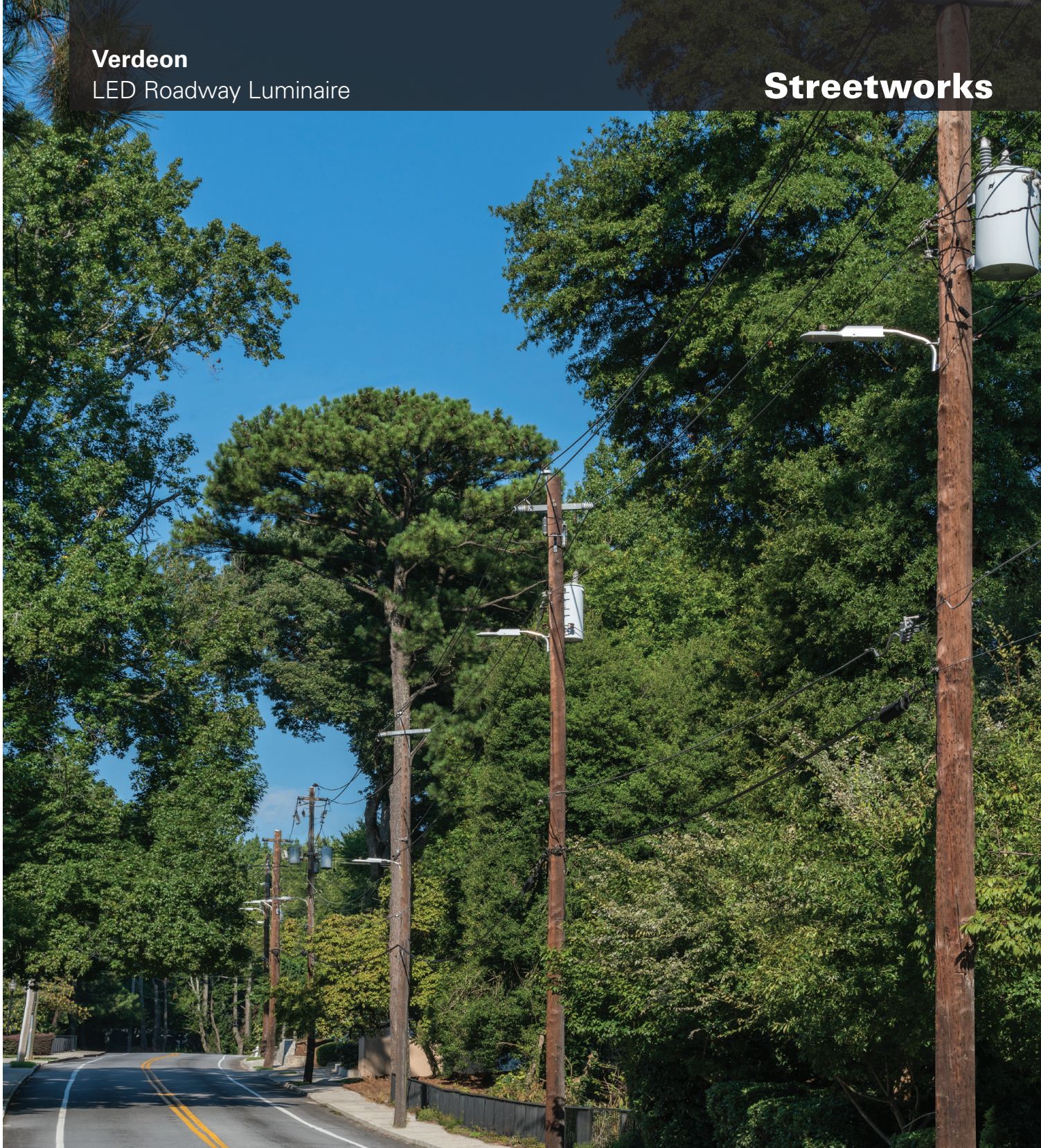


**Verdeon**  
LED Roadway Luminaire

**Streetworks**



*Powering Business Worldwide*



**Innovation** you can rely on™



## Innovation. Evolution.

### **Precise Control, Wide Range of Options**

From residential streets to busy thoroughfares, the Verdeen LED roadway luminaire gets the job done. Combining low initial cost with superior energy savings, the Verdeen luminaire provides warm, white light with superior color rendering and uniform illumination of the roadway surface. Rugged construction. A classic curved form. Lumen packages tailored to light everything from country roads to highways. The Verdeen LED luminaire delivers superior performance and unbeatable economics.

