

# Roadway

# RoadView

# **RVM** <u>LED Luminaire (</u>medium)





Lumec **RoadView LED** roadway luminaires were created to help those responsible for lighting our streets and highways succeed in their lighting design goals. Powered by the latest LED technology, and featuring innovative thermal management design, the RoadView offers exceptional performance and value. This versatile luminaire can be tailored to the unique specifications of each project by offering multiple LED boards and wattage options.

Project:		
Location:		
Cat.No:		
Туре:		
Lamps:	Qty:	
Notes:		

# Ordering guide

Example: RVM-215W96LED4K-G2-LE3-UNV-DMG-GY3

- 1. HVU 347V and 480V not available.
- 2. Not available with HS option.
- 3. Use of photoelectric cell or shorting cap is required to ensure proper illumination.
- 4. Dimming choices: Select either DMG or one of the CDMG options.
- $5. \ Please \ note this integrated feature \ come \ standard \ with \ Road View.$

Note: If DALI or 5 or 7 pin receptacle is required contact factory  $\,$ 





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# **LED Wattage and Lumen Values**

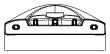
	LED Averag		Average	Type LE2			Type LE3			Type LE4			Type LE5		
LED Module: 3000K	Total LEDs	Current (mA)	System Wattage <sup>1</sup>	Delivered Lumens <sup>2</sup>	Efficacy (LPW)	BUG Rating									
RVM-110W96LED3K-G2	96	350	103	10496	102	B2-U0-G2	10496	102	B2-U0-G2	10048	98	B2-U0-G2	9882	96	B4-U0-G2
RVM-160W96LED3K-G2	96	530	160	14724	92	B3-U0-G2	14724	92	B2-U0-G2	14412	90	B2-U0-G2	14174	89	B4-U0-G2
RVM-215W96LED3K-G2	96	700	212	18282	86	B3-U0-G2	18282	86	B3-U0-G2	18176	86	B3-U0-G3	17876	84	B4-U0-G3
RVM-125W112LED3K-G2	112	350	119	12199	102	B3-U0-G2	12199	102	B2-U0-G2	11722	98	B2-U0-G2	11529	97	B4-U0-G2
RVM-190W112LED3K-G2	112	530	184	17498	95	B3-U0-G2	17498	95	B3-U0-G2	16814	91	B2-U0-G3	16536	90	B4-U0-G2
RVM-145W128LED3K-G2	128	350	136	13942	102	B3-U0-G2	13942	102	B2-U0-G2	13397	98	B2-U0-G2	13176	97	B4-U0-G2
RVM-215W128LED3K-G2	128	530	211	19998	95	B3-U0-G2	19998	95	B3-U0-G3	19216	91	B3-U0-G3	18899	90	B4-U0-G3
RVM-160W144LED3K-G2	144	350	153	15685	102	B3-U0-G2	15685	102	B2-U0-G2	15071	98	B2-U0-G3	14823	97	B4-U0-G2
RVM-245W144LED3K-G2	144	530	237	22498	95	B3-U0-G2	22498	95	B3-U0-G3	21618	91	B3-U0-G3	21261	90	B5-U0-G3
RVM-180W160LED3K-G2	160	350	171	17422	102	B3-U0-G2	17422	102	B3-U0-G2	16746	98	B2-U0-G3	16470	96	B4-U0-G2
RVM-270W160LED3K-G2	160	530	260	24662	95	B3-U0-G3	24662	95	B3-U0-G3	24020	92	B3-U0-G4	23623	91	B5-U0-G3

