



Lumec Capella LED roadway luminaires blend seamlessly into soft architectural urban and roadway surroundings, as well as more rectilinear settings. With graceful curves and sweeping lines, it contributes to the beautification of any environment and enhances the visual impact of any project.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

### Ordering guide

Example: CPLM-135W80LED4K-G2-LE2S-UNV-DMG-RCD-PH8-GY3

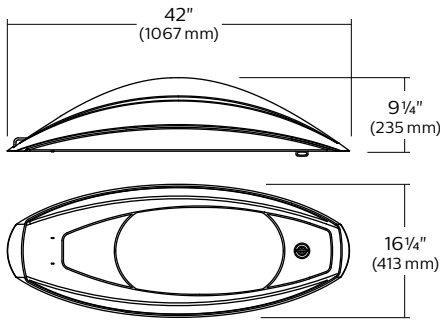
Series	LED module	Generation	Optical system	Lens	Voltage	Driver options	Luminaire options	Accessories	Finish
<b>CPLM</b>		<b>G2</b>							
<b>CPLM</b> Medium	<b>3000K</b> 55W48LED3K 70W64LED3K 80W48LED3K 90W80LED3K 108W48LED3K 110W64LED3K 110W96LED3K 135W80LED3K 145W64LED3K 160W96LED3K 180W80LED3K  <b>4000K</b> 55W48LED4K 70W64LED4K 80W48LED4K 90W80LED4K 108W48LED4K 110W64LED4K 110W96LED4K 135W80LED4K 145W64LED4K 160W96LED4K 180W80LED4K	G2 Generation 2	<b>LE2</b> Type II (ASYM) <b>LE3</b> Type III (ASYM) <b>LE4</b> Type IV (ASYM) <b>LE5<sup>1</sup></b> Type V (SYM)	<b>F</b> Flat lens <b>S</b> Sag lens	<b>UNV</b> 120-277VAC <b>HVU</b> 347-480VAC	<b>AST<sup>2</sup></b> Pre-set driver for progressive start-up <b>CDMGE25<sup>2,4</sup></b> 8 hrs. 25% reduction <b>CDMGE50<sup>2,4</sup></b> 8 hrs. 50% reduction <b>CDMGE75<sup>2,4</sup></b> 8 hrs. 75% reduction <b>CDMGM25<sup>2,4</sup></b> 6 hrs. 25% reduction <b>CDMGM50<sup>2,4</sup></b> 6 hrs. 50% reduction <b>CDMGM75<sup>2,4</sup></b> 6 hrs. 75% reduction <b>CDMGS25<sup>2,4</sup></b> 4 hrs. 25% reduction <b>CDMGS50<sup>2,4</sup></b> 4 hrs. 50% reduction <b>CDMGS75<sup>2,4</sup></b> 4 hrs. 75% reduction <b>CLO<sup>2</sup></b> Pre-set driver to manage lumen depreciation <b>DMG<sup>2,4,5</sup></b> 0-10V <b>DALI<sup>4</sup></b> Digitally Addressable Lighting Interface <b>OTL<sup>2</sup></b> Pre-set driver to signal end of life of the lamp	<b>API</b> Factory Installed NEMA label, ANSI C136.15 compliant <b>HS</b> House Side Shield, 1 per 16 LED light engine <b>RCD<sup>3</sup></b> Receptacle for twist-lock photocell or shorting cap, 5-pin (standard) <b>RCD7<sup>3</sup></b> Receptacle for twist-lock photocell or shorting cap, 7-pin (optional) <b>SP2</b> 20kV/20kA surge protector	<b>PH8<sup>2</sup></b> Twist-lock Photoelectric Cell, UNV (120-277VAC) <b>PH8/347</b> Twist-lock Photoelectric Cell, (347VAC) <b>PH8/480</b> Twist-lock Photoelectric Cell, (480VAC) <b>PHXL<sup>2</sup></b> Twist-lock Photoelectric Cell, extended life, UNV (120-277VAC) <b>PH9</b> Shorting cap	<b>BK</b> Black <b>BR</b> Bronze <b>GY3</b> Grey <b>WH</b> White

- Not available with HS option.
- 347V and 480V not available.
- Use of photoelectric cell or shorting cap is required to ensure proper illumination.
- Dimming choices: Select either DMG,DALI or one of the CDMG options.
- Please note this integrated feature come standard with Capella.

