

VLR ClassicStyle LED Post Top

Urban Luminaire

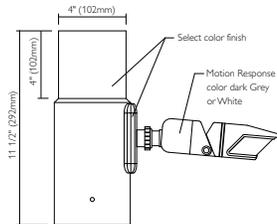
Ordering Guide (Accessories) - Motion Response*

Must be ordered as a separate line item
 *OVR option is required for Motion Response Accessory

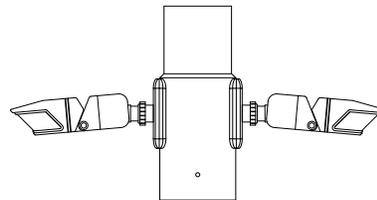
Accessory	Voltage	Motion Response Module	Finish
ACC	120 277	MR4PG1 Single Grey MR4PG2 Double Grey MR4PW1 Single White MR4PW2 Double White	See ordering guide on page 1

Motion Response

Tenon mount motion response provides 270° coverage on an adjustable knuckle. The coverage equals to up to 6 times the sensor height. It is an option offered jointly with the Dynadimmer OVR option, that can bring the light up to 100% when the motion response is triggered. It is available in a single or double mounting option. Finish options for the motion response device are white or dark gray. Finish options for the tenon must be specified to match the luminaire and pole. The tenon mount is fully rotatable 360°. This option is available for a 4" OD x 4" long tenon. See instruction sheet for time setting functionality (12 second to 16 minute turn off options) and for mounting instructions.



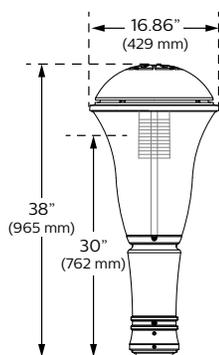
MR4PG1 or MR4PW1



MR4PG2 or MR4PW2

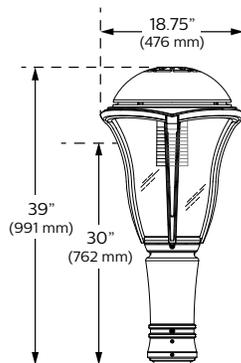
Dimensions

VLR



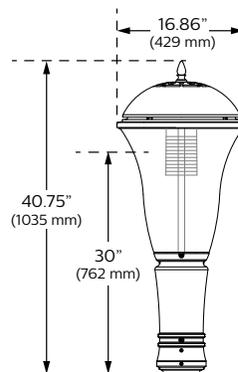
Weight: 47 lbs (21.3 Kg)
EPA: 2.8 sq. ft.

VLR-CAGE

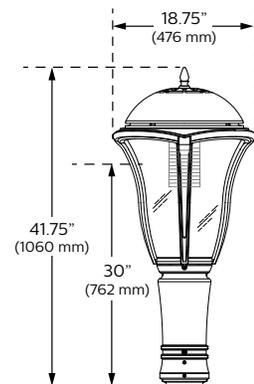


Weight: 54 lbs (25.4 Kg)
EPA: 3 sq. ft.

VLR-FN1



VLR-CAGE-FN1



VLR ClassicStyle LED Post Top

Urban Luminaire

Driver Option Details

Dynadimmer Profiles

Ordering Code	Scenario	Dimming Time	Dimming Level
DS25	Safety	4 hours	25% power dimming
DS50	Safety	4 hours	50% power dimming
DS75	Safety	4 hours	75% power dimming
DM25	Median	6 hours	25% power dimming
DM50	Median	6 hours	50% power dimming
DM75	Median	6 hours	75% power dimming
DE25	Economy	8 hours	25% power dimming
DE50	Economy	8 hours	50% power dimming
DE75	Economy	8 hours	75% power dimming

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.

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

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

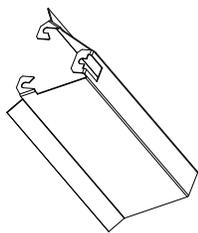
DALI: Pre-set driver compatible with the DALI control system.

SRD: Sensor Ready Driver including SR communication (used for dimming and other functionalities), 24V auxiliary supply and a logical signal input (LSI) connected to the top NEMA twist lock receptacle.

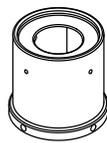
SRD1: Sensor Ready Driver including SR communication (used for dimming and other functionalities) but with 24V auxiliary supply and a logical signal input (LSI) not connected to the top NEMA twist lock.