### **Engineered for Performance & Reliability**

High performance, long life, low maintenance and low cost are critical factors for any roadway lighting application. The Verdeen luminaire is ideal for retrofit and new construction projects, and it can be tailored to meet your specific needs without compromising on important features. A single basic housing accommodates a wide range of lumen packages, with outstanding ten-year lumen maintenance. 4000K CCT / 70 CRI is standard; 6000K / 70 CRI and 3000K / 70 CRI are also available. The LEDs are enclosed in IP66 rated optics and the fixture is UL wet location listed with an IP66 housing option available.



### **Real-world Features & Durability**

The Verdeon luminaire is designed to install easily, meet your performance requirements, and slash your energy and maintenance costs. A tool-less, removable driver door and quick electrical disconnects allow nearly effortless installation and maintenance. Multiple surge protection options provide exactly the level of protection you need, while a super TGIC polyester powder coat finish delivers years of worry-free ownership.

# Design Features

The Verdeen luminaire is designed to provide superior optical performance combined with a variety of control options in a package that's easy to install and maintain. Industry-leading AccuLED Optics™ technology ensures maximum pole spacing and uniformity when replacing 50-250W HPS fixtures.

## Construction

- Rugged, die-cast aluminum housing
- Tool-less entry with hinged, removable power door for quick, easy maintenance
- 3G vibration rated
- IP66 rated LED optical enclosure
- UL wet location rated housing (IP66 housing optional)

## Electrical

- -40°C to 40°C ambient operating temperature range; 50°C High Ambient option available
- 10kV/10kA, UL 1449 surge protection available
- 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation
- Quick electrical disconnects for tool-less removal of power door

## Controls

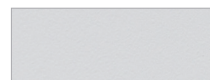
- Controls-ready when equipped with ANSI 7-PIN twistlock photocontrol receptacle
- Available with dimming motion control

## Optical

- Wide range of lumen packages; replaces 50-250W HPS luminaires in most roadway applications
- Outstanding lumen maintenance ratings at 25°C and 40°C ambient temperatures (Consult spec sheet for specific lumen maintenance data)
- AccuLED Optics technology provide precise, repeatable lighting
- Type II, III, IV and V distributions

## Finish

- Five-stage super TGIC paint resists extreme weather conditions while providing optimal color and gloss retention. Available in grey, bronze, black, dark platinum, graphite metallic or white



