

# RINGS, CRESCENTS, & CONTINUOUS/ROTATABLE SHAPES LP1/MR1 | SUSPENDED, SURFACE



# **SPECIFICATIONS**

PROFILE	1" Aperture; Configurable in circles, crescents, rotatable crescents, and serpentine shapes
SIZES	Radii of 25", 30", 36", and 48" Compatible with LP1 linear sections
LED OUTPUT	600lm - 4590lm
CCT/CRI	3000K/3500K/4000K • 90+ CRI
DIMMING/ DRIVER	Remote Driver: 0-10V, DALI, DMX, eldoLED, Lutron®. Dimming to 0% for select models.
POWER	14.4W - 110.4W per ring
INPUT	120VAC, 277VAC
OPTICS	Diffused acrylic lens — direct/indirect
FINISHES	16 standard finishes at no extra charge Custom finishes available
MATERIAL	6061 Extruded & Welded Aluminum
ENVIRONMENT	Dry or damp locations

<sup>\*</sup>Safety and Performance information available on last page. Weights and other specifications available on pages 5-11.

# **DISTRIBUTIONS & PROFILES**





DIRECT

STANDARD SUSPENSION CENTRAL AXIS SUSPENSION







Not to scale. Dimensions are nominal. Consult factory for CAD drawing

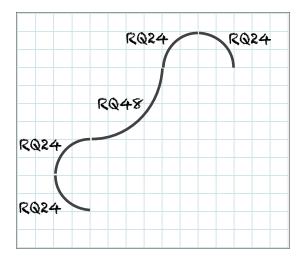




# HOW TO SUBMIT YOUR CRESCENT MOONRING CONFIGURATION (SKIP IF SPECIFYING STANDALONE CRESCENTS)

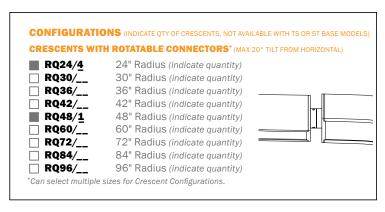
#### 1. SKETCH YOUR DESIGN ON PAGE 3.

Alternatively, you can create your design using the CAD-ready STEP files provided on the CRESCENT MOONRING product page. Save your CAD assembly as a .STEP AP214 file and submit to ALW at quotes@alwusa.com.



# 2. TALLY UP EACH DESIRED CRESCENT SIZE & COMPLETE THE PRODUCT SUBMITTAL WORKSHEET (PGS. 6-7).

Count all of the Crescents sketched in step one, and indicate the quantity of each Crescent size in step 2 of the product submittal worksheet (pg. 4).



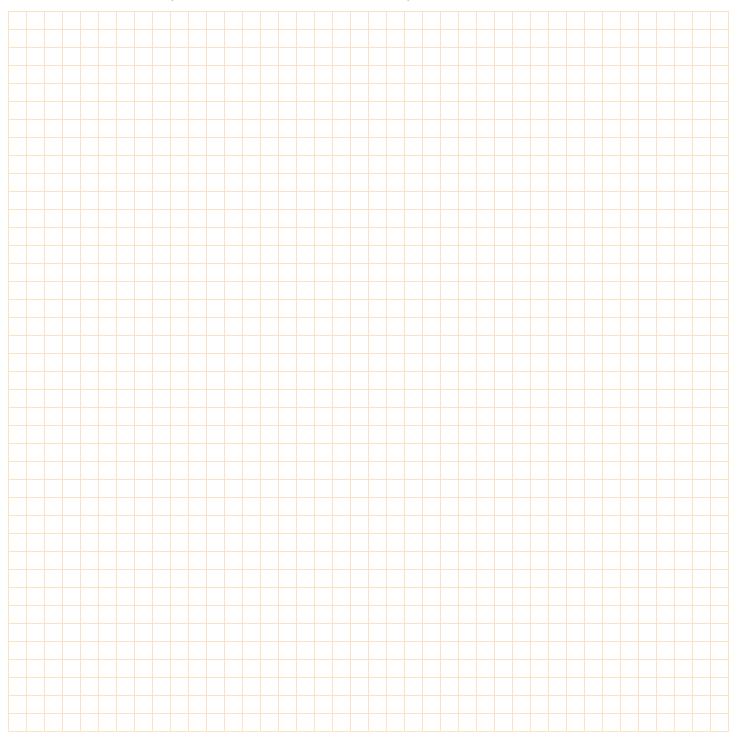
# 3. SUBMIT FORMS BELOW TO ALW FOR REVIEW.