# CPLM Capella LED (medium)

## Roadway

### Dimensions



### CPLM (flat lens)

EPA: 0.83sq. ft.  
Weight: 55lbs (25 kg)

### LED Wattage and Lumen Values: for CPLS with Flat lens

Ordering Code: Flat lens (3000K)	Total LEDs	LED current (mA)	Average System Wattage <sup>1</sup> (W)	LE2F			LE3F			LE4F			LE5F		
				Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating
55W48LED3K-G2	48	350	54	5483	101	B1-U0-G1	5407	99	B1-U0-G1	5351	98	B1-U0-G1	5247	97	B3-U0-G1
80W48LED3K-G2	48	530	81	7864	97	B2-U0-G1	7755	95	B2-U0-G2	7676	94	B1-U0-G2	7526	93	B3-U0-G2
108W48LED3K-G2	48	700	105	9918	94	B2-U0-G2	9781	93	B2-U0-G2	9680	92	B2-U0-G2	9492	90	B4-U0-G2
70W64LED3K-G2	64	350	73	7310	101	B2-U0-G1	7209	99	B1-U0-G2	7135	98	B1-U0-G2	6996	97	B3-U0-G2
110W64LED3K-G2	64	530	108	10486	97	B2-U0-G2	10340	95	B2-U0-G2	10234	94	B2-U0-G2	10035	93	B4-U0-G2
145W64LED3K-G2	64	700	141	13225	94	B3-U0-G2	13041	93	B2-U0-G2	12907	92	B2-U0-G2	12656	90	B4-U0-G2
90W80LED3K-G2	80	350	91	8974	99	B2-U0-G1	8796	97	B2-U0-G2	8640	95	B2-U0-G2	8777	97	B3-U0-G2
135W80LED3K-G2	80	530	136	12872	95	B3-U0-G2	12616	93	B2-U0-G2	12393	92	B2-U0-G2	12590	93	B4-U0-G2
180W80LED3K-G2	80	700	176	16234	92	B3-U0-G2	15912	91	B3-U0-G2	15630	89	B3-U0-G2	15879	90	B4-U0-G2
110W96LED3K-G2	96	350	109	10769	99	B2-U0-G2	10555	97	B2-U0-G2	10368	95	B2-U0-G2	10533	97	B4-U0-G2
160W96LED3K-G2	96	530	163	15446	95	B3-U0-G2	15140	93	B3-U0-G2	14872	92	B2-U0-G2	15108	93	B4-U0-G2

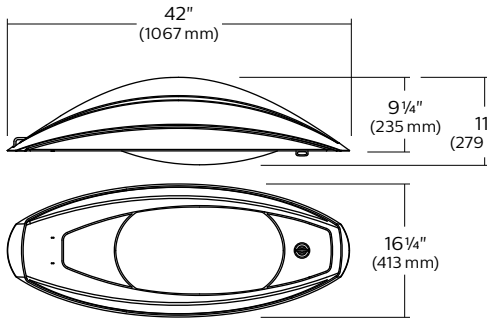
Ordering Code: Flat lens (4000K)	Total LEDs	LED current (mA)	Average System Wattage <sup>1</sup> (W)	LE2F			LE3F			LE4F			LE5F		
				Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating
55W48LED4K-G2	48	350	54	6160	113	B2-U0-G1	6075	112	B1-U0-G1	6013	111	B1-U0-G2	5896	108	B3-U0-G1
80W48LED4K-G2	48	530	81	8836	109	B2-U0-G1	8714	107	B2-U0-G2	8624	106	B2-U0-G2	8457	104	B3-U0-G2
108W48LED4K-G2	48	700	105	11144	106	B2-U0-G2	10990	104	B2-U0-G2	10877	103	B2-U0-G2	10665	101	B4-U0-G2
70W64LED4K-G2	64	350	73	8214	113	B2-U0-G1	8100	112	B2-U0-G2	8017	111	B2-U0-G2	7861	108	B3-U0-G2
110W64LED4K-G2	64	530	108	11782	109	B2-U0-G2	11618	107	B2-U0-G2	11499	106	B2-U0-G2	11276	104	B4-U0-G2
145W64LED4K-G2	64	700	141	14859	106	B3-U0-G2	14653	104	B2-U0-G2	14503	103	B2-U0-G2	14221	101	B4-U0-G2
90W80LED4K-G2	80	350	91	10083	111	B2-U0-G2	9883	109	B2-U0-G2	9708	107	B2-U0-G2	9862	109	B4-U0-G2
135W80LED4K-G2	80	530	136	14463	107	B3-U0-G2	14176	105	B2-U0-G2	13925	103	B2-U0-G2	14146	104	B4-U0-G2
180W80LED4K-G2	80	700	176	18240	104	B3-U0-G2	17878	102	B3-U0-G2	17562	100	B3-U0-G3	17841	102	B4-U0-G2
110W96LED4K-G2	96	350	109	12100	111	B3-U0-G2	11859	109	B2-U0-G2	11650	107	B2-U0-G2	11835	109	B4-U0-G2
160W96LED4K-G2	96	530	163	17355	107	B3-U0-G2	17011	105	B3-U0-G2	16710	103	B3-U0-G3	16976	104	B4-U0-G2