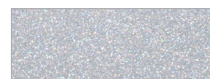
Grey



Bronze



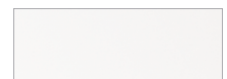
Black



Dark Platinum



Graphite Metallic

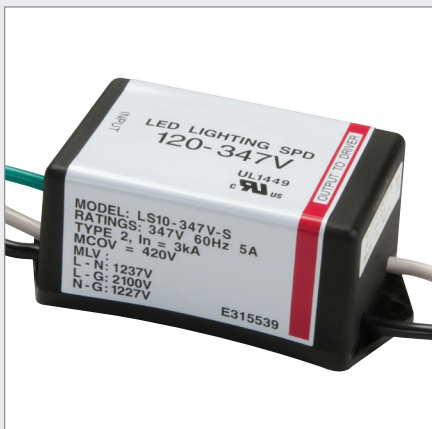


White

## Warranty

- Five-year warranty

## Optional Features



### Surge Protection

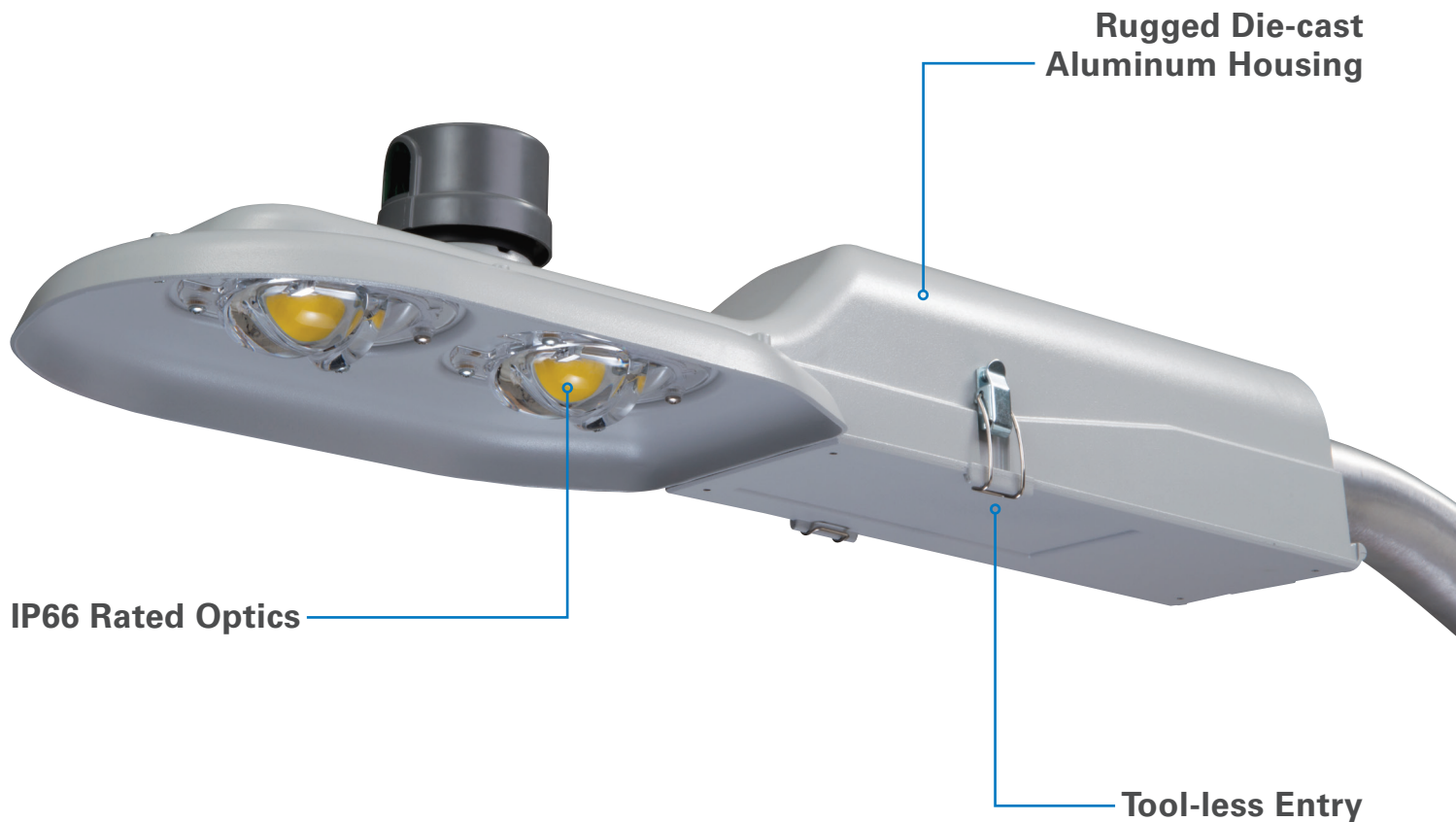
UL 1449 Listed 10kV/10kA surge protection against common (line-to-ground) and differential (line-to-line) mode surge.



### 7-PIN NEMA Twistlock Photocontrol Receptacle

ANSI C136.41 compliant. Enables wireless dimming when used with compatible photocontrol. 3-PIN NEMA Twistlock Photocontrol also available.