- 1. CONFIGURATION GRAPH (PG. 3) or STEP AP214 FILE
- 2. PRODUCT SUBMITTAL WORKSHEET (PGS. 4-7)



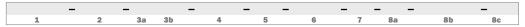
# HOW TO SUBMIT YOUR CRESCENT MOONRING ROTATABLE CONFIGURATION (CONT.)

**DESIRED CONFIGURATION (LOOKING FROM CEILING DOWNWARDS)** 





#### PRODUCT SPECIFICATION SHEET



EXAMPLE: LP1/MR1SD - D4 - MIN/3500 - ECOSYS1 - EXT/F - SW - UNV - EMB - MLX - SB 8a 8b

D8

#### 1. BASE MODEL (CHOOSE 1)

#### 2. NOMINAL SHAPE/SIZE

LP1/MR1SD 1" Suspended, Direct LP1/MR1SI 1" Suspended, Indirect LP1/MR1SMB 1" Wall/Surface,

3. LED LAMPING (CHOOSE ONE UNDER B)

3000K

3500K

4000K

Back-Mounted, Front-Facing

**FULL-CIRCLE RINGS** STANDARD SUSPENSION

D4 4' Diameter (Nominal) D5 5' Diameter D6 6' Diameter

8' Diameter **FULL-CIRCLE RINGS** CENTRAL AXIS SUSPENSION

D4/CA 4' Diameter (Nominal)

D5/CA 5' Diameter D6/CA 6' Diameter D8/CA 8' Diameter

See Performance Detail table on Page 11 for arc sections and mounting points.

#### STANDALONE CRESCENTS (SINGLE SECTIONS)

Q25 25" Radius 030 30" Radius Q36 36" Radius 48" Radius Q48

ROTATABLE CRESCENTS (ROTATABLE CONFIGURATIONS) INDICATE QUANTITY OF SECTIONS / LENGTH OF LINEAR

RQ25/\_\_ 25" Radius (indicate quantity) RQ30/\_\_ 30" Radius (indicate quantity) R036/ 36" Radius (indicate quantity) RQ48/\_\_ 48" Radius (indicate quantity) Linear section (indicate total S/\_\_

length in ft.)

CONTINUOUS CRESCENTS (SHAPES WITH CONTINUOUS LIGHT) INDICATE QTY OF SECTIONS / LENGTH OF LINEAR

CQ25/\_\_ 25" Radius (indicate quantity) CQ30/\_\_ 30" Radius (indicate quantity) CQ36/\_\_ 36" Radius (indicate quantity) CQ48/\_\_ 48" Radius (indicate quantity) S/\_\_ Straight run LP1 section (indicate total length in ft.)



# 4. REMOTE DRIVER<sup>1,2</sup> (CHOOSE 1)

0/10V/0% (0-10V, dim to 0%)

**0/10V/1%** (0-10V, dim to 1%)

**0/10V/S** (0-10V, dim to 10%)

DALI (DALI, dim to 0%) DMX (DMX, dim to 0%)

compatibility

ECOSYS1 (Lutron ECOSYS1, 0-10V, dim to 0%)

<sup>1</sup>Driver specifications provided upon request. See page 12 for driver details <sup>2</sup>Refer to all 'Driver', 'Sensor' and lamping charts for

