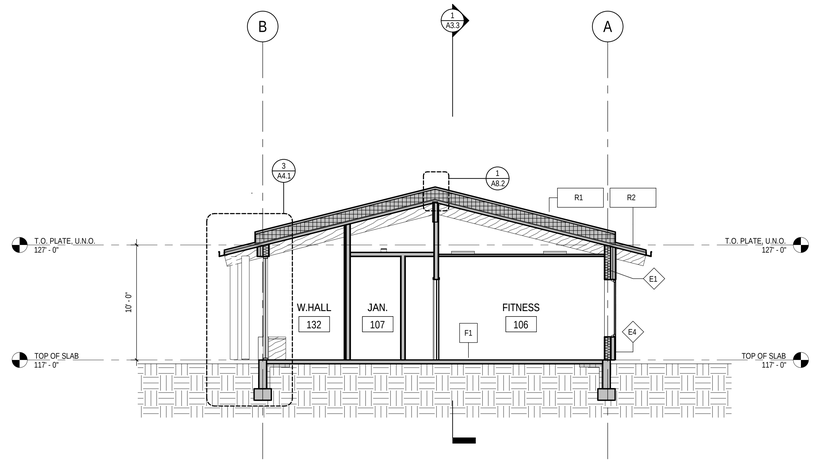
PROJECT NO:	2020006.100

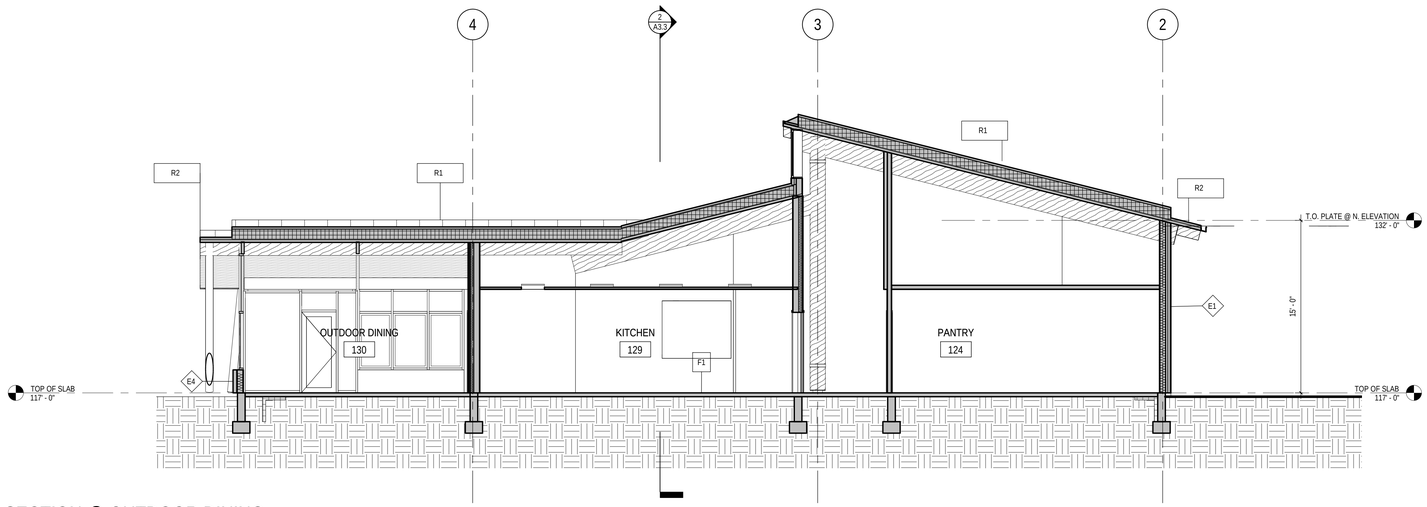
SHEET: A3.2



1 N-S SECTION @ DINING ROOM
3/16" = 1'-0"

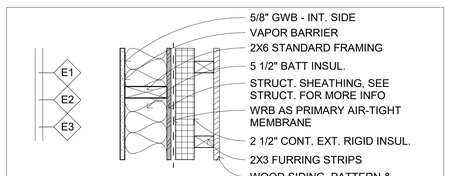


2 E-W SECTION @ FITNESS ROOM
3/16" = 1'-0"

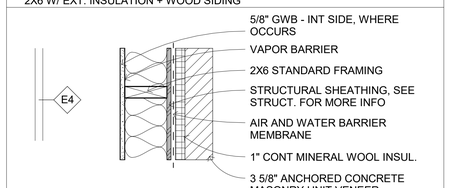


3 SECTION @ OUTDOOR DINING
3/16" = 1'-0"

TYPICAL EXTERIOR WALL ASSEMBLIES

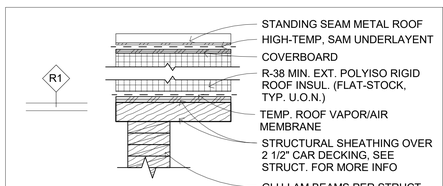


2X6 W/ EXT. INSULATION + WOOD SIDING

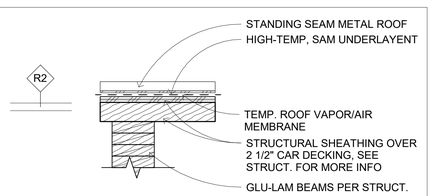


2X6 W/ EXT. INSULATION + MASONRY SIDING

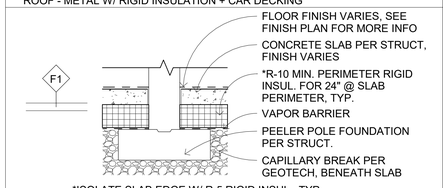
TYPICAL ROOF AND FLOOR ASSEMBLIES



ROOF - METAL W/ RIGID INSULATION + CAR DECKING



ROOF - METAL WITHOUT RIGID INSULATION + CAR DECKING



*ISOLATE SLAB EDGE W/ R-5 RIGID INSUL., TYP,

FLOOR - SLAB ON GRADE

SECTION NOTES:

1. REFER TO A1.1 FOR GENERAL NOTES
2. SEE BUILDING ELEVATIONS FOR WALL EXTERIOR CLADDING AND INTERIOR WALL FINISH LOCATIONS.
3. REFER TO ROOF PLANS FOR ROOF DETAIL, CALLOUT, AND DESCRIPTIONS.
4. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER, TYPICAL DETAILS SHALL APPLY.
5. SEE A8.1 FOR TYPICAL WALL PENETRATION WATERPROOFING DETAILS.
6. SEE CODE SHEET FOR WINDOW, DOOR, AND SKYLIGHT U-VALUE & SHGC MIN. REQUIREMENTS.
7. IN ADDITION TO THOSE LISTED ON THE BUILDING SECTIONS, SEE CODE SHEET FOR R-VALUE MINIMUM REQUIREMENTS
8. PLATE HEIGHT FOR FRAMING INDICATED AT INTERIOR STRUCTURAL STUD AND ROOF BEAM CONNECTION.
9. STRUCTURAL ELEMENTS SHOWN FOR DESIGN INTENT ONLY, SEE STRUCTURAL DWGS. FOR ADDITIONAL INFO.

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BUILDING SECTIONS

SCALE:	As indicated
DRAWN:	AW
CHECKED:	PRC
PROJECT NO:	2020006.100

SHEET:
A3.4

WALL SECTION NOTES:

1. REFER TO BUILDING SECTIONS FOR WALL, ROOF AND FLOOR ASSEMBLIES.

2. REFER TO DETAILS FOR COMPLETE DESCRIPTION. DETAILS ON WALL SECTIONS ARE DIAGRAMMATIC.

3. WALL SECTIONS SHOW FOOTINGS BEARING ON UNDISTURBED SOIL. THIS IS ONLY ALLOWABLE IF SOIL AT BOTTOM OF EXCAVATION MEETS MINIMUM BEARING CAPACITIES, OTHERWISE FOOTINGS MAY BE RESTING ON IMPORTED STRUCTURAL FILL. SEE CIVIL AND GEOTECHNICAL REPORT FOR REQUIREMENTS.

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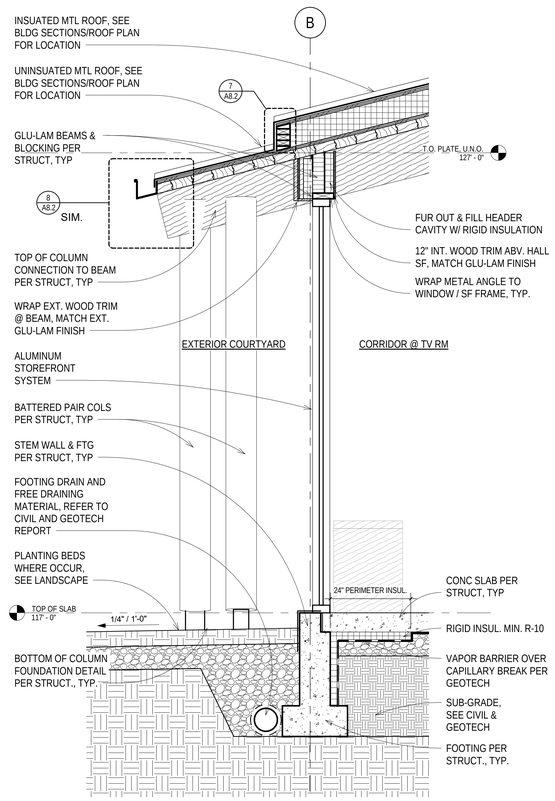
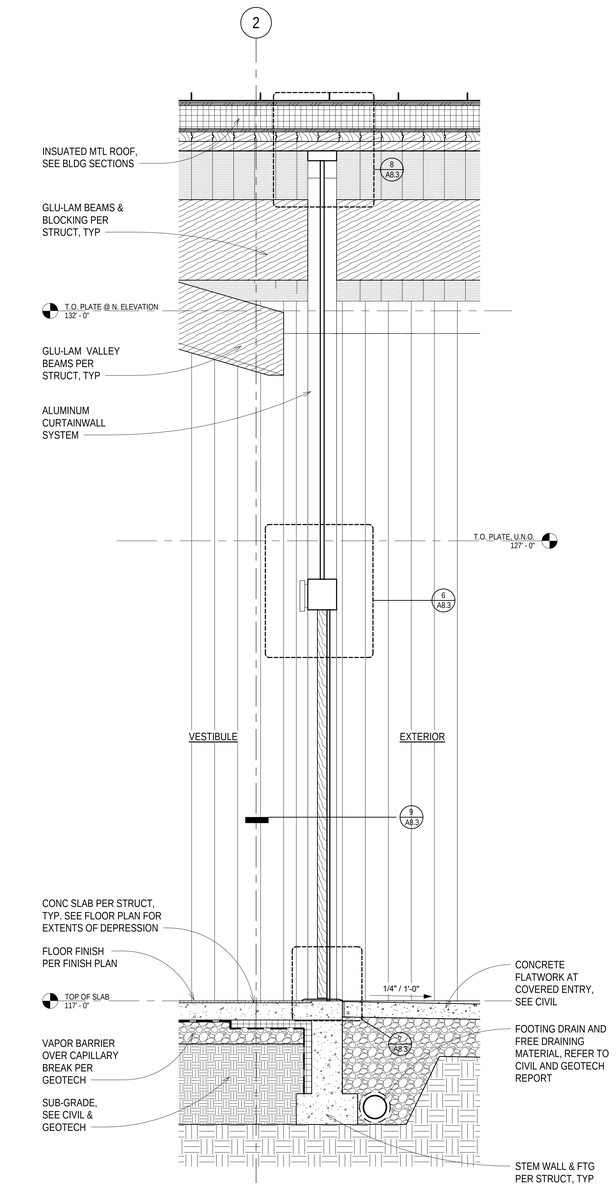
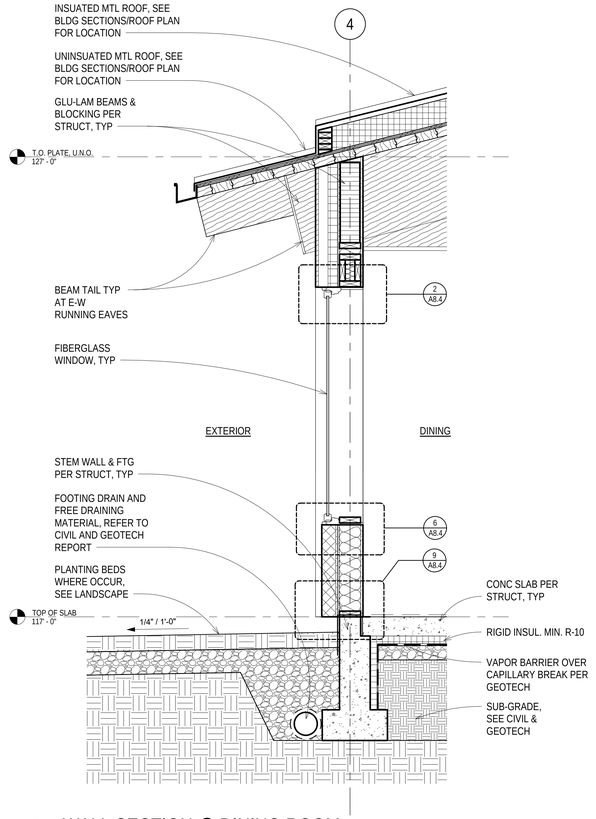


