

## DESCRIPTION

The VRDN LED area, site and roadway luminaire combines optical performance, energy efficiency and versatility in a low cost solution. Advanced optical technology delivers unparalleled uniformity and scalability. Heavy-duty construction and ease of installation features make the VRDN luminaire the choice for parking area, walkway and roadway applications. The VRDN luminaire is UL/cUL listed for wet locations. An optional IP66 enclosure rating is available.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

## SPECIFICATION FEATURES

### Construction

Heavy-duty, die-cast aluminum housing and door. Tool-less entry, hinged removable door for easy maintenance. 3G vibration rated to insure strength of construction and longevity in selected application.

### Optics

High efficiency AccuLED Optics™ technology creates consistent distributions with the scalability to meet customized application requirements. Optics are precisely designed to shape the distribution maximizing efficiency and fixture spacing. Offered standard in 4000K (+/- 275K) CCT and 70 CRI. Optional 3000K CCT is available.

### Electrical

LED drivers are mounted to the removable aluminum door for optimal heat sinking and ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation.

480V is compatible for use with 480V Wye systems only. 10kV common- and differential- mode surge protection available. 0-10V dimming standard with integrated 6kV surge protection. Thermal management incorporates both conduction and convection to transfer heat rapidly away from the LED source for optimal efficiency and light output. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA (high ambient) available. LED modules are IP66 rated.

### Mounting

Two-bolt/one-bracket slipfitter with cast-in pipe stop and 2.5° leveling steps. Four-bolt/two-clamp mounting option. Fixed-in-place bird guard seals around 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) mounting arms. Optional 15" pole mount arm available with round pole adapter and mounting hardware included.

### Finish

Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Consult your lighting representative at Cooper Lighting Solutions for a complete selection of standard colors. Options to meet Buy American and other domestic preference requirements.

### Warranty

Five-year warranty.

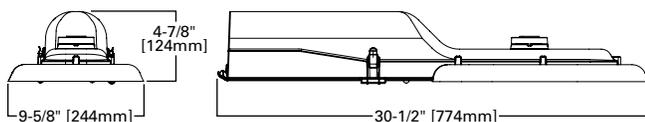


## VRDN

LED

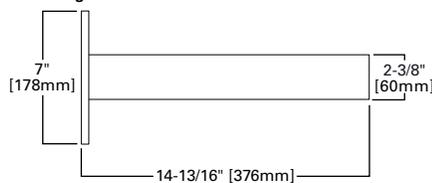
AREA / SITE / ROADWAY  
LUMINAIRE

## DIMENSIONS

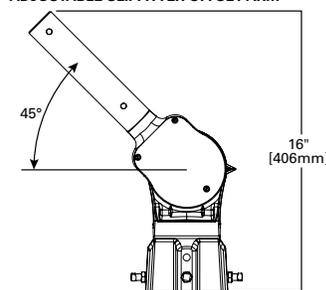


## OPTIONAL ARM

### 15" Straight Arm

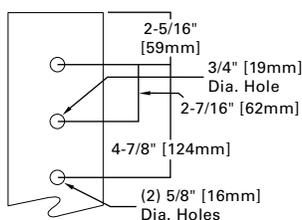


### ADJUSTABLE SLIPFITTER OFFSET ARM



## ARM DRILLING

### TYPE "M"



## CERTIFICATION DATA

UL and cUL Wet Location Listed  
IP66-Rated Optics  
3G Vibration Rated  
ISO 9001

## ENERGY DATA

**Electronic LED Driver**  
0.9 Power Factor  
<20% Total Harmonic Distortion  
120-277V/50 and 60Hz,  
347V/60Hz, 480V/60Hz  
-40°C Minimum Temperature Rating  
+40°C Ambient Temperature Rating

## EPA

Effective Projected Area (Sq. Ft.): 0.5

## SHIPPING DATA

Approximate Net Weight:  
20 lbs. (9.1 kgs.)