#### 5. LENS

EXT/F

# Extra diffuse, flush

#### STANDARD FINISHES

6. FINISH\* (CHOOSE 1)

**SW** Satin White SB Satin Black

AS Aluminum Silver Anodized Effect

■ Textured Black

# PREMIUM FINISHES

See chart on page 9 for premium finishes, Manually type in the finish code (Ex: OB = Oil-Rubbed Bronze)

# SPECIAL ORDER FINISHES

Specify RAL Classic Color RAL\_\_\_\_ (Fx: RAL 3003) Custom Color Match

Manually type in the finish code for special order finishes types

#### 7. VOLTAGE

A. OUTPUT

MIN

#### 8c. ADDITIONAL OPTIONS (OPTIONAL)

#### Universal Voltage (120VAC-277VAC) UNV

None

EMB<sup>3</sup> Emergency Battery (Not available in 347 V)

EMC<sup>3</sup> Emergency Circuit

Applies to direct lamping only. EMB will deliver constant power to a 2ft arc of a ring for 90min. Total lumens: MR1.5: 1432lms, MR3: 2256lms. Consult ALW for more details.

WLNX/\_\_ (Cooper Wavelinx)

ENLGHT/\_\_ (Enlighted)

FCJS/\_\_ (Lutron)

8a. EMERGENCY OPTIONS (OPTIONAL, CHOOSE 1) 8b. SENSOR OPTIONS\* (OPTIONAL, CHOOSE 1)

FCJS/S/ (Lutron, occ/daylight sensor)

MLX (Molex POE)

'Driver',

**NLT** (nLight wired)

NLTAIR (nLight AIR wireless)

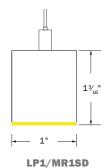
OS/PH/HV/\_\_ (Hubbel WASP remote occ/ daylight sensor)

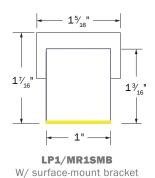
Default quantity is 1 sensor per 8ft, type alternate quantity into product code above if desired. Sensor descriptions available on page 13.
Not all sensors are compatible with all drivers. See

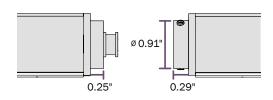
SB Seismic Bracing



# **MECHANICAL DIAGRAMS — MOUNTING & DIMENSIONS**





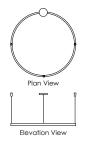


**ROTATING CONNECTORS (RQ)** 

# **SUSPENSION OPTIONS**

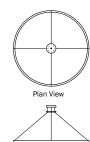
# **STANDARD SUSPENSION (SS)**

- 4.5" white canopy per power feed location
- Bullet mount
- 8' aircraft cable (longer suspension cables available upon request)
- 2" white canopy (for use with T-bar mounting) per suspension point



# **CENTRAL AXIS SUSPENSION (CAS)**

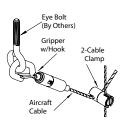
- 4.5"(D4 to D6) and 5"(D8) white central axis canopy per fixture that all aircraft cables/power feeds route into, as shown.



Elevation View

# **SEISMIC BRACING (SB)**

Add-on hardware includes cable gripper with hook, 2-cable clamp and specified length of aircraft cable per suspension point.



# **COMBO CANOPY**

Suspended options come with standard 4.5" canopies at feed locations with power feed and aircraft cable suspension mounting. Canopy finish is always white.

Contact ALW for alternate colors.