3 WALL SECTION @ TV RM CORRIDOR
3/4" = 1'-0"



2 WALL SECTION @ VESTIBULE
3/4" = 1'-0"



1 WALL SECTION @ DINING ROOM
3/4" = 1'-0"

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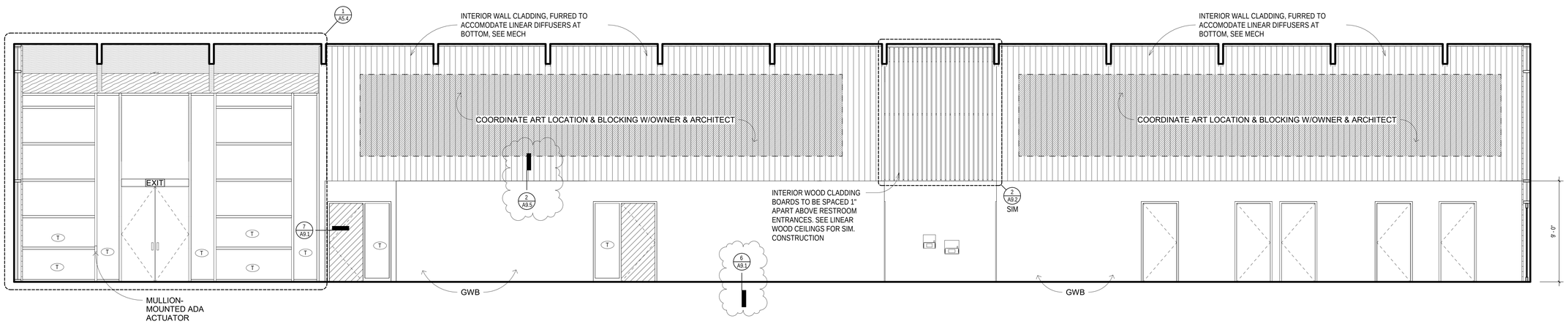
CONTENTS:

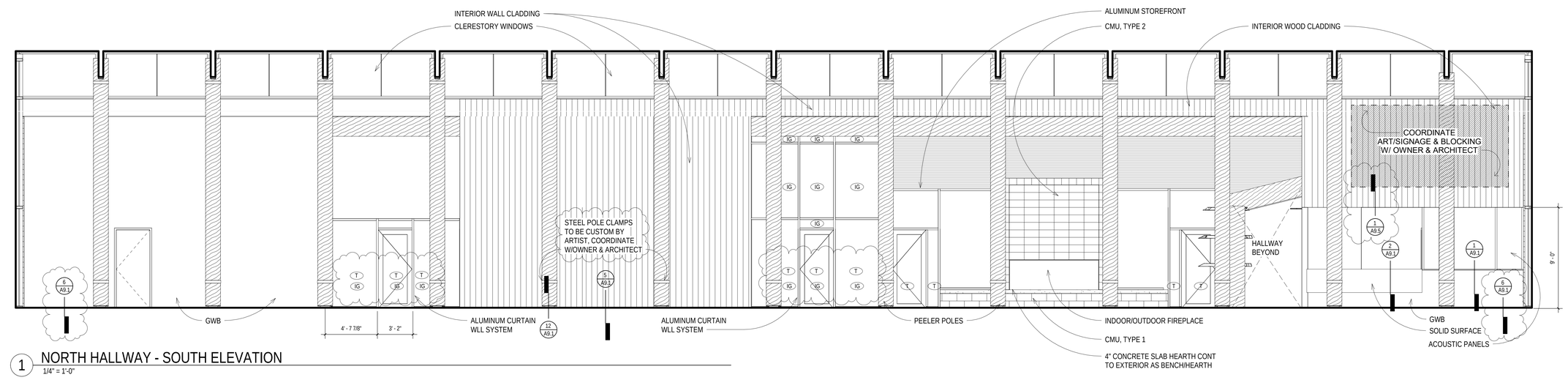
WALL SECTIONS

SCALE:	As indicated
DRAWN:	PRC
CHECKED:	SWL
PROJECT NO:	2020006.100

SHEET:
A4.1



2 NORTH HALLWAY - NORTH ELEVATION
1/4" = 1'-0"



1 NORTH HALLWAY - SOUTH ELEVATION
1/4" = 1'-0"

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REVISION	DATE	DESCRIPTION
BIDDERS	JUNE 14, 2021	ADDENDUM 1

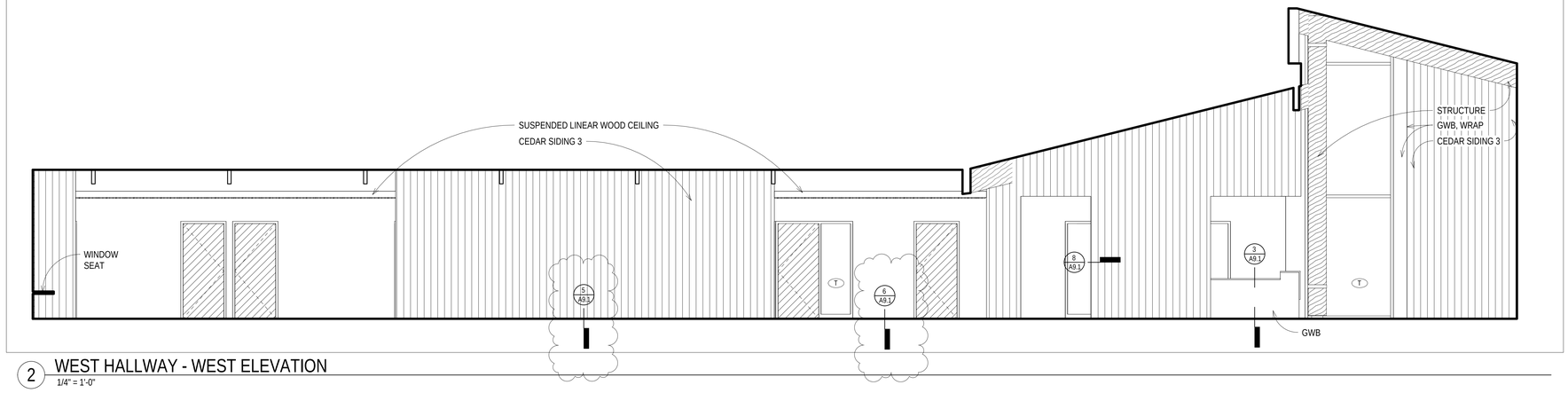
CONTENTS:

INTERIOR ELEVATIONS

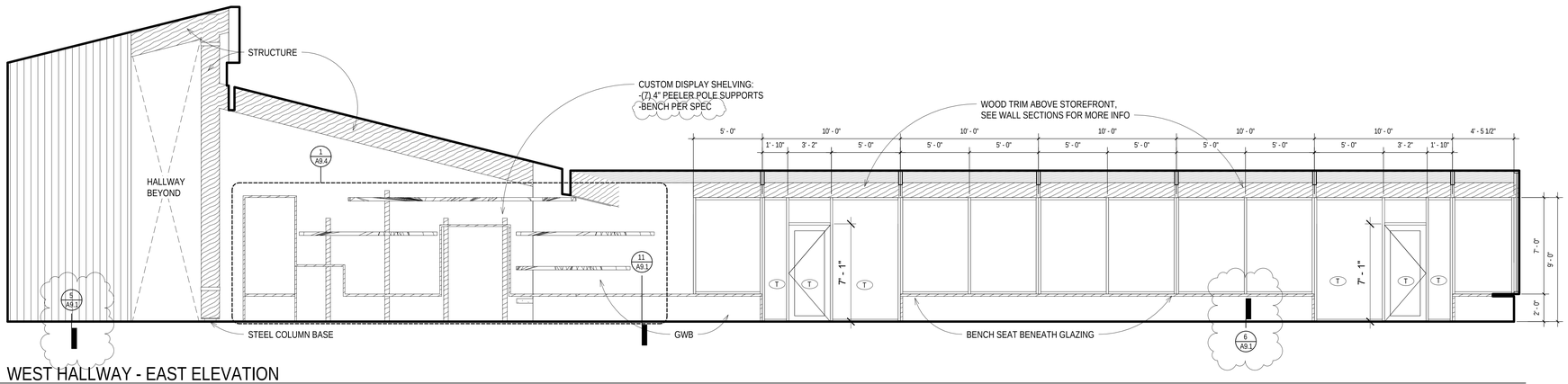
SCALE:	1/4" = 1'-0"
DRAWN:	AW
CHECKED:	PRC
PROJECT NO:	2020006.100

SHEET:
A5.1

a|r|c
ARCHITECTS
119 S MAIN ST
SUITE 200
SEATTLE, WA
98104-2579
206 322 3322



2 WEST HALLWAY - WEST ELEVATION
1/4" = 1'-0"



1 WEST HALLWAY - EAST ELEVATION
1/4" = 1'-0"

The Chehalis Tribe
Chehalis Elders Center

NIEDERMAN RD
OAKVILLE, WA 98568

THE CHEHALIS TRIBE

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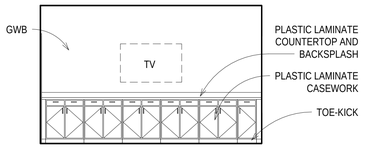
CONTENTS:

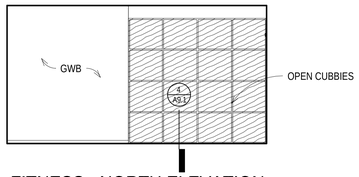
INTERIOR ELEVATIONS

SCALE:	1/4" = 1'-0"
DRAWN:	Author
CHECKED:	Checker
PROJECT NO:	20200006.100

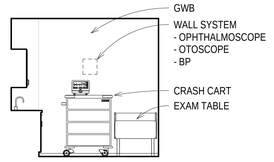
SHEET:
A5.2



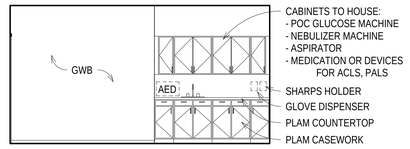
19 FITNESS - SOUTH ELEVATION
1/4" = 1'-0"



18 FITNESS - NORTH ELEVATION
1/4" = 1'-0"



17 MEDICAL - WEST ELEVATION
1/4" = 1'-0"



16 MEDICAL - SOUTH ELEVATION
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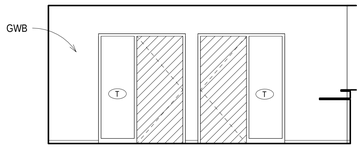

15 RECEPTION - WEST ELEVATION
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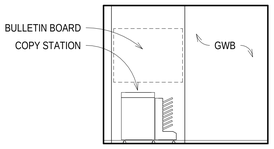
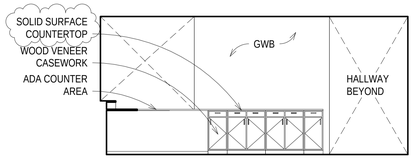
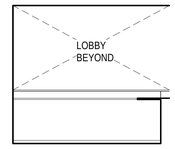


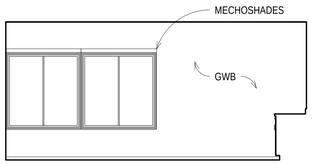
14 RECEPTION - SOUTH ELEVATION
1/4" = 1'-0"



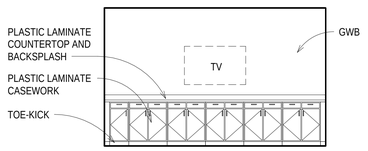
13 RECEPTION - EAST ELEVATION
1/4" = 1'-0"



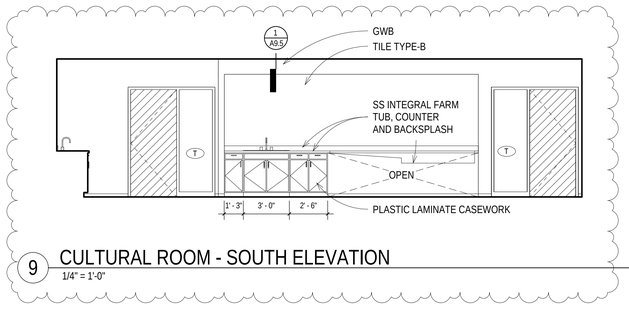
12 RECEPTION - NORTH ELEVATION
1/4" = 1'-0"