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 at [signify.com/outdoorluminares](http://signify.com/outdoorluminares).  
**Note:** Some data may be scaled based on tests on similar but not identical luminaires.

# CPLM Capella LED (medium)

## Roadway

### Dimensions



### CPLM (sag lens)

EPA: 0.83sq. ft.  
Weight: 55lbs (25kg)

### LED Wattage and Lumen Values: for CPLM with Sag lens

Ordering Code: Sag lens (3000K)	Total LEDs	LED current (mA)	Average System Wattage <sup>1</sup> (W)	LE2S			LE3S			LE4S			LE5S		
				Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating
55W48LED3K-G2	48	350	54	5592	103	B1-U0-G1	5522	102	B1-U0-G1	5461	100	B1-U0-G2	5473	101	B3-U0-G1
80W48LED3K-G2	48	530	81	8021	99	B2-U0-G1	7921	97	B2-U0-G2	7833	96	B1-U0-G2	7850	97	B3-U0-G2
108W48LED3K-G2	48	700	105	10116	96	B2-U0-G2	9990	95	B2-U0-G2	9879	94	B2-U0-G2	9901	94	B4-U0-G2
70W64LED3K-G2	64	350	73	7456	103	B2-U0-G1	7363	102	B1-U0-G2	7281	100	B1-U0-G2	7297	101	B3-U0-G2
110W64LED3K-G2	64	530	108	10695	99	B2-U0-G2	10562	97	B2-U0-G2	10444	96	B2-U0-G2	10467	97	B4-U0-G2
145W64LED3K-G2	64	700	141	13488	96	B3-U0-G2	13320	93	B2-U0-G2	13172	94	B2-U0-G2	13201	94	B4-U0-G2
90W80LED3K-G2	80	350	91	8938	99	B2-U0-G2	8980	99	B2-U0-G2	8867	98	B2-U0-G2	8983	99	B4-U0-G2
135W80LED3K-G2	80	530	136	12821	95	B3-U0-G2	12880	95	B2-U0-G2	12719	94	B2-U0-G2	12886	95	B4-U0-G2
180W80LED3K-G2	80	700	176	16169	92	B3-U0-G2	16245	93	B3-U0-G2	16041	91	B2-U0-G3	16251	93	B4-U0-G2
110W96LED3K-G2	96	350	109	10726	99	B2-U0-G2	10776	99	B2-U0-G2	10641	98	B2-U0-G2	10780	99	B4-U0-G2
160W96LED3K-G2	96	530	163	15385	95	B3-U0-G2	15456	95	B3-U0-G2	15263	94	B2-U0-G3	15463	95	B4-U0-G2