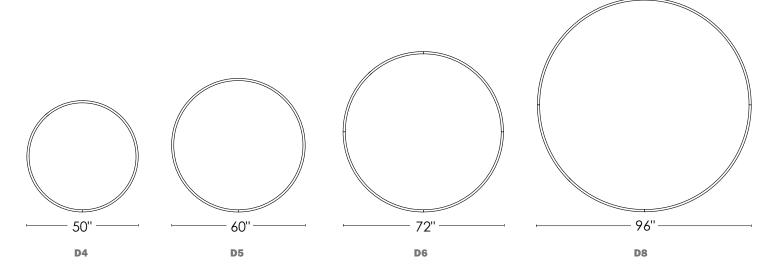




# **MECHANICAL DIAGRAMS — CONFIGURATIONS**

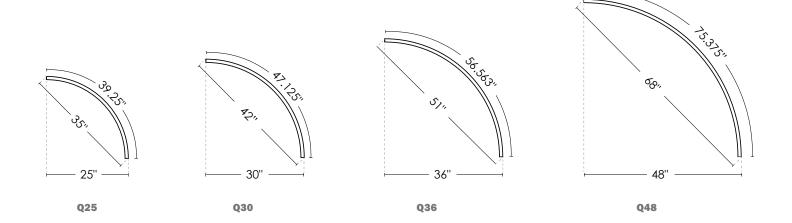
# **MOONRINGS**

Shown with Full-Circle Diameters



# **QUADRANT ARCS**

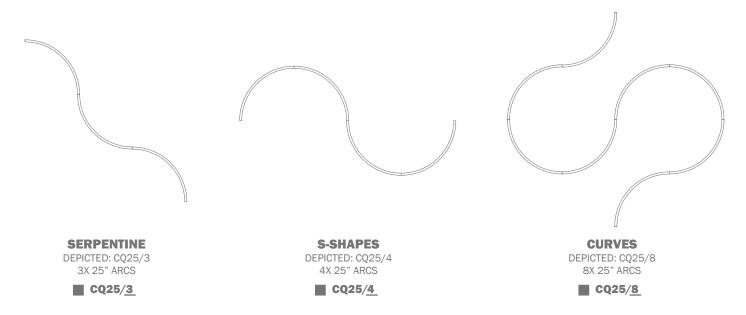
Shown with Radius and Arc Chord Lengths





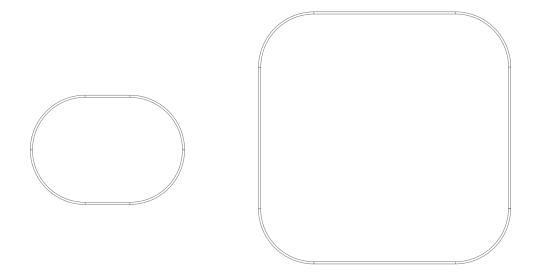
# **SAMPLE CONFIGURATION DIAGRAMS**

# **SERPENTINE SHAPES**



# **STADIUM OVALS & ROUNDED RECTANGLES**

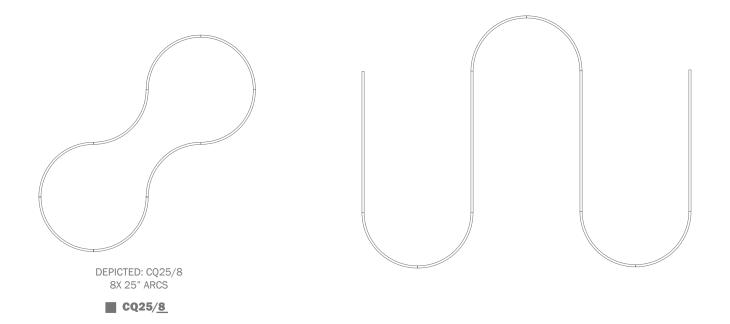
with compatible Lightplane 1 (LP1) linear sections