**CONTROL OPTIONS**

**0-10V (D)**

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

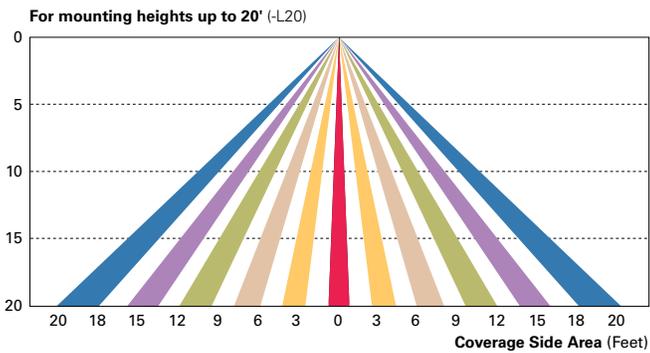
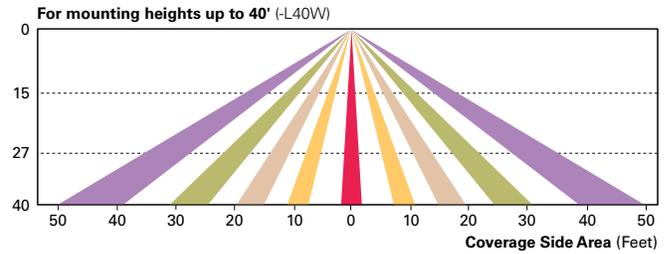
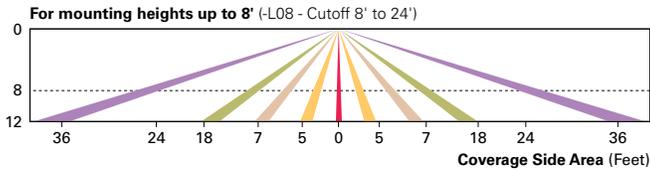
**Photocontrol (PER and PER7)**

Photocontrol receptacles (PER and PER7) 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 PER7 receptacle.

**Dimming Occupancy Sensor (MS/DIM-LXX)**

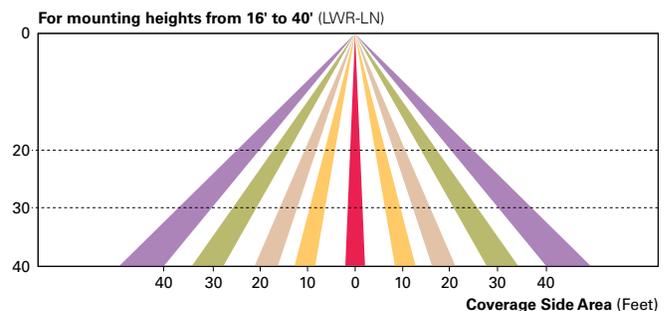
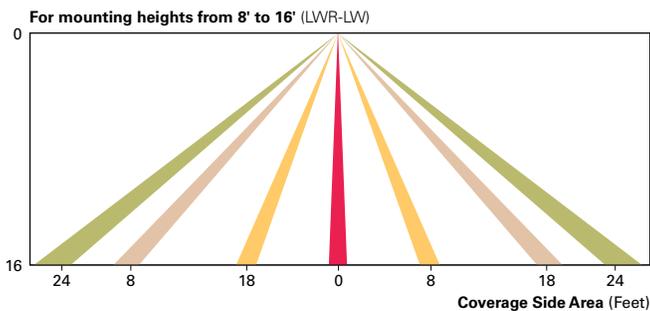
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The 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'.



**LumaWatt Pro Wireless Control and Monitoring System (LWR-LW and LWR-LN)**

The Eaton’s LumaWatt Pro powered by 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.



**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.

**POWER AND LUMENS**

Light Engine	C016	C018	C01	C028	C02	
Nominal Power (Watts)	39	50	56	73	90	
Input Current @ 120V (A)	0.32	0.42	0.47	0.61	0.75	
Input Current @ 277V (A)	0.15	0.19	0.22	0.28	0.34	
Input Current @ 347V (A)	0.10	0.12	0.16	0.22	0.27	
Input Current @ 480V (A)	0.07	0.09	0.13	0.17	0.20	
Type I	Lumens	5,122	6,286	7,525	9,819	11,586
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2
Type II	Lumens	4,870	5,976	7,154	9,335	11,015
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2
Type III	Lumens	4,862	5,967	7,143	9,321	10,998
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2
Type IV	Lumens	4,798	5,888	7,048	9,197	10,852
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
Type V	Lumens	4,963	6,090	7,291	9,514	11,226
	BUG Rating	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G3	B4-U0-G3

**LUMEN MAINTENANCE**

Ambient Temperature	TM-21 Lumen Maintenance (50,000 hours)	Theoretical L70 (Hours)
Up to 40°C	>92%	>242,000

