Verdeon LED Roadway Luminaire
Precise Control, Wide Range of Options
From residential streets to busy thoroughfares, the Verdeon LED roadway luminaire gets the job done. Combining low initial cost with superior energy savings, the Verdeon 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 Verdeon 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 Verdeon 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 Verdeon 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

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 Entry
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 ensuring 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

<table>
<thead>
<tr>
<th>Product</th>
<th>Hours/Year (12 Hours/Day)</th>
<th>Expected Life (Hours)</th>
<th>System Wattage</th>
<th>Cost/Year at $0.10 kWh</th>
<th>Annual Maintenance Cost</th>
<th>Total Annual Operating Cost</th>
<th>Annual Energy Savings Per Fixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>VERD-A016 LED Luminaire</td>
<td>4,380</td>
<td>55,000</td>
<td>36W</td>
<td>$15.77</td>
<td>$0.00</td>
<td>$15.77</td>
<td>$42.96</td>
</tr>
<tr>
<td>70W High Pressure Sodium</td>
<td></td>
<td></td>
<td>85W</td>
<td>$22.34</td>
<td>$0.00</td>
<td>$22.34</td>
<td>$55.23</td>
</tr>
<tr>
<td>VERD-A018 LED Luminaire</td>
<td>4,380</td>
<td>55,000</td>
<td>61W</td>
<td>$37.23</td>
<td>$21.50</td>
<td>$58.73</td>
<td>$62.23</td>
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<tr>
<td>100W High Pressure Sodium</td>
<td></td>
<td></td>
<td>128W</td>
<td>$56.06</td>
<td>$21.50</td>
<td>$77.56</td>
<td>$103.41</td>
</tr>
<tr>
<td>VERD-A02 Luminaire</td>
<td></td>
<td></td>
<td>92W</td>
<td>$40.30</td>
<td>$0.00</td>
<td>$40.30</td>
<td>$62.23</td>
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<tr>
<td>150W High Pressure Sodium</td>
<td></td>
<td></td>
<td>185W</td>
<td>$81.03</td>
<td>$21.50</td>
<td>$102.53</td>
<td>$103.41</td>
</tr>
<tr>
<td>VERD-G-A028 LED Luminaire</td>
<td>4,380</td>
<td>60,000</td>
<td>103W</td>
<td>$45.11</td>
<td>$0.00</td>
<td>$45.11</td>
<td>$85.89</td>
</tr>
<tr>
<td>250W High Pressure Sodium</td>
<td></td>
<td></td>
<td>290W</td>
<td>$127.02</td>
<td>$21.50</td>
<td>$148.52</td>
<td>$155.97</td>
</tr>
<tr>
<td>VERD-G-A02 LED Luminaire</td>
<td></td>
<td></td>
<td>143W</td>
<td>$82.63</td>
<td>$0.00</td>
<td>$82.63</td>
<td>$118.60</td>
</tr>
<tr>
<td>250W High Pressure Sodium</td>
<td></td>
<td></td>
<td>290W</td>
<td>$127.02</td>
<td>$21.50</td>
<td>$148.52</td>
<td>$155.97</td>
</tr>
<tr>
<td>VERD-G-A02 LED Luminaire</td>
<td></td>
<td></td>
<td>143W</td>
<td>$82.63</td>
<td>$0.00</td>
<td>$82.63</td>
<td>$118.60</td>
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<tr>
<td>400W High Pressure Sodium</td>
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<td></td>
<td>450W</td>
<td>$197.10</td>
<td>$21.50</td>
<td>$218.60</td>
<td>$218.60</td>
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</tbody>
</table>

NOTE: 1 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. 2 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

<table>
<thead>
<tr>
<th>HID Source</th>
<th>HID Wattage</th>
<th>Typical LED Fixture Replacement</th>
<th>LED Wattage</th>
<th>HID vs. LED Energy Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>70W HPS</td>
<td>85W</td>
<td>VERD-A016</td>
<td>36W</td>
<td>58%</td>
</tr>
<tr>
<td>100W HPS</td>
<td>128W</td>
<td>VERD-A018</td>
<td>51W</td>
<td>60%</td>
</tr>
<tr>
<td>150W HPS</td>
<td>185W</td>
<td>VERD-A02</td>
<td>92W</td>
<td>50%</td>
</tr>
<tr>
<td>250W HPS</td>
<td>290W</td>
<td>VERD-G-A028, VERD-G-A02</td>
<td>103W, 143W</td>
<td>51-64%</td>
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<tr>
<td>400W HPS</td>
<td>450W</td>
<td>VERD-G-A02</td>
<td>143W</td>
<td>68%</td>
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Ordering Information

