



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: CPLS-72W32LED3K-G2-LE2F-UNV-DMG-GY3

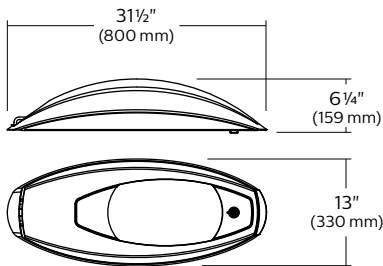
Series	LED module	Generation	Optical system	Lens	Voltage	Driver options	Luminaire options	Accessories	Finish
<b>CPLS</b>		<b>G2</b>							
<b>CPLS</b> Small	<b>3000K</b> 35W32LED3K 55W32LED3K 55W48LED3K 72W32LED3K 80W48LED3K <b>4000K</b> 35W32LED4K 55W32LED4K 55W48LED4K 72W32LED4K 80W48LED4K	<b>G2</b> 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>PH<sup>6</sup></b> Button type Photoelectric Cell <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

1. Not available with HS option.
2. 347V and 480V not available.
3. Use of photoelectric cell or shorting cap is required to ensure proper illumination.
4. Dimming choices: Select either DMG,DALI or one of the CDMG options.
5. Please note this integrated feature come standard with Capella.
6. One of the following voltage need to be specified with this option: 120,208,240,277,347 or 480.

# CPLS Capella LED (small)

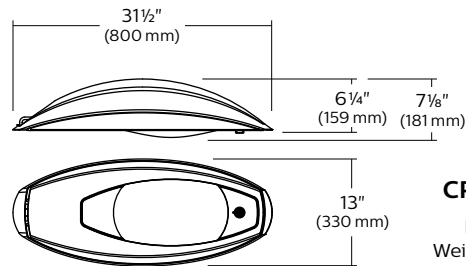
## Roadway

### Dimensions



**CPLS (flat lens)**

EPA: 0.47 sq. ft.  
Weight: 30 lbs (13.6 kg)



**CPLS (sag lens)**

EPA: 0.47 sq. ft.  
Weight: 30 lbs (13.6 kg)

### LED Wattage and Lumen Values: for CPLS with Flat lens and Sag 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
35W32LED3K-G2	32	350	37	3676	99	B1-U0-G1	3594	97	B1-U0-G1	3596	97	B1-U0-G1	3624	98	B3-U0-G1
55W32LED3K-G2	32	530	54	5273	98	B1-U0-G1	5155	96	B1-U0-G1	5157	96	B1-U0-G1	5198	96	B3-U0-G1
72W32LED3K-G2	32	700	73	6651	91	B2-U0-G1	6502	89	B1-U0-G1	6504	89	B1-U0-G2	6556	90	B3-U0-G2
55W48LED3K-G2	48	350	55	5514	100	B1-U0-G1	5391	98	B1-U0-G1	5393	98	B1-U0-G2	5436	99	B3-U0-G1
80W48LED3K-G2	48	530	81	7910	98	B2-U0-G1	7733	96	B2-U0-G2	7736	96	B1-U0-G2	7798	97	B3-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
35W32LED4K-G2	32	350	37	4131	112	B1-U0-G1	4038	109	B1-U0-G1	4040	109	B1-U0-G1	4072	110	B3-U0-G1
55W32LED4K-G2	32	530	54	5925	110	B1-U0-G1	5793	107	B1-U0-G1	5795	107	B1-U0-G2	5841	108	B3-U0-G1
72W32LED4K-G2	32	700	73	7472	102	B2-U0-G1	7306	100	B1-U0-G2	7308	100	B1-U0-G2	7367	110	B3-U0-G2
55W48LED4K-G2	48	350	55	6196	113	B1-U0-G1	6058	110	B1-U0-G1	6060	110	B1-U0-G2	6108	111	B3-U0-G1
80W48LED4K-G2	48	530	81	8887	110	B2-U0-G2	8689	108	B2-U0-G2	8692	108	B2-U0-G2	8761	109	B3-U0-G2

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
35W32LED3K-G2	32	350	37	3756	102	B1-U0-G1	3705	100	B1-U0-G1	3639	98	B1-U0-G1	3769	102	B3-U0-G1
55W32LED3K-G2	32	530	54	5387	100	B1-U0-G1	5314	98	B1-U0-G1	5219	97	B1-U0-G2	5406	100	B3-U0-G1
72W32LED3K-G2	32	700	73	6794	93	B2-U0-G1	6702	92	B1-U0-G2	6582	90	B1-U0-G2	6817	93	B3-U0-G2
55W48LED3K-G2	48	350	55	5634	102	B1-U0-G1	5558	110	B1-U0-G1	5458	99	B1-U0-G2	5653	103	B3-U0-G1
80W48LED3K-G2	48	530	81	8081	100	B2-U0-G2	7972	99	B2-U0-G2	7829	97	B1-U0-G2	8108	101	B3-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
35W32LED4K-G2	32	350	37	4220	114	B1-U0-G1	4163	113	B1-U0-G1	4088	111	B1-U0-G1	4234	114	B3-U0-G1
55W32LED4K-G2	32	530	54	6053	112	B1-U0-G1	5971	111	B1-U0-G1	5864	109	B1-U0-G2	6074	113	B3-U0-G2
72W32LED4K-G2	32	700	73	7634	105	B2-U0-G1	7531	103	B1-U0-G2	7396	101	B1-U0-G2	7660	105	B3-U0-G2
55W48LED4K-G2	48	350	55	6330	115	B1-U0-G1	6244	113	B1-U0-G2	6133	111	B1-U0-G2	6352	115	B3-U0-G2
80W48LED4K-G2	48	530	81	9079	113	B2-U0-G2	8957	111	B2-U0-G2	8797	109	B2-U0-G2	9111	113	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.

# CPLS Capella LED (small)

## Roadway

### Specifications

#### Housing

Made of cast 356 Aluminum alloy 0.180 (4.6mm) minimum thickness. The mounting means includes one bracket made of stamped galvanized-steel (12ga.). Fits on a 2" (51mm) to 3/8" (60mm) OD by 9" (229mm) minimum long tenon, fixed by 3/8-16 UNC steel zinc plated bolts. 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 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:** Dynadimmer standard dimming functionalities including pre-programmed scenarios to suit many applications and needs from safety to maximum energy savings.

#### Safety Mode:

CDMG25: 4 hours, 25% power dimming

CDMG50: 4 hours 50% power dimming

CDMG75: 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.

**PH:** (optional) Button type photo-cell.

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. 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.

# CPLS Capella LED (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 CPLS 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	93%

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.