### Ease of Installation and Maintenance

Superior performance comes with years of low-cost, low-hassle ownership. With lumen maintenance and life expectancy far beyond traditional HID light sources, regular and time-consuming service visits are a thing of the past. The simple and spacious Verdeon fixture housing is designed to fit lineman's gloves and can be installed with simple tools. The driver is mounted on the power door, so service is tool-less. The door is small enough to hold in one hand, making field replacement quick and easy.



#### Tool-less Access

Stainless steel latches provide easy, tool-less access to the electrical compartment, even with lineman's gloves.



#### Hinged, Removable Power Door

Driver is mounted to door. Integral hinge allows door to hang securely while making wire connections and can be easily removed without the use of tools.



# Energy Savings

## Energy Savings and Environmental Stewardship

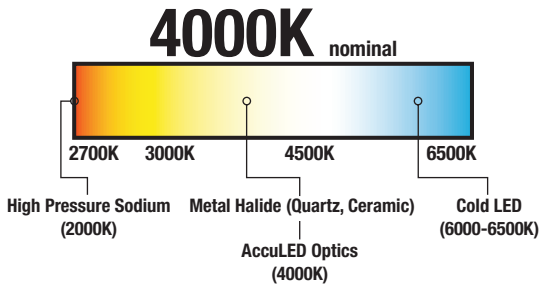
The simplest and most effective way to reduce a lighting fixture’s impact on the environment is to minimize its energy consumption. By incorporating solid state lighting technology from Eaton, the Verdeon LED luminaire provides energy savings up to 68 percent when compared to standard HID solutions. In addition to energy savings, the Verdeon luminaire is RoHS compliant.

## Long Life

With minimal ten-year lumen depreciation, the Verdeon LED luminaire operates many times longer than traditional HID fixtures. The Verdeon LED luminaire was deliberately designed with an electrical compartment that is isolated from the LED modules in order to optimize thermal dissipation of both the LED modules and electrical components insuring long operating life of all the fixture components.

## Warm White Color

Lighting designers, architects and specifying engineers have long preferred light sources that provide a balanced spectral power distribution and warm white light. Many LED solutions standardize on a cool blue 5000-6000K correlated color temperature (CCT) to maximize lumen output. The Verdeon luminaire provides warm white light at a standard 4000K CCT with no sacrifice in lumen output.



## Reduced Energy Consumption

Operating and maintenance costs of a lighting system are dramatically impacted by the specified lamp source, system power consumption and the duration time of operation. Total system input watts and fixture operating life should be the driving considerations when addressing energy consumption and total cost of ownership. Energy savings increase when energy consumption is reduced and maintenance intervals are extended.

Annualized Energy and Maintenance Savings/Cost Comparison

Product	Hours/Year (12 Hours/Day)	Expected Life (Hours) <sup>1</sup>	System Wattage	Cost/Year at \$.10 kWh <sup>2</sup>	Annual Maintenance Cost <sup>2</sup>	Total Annual Operating Cost	Annual Savings Per Fixture
VERD-A016 LED Luminaire	4,380	55,000	36W	\$15.77	\$0.00	\$15.77	\$42.96
70W High Pressure Sodium		24,000	85W	\$37.23	\$21.50	\$58.73	
VERD-A018 LED Luminaire	4,380	55,000	51W	\$22.34	\$0.00	\$22.34	\$55.23
100W High Pressure Sodium		24,000	128W	\$56.06	\$21.50	\$77.56	
VERD-A02 Luminaire	4,380	55,000	92W	\$40.30	\$0.00	\$40.30	\$62.23
150W High Pressure Sodium		24,000	185W	\$81.03	\$21.50	\$102.53	
VERD-G-A028 LED Luminaire	4,380	60,000	103W	\$45.11	\$0.00	\$45.11	\$103.41
250W High Pressure Sodium		24,000	290W	\$127.02	\$21.50	\$148.52	
VERD-G-A02 LED Luminaire	4,380	60,000	143W	\$62.63	\$0.00	\$62.63	\$85.89
250W High Pressure Sodium		24,000	290W	\$127.02	\$21.50	\$148.52	
VERD-G-A02 LED Luminaire	4,380	60,000	143W	\$62.63	\$0.00	\$62.63	\$155.97
400W High Pressure Sodium		24,000	450W	\$197.10	\$21.50	\$218.60	