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

<table>
<thead>
<tr>
<th>Product Family</th>
<th>Light Engine</th>
<th>Driver</th>
<th>Voltage</th>
<th>Distribution</th>
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</thead>
<tbody>
<tr>
<td>VERD-Verdeon</td>
<td>A01=1 LED, Full Output</td>
<td>E=Non-Dimming</td>
<td>U=Universal (120-277V)</td>
<td>T2=Type II</td>
</tr>
<tr>
<td></td>
<td>A01=1 LED, Full Output</td>
<td>D=Dimming (0-10V)</td>
<td>8=480V 5A</td>
<td>T3=Type III</td>
</tr>
<tr>
<td></td>
<td>A01=1 LED, Full Output</td>
<td></td>
<td>9=277V 4A</td>
<td>T4=Type IV</td>
</tr>
<tr>
<td></td>
<td>A02=2 LEDs, Full Output</td>
<td></td>
<td>10=277V 2A</td>
<td>T5=Type V</td>
</tr>
<tr>
<td></td>
<td>A02=2 LEDs, Full Output</td>
<td></td>
<td>11=120V 2A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G-A02=High Lumen, 2 LEDs, Full Output</td>
<td></td>
<td>12=120V 2A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>G-A02=High Lumen, 2 LEDs, Approximately 80% Output</td>
<td></td>
<td>13=120V 2A</td>
<td></td>
</tr>
</tbody>
</table>

Options (Add as Suffix)

- 7030=70 CRI / 3000K CCT
- 7060=70 CRI / 5700K CCT
- 4=NEEMA 7-PIN Twistlock Photocontrol Receptacle
- 4N7=NEEMA 7-PIN Twistlock Photocontrol Receptacle
- 10K=10kV UL 1449 Surge Protective Device
- 10MSP=10kV MOV Surge Protection
- IP66/IP67 Rated Housing
- HA=50°F High Ambient Temperature
- MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8’ Mounting Height
- MS/DIM-L20=Motion Sensor for Dimming Operation, Maximum 20’ Mounting Height
- MS/DIM-L40=Motion Sensor for Dimming Operation, Maximum 40’ Mounting Height
- DMRF-LN=Factory Installed LumaWatt RF Dimming Control System (Mounting Height below 16’)
- DMRF-LW=Factory Installed LumaWatt RF Dimming Control System (Mounting Height 16’ and Up)
- K=Level Indicator
- 4B=Four-bolt, Two-clamp Mounting
- A15=Arm Included (15” Straight Arm)

Options (Order Separately)

- OA1223=10kV/10kA UL 1449 Surge Module Replacement
- OA/RA1013=Photocontrol Shorting Cap
- OA/R1A014=NEEMA Photocontrol - 120V
- OA/RA1016=NEEMA Photocontrol - Multi-Tap
- OA/RA1027=NEEMA Photocontrol - 480V
- OA/RA1201=NEEMA Photocontrol - 487V
- FSIR-100=Wireless Configuration Tool for Motion Sensor
- HS-VERD=Verdeon House Side Shield

2 Standard 4000K CCT and 70 CRI.
3 Not available in 347V or 480V. 4Consult factory for driver surge protection values.
5 Not available with A01 light engine.
6 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).
7 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 The FSIR-100 accessory is required to adjust parameters.
10This 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.
11The FSI-100 accessory is required to adjust parameters.
12LumaWatt 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.
13LumaWatt wireless system is not available with photocell receptacle (not needed).
14Round pole adapter and mounting hardware included. “M” drill pattern.
15This 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

<table>
<thead>
<tr>
<th>VERD</th>
<th>VERD-G</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-5/8&quot; [244mm]</td>
<td>10-7/8&quot; [276mm]</td>
</tr>
<tr>
<td>4-7/8&quot; [124mm]</td>
<td>4-7/8&quot; [124mm]</td>
</tr>
<tr>
<td>30-1/2&quot; [774mm]</td>
<td>30-5/8&quot; [777mm]</td>
</tr>
</tbody>
</table>

Optional Arm

- 15” Straight Arm

Arm Drilling

- 2-5/16” [59mm] Dia. Hole
- 3/4” [19mm] Dia. Hole
- 2-7/16” [62mm] Dia. Holes
- 4-7/8” [124mm] Dia. Holes
- (2) 5/8” [16mm] Dia. Holes

Additional Information

<table>
<thead>
<tr>
<th>Compliances</th>
<th>Technical Data (Electronic Driver)</th>
<th>EPA (Effective Projected Area - Square Feet)</th>
<th>Shipping Data (Approximate Net Weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UL and cUL Wet Location Listed</td>
<td>+40°F (104°F) Ambient Temperature Rating</td>
<td>0.5</td>
<td>20 lbs. (9.1 kgs.)</td>
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<tr>
<td>P66-Rated Optics</td>
<td>-40°C (-40°F) Ambient Temperature Rating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3D VibraTion Rated</td>
<td>3.9 Power Factor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISO 9001</td>
<td>&lt;20% Total Harmonic Distortion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DesignLights Consortium™ Qualified*</td>
<td>120-277V /50/60Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>347V /60Hz, 480V /60Hz</td>
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</tbody>
</table>


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)