		LED	Average	Type LE2		Type LE3			Type LE4			Type LE5			
LED Module: 4000K	Total LEDs	Current (mA)	System Wattage <sup>1</sup>		Efficacy (LPW)	BUG Rating	Delivered Lumens <sup>2</sup>	Efficacy (LPW)	BUG Rating	Delivered Lumens <sup>2</sup>	Efficacy (LPW)	BUG Rating	Delivered Lumens <sup>2</sup>	Efficacy (LPW)	BUG Rating
RVM-110W96LED4K-G2	96	350	103	11962	116	B2-U0-G2	11603	113	B2-U0-G2	11494	112	B2-U0-G2	11306	110	B4-U0-G2
RVM-160W96LED4K-G2	96	530	160	17158	107	B3-U0-G2	16643	104	B3-U0-G2	16487	103	B2-U0-G3	16217	101	B4-U0-G2
RVM-215W96LED4K-G2	96	700	212	21639	102	B3-U0-G2	20990	99	B3-U0-G3	20794	98	B3-U0-G3	20453	97	B5-U0-G3
RVM-125W112LED4K-G2	112	350	119	13956	117	B3-U0-G2	13537	114	B2-U0-G2	13410	113	B2-U0-G2	13190	111	B4-U0-G2
RVM-190W112LED4K-G2	112	530	184	20018	109	B3-U0-G2	19417	105	B3-U0-G3	19235	104	B3-U0-G3	18920	103	B4-U0-G3
RVM-145W128LED4K-G2	128	350	136	15949	117	B3-U0-G2	15470	114	B2-U0-G2	15326	113	B2-U0-G3	15075	111	B4-U0-G2
RVM-215W128LED4K-G2	128	530	211	22877	109	B3-U0-G2	22190	105	B3-U0-G3	21983	104	B3-U0-G3	21623	103	B5-U0-G3
RVM-160W144LED4K-G2	144	350	153	17943	117	B3-U0-G2	17404	114	B3-U0-G2	17242	113	B3-U0-G3	16959	111	B4-U0-G2
RVM-245W144LED4K-G2	144	530	237	25737	109	B3-U0-G3	24964	105	B3-U0-G3	24731	104	B3-U0-G4	24325	103	B5-U0-G3
RVM-180W160LED4K-G2	160	350	171	19936	117	B3-U0-G2	19338	113	B3-U0-G3	19157	112	B3-U0-G3	18843	110	B4-U0-G3
RVM-270W160LED4K-G2	160	530	260	28596	110	B3-U0-G3	27738	107	B3-U0-G4	27479	106	B3-U0-G4	27028	104	B5-U0-G4

Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout - contact Applications: signify.com/outdoorluminaires.

 $\textbf{Note:} \ \mathsf{Some} \ \mathsf{data} \ \mathsf{may} \ \mathsf{be} \ \mathsf{scaled} \ \mathsf{based} \ \mathsf{on} \ \mathsf{tests} \ \mathsf{of} \ \mathsf{similar.} \ \mathsf{But} \ \mathsf{not} \ \mathsf{identical} \ \mathsf{luminaires}$ 

## **Dimensions**

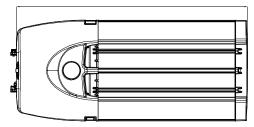


4.66'' (118mm)



15.38" (391mm)

Weight: 34 to 37 lbs (15.4 to 16.8 kg) 31.25" (794mm) min. - 35.25" (895mm) max.



# **RVM** RoadView LED Luminaire

# Roadway

### **Specifications**

#### Housing

Made of a low copper die cast A360 Aluminum alloy 0.090 (2.4mm) minimum thickness. Fits on a 1.66" (42mm) to 2 3/8" (60mm) OD by 6" (152mm) long tenon. Comes with an easy step adjustable reversible zinc plated clamping system with 4 zinc plated hexagonal bolts 3/8 16 UNC for ease of maintenance and installation. Provide an easy step adjustment of +/ 5°. The housing is complete with a tool free removable and secured power door avoiding accidental dropping giving access to electronics components and to a terminal block that accepts (#2 max.) wires from the primary circuit. A clearance of 13"(330mm) at the rear is required in order to remove the door. Complete with a bird guard protecting against birds and similar intruders. ANSI label to identify wattage and source optional.

#### **Light Engine**

LEDgine composed of 4 main components: Heat Sink / LED Module / Optical System / Driver Electrical components are RoHS compliant.

## **Heat Sink**

Made of 6063 T5 extruded aluminum optimising the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device).

#### Lens

Made of soda lime tempered glass lens, mechanically assembled and sealed onto the lower part of the heat sink.

## LED Module

Composed of high performance white LEDs. Color temperature as per ANSI/NEMA bin Neutral White, 3000 Kelvin nominal (3045K +/ 175K) or 4000 Kelvin nominal (3985K +/ 275K), CRI 70 Min. 75 Typical.

#### **Optical System**

Composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. System is rated IP66. Performance shall be tested per LM 63, LM 79 and TM 15 (IESNA) certifying its photometric performance. 0% uplight and UO per IESNA TM 15.

#### **End Cap**

Made of low copper die cast A360.1 Aluminum alloy 0.100 (2.5mm) minimum thickness, mechanically assembled to the heat sink.

#### Driver

High power factor of 90% minimum. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC or 347 to 480 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. Driver comes with dimming compatible 0 10 volts. The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min).