Luminaire Options Details

HS
House Side Shield
(factory installed only)



TN3: Fitter to fit over a 3" (76 mm) O.D. by 4" (102 mm) long tenon
TN3.5: Fitter to fit over a 3 1/2" (89 mm) O.D. by 4" (102 mm) long tenon



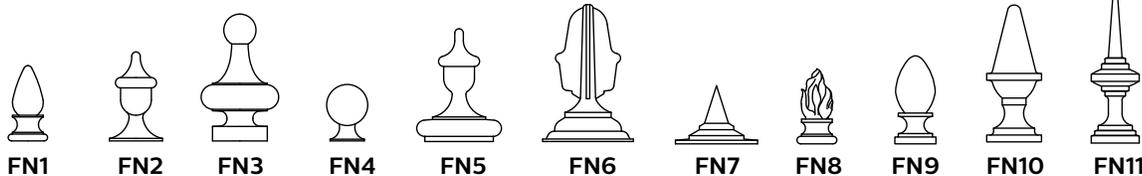
TLRD5
Receptacle with 5 pins allowing dimming, can be used with a twist-lock, photoelectric cell or a shorting cap.



TLRD7
Receptacle with 7 pins allowing dimming, can be used with a twist-lock, photoelectric cell or a shorting cap.



Finials



VLR ClassicStyle LED Post Top

Urban Luminaire

Luminaire Accessory Details

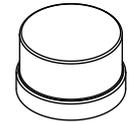
PH8, PH8/347, PH8/480

Twist-lock Photoelectric Cell.



PH9

Shorting cap, Twist-lock Type complete with receptacle.



PHXL

Extended life Photoelectric cell

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 820 mA	>100,000 hours	>60,000 hours	>96%

LED light engine technical information for ClassicStyle Post Top (VLR)

CCT = 4000K nominal (3985K +/- 275K), CRI = 70, 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)	HID ³ equivalent	Luminaire Efficacy Rating (Lm/W)	BUG rating
			120V	208V	240V	277V	347V	480V				
VLR-29L350NW-G1-3	3338	33	0.28	0.17	0.16	0.15	0.11	0.09	350	70W	102	B1-U3-G2
VLR-30L350NW-G1-5	3813	35	0.30	0.18	0.17	0.16	0.11	0.09	350	70W	109	B2-U3-G2
VLR-29L530NW-G1-3	4487	50	0.42	0.25	0.22	0.20	0.15	0.13	530	100W	90	B1-U3-G2
VLR-30L530NW-G1-5	5501	52	0.43	0.26	0.23	0.21	0.16	0.13	530	100W	106	B3-U3-G2
VLR-29L700NW-G1-3	5649	65	0.55	0.32	0.28	0.25	0.20	0.15	700	100-150W	87	B1-U3-G3
VLR-30L700NW-G1-5	6876	68	0.57	0.33	0.29	0.26	0.20	0.16	700	100-150W	101	B3-U3-G3
VLR-29L820NW-G1-3	6456	75	0.65	0.39	0.35	0.31	0.23	0.17	820	150W	86	B2-U3-G3
VLR-30L820NW-G1-5	7796	80	0.68	0.40	0.36	0.32	0.23	0.18	820	150W	97	B3-U3-G3

CCT = 3000K nominal (3045K +/- 175K), CRI = 70, 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)	HID ³ equivalent	Luminaire Efficacy Rating (Lm/W)	BUG rating
			120V	208V	240V	277V	347V	480V				
VLR-29L350WW-G1-3	3004	33	0.28	0.17	0.16	0.15	0.11	0.09	350	50-70W	91	B1-U3-G2
VLR-30L350WW-G1-5	3244	35	0.30	0.18	0.17	0.16	0.11	0.09	350	50-70W	93	B2-U3-G2
VLR-29L530WW-G1-3	4038	50	0.42	0.25	0.22	0.20	0.15	0.13	530	70W	81	B1-U3-G2
VLR-30L530WW-G1-5	4676	52	0.43	0.26	0.23	0.21	0.16	0.13	530	70W	90	B3-U3-G2
VLR-29L700WW-G1-3	5084	65	0.55	0.32	0.28	0.25	0.20	0.15	700	100W	78	B1-U3-G3
VLR-30L700WW-G1-5	5852	68	0.57	0.33	0.29	0.26	0.20	0.16	700	100W	86	B3-U3-G3
VLR-29L820WW-G1-3	5810	75	0.65	0.39	0.35	0.31	0.23	0.17	820	100-150W	77	B1-U3-G3
VLR-30L820WW-G1-5	6629	80	0.68	0.40	0.36	0.32	0.23	0.18	820	100-150W	83	B3-U3-G3

1. L₇₀ = 70,000 hrs (at ambient temperature = 25°C)

2. System wattage includes the lamp and the LED driver

3. Equivalence should always be confirmed by a photometric layout

Note : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Signify.