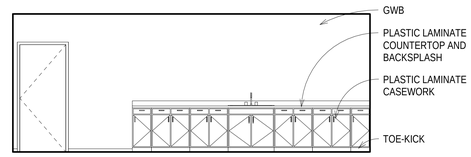
11 TV ROOM 1 - WEST ELEVATION
1/4" = 1'-0"



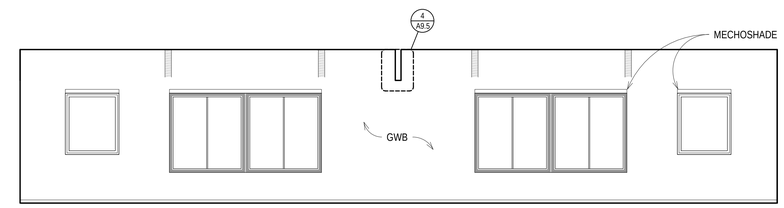
10 TV ROOM 1 - NORTH ELEVATION
1/4" = 1'-0"



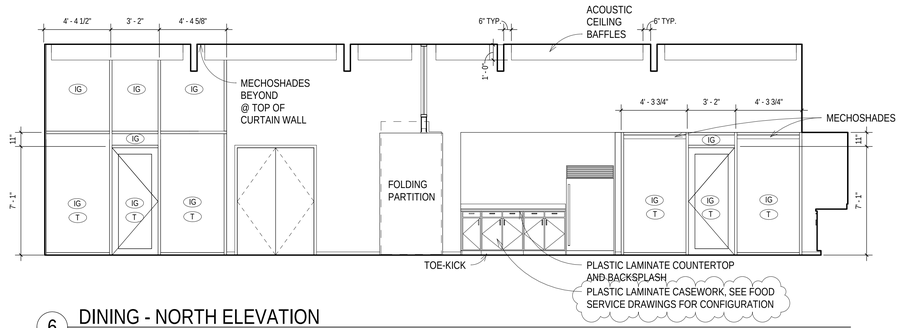
9 CULTURAL ROOM - SOUTH ELEVATION
1/4" = 1'-0"



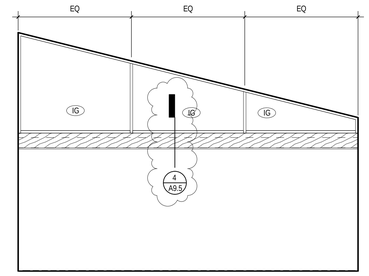
8 CULTURAL ROOM - EAST ELEVATION
1/4" = 1'-0"



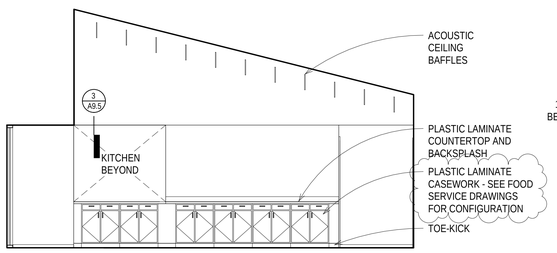
7 DINING - SOUTH ELEVATION
1/4" = 1'-0"



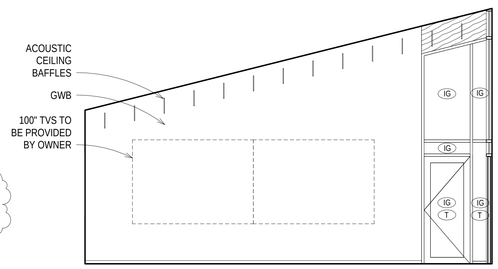
6 DINING - NORTH ELEVATION
1/4" = 1'-0"



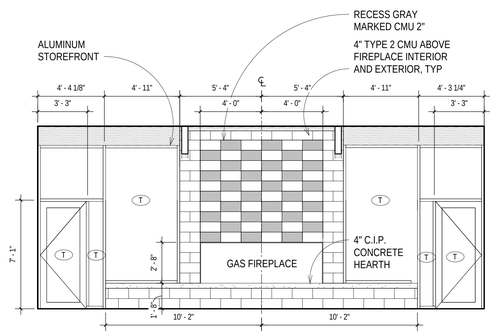
5 CLASSROOM - EAST ELEVATION
1/4" = 1'-0"



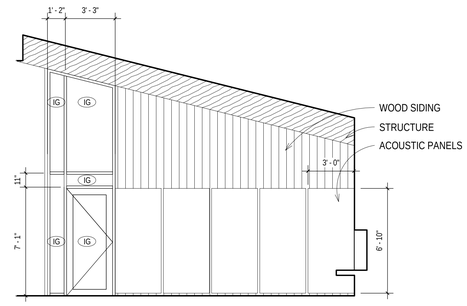
4 DINING ROOM SERVERY
1/4" = 1'-0"



3 CLASSROOM - WEST ELEVATION
1/4" = 1'-0"



2 LIBRARY - SOUTH ELEVATION
1/4" = 1'-0"



1 LIBRARY - EAST ELEVATION
1/4" = 1'-0"

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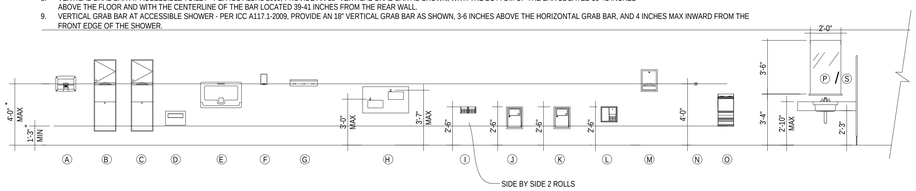
SHEET:
A5.3

LEGEND

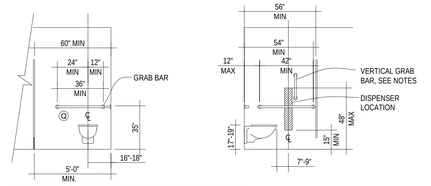
(A) WARM-AIR DRYER	(D) TOILET SEAT COVER DISPENSER	(G) UTILITY SHELF W/ MOP/BROOM HOLDERS AND RAG HOOKS	(J) RECESSED SANITARY NAPKIN DISPOSAL UNIT	(M) TOILET PAPER HOLDER	(P) MIRROR	(S) MIRROR W/ MEDICINE CABINET
(B) COMBINATION TOWEL DISPENSER / WASTE RECEPTACLE, RECESSED	(E) DIAPER CHANGING STATION	(H) DRINKING FOUNTAINS	(K) SURFACE MOUNTED SANITARY NAPKIN DISPOSAL UNIT	(N) TOWEL HOOK	(Q) GRAB BAR	(T) TOWEL SHELF
(C) COMBINATION TOWEL DISPENSER/WASTE RECEPTACLE, SURFACE MOUNTED	(F) LIQ/UD SOAP DISPENSER	(I) TOILET PAPER DISPENSER W/ STORAGE FOR EXTRA ROLL	(L) MULTI-ROLL TOILET TISSUE DISPENSER	(O) AIR BLADE HAND DRYER	(R) SHOWER BENCH	(U) TOWEL BAR

NOTES

* 1. MAX AND MIN DIMENSIONS ARE FOR UNOBSTRUCTED FORWARD AND SIDE REACH RANGES PER SECTION 308 OF THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.
2. DIMENSIONS ARE TAKEN FROM FINISH FLOOR TO THE OPERABLE PART OF RECEPTACLE, U.O.N
3. DRINKING FOUNTAINS - DIMENSION TO SPOUT OUTLETS
4. LAVATORIES - DIMENSION TO TOP OF RIM OR COUNTER SURFACE, WHICHEVER IS HIGHER.
5. MIRROR ABOVE LAVATORIES - DIMENSION TO BOTTOM OF REFLECTING SURFACE.
6. GRAB BARS - DIMENSION TO TOP OF GRIPPING SURFACE.
7. PROVIDE BLOCKING AS REQUIRED FOR ATTACHMENT OF ALL ACCESSORIES.
8. VERTICAL GRAB BAR AT ACCESSIBLE TOILET - PER ICC A117.1-2009, PROVIDE AN 18" VERTICAL GRAB BAR AS SHOWN, WITH THE BOTTOM OF THE BAR LOCATED 39-41 INCHES ABOVE THE FLOOR AND WITH THE CENTERLINE OF THE BAR LOCATED 39-41 INCHES FROM THE REAR WALL.
9. VERTICAL GRAB BAR AT ACCESSIBLE SHOWER - PER ICC A117.1-2009, PROVIDE AN 18" VERTICAL GRAB BAR AS SHOWN, 3-6 INCHES ABOVE THE HORIZONTAL GRAB BAR, AND 4 INCHES MAX INWARD FROM THE FRONT EDGE OF THE SHOWER.

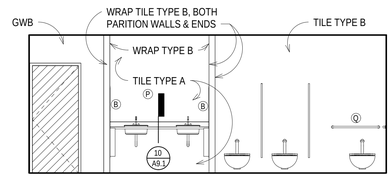


1 TYPICAL RESTROOM ACCESSORIES
SCALE: 1/4" = 1'-0"

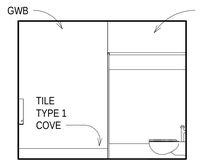


ACCESSIBLE TOILET COMPARTMENT

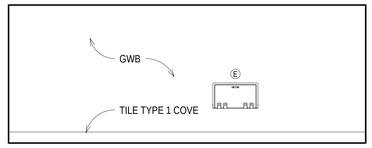
SEE SPECIFICATIONS FOR ADDITIONAL ACCESSORY INFORMATION



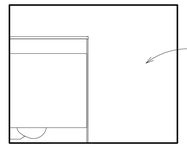
18 WOMENS RR - WEST ELEVATION
1/4" = 1'-0"



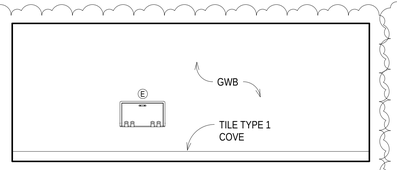
17 WOMENS RR - SOUTH ELEVATION
1/4" = 1'-0"



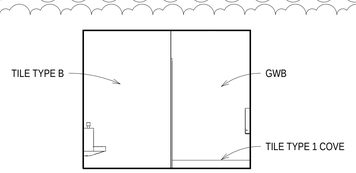
16 WOMENS RR - EAST ELEVATION
1/4" = 1'-0"



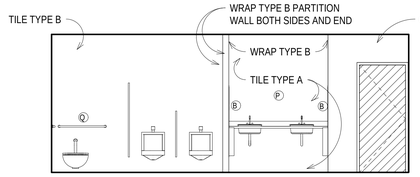
15 WOMENS RR - NORTH ELEVATION
1/4" = 1'-0"



14 MENS RR - WEST ELEVATION
1/4" = 1'-0"



13 MENS RR - SOUTH ELEVATION
1/4" = 1'-0"



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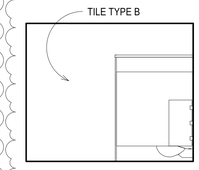
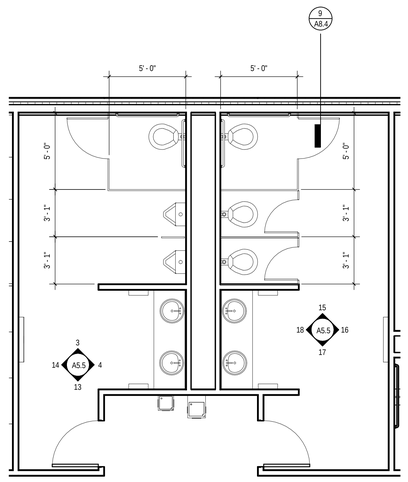
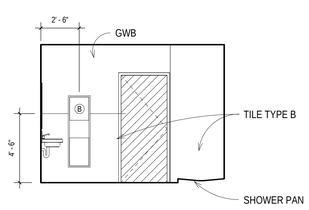


3 MENS RR - NORTH ELEVATION
1/4" = 1'-0"



1 ENLARGED MAIN RESTROOM PLAN
1/4" = 1'-0"



12 FITNESS RR - WEST ELEVATION
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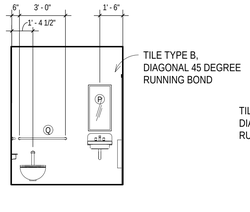
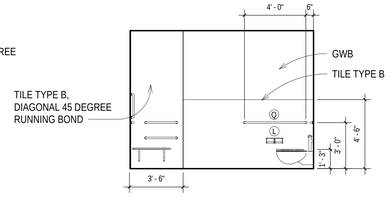
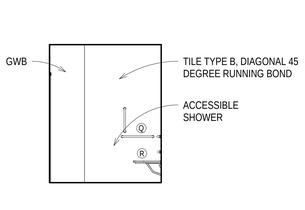


