



Lumec **RoadStar LED** architectural roadway luminaire combines the look of a decorative product with the performance of a roadway or site/area luminaire, resulting in highly effective illumination and a stylish appearance. Featuring two different sizes, RoadStar offers a consistent look across pedestrian, general, and street lighting areas. Includes Service Tag, innovative way to provide assistance throughout the life of the product

Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

Ordering guide

example: GPLS-32L700NW-G2-R3M-UNV-RCD-HS-GY3

Series	LED Module ¹	Board Generation	Optical System	Ballast	Driver and Dimming	Luminaire Options	Accessories ⁷	Finish
GPLS								
GPLS RoadStar LED roadway luminaire, small	<i>Neutral White</i> 16L530NW 16L700NW 16L1050NW 32L530NW 32L700NW 32L1050NW 48L530NW 48L700NW 48L1050NW <i>Warm White</i> 16L530WW 16L700WW 16L1050WW 32L530WW 32L700WW 32L1050WW 48L530WW 48L700WW 48L1050WW	G2	R2S Type II short (ASYM) R2M Type II Medium (ASYM) R3S Type III short (ASYM) R3M Type III Medium (ASYM) R3W Type III Wide (ASYM) 4 Type IV (ASYM) 5² Type V (SYMM)	UNV 120-277VAC HVU 347-480VAC	<i>Standard:</i> DMG Dimmable driver 0-10V <i>Optional:</i> Dynadimmer Economy Profile <hr/> CDMGE25^{3,4} CDMGE50^{3,4} CDMGE75^{3,4} Median Profile <hr/> CDMGM25^{3,4} CDMGM50^{3,4} CDMGM75^{3,4} Safety Profile <hr/> CDMGS25^{3,4} CDMGS50^{3,4} CDMGS75^{3,4} DALI^{3,4} Digitally Addressable Lighting Interface DMG-AST^{3,4} Adjustable Startup Time DMG-CLO^{3,4} Constant Light Output DMG-OTL^{3,4} Over The Life <i>*Includes 0-10v dimming</i>	<i>Standard:</i> RCD⁵ Receptacle for twist-lock photocell or shorting cap, 5-pin (standard) <i>Optional:</i> HS House Side Shield, shield, 1 per 16 LED light engine RCD7⁵ Receptacle for twist-lock photocell or shorting cap, 7-pin (optional) SP2 20kV / 20kA Surge Protector (optional) BAC⁶ Meets the requirements of the Buy American Act of 1933 (BAA)	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	BK Black finish BR Bronze finish GY3 Grey finish WH White finish

1. Consult factory for Warm White (3000K) details.
 2. Not available with HS option.
 3. 347V and 480V not available.
 4. Dimming choices: Select either DMG or one of the CDMG options or DALI.
 5. Use of photoelectric cell or shorting cap is required to ensure proper illumination.

6. Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.
 7. Consult Signify to confirm whether specific accessories are BAA-compliant.

Note: GPLS is compatible to accept the CityTouch wireless lighting control device



GPLS RoadStar LED Luminaire (small)

Roadway

LED wattage and lumen values

LED CRI = 70, CCT = 4000K nominal (3985K +/- 275K or 3710K to 4260K), System (LED + driver) rated life = 100,000 hrs¹