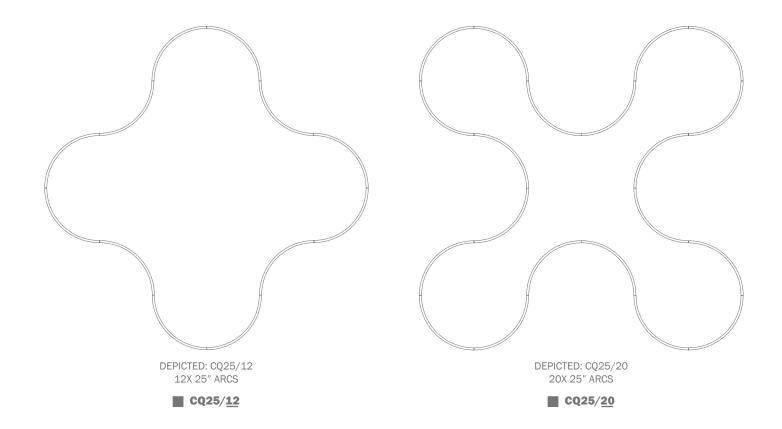




# **SAMPLE CONFIGURATION DIAGRAMS**

# **OTHER CONFIGURATIONS**





Rev 120623



#### **FINISHES**

Standard finishes are available at no additional charge.

#### **STANDARD FINISHES**



# **PREMIUM FINISHES**

# **BASIC POWDER COAT**



# SATIN ANODIZED EFFECT POWDER COAT



Contact ALW Quotes for sample paint finish swatches.

# **METALLIC POWDER COAT**



# **GLOSS POWDER COAT (80-95% GLOSS)**



#### **SPECIAL ORDER FINISHES\***



# RAL CLASSIC COLORS (80-95% GLOSS): RAL\_\_\_\_

Most RAL Classic Colors are available for a minimum setup fee. On your specification submittal choose your RAL color by entering the 4-digit RAL code (Ex: RAL 3003). See <a href="https://www.alw-inc.com/resources/finishes">www.alw-inc.com/resources/finishes</a>



# CUSTOM COLOR MATCH: CCM\_\_\_\_

Custom powder coat color matching is available for a premium setup fee. Consult ALW for additional information.

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<sup>\*</sup>An individual setup fee will apply to each unique Special Order Finish per purchase order. (ex: RAL 5023 and RAL 2008 are specified for multiple line items on a purchase order. 2x setup fees will apply)

<sup>\*</sup>Printed or on-screen colors are only approximations - consult actual Color Chip Set before specifying



# PERFORMANCE DETAILS — LED LAMPING

FIXTURE	SIZE	DELIVERED LUMENS <sup>3</sup>	WATTS <sup>4</sup>	MOUNTING OPTIONS	TOTAL	SUSPENSION	POWER DROPS <sup>5</sup>		REMOTE DRIVER BOXES		APPROX.								
ТҮРЕ		(LM)	(W)		FIXTURE SECTIONS	POINTS	0-10V, DALI, DMX	ECOSYS	0-10V, DALI, DMX	ECOSYS	(LBS)								
D4	4ft. Dia. (Nominal)	2390	57.5		1x Joined Arc	4x Total	1	1	1	1	18								
<b>D5</b>	5ft. Dia.	2870	69	Surface or	1x Joined Aic	47 10(8)	1	1	1	1	22.5								
D6	6ft. Dia.	3440	82.8	Suspended		4x Total, 1x Per Arc	1	2	1	2	27								
D8	8ft. Dia.	4590	110.4	4x J0	4x Joined Arcs	6x Total, Across 4x Arcs	1	2	1	2	36								
D4/CA	4ft. Dia. (Nominal)	2390	57.5			4 7	1	1	1	1	18								
D5/CA	5ft. Dia.	2870	69	Suspended	Suspended								4x Joined Arc	4x Total	1	1	1	1	22.5
D6/CA	6ft. Dia.	3440	82.8	(With Central Axis Canopy)	4	4x Total, 1x Per Arc	1	1	1	2	27								
D8/CA	8ft. Dia.	4590	110.4		4x Joined Arcs	6x Total, Across 4x Arcs	1	1	1	2	36								
Q25	25in. Radius	600	14.4								4.5								
Q30	30in. Radius	720	17.3	Surface or	Surface or							5.63							
Q36	36in. Radius	860	20.7	Suspended	1x Arc	3x Total	1	1	1	1	6.75								
Q48	48in. Radius	1150	27.6								9								

<sup>&</sup>lt;sup>4</sup>Performance calculations derived from actual IES test of D2 LED/3500K 0/10V driver

<sup>&</sup>lt;sup>5</sup>Power Drop refers to the total quantity of canopies dropping low voltage power to the fixture. Each canopy may have one or multiple wire feeds supplying power to the fixture.