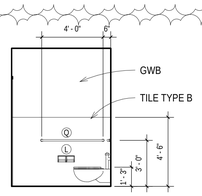
11 FITNESS RR - SOUTH ELEVATION
1/4" = 1'-0"



10 FITNESS RR - EAST ELEVATION
1/4" = 1'-0"



9 FITNESS RR - NORTH ELEVATION
1/4" = 1'-0"



8 RR 109 - WEST ELEVATION
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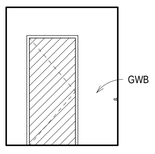
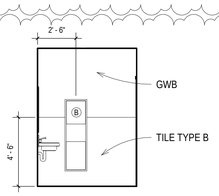
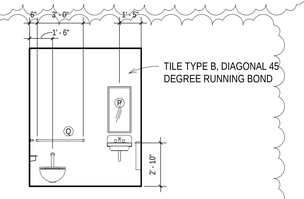


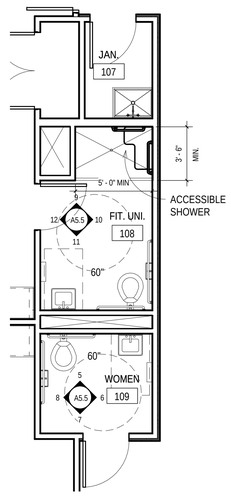
7 RR 109 - SOUTH ELEVATION
1/4" = 1'-0"



6 RR 109 - EAST ELEVATION
1/4" = 1'-0"



5 RR 109 - NORTH ELEVATION
1/4" = 1'-0"



2 ENLARGED RR - WOMEN AND FITNESS
1/4" = 1'-0"

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CHECKED:	**PRC**
PROJECT NO:	2020006.100

SHEET:
A5.5

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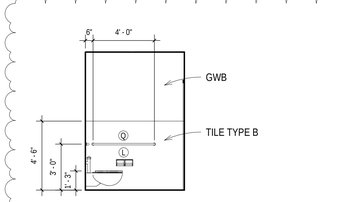

10 RR 112 - WEST ELEVATION
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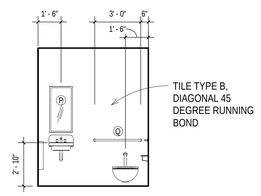

9 RR 112 - SOUTH ELEVATION
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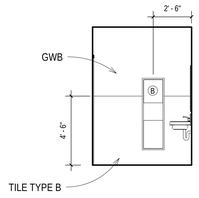
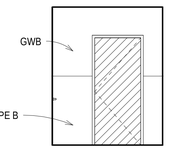
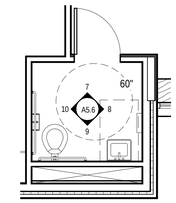


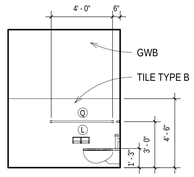
8 RR 112 - EAST ELEVATION
1/4" = 1'-0"



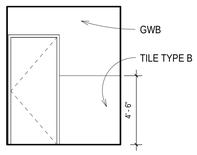
7 RR 112 - NORTH ELEVATION
1/4" = 1'-0"



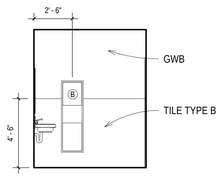
2 ENLARGED RR - MEN
1/4" = 1'-0"



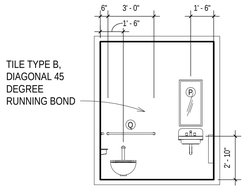
6 RR 122 - WEST ELEVATION
1/4" = 1'-0"



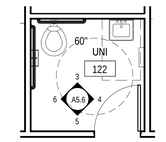
5 RR 122 - SOUTH ELEVATION
1/4" = 1'-0"



4 RR 122 - EAST ELEVATION
1/4" = 1'-0"



3 RR 122 - NORTH ELEVATION
1/4" = 1'-0"



1 ENLARGED UNISEX RESTROOM PLAN
1/4" = 1'-0"

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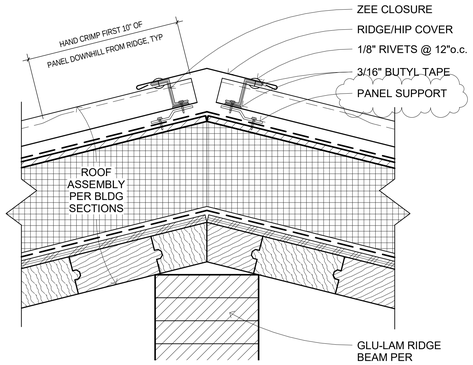
CONTENTS:

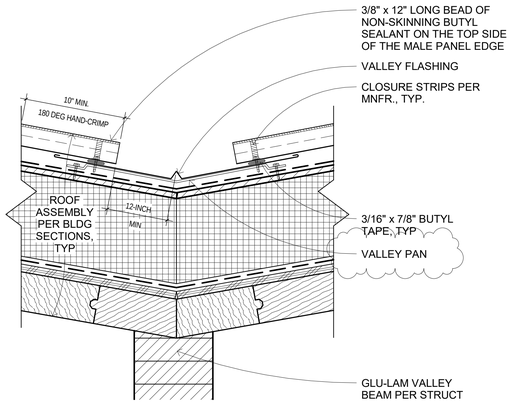
RESTROOM PLANS AND INTERIOR ELEVATIONS

SCALE:	1/4" = 1'-0"
DRAWN:	Author
CHECKED:	Checker
PROJECT NO:	2020006.100

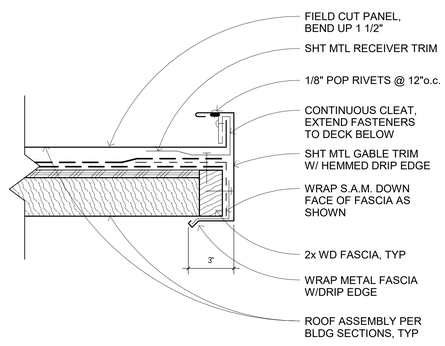
SHEET:
A5.6



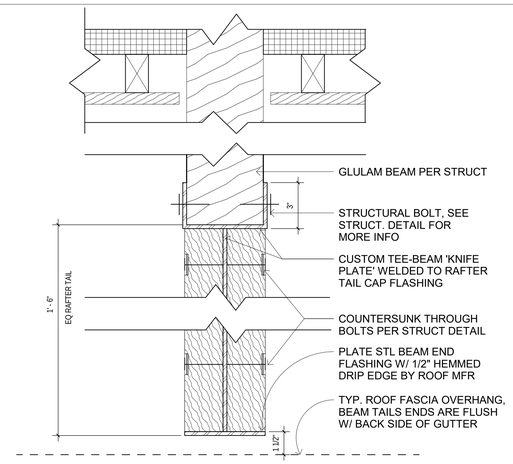
1 TYPICAL RIDGE
3" = 1'-0"



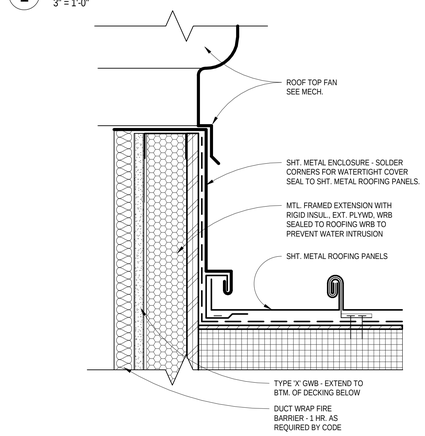
2 TYPICAL VALLEY
3" = 1'-0"



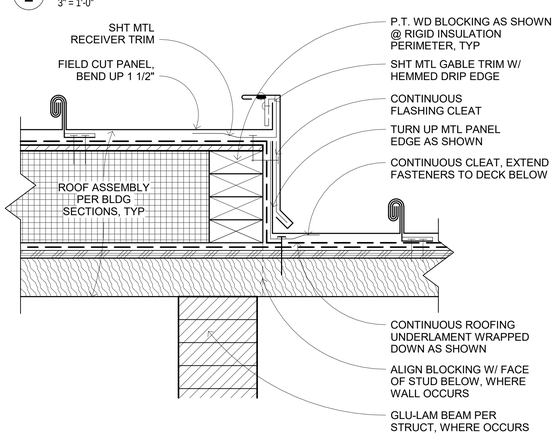
3 TYPICAL RAKE
3" = 1'-0"



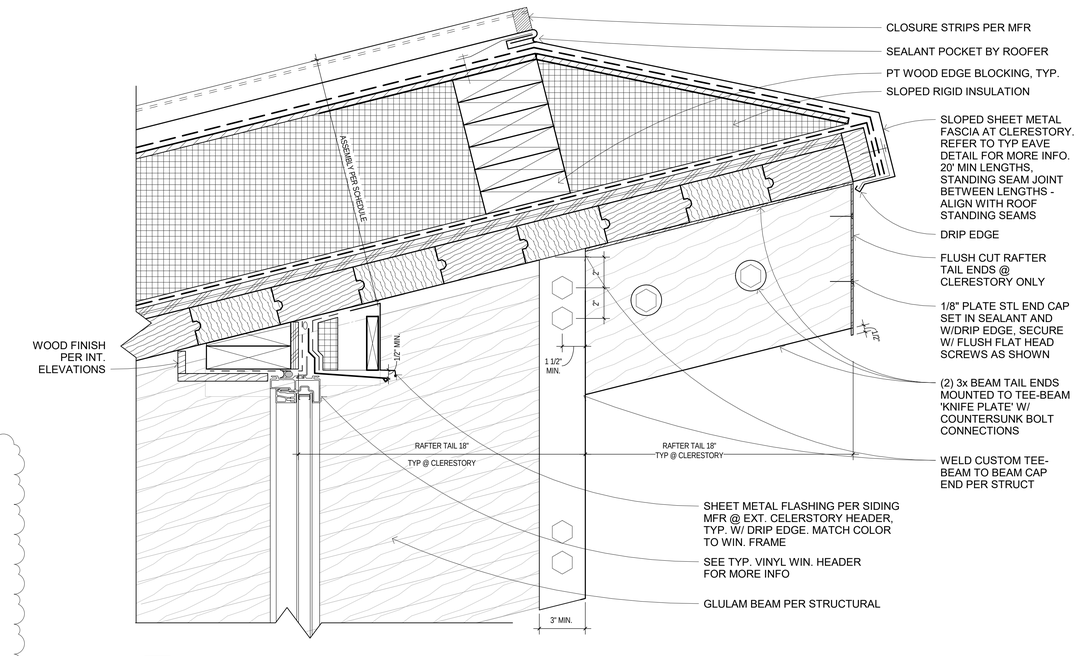
4 RAFTER TAIL SECTION DETAIL
3" = 1'-0"



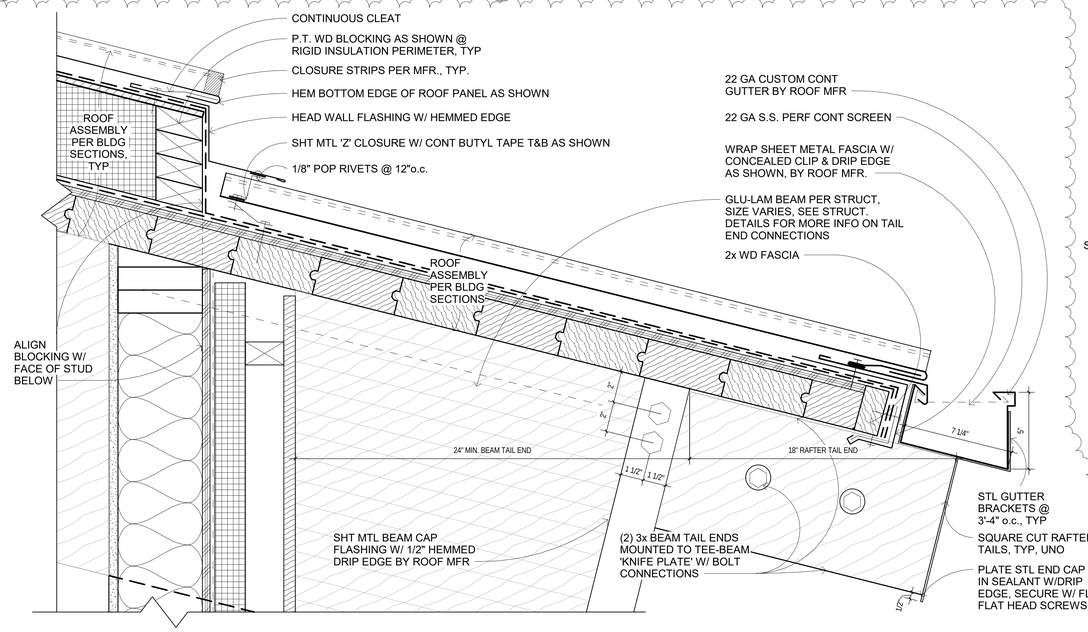
5 METAL ROOF PENETRATION @ KITCHEN
3" = 1'-0"