LED Module	Typical delivered lumens	Typical system wattage (W) ²	Typical System Current (A) @						LED current (mA)	Luminaire Efficacy Rating (Lm/W)	BUG rating
			120V	208V	240V	277V	347V	480V			
16L530NW-G2-R2M	3033	27	0.23	0.14	0.12	0.11	0.10	0.08	530	111	B2-U0-G1
16L530NW-G2-R2S	3338	27	0.23	0.14	0.12	0.11	0.10	0.08	530	123	B1-U0-G0
16L530NW-G2-R3M	3124	27	0.23	0.14	0.12	0.11	0.10	0.08	530	115	B1-U0-G1
16L530NW-G2-R3S	3089	27	0.23	0.14	0.12	0.11	0.10	0.08	530	113	B1-U0-G1
16L530NW-G2-R3W	3058	27	0.23	0.14	0.12	0.11	0.10	0.08	530	112	B2-U0-G1
16L530NW-G2-4	3164	27	0.23	0.14	0.12	0.11	0.10	0.08	530	116	B1-U0-G1
16L530NW-G2-5	3054	27	0.23	0.14	0.12	0.11	0.10	0.08	530	112	B2-U0-G1
16L700NW-G2-R2M	3816	38	0.32	0.19	0.17	0.15	0.12	0.10	700	100	B1-U0-G1
16L700NW-G2-R2S	4201	38	0.32	0.19	0.17	0.15	0.12	0.10	700	111	B1-U0-G1
16L700NW-G2-R3M	3930	38	0.32	0.19	0.17	0.15	0.12	0.10	700	103	B1-U0-G1
16L700NW-G2-R3S	3886	38	0.32	0.19	0.17	0.15	0.12	0.10	700	102	B1-U0-G1
16L700NW-G2-R3W	3848	38	0.32	0.19	0.17	0.15	0.12	0.10	700	101	B1-U0-G1
16L700NW-G2-4	3981	38	0.32	0.19	0.17	0.15	0.12	0.10	700	105	B1-U0-G1
16L700NW-G2-5	3842	38	0.32	0.19	0.17	0.15	0.12	0.10	700	101	B2-U0-G1
16L1050NW-G2-R2M	5227	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	95	B1-U0-G1
16L1050NW-G2-R2S	5754	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	104	B1-U0-G1
16L1050NW-G2-R3M	5383	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	98	B1-U0-G1
16L1050NW-G2-R3S	5323	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	97	B1-U0-G2
16L1050NW-G2-R3W	5271	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	96	B1-U0-G2
16L1050NW-G2-4	5453	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	99	B1-U0-G2
16L1050NW-G2-5	5263	55	0.46	0.27	0.23	0.20	0.17	0.13	1050	96	B3-U0-G1
32L530NW-G2-R2M	6046	53	0.45	0.27	0.24	0.22	0.17	0.14	530	114	B2-U0-G1
32L530NW-G2-R2S	6656	53	0.45	0.27	0.24	0.22	0.17	0.14	530	126	B2-U0-G1
32L530NW-G2-R3M	6227	53	0.45	0.27	0.24	0.22	0.17	0.14	530	118	B2-U0-G1
32L530NW-G2-R3S	6158	53	0.45	0.27	0.24	0.22	0.17	0.14	530	117	B1-U0-G2
32L530NW-G2-R3W	6097	53	0.45	0.27	0.24	0.22	0.17	0.14	530	115	B1-U0-G2
32L530NW-G2-4	6308	53	0.45	0.27	0.24	0.22	0.17	0.14	530	119	B1-U0-G2
32L530NW-G2-5	6088	53	0.45	0.27	0.24	0.22	0.17	0.14	530	115	B3-U0-G1
32L700NW-G2-R2M	7594	71	0.60	0.34	0.295	0.27	0.23	0.18	700	107	B2-U0-G2
32L700NW-G2-R2S	8360	71	0.60	0.34	0.295	0.27	0.23	0.18	700	118	B2-U0-G1
32L700NW-G2-R3M	7821	71	0.60	0.34	0.295	0.27	0.23	0.18	700	110	B2-U0-G2
32L700NW-G2-R3S	7734	71	0.60	0.34	0.30	0.27	0.23	0.18	700	109	B1-U0-G2
32L700NW-G2-R3W	7658	71	0.60	0.34	0.30	0.27	0.23	0.18	700	108	B1-U0-G2
32L700NW-G2-4	7923	71	0.60	0.34	0.30	0.27	0.23	0.18	700	111	B1-U0-G2
32L700NW-G2-5	7647	71	0.60	0.34	0.30	0.27	0.23	0.18	700	108	B3-U0-G2
32L1050NW-G2-R2M	10340	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	94	B2-U0-G2
32L1050NW-G2-R2S	11384	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	104	B2-U0-G2
32L1050NW-G2-R3M	10650	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	97	B2-U0-G2
32L1050NW-G2-R3S	10532	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	96	B1-U0-G2
32L1050NW-G2-R3W	10428	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	95	B2-U0-G2
32L1050NW-G2-4	10789	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	98	B2-U0-G2
32L1050NW-G2-5	10413	110	0.91	0.53	0.47	0.41	0.32	0.24	1050	95	B3-U0-G2

1. L₇₀ = 100,000 hrs (at ambient temperature = 25°C).

2. System wattage or total luminaire wattage includes the LED module and the LED driver.

Notes: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Signify. IES files with HS house side shield and/or Warm White options are also available – contact the factory.