#### **VOLTAGE DROP DETAILS** -

#### **VOLTAGE DROP CALCULATION DIRECTIONS**

Your MOONRING may be powered with more than 1x Class 2 LED driver. Let's use the White LED, 33VDC chart below as an example.

# 1. Determine Load Size of Each Circuit

- a. Open the driver enclosure and you'll see a silver sticker that indicates the Power (Wattage).
- b. Let's say the load is 45W. Round up to the nearest load, which is 50W (we're using the White LED, 33VDC chart in this example).

#### 2. Determine Distance from Driver to Load

Let's assume the distance is 60 ft. If you need to determine your wire gauge and driver distance before you receive the product, use 95W as your worst case load rating. All drivers are Class 2 and each circuit will never exceed 95W.

# 3. Determine Wire Gauge

In this example, ALW recommends to install 16 AWG wire between the Driver and Canopy (where power drops to the ring).

# **REMOTE DRIVER VOLTAGE DROP INFORMATION (12VDC)**

The below table should be used as a general guide to calculate the maximum run length between the canopy J-Box and the 0-10V remote driver. See alwusa.com/voltage-drop-calculator/ to calculate maximum recommended run length for specific wattages. Please note that the provided values are estimates only, and may vary depending on various factors such as temperature, wire/connector quality, etc. Also note that the wattages provided on the performance detail chart (pg. 8) are total watts for the fixture. The wattages for each remote driver should be indicated on the remote box, otherwise estimate watts by dividing total watts by the number of remote drivers provided.

WIRE GAUGE	20W 1.67A	30W 2.50A	40W 3.33A	50W 4.17A	60W 5.00A	70W 5.83A	80W 6.67A	90W 7.50A	100W 8.33A
18 AWG	8 ft.	3 ft.	Not recommended						
16 AWG	18 ft.	9 ft.	5 ft.	2 ft.	Not recommended				
14 AWG	34 ft.	20 ft.	13 ft.	9 ft.	6 ft.	4 ft.	2 ft.	Not recommended	Not recommended
12 AWG	60 ft.	37 ft.	26 ft.	19 ft.	14 ft.	11 ft.	9 ft.	7 ft.	5 ft.
10 AWG	100 ft.	64 ft.	46 ft.	35 ft.	28 ft.	22 ft.	19 ft.	16 ft.	13 ft.



#### **DRIVERS**

PRODUCT CODE	DESCRIPTION
0/10V/0	0-10V dimming down to 0% (dim to off).
0/10V/1%	0-10V dimming down to 1%.
0/10V/S	0-10V dimming down to 10%
ECOSYS1	(LDE1) Lutron Hi-lume 0% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology.
DALI	DALI flicker-free dimming down to 0%.
DMX	DMX flicker-free dimming down to 0%.

<sup>\*</sup>Most drivers can be programmed to specific dimming levels if desired. Contact ALW for specific dimming level requests.

ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. If there are specific components required for your application that aren't listed on this spec sheet, please contact ALW customer support today to specify a compatible solution of your choice.