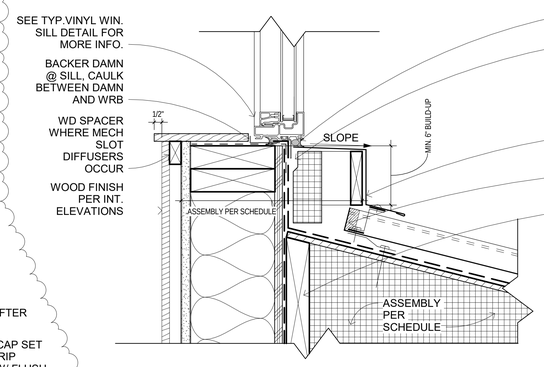
6 INSULATION STEP @ RAKE, TYP.
3" = 1'-0"



9 TYPICAL CLERESTORY EAVE AND WINDOW HEAD/SILL
3" = 1'-0"



7 INSULATION STEP @ EAVE, TYP.
3" = 1'-0"



8 TYPICAL EAVE @ GRID 2 & 4
3" = 1'-0"

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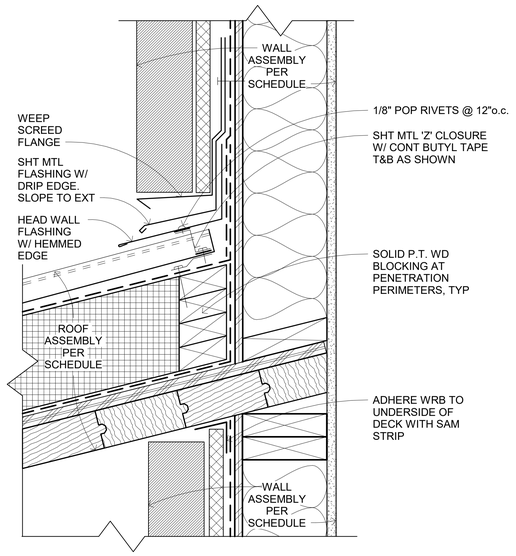
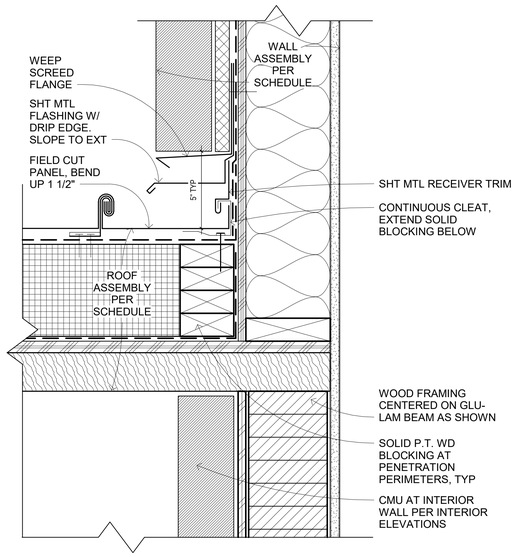
EXTERIOR DETAILS

SCALE:	3" = 1'-0"
DRAWN:	Author
CHECKED:	Checker
PROJECT NO:	2020006.100

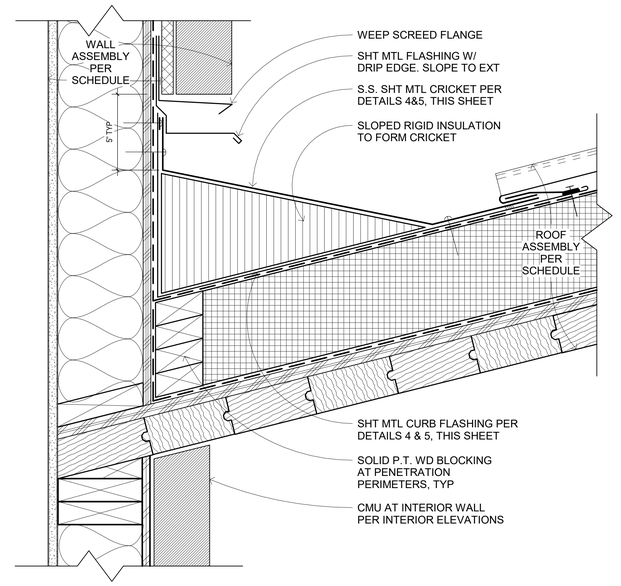
SHEET:
A8.2



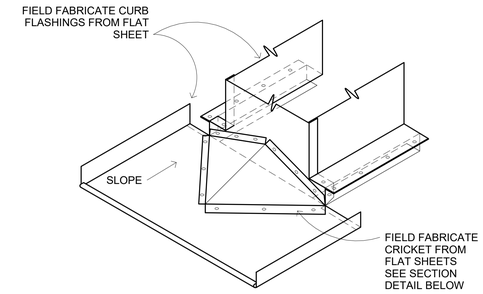
1 ROOF @ CHIMNEY SOUTH
3" = 1'-0"



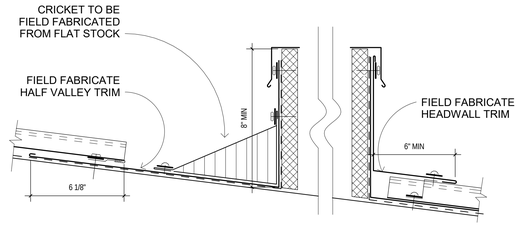
2 ROOF @ CHIMNEY EAST
3" = 1'-0"



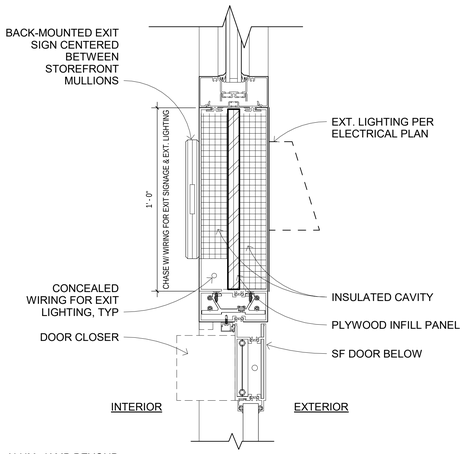
3 CRICKET @ CHIMNEY
3" = 1'-0"

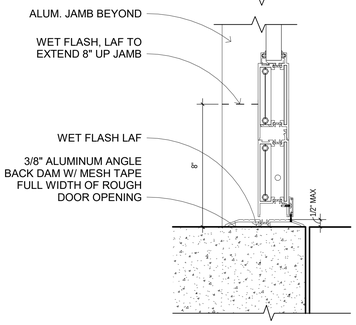


4 CRICKET AXON DETAIL, TYP.
1 1/2" = 1'-0"

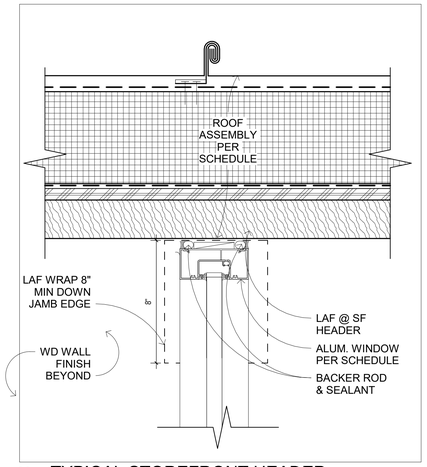


5 SECTION DETAIL @ CRICKET, TYP.
3" = 1'-0"

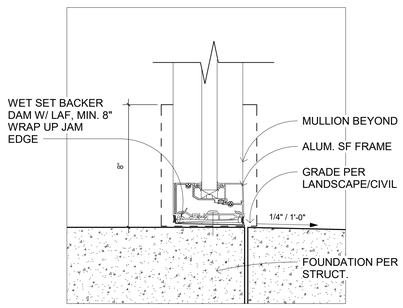




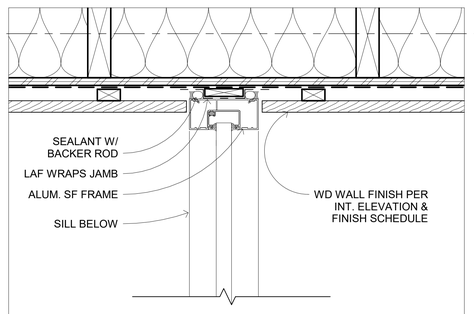
6 STOREFRONT DOOR HEADER & SILL
3" = 1'-0"



8 TYPICAL STOREFRONT HEADER
3" = 1'-0"



7 TYPICAL STOREFRONT SILL @ GRADE
3" = 1'-0"



9 TYPICAL STOREFRONT JAM DETAIL
3" = 1'-0"

arc ARCHITECTS
119 S MAIN ST
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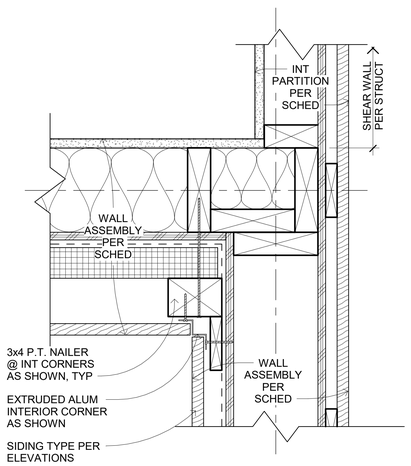
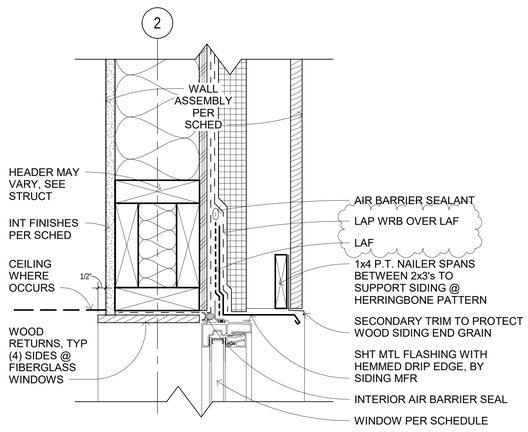
EXTERIOR DETAILS

SCALE:	As indicated
DRAWN:	Author
CHECKED:	Checker
PROJECT NO:	2020006.100

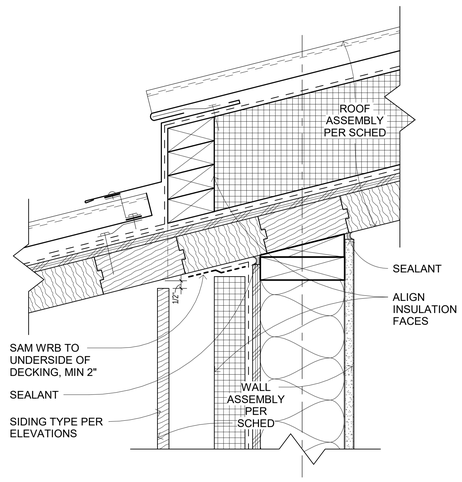
SHEET:
A8.3



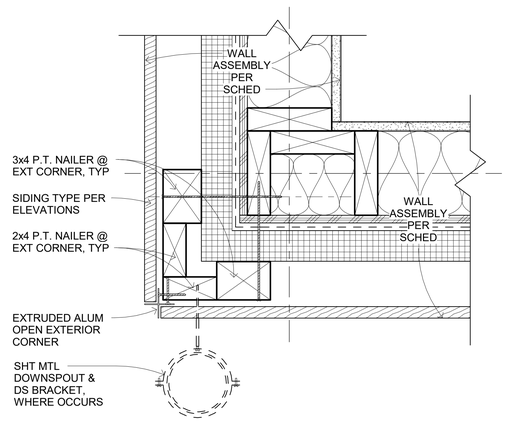
1 WOOD SIDING INT CORNER
3" = 1'-0"