#### **Surge Protector**

Surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line Ground, Line Neutral and Neutral Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid State Street Lighting Consortium) model specification for LED roadway luminaires electrical immunity requirements for High Test Level 10kV / 10kA

#### **Driver and Luminaire Options**

**AST\*:** Pre-set driver for progressive startup of the LED module(s) to optimize energy management and enhance visual comfort at start-up.

**CLO\*:** Pre-set driver to manage the lumen depreciation by adjusting the power given to the LEDs offering the same lighting intensity during the entire lifespan of the LED module.

**OTL\***: Pre-set driver to signal end of life of the LED module(s) for better fixture management.

**CDMG\***: Dynadimmer standard dimming functionalities including pre-programmed scenarios to suit many applications and needs from safety to maximum energy savings.

#### Safety Mode:

**CDMGS25:** 4 hours, 25% power dimming **CDMGS50:** 4 hours 50% power dimming **CDMGS75:** 4 hours 75% power dimming

#### Median Mode:

**CDMGM25:** 6 hours 25% power dimming **CDMGM50:** 6 hours 50% power dimming **CDMGM75:** 6 hours 75% power dimming

#### **Economy Mode:**

**CDMGE25:** 8 hours 25% power dimming **CDMGE50:** 8 hours 50% power dimming **CDMGE75:** 8 hours 75% power dimming

## **Luminaire Options**

**API:** Factory Installed NEMA label, ANSI C136.15 compliant

**BL**: Bubble Level

HS: House side shield, 1 per 16 LED light engine.

SP2: 20kV / 20kA surge protection device that provides extra protection beyond the SP1 10kV/10kA level.

RC\*: (standard): Receptacle with 3 pins enabling dimming and additional functionality (to be determined), can be used with a twist lock CityTouch node or photoelectric cell or a shorting cap.

\* Use of photoelectric cell or shorting cap is required to ensure proper illumination.

### **Predicted Lumen Depreciation Data**

Ambient Temperature °C			L <sub>70</sub> per TM21 <sup>2,3</sup>	Lumen Maintenance @ 60,000hrs				
25 °C	700 mA	>100,000	>60,000	94%				

- Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
- L70 is the predicted time when LED performance depreciates to 70% of initial lumen output.
   Calculated per IESNA TM 21-11. Published L70 hours limited to 6 times actual LED test hours.

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### **Specifications**

#### Accessories

**PH8:** Twist-lock Photoelectric Cell, UNV (120-277VAC).

**PH8/347:** Twist-lock Photoelectric Cell, HVU (347VAC).

**PH8/480:** Twist-lock Photoelectric Cell, HVU (480VAC).

**PHXL:** Twist-lock Photoelectric Cell, extended life, UNV (120-277VAC).

PH9: Shorting cap.

#### Luminaire Useful Life

Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, System Reliability Tool, Advance data and LEDs LM-80/TM-21 data, expected to reach 100,000 + hours with >L70 lumen maintenance @ 25°C.

Luminaire Useful Life accounts for LED lumen maintenance AND all of these additional factors including: LED life, driver life, PCB substrate, solder joints, on/off cycles, burning hours and corrosion.

#### Wiring

The connection of the luminaire is done using a terminal block connector 600V, 85A for use with #214 AWG. wires from the primary circuit, located inside the housing. Due to the inrush current that occurs with electronic drivers, recommend using a 10Amp time delay fuse to avoid unwanted fuse blowing (false tripping) that can occur with normal or fast acting fuses.

#### Hardware

All exposed screws shall be complete with Ceramic primer seal basecoat to reduce seizing of the parts and offers a high resistance to corrosion. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

#### **Finish**

Color to be in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with  $\pm$  1 mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard.

The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

#### LED products manufacturing standard

The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340 5 1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

## **Quality Control**

The manufacturer must provide a written confirmation of its ISO 9001 2008 and ISO 14001 2004 International Quality Standards Certification.

#### Vibration Resistance

The RVM meets the ANSI C136.31, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications (Tested for 3G over 100 000 cycles).

The RVM meets the California Test 611, Testing durability of mast arm mounted luminaires, specifications (a 2 000 000 cycles test).

#### **Certifications and Compliance**

cULus Listed for Canada and USA. Luminaire meets DOE and MSSLC Model Specification for LED Roadway Luminaires. RoadStar LED roadway luminaires are DesignLights Consortium qualified. Luminaire complies with or exceeds the following ANSI C136 standards: .2, .3, .10, .14, .15, .22, .25, .31, .37, .41.

#### **Limited Warranty**

10-year limited warranty.
See **signify.com/warranties** for details and restrictions.