DRIVER/LED LAMPING COMPATIBILITY									
	STD	TUNE	CA TITLE 24 JA8/JA10 <sup>6</sup>	IEEE P1789 & HD TV STUDIO* <sup>7</sup>					
0/10V/0	•	•	•						
0/10V/1%	•	•	•						
0/10V/S	•	•	•						
ECOSYS1	•		•	•					
DALI	•	•	•						
DMX	•	•	PER REQUEST	PER REQUEST					

Indicates compatibilityStandard lamping (STD) - LOW

<sup>6</sup>Fixtures specified with 90CRI 3000K, 3500K, and 4000K lamping with applicable LED drivers have the ability to conform to California Title 24 JA8 and JA10 Appendices

<sup>7</sup>The following drivers conform to IEEE P1789 Flicker Standard: 'IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers'. These drivers may also be installed in HD TV Studio applications utilizing high frequency camera equipment.



# SENSORS -

	PRODUCT CODE	DESCRIPTION	Location
COOPER WAVELINX	WLNX	Fixture is built with 0/10V wiring to connect to Wavelinx Wireless sensors and power/relay packs (sensors and equipment not provided by ALW)	Remote
ENLIGHTED™	ENLGHT	Enlighted remote connected lighting smart sensor - occ/daylight/networking (Enlighted Part: SU-5S-H-CL)	Remote
LUTRON VIVE	FCJS	Lutron® Vive remote RF wireless fixture control (Lutron Part: FCJS-ECO or FCJS-010)	Remote
LUIRON VIVE	FCJS/S	Lutron® Vive remote RF wireless fixture control + daylight/occ sensor (Lutron Part: FCJS-ECO or FCJS-010, & FC-Sensor)	Remote
MOLEX POE CORESYNC	MLX	Molex PoE sensors for use with Molex/PoE drivers. Customer will need to determine who to purchase PoE equipment from	Remote
NLIGHT® WIRED	NLT	Fixture is built with wiring connections to connect to nLight® Wired remote sensors and power/relay packs purchased through distributor by agency	Remote
NLIGHT WIRELESS	NLTAIR	Fixture is built with wiring connections to connect to nLight® Air remote sensors and power/relay packs purchased through distributor by agency	Remote
VALUE SENSORS	OS/PH/HV	Hubbell WASP <b>High Voltage</b> 0-10V remote surface mount occ/daylight sensor. 120/277/347VAC input (Hubbell Part: WSPDSMUNV)  Automated Dimming Functionality: Connect fixture 0/10V wires to sensor in the field. Adjust occ/photocell settings as desired. On/Off or Manual Dimming Functionality: Turn photocell functionality OFF. Cap off 0/10V wires on sensor. Connect fixture 0/10V wires to wall dimmer in the field.	Remote

<sup>\*</sup>All connected lighting sensors/systems must be programmed in the field by an electrical commissioner familiar with the system. Refer to the 'Sensor Compatibility' and 'Driver/ Sensor Compatibility' charts to specify compatible sensors, LED lamping, and LED driver systems.

SENSOR COMPATIBILITY									
PRODUC	T CODE	SENSOR TYPE	MAX MT HT	CA TITLE 24	STD*				
COOPER WAVELINX	WLNX		15 ft	•	•				
ENLIGHTED	ENLGHT	OCCUPANCY/PHOTOCELL	40 ft	•	•				
	FCJS	WIRELESS CONTROL	12 ft	•	•				
LUTRON VIVE	FCJS/S	OCCUPANCY/PHOTOCELL	12 ft	•	•				
MOLEX POE CORESYNC	MLX		16 ft	•	•				
NLIGHT WIRED	NLT		15 ft	•	•				
NLIGHT AIR WIRELESS	NLTAIR		15 ft (average)	•	•				
VALUE SENSORS	OS/PH/HV	OCCUPANCY/PHOTOCELL	45 ft	•	•				

<sup>● -</sup> Indicates compatibility ■ - On/off sensor functionality only

<sup>\*</sup>Standard lamping (STD) - LOW



# SENSORS (CONT'D) -

	DRIVER/SENSOR COMPATIBILITY										
	WLNX	ENLGHT	FCJS	FCJS/S/	MLX	NLT	NLTAIR	OS/PH/HV	NO SENSOR		
0/10V/0	•	•	•	•				<b>A</b>	•		
0/10V/1%	•	•	•	•				<b>A</b>	•		
0/10V/S	•	•	•	•				<b>A</b>	•		
ECOSYS1			•	•				_	•		
DALI								_	•		
DMX								_	•		

<sup>● -</sup> Indicates compatibility 🛕 - Driver/sensor can have dimming OR on/off functionality but not both 📃 - On/off sensor functionality only

<sup>\*</sup>Driver specifications provided upon request

\*\*ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. If there are specific components required for your application that aren't listed on this spec sheet please contact ALW customer support today to specify a compatible solution of your choice.