**LUMEN MULTIPLIER**

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

**ORDERING INFORMATION**

Sample Number: VRDN-C02-D-UNV-T3-PER-AP

Product Family <sup>1</sup>	Light Engine <sup>2</sup>	Driver	Voltage	Distribution
<b>VRDN</b> <b>BAA-VRDN</b> =Buy American Act Compliant <sup>14</sup> <b>TAA-VRDN</b> =Trade Agreements Act Compliant <sup>14</sup>	<b>C016</b> =1 LED, Approximately 60% Output <b>C018</b> =1 LED, Approximately 80% Output <b>C01</b> =1 LED, Full Output <b>C028</b> =2 LEDs, Approximately 80% Output <b>C02</b> =2 LEDs, Full Output	<b>D</b> =Dimming (0-10V)	<b>UNV</b> =Universal (120-277V) <b>347</b> =347V <b>480</b> =480V <sup>3</sup>	<b>T1</b> =Type I <b>T2</b> =Type II <b>T3</b> =Type III <b>T4</b> =Type IV <b>T5</b> =Type V
Options (Add as Suffix)	Color	Accessories (Order Separately) <sup>15</sup>		
<b>7030</b> =70 CRI / 3000K <sup>4</sup> <b>PER</b> =NEMA Twistlock Photocontrol Receptacle <b>PER7</b> =NEMA 7-PIN Twistlock Photocontrol Receptacle <b>10K</b> =10kV UL 1449 Surge Protective Device <b>IP66</b> =IP66 Rated Housing <b>HA</b> =50°C High Ambient Temperature <b>MS/DIM-L08</b> =Motion Sensor for Dimming Operation, Maximum 8' Mounting Height <sup>5,6,7</sup> <b>MS/DIM-L20</b> =Motion Sensor for Dimming Operation, 9' - 20' Mounting Height <sup>5,6,7</sup> <b>MS/DIM-L40W</b> =Motion Sensor for Dimming Operation, 21' - 40' Mounting Height <sup>5,6,7</sup> <b>LWR-LW</b> = LumaWatt Pro Wireless Sensor, Wide Lens for 8' - 16' Mounting Height <sup>5,8</sup> <b>LWR-LN</b> =LumaWatt Pro Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height <sup>5,8</sup> <b>K</b> =Level Indicator <b>4B</b> =Four-bolt, Two-clamp Mounting <b>A15</b> =Arm Included (15" Straight Arm) <sup>9</sup> <b>HSS</b> =House Side Shield <sup>10</sup> <b>ASJS15</b> =Adjustable slipfitter (Factory set at 15 degrees) <b>ASJS25</b> =Adjustable slipfitter (Factory set at 25 degrees) <b>ASJS45</b> =Adjustable slipfitter (Factory set at 45 degrees)	<b>AP</b> =Grey (Standard) <b>BZ</b> =Bronze <b>BK</b> =Black <b>DP</b> =Dark Platinum <b>GM</b> =Graphite Metallic <b>WH</b> =White	<b>OA1223</b> =10kV UL 1449 Surge Module Replacement <b>OA/RA1013</b> =Photocontrol Shorting Cap <b>OA/RA1014</b> =NEMA Photocontrol - 120V <b>OA/RA1016</b> = NEMA Photocontrol - Multi-Tap <b>OA/RA1027</b> = NEMA Photocontrol - 480V <b>OA/RA1201</b> =NEMA Photocontrol - 347V <b>FSIR-100</b> =Wireless Configuration Tool for Motion Sensor <sup>11</sup> <b>A15-XX</b> =15" Straight Arm <sup>9,12</sup> <b>HS/VERD</b> =Verdeon House Side Shield <sup>10</sup> <b>WOLC-7P-10A</b> =WaveLinX Outdoor Control Module (7-pin) <sup>13</sup> <b>ASJS15-XX</b> =Adjustable slipfitter (Factory set at 15 degrees) <sup>12</sup> <b>ASJS25-XX</b> =Adjustable slipfitter (Factory set at 25 degrees) <sup>12</sup> <b>ASJS45-XX</b> =Adjustable slipfitter (Factory set at 45 degrees) <sup>12</sup>		

**NOTES:**

- 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.
- Standard 4000K CCT and 70 CRI.
- Only for use with 480V Wye systems. 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).
- Extended lead times apply. Use dedicated IES files for 3000K when performing layouts. These files are published on the VRDN luminaire product page on the website.
- Controls system is not available with photocontrol receptacle (PER or PER7) or other controls systems (MS or LWR).
- Not available with 4B Option. Sensor mounted externally. Consult factory for more information.
- The FSIR-100 accessory is required to adjust parameters.
- LumaWatt wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See website for LumaWatt application information.
- Round pole adapter and mounting hardware included. "M" drill pattern.
- Option will come factory-installed. Must order one per optic/LED when ordering as a field-installable accessory (1 or 2). House Side Shield not suitable for T5 distribution.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
- Replace XX with paint color.
- Requires 7-pin NEMA twistlock photocontrol receptacle. The WOLC-7 cannot be used in conjunction with additional sensors or controls.
- Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to [DOMESTIC PREFERENCES](#) website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
- Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.