GPLS RoadStar LED Luminaire (small)

Roadway

LED wattage and lumen values (continued)

LED CRI = 70, CCT = 4000K nominal (3985K +/- 275K or 3710K to 4260K), System (LED + driver) rated life = 100,000 hrs¹

LED Module	Typical delivered lumens	Typical system wattage (W) ²	Typical System Current (A) @						LED current (mA)	Luminaire Efficacy Rating (Lm/W)	BUG rating
			120V	208V	240V	277V	347V	480V			
48L530NW-G2-R2M	9037	78	0.66	0.39	0.35	0.31	0.24	0.18	530	116	B2-U0-G2
48L530NW-G2-R2S	9949	78	0.66	0.39	0.35	0.31	0.24	0.18	530	127	B2-U0-G2
48L530NW-G2-R3M	9307	78	0.66	0.39	0.35	0.31	0.24	0.18	530	119	B2-U0-G2
48L530NW-G2-R3S	9204	78	0.66	0.39	0.35	0.31	0.24	0.18	530	118	B1-U0-G2
48L530NW-G2-R3W	9113	78	0.66	0.39	0.35	0.31	0.24	0.18	530	117	B2-U0-G2
48L530NW-G2-4	9428	78	0.66	0.39	0.35	0.31	0.24	0.18	530	121	B2-U0-G2
48L530NW-G2-5	9100	78	0.66	0.39	0.35	0.31	0.24	0.18	530	117	B3-U0-G2
48L700NW-G2-R2M	11327	107	0.89	0.52	0.46	0.39	0.32	0.24	700	106	B2-U0-G2
48L700NW-G2-R2S	12469	107	0.89	0.52	0.46	0.39	0.32	0.24	700	117	B3-U0-G2
48L700NW-G2-R3M	11665	107	0.89	0.52	0.46	0.39	0.32	0.24	700	110	B2-U0-G2
48L700NW-G2-R3S	11536	107	0.89	0.52	0.46	0.39	0.32	0.24	700	108	B2-U0-G2
48L700NW-G2-R3W	11422	107	0.89	0.52	0.46	0.39	0.32	0.24	700	107	B2-U0-G2
48L700NW-G2-4	11818	107	0.89	0.52	0.46	0.39	0.32	0.24	700	111	B2-U0-G2
48L700NW-G2-5	11406	107	0.89	0.52	0.46	0.39	0.32	0.24	700	107	B4-U0-G2
48L1050NW-G2-R2M	15311	161	1.33	0.76	0.67	0.58	0.47	0.34	1050	95	B3-U0-G3
48L1050NW-G2-R2S	16856	161	1.33	0.76	0.67	0.58	0.47	0.34	1050	105	B3-U0-G2
48L1050NW-G2-R3M	15770	161	1.33	0.76	0.67	0.58	0.47	0.34	1050	98	B3-U0-G2
48L1050NW-G2-R3S	15594	159	1.33	0.76	0.67	0.58	0.47	0.34	1050	98	B2-U0-G3
48L1050NW-G2-R3W	15440	162	1.33	0.76	0.67	0.58	0.47	0.34	1050	95	B2-U0-G3
48L1050NW-G2-4	15975	162	1.33	0.76	0.67	0.58	0.47	0.34	1050	99	B2-U0-G3
48L1050NW-G2-5	15418	161	1.33	0.76	0.67	0.58	0.47	0.34	1050	96	B4-U0-G2

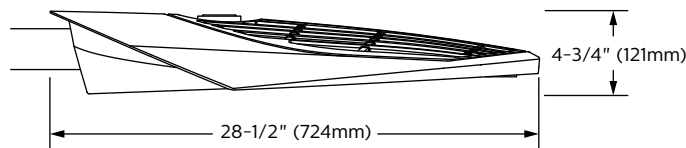
1. L₇₀ = 100,000 hrs (at ambient temperature = 25°C).

2. System wattage or total luminaire wattage includes the LED module and the LED driver.

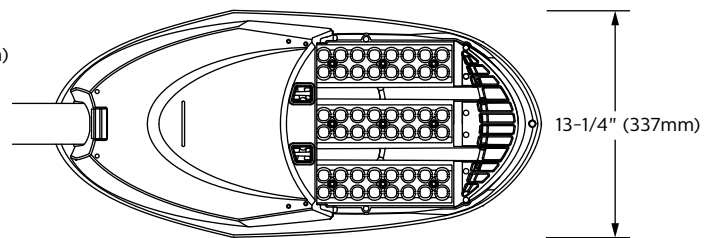
Notes: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Signify. IES files with HS house side shield and/or Warm White options are also available – contact the factory.