# **PHOTOMETRICS** -

OPTIC	POLAR PLOT (CD)	MTG HEIGHT	LIGHT LEVEL (FC)	SPACING CRITERION (SC) <sup>8</sup> (0°-180°) (90°-270°)	MAX INTENSITY (CD)	OUTPUT (LM)
		6 ft	70.6	1.26	2541	
		8 ft	39.7			
LD4 /MD4		10 ft	25.4			7100
LP1/MR1		12 ft	17.6	1.26	2541	7100
		14 ft	13			
		16 ft	9.9			

<sup>\*</sup>Photometric calculations based on LOW, 4000K 90 CR D2 fixture combination. Actual results may vary in the field.

For footcandle and output multipliers refer to the ALW IES File Multipliers Chart.

Spacing criterion refers to maximum distance luminaires can be spaced to provide uniform illumination on the working plane or surface. Luminaire spacing = Spacing Criterion (SC) x Mounting Height (MH) (ex. 1.14 (SC) x 10' (MH) = 11.4' Luminaire Spacing).



# **ADDITIONAL OPTIONS & SPECIFICATIONS**

#### **LED PERFORMANCE**

Class 2 LED remote drivers are provided with 10' plenum-rated cable. 80+ CRI. Luminous flux +/- 5%.

# **LENS**

Extruded, twin-layered, high-impact acrylic. EXT is white and extra diffuse with minimal- to no-source visibility..



FLUSH LENS - EXT/F

#### **HOUSING**

100% recyclable, extruded architectural grade 6061 aluminum with a 0.08" minimum wall thickness..

# **SAFETY & REGULATORY**

Fixtures specified with 90CRI, 2700K, 3000K, 3500K, and 4000K lamping with applicable LED drivers have the ability to conform to **California Title 24 JA8 and JA10** Appendices. EldoLED drivers can conform to IEEE P1789 Flicker Standard: 'IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers .

Contact ALW customer support today and we can help you with your project requirements.

ETL Listed (U.S. & Canada). Suitable for dry locations only. Conforms to UL std. 2108, Low Voltage Luminaires / Low Voltage Lighting Systems.

Certified to CSA std. C22.2#250.0:2008 Ed. 3+G1;G2.

#### **WARRANTY**

Limited 11 year warranty. Details: alw-inc.com.

# **OPERATING CONDITIONS**

Luminaire should be installed and operated ONLY in dry environments where the ambient temperature ranges from -4 °F to 122 °F (-20 °C to 50 °C). Luminaire operation in environments outside the listed temperature range voids the warranty AND may damage the product or adversely impact lamp life, lumen output and color consistency.

# **POWER CABLES**

Power cables come standard in a transparent sheathing to match steel aircraft suspension cables. Please contact customer support if custom cables are required for your application. Power cables cannot be swapped in the field as it will void the ETL Safety Listing and Product Warranty.



#### **WEIGHT**

Approximately 12.5lbs. - 110lbs. per fixture. Weight may vary depending on additional options selected.

# **CONTROLS, SENSORS, & LED DRIVER**

ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. Our component portfolio is continually expanding to adopt to the latest technologies and specification needs. We currently support integration with Lutron, Enlighted, EldoLED, nLight, Osram, Philips, and more. If there's a component or system needed that you don't see on the spec sheet please contact ALW customer support today so we can review your requirements.