NOTE: <sup>1</sup> Lumen maintenance 86 percent at 55,000 hours for 36W, 51W, 72W and 92W, per TM-21. Lumen maintenance 91 percent at 60,000 hours for 103W, 143W, per TM-21. <sup>2</sup> HID fixtures, assumes 50 percent lamp replacement, \$200 per re-lamp trip plus \$15 per lamp, over 5 years.

Energy Savings/Equivalency/Cross Reference Guide

HID Source	HID Wattage	Typical LED Fixture Replacement	LED Wattage	HID vs. LED Energy Savings
70W HPS	85W	VERD-A016	36W	58%
100W HPS	128W	VERD-A018	51W	60%
150W HPS	185W	VERD-A02	92W	50%
250W HPS	290W	VERD-G-A028, VERD-G-A02	103W, 143W	51-64%
400W HPS	450W	VERD-G-A02	143W	68%



# Ordering Information

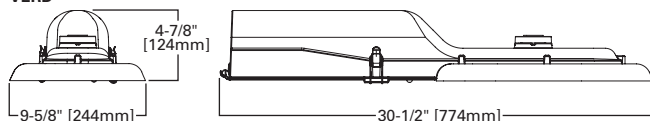
Sample Number: VERD-A018-D-U-T2-4N7-AP

Product Family <sup>1</sup>	Light Engine <sup>2</sup>	Driver <sup>4</sup>	Voltage	Distribution
VERD=Verdeon	<b>A01</b> =1 LED, Full Output <sup>3</sup> <b>A018</b> =1 LED, Approximately 80% Output <b>A016</b> =1 LED, Approximately 60% Output <b>A02</b> =2 LEDs, Full Output <b>A028</b> =2 LEDs, Approximately 80% Output <b>G-A02</b> =High Lumen, 2 LEDs, Full Output <b>G-A028</b> =High Lumen, 2 LEDs, Approximately 80% Output	<b>E</b> =Non-Dimming <b>D</b> =Dimming (0-10V) <sup>5</sup>	<b>U</b> =Universal (120-277V) <b>8</b> =480V <sup>6,7</sup> <b>9</b> =347V <sup>6</sup>	<b>T2</b> =Type II <b>T3</b> =Type III <b>T4</b> =Type IV <b>T5</b> =Type V
Options (Add as Suffix)		Colors	Accessories (Order Separately)	
<b>7030</b> =70 CRI / 3000K CCT <sup>8</sup> <b>7060</b> =70 CRI / 5700K CCT <sup>8</sup> <b>4</b> =NEMA Twistlock Photocontrol Receptacle <b>4N7</b> =NEMA 7-PIN Twistlock Photocontrol Receptacle <sup>9</sup> <b>10K</b> =10kV UL 1449 Surge Protective Device <b>10MSP</b> =10kV MOV Surge Protection <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>9,10,11</sup> <b>MS/DIM-L20</b> =Motion Sensor for Dimming Operation, Maximum 9' - 20' Mounting Height <sup>9,10,11</sup> <b>MS/DIM-L40</b> =Motion Sensor for Dimming Operation, Maximum 21' - 40' Mounting Height <sup>9,10,11</sup> <b>DIMRF-LN</b> =Factory Installed LumaWatt RF Dimming Control System (Mounting Height 16' and Up) <sup>12,13</sup> <b>DIMRF-LW</b> =Factory Installed LumaWatt RF Dimming Control System (Mounting Height below 16') <sup>12,13</sup> <b>K</b> =Level Indicator <b>4B</b> =Four-bolt, Two-clamp Mounting <b>A15</b> =Arm Included (15' Straight Arm) <sup>14</sup>		<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/10kA 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>15</sup> <b>HS-VERD</b> =Verdeon House Side Shield	