Ordering Code: Sag lens (4000K)	Total LEDs	LED current (mA)	Average System Wattage <sup>1</sup> (W)	LE2S			LE3S			LE4S			LE5S		
				Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating	Lumen Output <sup>2</sup>	Efficacy (LPW)	BUG Rating
55W48LED4K-G2	48	350	54	6283	116	B2-U0-G1	6205	114	B1-U0-G1	6136	113	B1-U0-G2	6149	113	B3-U0-G2
80W48LED4K-G2	48	530	81	9013	111	B2-U0-G2	8900	110	B2-U0-G2	8801	108	B2-U0-G2	8821	109	B4-U0-G2
108W48LED4K-G2	48	700	105	11367	108	B2-U0-G2	11225	107	B2-U0-G2	11100	105	B2-U0-G2	11124	106	B4-U0-G2
70W64LED4K-G2	64	350	73	8378	116	B2-U0-G2	8273	114	B2-U0-G2	8181	113	B1-U0-G2	8199	113	B3-U0-G2
110W64LED4K-G2	64	530	108	12017	111	B2-U0-G2	11867	110	B2-U0-G2	11735	108	B2-U0-G2	11761	109	B4-U0-G2
145W64LED4K-G2	64	700	141	15155	108	B3-U0-G2	14966	106	B2-U0-G2	14800	105	B2-U0-G3	14833	106	B4-U0-G2
90W80LED4K-G2	80	350	91	10043	111	B2-U0-G2	10090	111	B2-U0-G2	9963	110	B2-U0-G2	10094	111	B4-U0-G2
135W80LED4K-G2	80	530	136	14405	106	B3-U0-G2	14472	107	B2-U0-G2	14291	106	B2-U0-G2	14478	107	B4-U0-G2
180W80LED4K-G2	80	700	176	18168	103	B3-U0-G2	18252	104	B3-U0-G2	18024	103	B3-U0-G3	18260	104	B5-U0-G3
110W96LED4K-G2	96	350	109	12052	111	B2-U0-G2	12108	111	B2-U0-G2	11956	110	B2-U0-G2	12113	111	B4-U0-G2
160W96LED4K-G2	96	530	163	17286	106	B3-U0-G2	17367	107	B3-U0-G2	17150	106	B3-U0-G3	17374	107	B4-U0-G2

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 at [signify.com/outdoorluminaires](http://signify.com/outdoorluminaires).

**Note:** Some data may be scaled based on tests on similar but not identical luminaires.

# CPLM Capella LED (medium)

## Roadway

### Specifications

#### Housing

The upper and lower part of the housing are made of die cast A360 Aluminum alloy 0.180 (4.6mm) minimum thickness. The mounting means includes two brackets made of stamped galvanized-steel (12ga.). Fits on a 1.9" (49mm) to 2 3/8" (60mm) OD by 10 1/2" (267mm) minimum long tenon, fixed by 3/8-16 UNC steel zinc plated bolts. An integral part of the housing permits an adjustment of +/- 5°. The housing is complete with a ground lug and a terminal block that accepts (#8 max.) wires from the primary circuit.

**Access-Mechanism:** Quarter-turn pressure locking system made of die cast aluminum. Offers tool-free access to the inside of the luminaire. An embedded memory-retentive gasket ensure weatherproofing.

#### Light Engine

Composed of 5 main components: Heat Sink, Lens, LED Module, Optical System, Driver. Electrical components are RoHS compliant. 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:** Made of cast 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 clear tempered glass curved or flat 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, 4000 Kelvin nominal (3985K +/- 275K or 3710K to 4260K), CRI 70 Min. 75 Typical. 3000 Kelvin also available.

**Optical System:** Composed of high performance optical 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 and Flat lens are used.

**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.

**DAL:** 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:** Dynadimmer 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 LED manufacturer LM-80/TM-21 data, expected to reach 100,000 + hours with >L70 lumen maintenance @ 25°C (75,000 hours for 180W80LED and 60,000 hours for 106W96LED). 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.

# CPLM Capella LED (medium)

## 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 CPLM meets the ANSI C136.31, American National Standard for Roadway Luminaire Vibration specifications for normal applications (Tested for 1.5G 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.

#### Limited Warranty

10-year limited warranty.  
See [signify.com/warranties](http://signify.com/warranties) for details and restrictions.

### LED Performance

Predicted lumen depreciation data <sup>1</sup>				
Ambient Temperature (°C)	Driver mA	Calculated L <sub>70</sub> hours <sup>1,2</sup>	L <sub>70</sub> per TM-21 <sup>2,3</sup>	Lumen Maintenance % @ 60,000 hours
25°C	700 mA	>100,000	>60,000	91%

1. 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.
2. L<sub>70</sub> is the predicted time when LED performance depreciates to 70% of initial lumen output.
3. Calculated per IESNA TM21-11. Published L<sub>70</sub> hours limited to 6 times actual LED test hours.