Dimensions

Side View



Bottom View



Weight: 17.0 lbs (7.7 kg)
EPA: 0.65 sq. ft.

Predicted Lumen Depreciation Data

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 TM21-11. Published L₇₀ hours limited to 6 times actual LED test hours

Ambient Temperature °C	Driver mA	Calculated L ₇₀ Hours	L ₇₀ per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1050 mA	>100,000 hours	>60,000 hours	>84%

GPLS RoadStar LED Luminaire (small)

Roadway

Specifications

Housing

The upper grid and lower part of the housing are made of a low copper die cast Aluminum alloy (A360), 0.100" (2.5mm) minimum thickness. Fits on a 1.66" (42mm) O.D. (1.25" NPS), 1.9" (48mm) O.D. (1.5" NPS) or 2 3/8" (60mm) O.D. (2" NPS) by 7 3/4" (197mm) minimum long tenon. Comes with two zinc plated clamps fixed by 4 zinc plated hexagonal bolts 3/8 16 UNC for ease of installation. Provides an easy step adjustment of +/- 5° tilt in 2.5° increments. Includes integral bubble level standard (always included). A quick release, tool less entry, single latch, hinged, removable door opens downward to provide access to electronic components and to a terminal block. Door is secured to prevent accidental dropping or disengagement. Complete with a bird guard protecting against birds and similar intruders. ANSI label to identify wattage and source included in box.

Light Engine

Composed of 4 main components: Heat Sink / LED Module / Optical System / Driver

Electrical components are RoHS compliant, IP66 sealed light engine. LEDs tested by ISO 17025 2005 accredited lab in accordance with IESNA LM 80 guidelines in compliance with EPA ENERGY STAR, extrapolations in accordance with IESNA TM 21. Metal core board ensures greater heat transfer and longer lifespan.

Heat Sink: Built in the housing, designed to ensure high efficacy and superior cooling by natural convection air flow pattern always close to LEDs and driver optimising their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling). Entire luminaire is rated for operation in ambient temperature of 40°C / 40°F up to +40°C / +104°F.

LED Module: Composed of high performance white LEDs. Color temperature as per ANSI/NEMA bin Neutral White, 4000 Kelvin nominal (3985K +/- 275K or 3710K to 4260K), CRI 70 Min. 75 Typical. 3000 Kelvin also available.

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 U0 per IESNA TM-15. Dark Sky compliant when 3000K option selected.

Driver: High power factor of 95%. 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 or II, 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 Options

AST: Pre-set driver for progressive start-up 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.

DALI: Pre-set driver compatible with the DALI control system.

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

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

Safety Mode:

CDMG525: 4 hours, 25% power dimming

CDMG550: 4 hours 50% power dimming

CDMG575: 4 hours 75% power dimming

Median Mode:

CDMG25: 6 hours 25% power dimming

CDMG50: 6 hours 50% power dimming

CDMG75: 6 hours 75% power dimming

Economy Mode:

CDMG25: 8 hours 25% power dimming

CDMG50: 8 hours 50% power dimming

CDMG75: 8 hours 75% power dimming

Luminaire Options

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.

RCD*: (standard): Receptacle with 5 pins enabling dimming and additional functionality (to be determined), can be used with a twist lock Starsense node or photoelectric cell or a shorting cap.

RCD7*: (optional): Receptacle with 7 pins enabling dimming and additional functionality (to be determined), can be used with a twist lock Starsense node or photoelectric cell or a shorting cap.

Please note: Additional hardware will be required to utilize the additional 2 pins on this receptacle.

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

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 Lumileds 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 #2-14 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

In accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with ± 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 3000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

GPLS RoadStar LED Luminaire (small)

Roadway

Specifications (continued)

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.

Vibration Resistance

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

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.

Service Tag

Each individual luminaire is uniquely identifiable, thanks to the Service tag application. With a simple scan of a QR code, placed on the inside of the mast door, you gain instant access to the luminaire configuration, making installation and maintenance operations faster and easier, no matter what stage of the luminaire's lifetime. Just download the APP and register your product right away.

For more details visit: signify.com/servicetag

Limited Warranty

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