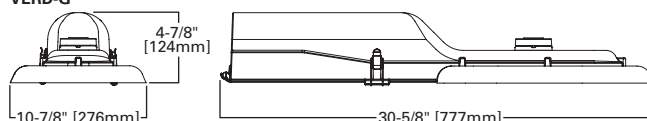
**NOTES:** **1** DesignLights Consortium™ Qualified. Refer to [www.designlights.org](http://www.designlights.org) Qualified Products List under Family Models for details. **2** Standard 4000K CCT and 70 CRI. **3** Not available in 347V or 480V. **4** Consult factory for driver surge protection values. **5** Must specify 4N7 option. **6** Not available with A01 light engine. **7** 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). Not available with A01 light engine. **8** Extended lead times apply. Use dedicated IES files for 3000K and 5700K when performing layouts. These files are published on the Verdeon luminaire product page on the website. **9** Must specify dimming driver. **10** Not available with 4B option. Sensor mounted externally. Consult factory for more information. **11** The FSIR-100 accessory is required to adjust parameters. **12** LumaWatt wireless sensors are factory installed and require network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See website for LumaWatt application information. **13** LumaWatt wireless system is not available with photocontrol receptacle (not needed). **14** Round pole adapter and mounting hardware included. "M" drill pattern. **15** 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.

## Dimensions

### VERD

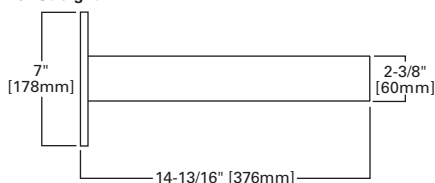


### VERD-G



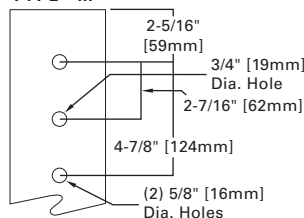
## Optional Arm

### 15' Straight Arm



## Arm Drilling

### TYPE "M"



## Additional Information

Compliances	Technical Data (Electronic Driver)	EPA (Effective Projected Area - Square Feet)	Shipping Data (Approximate Net Weight)
UL and cUL Wet Location Listed IP66-Rated Optics 3G Vibration Rated ISO 9001 DesignLights Consortium™ Qualified*	+40°C (104°F) Ambient Temperature Rating -40°C (-40°F) Ambient Temperature Rating >0.9 Power Factor <20% Total Harmonic Distortion 120-277V 50/60Hz 347V 60Hz, 480V 60Hz	0.5	20 lbs. (9.1 kgs.)

\* DesignLights Consortium™ Qualified. Refer to [www.designlights.org](http://www.designlights.org) Qualified Products List under Family Models for details.



IP66  
Rated



NOTE: Specifications and dimensions subject to change without notice.

**Our Lighting  
Product Lines**

Halo  
Halo Commercial  
Portfolio  
Iris  
RSA  
Metalux  
Corelite  
Neo-Ray  
Fail-Safe  
MWS  
Ametrix  
Shaper  
io  
Lumark  
McGraw-Edison  
Invue  
Lumière  
Streetworks  
AtLite  
Sure-Lites

**Our Controls  
Product Lines**

Greengate  
iLumin  
Zero 88  
Fifth Light Technology  
iLight (International Only)

**Eaton**

1121 Highway 74 South  
Peachtree City, GA 30269  
P: 770-486-4800  
[www.eaton.com/lighting](http://www.eaton.com/lighting)

**Canada Sales**

5925 McLaughlin Road  
Mississauga, Ontario L5R 1B8  
P: 905-501-3000  
F: 905-501-3172

© 2015 Eaton  
All Rights Reserved  
Printed in USA  
Publication No. BR521001EN  
October 2015

Eaton is a registered trademark.

All other trademarks are property  
of their respective owners.

Product availability, specifications,  
and compliances are subject to  
change without notice.



*Powering Business Worldwide*