2 HEAD @ FIBERGLASS WINDOW
3" = 1'-0"



3 WOOD SIDING TOP OF WALL
3" = 1'-0"



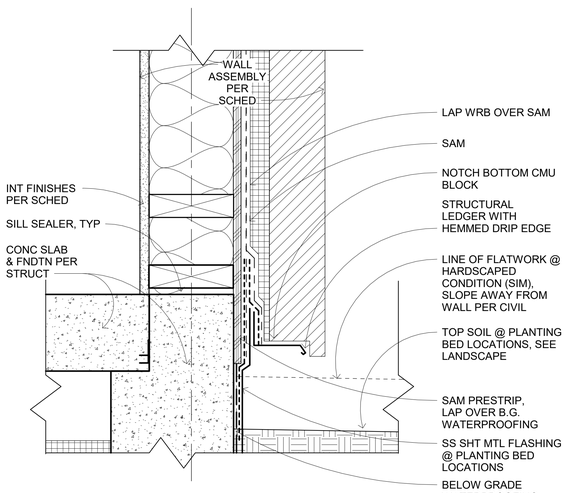
4 WOOD SIDING EXT CORNER
3" = 1'-0"

5 WOOD SIDING REVEAL
3" = 1'-0"

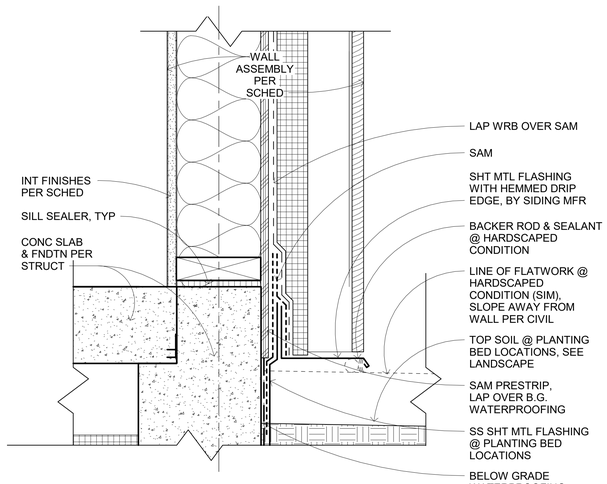
6 TYPICAL VINYL WINDOW SILL
3" = 1'-0"

7 MULLED JAMB @ FIBERGLASS WINDOW
3" = 1'-0"

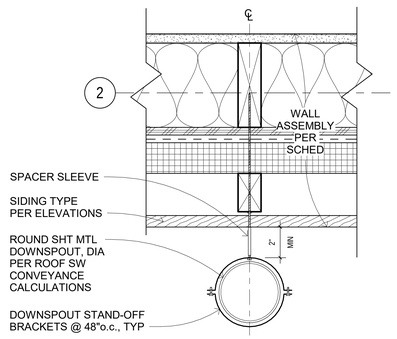
8 JAMB @ FIBERGLASS WINDOW
3" = 1'-0"



9 CMU SIDING BASE OF WALL
3" = 1'-0"



10 WOOD SIDING @ BASE OF WALL
3" = 1'-0"



11 DOWNSPOUT
3" = 1'-0"

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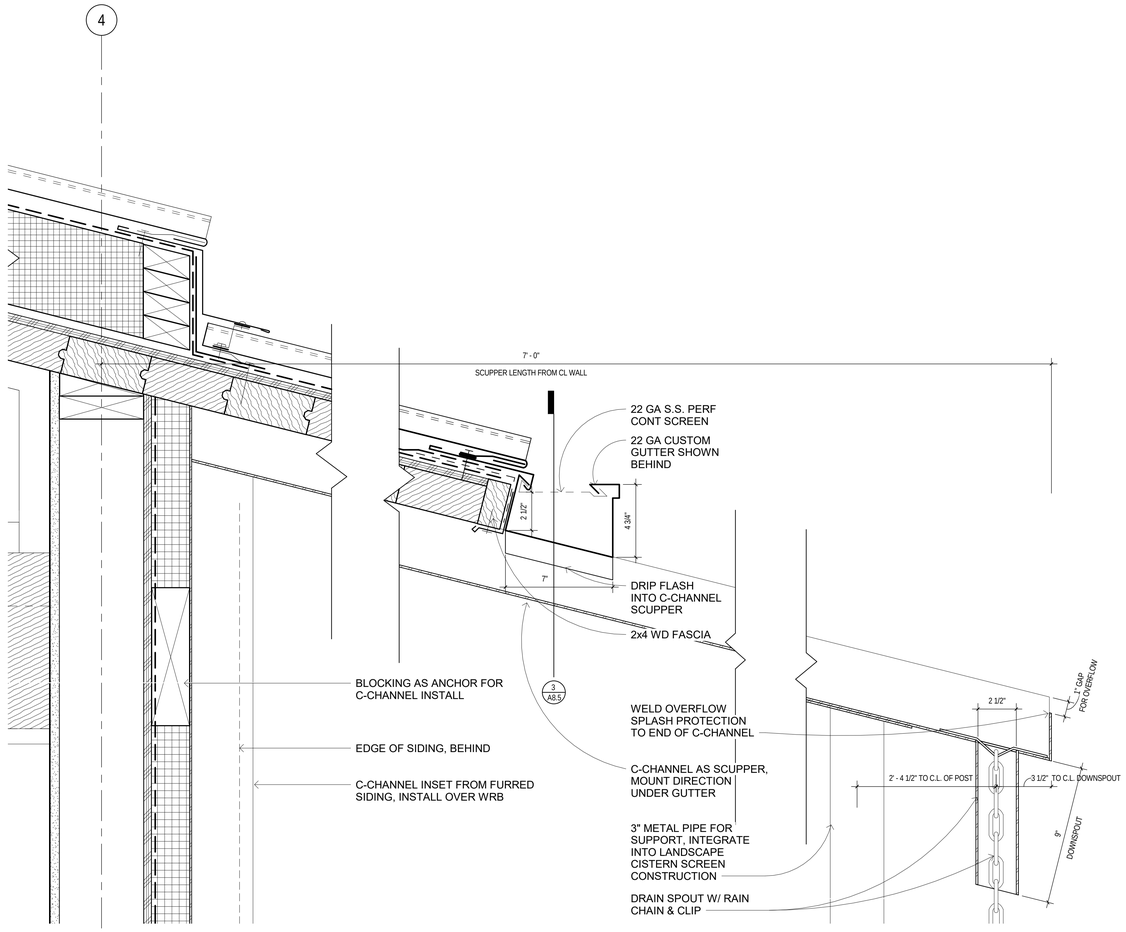
EXTERIOR DETAILS

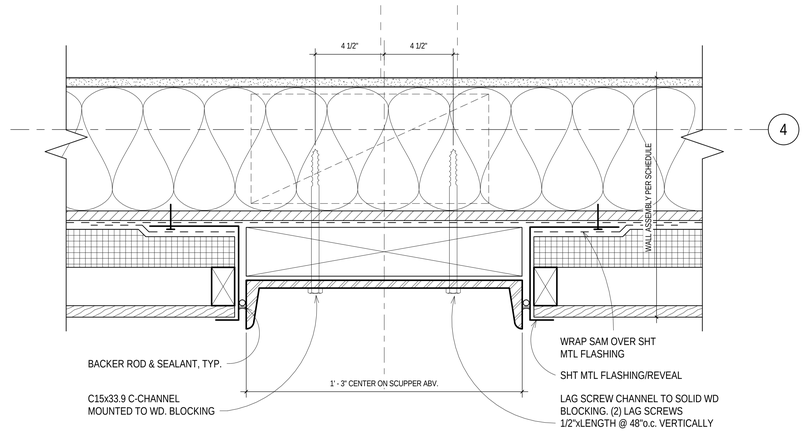
SCALE:	3" = 1'-0"
DRAWN:	Author
CHECKED:	Checker
PROJECT NO:	0000000.00

SHEET: A8.4



SCUPPER SECTION DETAIL
ALTERNATE #2 (DEDUCTIVE)

1 3" = 1'-0"

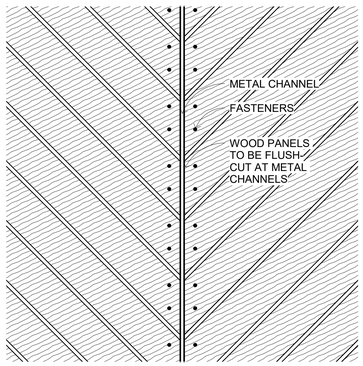


SCUPPER WALL SECTION
ALTERNATE #2 (DEDUCTIVE)

2 3" = 1'-0"

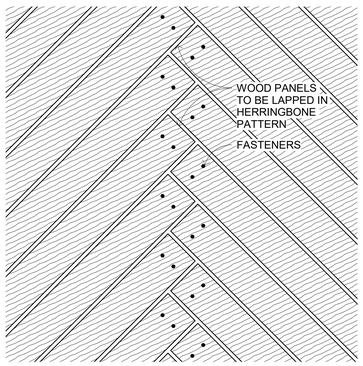
SCUPPER CROSS SECTION
ALTERNATE #2 (DEDUCTIVE)

3 3" = 1'-0"



WOOD SIDING - METAL CHANNEL

4 1 1/2" = 1'-0"



WOOD SIDING - HERRINGBONE LAY-UP PATTERN

5 1 1/2" = 1'-0"

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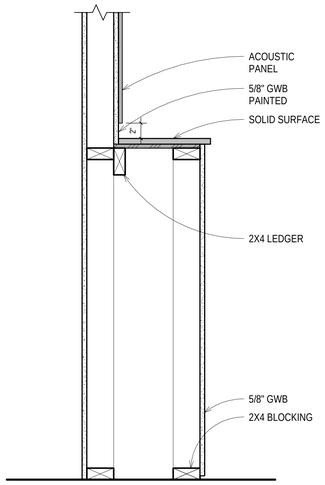
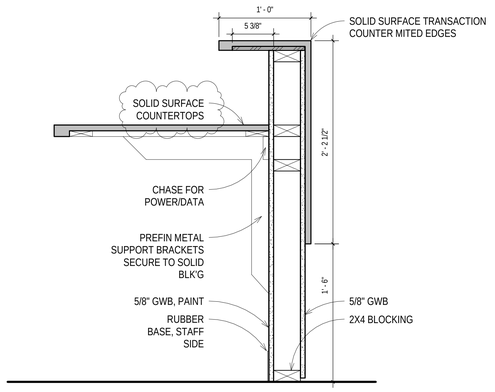
EXTERIOR DETAILS

SCALE:	As indicated
DRAWN:	Author
CHECKED:	Checker
PROJECT NO:	2020006.100

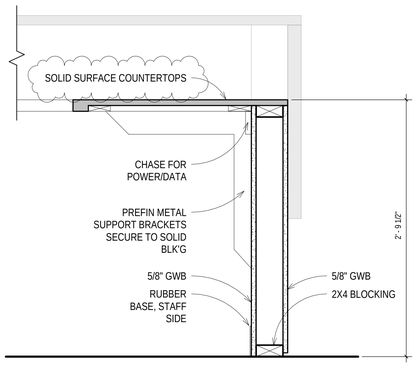
SHEET:
A8.5



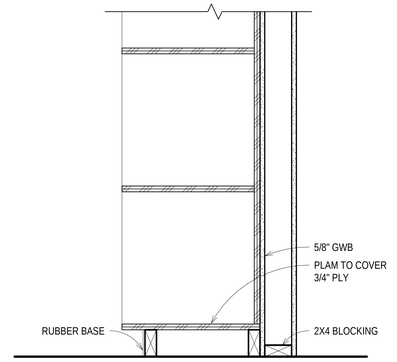
1 ACOUSTIC PANELS @ RECEPTION
1 1/2" = 1'-0"



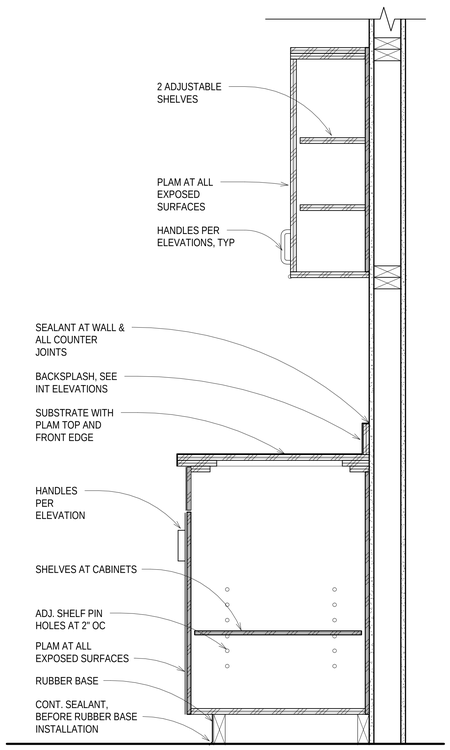
2 RECEPTION COUNTER SECTION
1 1/2" = 1'-0"



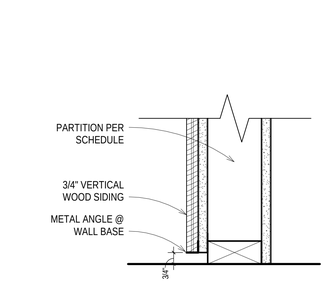
3 ADA COUNTER SECTION
1 1/2" = 1'-0"



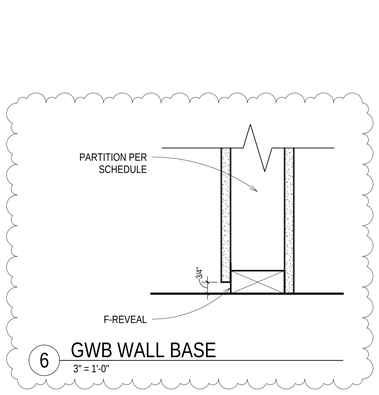
4 FITNESS ROOM CUBBIES
1 1/2" = 1'-0"



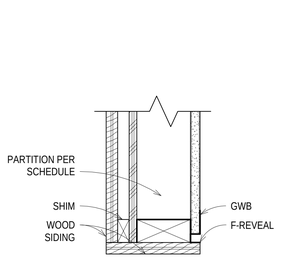
9 CASEWORK SECTION
1 1/2" = 1'-0"



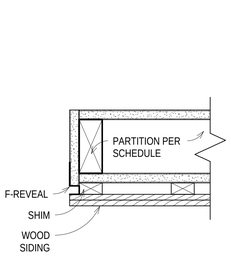
5 WOOD WALL BASE
3" = 1'-0"



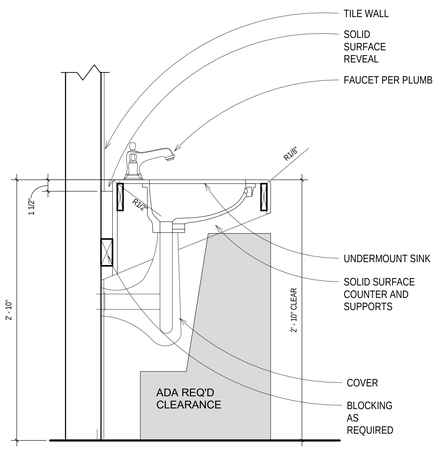
6 GWB WALL BASE
3" = 1'-0"



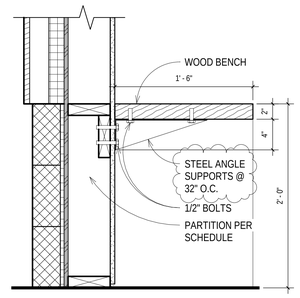
7 WOOD WALL CORNER DETAIL
3" = 1'-0"



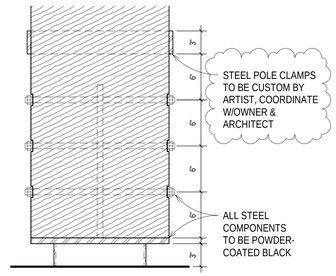
8 PORTAL JAMB DETAIL
3" = 1'-0"



10 RESTROOM COUNTER
1 1/2" = 1'-0"



11 BENCH SEAT
1 1/2" = 1'-0"



12 COLUMN FOOTING
1 1/2" = 1'-0"

a|r|c
ARCHITECTS
119 S MAIN ST
SUITE 200
SEATTLE, WA
98104-2579
206 322 3322

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THE CHEHALIS TRIBE

BID DOCUMENTS

ISSUE DATE: APRIL 16, 2021

REVISION	DATE	DESCRIPTION
BIDDERS	JUNE 14, 2021	ADDENDUM 1

CONTENTS:

INTERIOR DETAILS

SCALE:	**As indicated**
DRAWN:	**MP / CNB**
CHECKED:	**EGW**
PROJECT NO:	2020006.100

SHEET:
A9.1

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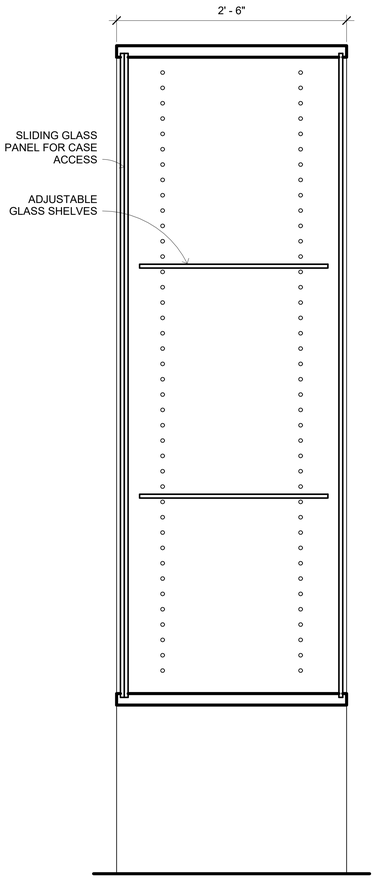
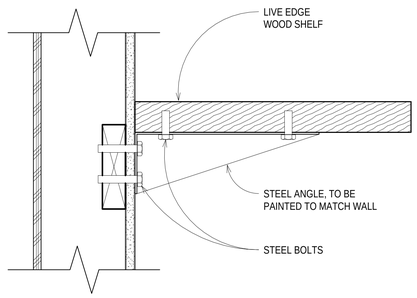
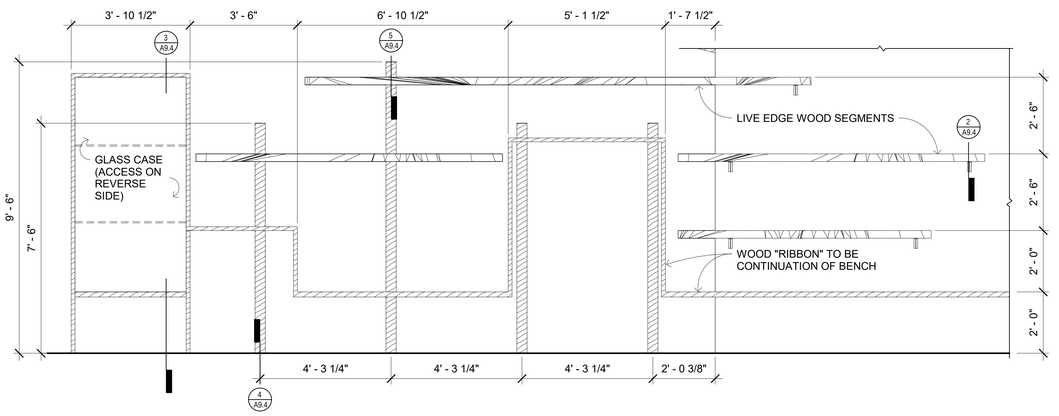
SUITE 200
SEATTLE, WA
98104-2579
206 322 3322



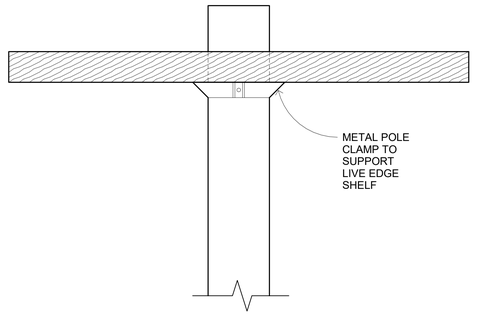
3 GLASS CASE SECTION
1 1/2" = 1'-0"



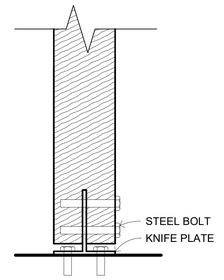
2 SHELF SECTION
3" = 1'-0"



1 CUSTOM DISPLAY CASE ELEVATION
1/2" = 1'-0"



5 SHELF SUPPORT AT COLUMN
3" = 1'-0"



4 DISPLAY CASE COLUMN
3" = 1'-0"

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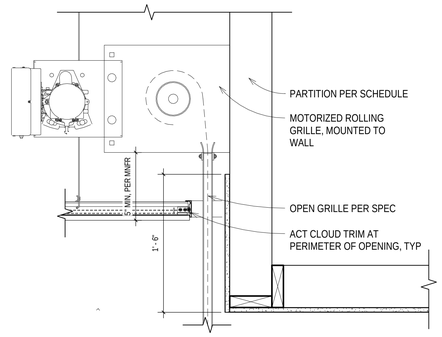
CONTENTS:

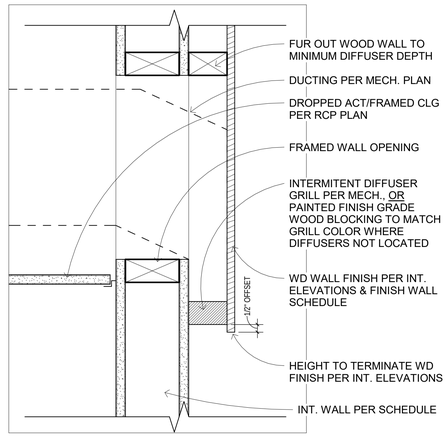
INTERIOR DETAILS - CUSTOM DISPLAY CASE

SCALE:	As indicated
DRAWN:	Author
CHECKED:	Checker
PROJECT NO:	2020006.100

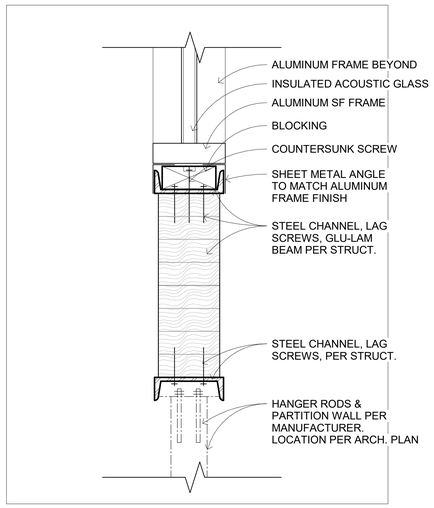
SHEET: A9.4



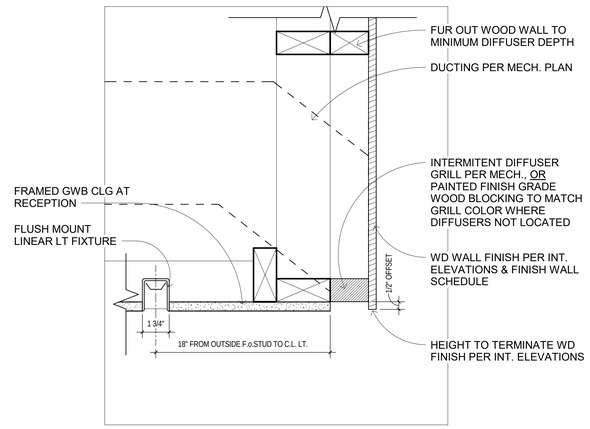
3 COILING GRILLE AT SERVERY WINDOW
1 1/2" = 1'-0"



2 TYPICAL CONCEALED DIFFUSER
3" = 1'-0"



4 OPERABLE PARTITION / BEAM DETAIL
3" = 1'-0"



1 RECEPTION DIFFUSER / LIGHT DETAIL
3" = 1'-0"

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CONTENTS:

INTERIOR DETAILS

SCALE:	As indicated
DRAWN:	MP
CHECKED:	PRC
PROJECT NO:	2020006.100

SHEET:
A9.5

ROOM FINISHES SCHEDULE								
		FINISH						
NUMBER	NAME	FLOOR	BASE	N WALL	E WALL	S WALL	W WALL	CEILING
TOP OF SLAB								
100	VESTIBULE	WOM	AA	CW	IWC	CW	IWC	OTS
101	LOBBY/HALLS	CONC-1	F-REVEAL/AA	CW/IWC/GWB	IWC/CW	OPEN/CW/IWC/GWB	IWC/CW	OTS
102	RECEPTION	CPT-1	RBR	OPEN	OPEN/GWB	GWB/TB	GWB	GWB
103	OFFICE	CPT-1	RBR	GWB	GWB	GWB	GWB	ACT 1
104	OFFICE	CPT-1	RBR	GWB	GWB	GWB	GWB	ACT 1
105	MEDICAL	CPT-1	RBR	GWB	GWB	GWB	GWB	ACT 1
106	FITNESS	RES-1	RBR	GWB	GWB	GWB	GWB/MIRROR	ACT 1
107	JAN.	CONC-2	RBR	GWB	GWB/FRP	GWB/FRP	GWB	GWB
108	FIT. UNI.	TILE-1	TILE	TILE-B	GWB/TILE-B	TILE-B	GWB/TILE-B	GWB
109	WOMEN	TILE-1	TILE	TILE-B	GWB/TILE-B	GWB/TILE-B	GWB/TILE-B	GWB
110	TV 1	CPT-1	RBR	GWB	GWB	GWB	GWB	ACT 1
111	TV 2	CPT-1	RBR	GWB	GWB	GWB	GWB	ACT 1
112	MEN	TILE-1	TILE	GWB/TILE-B	GWB/TILE-B	TILE-B	GWB/TILE-B	GWB
113	LIBRARY	CONC-1/RES-3	F-REVEAL/AA	OPEN	GWB/IWC	SF/CMU-1/CMU-2	DISPLAY CASE/OPEN	OTS
114	CULTURAL ROOM	RES-3	RBR	GWB	GWB	GWB	GWB	ACT-1
115	STORAGE	RES-3	RBR	GWB	GWB	GWB	GWB	ACT-1
116	MEN	TILE-1	TILE	TILE-B	TILE-A/TILE-B/MIRROR	GWB	GWB	GWB
117	WOMEN	TILE-1	TILE	TILE-B	GWB	GWB	TILE-A/TILE-B/MIRROR	GWB
118	CLASSROOM	RES-3	F-REVEAL	SF/GWB	OPEN	GWB	GWB	OTS
119	CLOSET	RES-3	F-REVEAL	GWB	GWB	GWB	GWB	GWB
120	PART. ST.	RES-3	F-REVEAL	GWB	GWB	GWB	GWB	OTS
121	DINING ROOM	RES-3	F-REVEAL	SF/GWB	GWB	GWB	OPEN	OTS/GWB
122	UNI	TILE-1	TILE	TILE-B	GWB/TILE-B	GWB/TILE-B	GWB/TILE-B	GWB
123	KITCHEN OFFICE	CPT-1	RBR	GWB	GWB	GWB	GWB	ACT-1
124	PANTRY	CONC-2	RBR	GWB	GWB	GWB	GWB	GWB
125	MECH.	CONC-2	RBR	GWB/PLY	GWB/PLY	GWB/PLY	GWB/PLY	OTS
126	STOR.	CONC-2	RBR	GWB	GWB	GWB	GWB	GWB
127	IT	CONC-2	RBR	GWB/PLY	GWB/PLY	GWB/PLY	GWB/PLY	GWB
128	ELEC.	CONC-2	RBR	GWB/PLY	GWB/PLY	GWB/PLY	GWB/PLY	OTS
129	KITCHEN	RES-2	COVED	GWB/SSP	GWB/SSP	GWB/SSP	GWB/SSP	ACT-2
130	OUTDOOR DINING	CONC-2	F-REVEAL/AA	IWC	GWB	SF/GWB	SF/GWB	OTS
131	FIRE RISER	CONC-2	RBR	GWB/PLY	GWB/PLY	GWB/PLY	GWB/IWC	OTS, SLWC
134	IT CLO.	RES-1	RBR	GWB	GWB	GWB	GWB	GWB

LEGEND

PT	EXTENT OF PAINT
	DIRECTION OF CARPET OR WOOD INSTALLATION
CG	CORNER GUARD
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CJ	CONTROL JOINT, SEE GENERAL NOTES
CW	CURTAIN WALL SYSTEM
FF	FACTORY FINISH
FP	FIELD APPLIED PAINT
GWB	GYPSUM WALL BOARD
IWC	INTERIOR WOOD CLADDING
OPEN	OPEN TO BEYOND
OTS	OPEN TO STRUCTURE
PLY	PLYWOOD PANELS
RBR	RUBBER BASE
RES	RESILIENT
SEAL	CLEAR SEALER
SF	STOREFRONT SYSTEM
SLWC	SUSPENDED LINEAR WOOD CEILING
SSP	STAINLESS STEEL PANEL
ST	STAIN

COMMENTS:

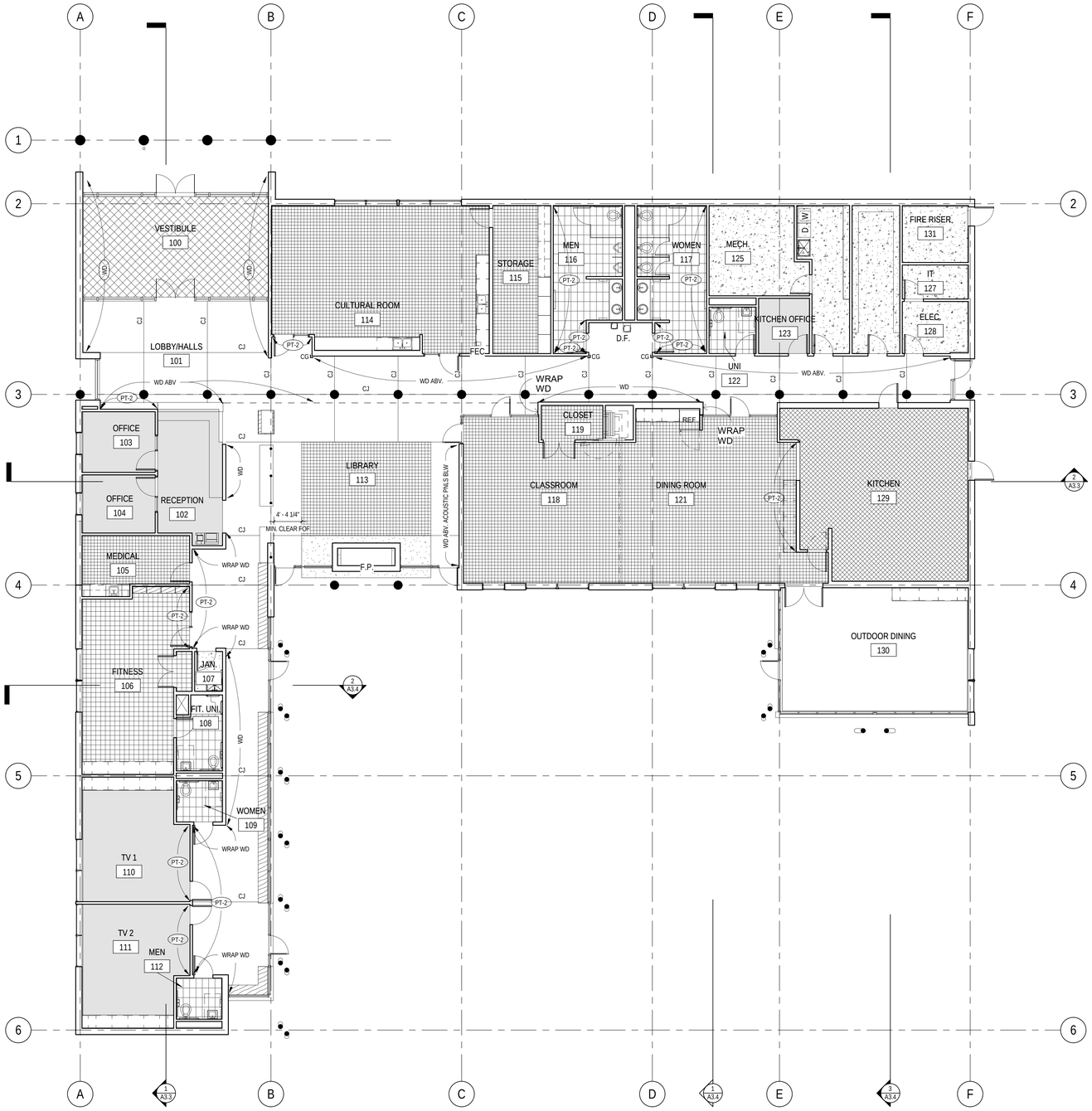
1. CASEWORK NOT INCLUDED IN THIS SCHEDULE. SEE INT ELEVS.
3. SSP PER FOOD SERVICE DRAWINGS/SPECIFICATIONS
4. PLY MOUNTING BOARDS PER ELEC REQUIREMENTS
5. MIRRORS PER INT ELEVATIONS
6. GWB SOFFIT WHERE OCCUR, SEE RCP
7. WOOD WALL FINISH PER INTERIOR ELEVATIONS
8. ACOUSTIC WALL PANELS PER INT ELEVS
9. ACOSUTIC CEILING BAFFLES PER RCP
10. SUSPENDED ACOUSTIC CELING PANELS PER RCP
11. SEE INT ELEVS FOR FULL EXTENT OF TILE TYPE AND PLACEMENT
12. BLUE-BOARD DRYWALL AT ALL PLUMBING, SHOWER & TILE WALLS

FINISH PLAN NOTES:

1. PAINT AT GWB WALLS TO BE PT-1, SATIN FINISH, U.O.N.
2. FINISH AT INTERIOR EXPOSED CARDECK CEILINGS TO BE CLEAR STAIN, U.O.N. .
3. ALL EXPOSED DUCTWORK, CONDUIT, GRILLES TO BE PAINTED
4. ONLY EXPOSED CONTROL AND ISOLATION JOINTS SHOWN IN THESE PLANS. SEE STRUCTURAL FOR ADDITIONAL ISOLATION, CONSTRUCTION, AND CONTRACT JOINT INFORMATION.

COLOR SCHEDULE				
BUILDING COMPONENT	**FINISH**	**COLOR**	**SHEEN**	**NOTES**
CAR DECKING AND GLU-LAM BEAMS	SEAL	CLEAR	LOW GLOSS	
'BURNT' WOOD SIDING	FF	MFR'S CLEAR COAT, PER SPEC	PER SPEC	
STANDING SEAM METAL ROOF	FF	ZACTIQUE II	N/A	
SHEET METAL GUTTERS & DOWNSPOUTS	FF	MATCH ROOF PANELS	N/A	BY METAL PANEL MFR
STEEL GUTTER BRACKETS	HPC	PT-4 (GRAY)	LOW GLOSS	SELECTED TO MATCH ROOF PANEL COLOR
MISC STEEL CONNECTIONS	HPC	PT-3 (BRONZE)	LOW GLOSS	SELECTED FROM MFR STANDARD COLORS
HOLLOW METAL DOORS/FRAMES (EXT)	HPC	PT-3 (BRONZE)	SEMI GLOSS	SELECTED FROM MFR STANDARD COLORS
HOLLOW METAL DOORS/FRAMES (INT)	HPC	PT-X	SEMI GLOSS	TO MATCH SURROUNDING WALL
SHEET METAL FLASHING @ ROOF	FF	MATCH ROOF PANELS	N/A	BY METAL PANEL MFR
SHEET METAL FLASHING AT OPENINGS	FF	BRONZE	N/A	SELECTED FROM MFR STANDARD COLORS
FIBERGLASS WINDOWS	FF	BRONZE	N/A	SELECTED FROM MFR STANDARD COLORS
PEELER POLE COLUMNS	SEAL	CLEAR	LOW GLOSS	
CONCRETE MASONRY UNITS	SEAL	CLEAR	LOW GLOSS	
CURTAIN WALL SYSTEM	FF	PER SPEC (BRONZE)	N/A	SELECTED FROM MFR STANDARD COLORS
STOREFRONT SYSTEM	FF	PER SPEC (BRONZE)	N/A	SELECTED FROM MFR STANDARD COLORS
LIGHTED BOLLARDS	FF	PER SPEC (BRONZE)	N/A	SELECTED FROM MFR STANDARD COLORS
STEEL BOLLARDS	HPC	PT-3 (BRONZE)	LOW GLOSS	SELECTED FROM MFR STANDARD COLORS
MECHANICAL LOUVERS	FF	BRONZE	LOW GLOSS	SELECTED FROM MFR STANDARD COLORS
BROOMED CONCRETE FLOORS	SEAL	CLEAR	LOW GLOSS	
POLISHED CONCRETE FLOORS	SEAL	CLEAR	HIGH GLOSS	
SUSPENDED LINEAR WOOD CEILINGS	SEAL	CLEAR	LOW GLOSS	
MECHANICAL GRILLES (INTERIOR)	PT	PT-X	SEMI GLOSS	PAINT TO MATCH SURROUNDING WALL
GYPSUM WALL BOARDS WALLS, TYP U.N.O	PT	PT-1 (WHITE)	SEMI GLOSS	SELECTED FROM MFR STANDARD COLORS
GYPSUM WALL BOARD ACCENT WALLS	PT	PT-2 (ACCENT)	SEMI GLOSS	SELECTED FROM MFR STANDARD COLORS
GYPSUM WALL BOARD CEILINGS	PT	PT-1 (WHITE)	SEMI GLOSS	SELECTED FROM MFR STANDARD COLORS
GENERAL NOTE: UNLESS NOTED HERE, COLOR AND SHEEN ARE TYPICALLY DEFINED IN THE SPECIFICATIONS.				

Color / Finish



1 FINISH PLAN
1/8" = 1'-0"

NORTH

FINISH GRAPHIC LEGEND

CONCRETE 1	CARPET	SHEET VINYL FLOORING	WALK-OFF MAT
CONCRETE 2	LUXURY VINYL TILE FLOORING	FITNESS RUBBER FLOORING	TILE

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CONTENTS:

1st FLOOR FINISH PLAN

SCALE:	As indicated
DRAWN:	PRC
CHECKED:	SWL
PROJECT NO:	2020006.100

SHEET:
A10.1