VLR ClassicStyle LED Post Top

Urban Luminaire

LED light engine technical information for ClassicStyle Post Top (VLR) with Cage option

CCT = 4000K nominal (3985K +/- 275K), CRI = 70, 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)	HID ³ equivalent	Luminaire Efficacy Rating (Lm/W)	BUG rating
			120V	208V	240V	277V	347V	480V				
VLR-29L350NW-G1-3-Cage	2961	33	0.28	0.17	0.16	0.15	0.11	0.09	350	70W	90	B1-U3-G2
VLR-30L350NW-G1-5-Cage	3363	35	0.30	0.18	0.17	0.16	0.11	0.09	350	70W	96	B2-U3-G2
VLR-29L530NW-G1-3-Cage	4035	50	0.42	0.25	0.22	0.20	0.15	0.13	530	100W	81	B1-U3-G2
VLR-30L530NW-G1-5-Cage	4852	52	0.43	0.26	0.23	0.21	0.16	0.13	530	100W	93	B2-U3-G2
VLR-29L700NW-G1-3-Cage	5080	65	0.55	0.32	0.28	0.25	0.20	0.15	700	100-150W	78	B1-U3-G3
VLR-30L700NW-G1-5-Cage	6065	68	0.57	0.33	0.29	0.26	0.20	0.16	700	100-150W	89	B3-U3-G2
VLR-29L820NW-G1-3-Cage	5806	76	0.65	0.39	0.35	0.31	0.23	0.17	820	150W	76	B1-U3-G3
VLR-30L820NW-G1-5-Cage	6876	80	0.68	0.40	0.36	0.32	0.23	0.18	820	150W	86	B3-U3-G3

CCT = 3000K nominal (3045K +/- 175K) CRI = 70, 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)	HID ³ equivalent	Luminaire Efficacy Rating (Lm/W)	BUG rating
			120V	208V	240V	277V	347V	480V				
VLR-29L350WW-G1-3-Cage	2665	33	0.28	0.17	0.16	0.15	0.11	0.09	350	50-70W	81	B1-U3-G2
VLR-30L350WW-G1-5-Cage	2861	35	0.30	0.18	0.17	0.16	0.11	0.09	350	50-70W	82	B2-U3-G2
VLR-29L530WW-G1-3-Cage	3631	50	0.42	0.25	0.22	0.20	0.15	0.13	530	70W	73	B1-U3-G2
VLR-30L530WW-G1-5-Cage	4124	52	0.43	0.26	0.23	0.21	0.16	0.13	530	70W	79	B2-U3-G2
VLR-29L700WW-G1-3-Cage	4572	65	0.55	0.32	0.28	0.25	0.20	0.15	700	100W	70	B1-U3-G2
VLR-30L700WW-G1-5-Cage	5161	68	0.57	0.33	0.29	0.26	0.20	0.16	700	100W	76	B3-U3-G2
VLR-29L820WW-G1-3-Cage	5225	76	0.65	0.39	0.35	0.31	0.23	0.17	820	100-150W	69	B1-U3-G3
VLR-30L820WW-G1-5-Cage	5847	80	0.68	0.40	0.36	0.32	0.23	0.18	820	100-150W	73	B3-U3-G3

1. L70 = 70,000 hrs (at ambient temperature = 25°C)
2. System wattage includes the lamp and the LED driver
3. Equivalence should always be confirmed by a photometric layout

Note: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of Signify.

Specifications

Hood

Made of 356 Aluminum alloy 0.188 (4.8mm) minimum thickness, mechanically assembled to the die cast aluminum heat sink.

Cage (optional)

In a round shape with 4 arms welded to the upper and lower supporting disk, this cage is made of cast 356 Aluminum alloy 0.250 (6.4mm) minimum thickness, mechanically assembled to the fitter.

Light Engine

ClearGuide technology, use of a light guide to create a clear transparent visual appearance during the day while achieving comfortable uniform light at night. Composed of 4 main components: Heat Sink / 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.

LED Module

Composed of 29 or 30 high performance white LEDs. Color temperature as per ANSI bin Neutral White, 4000 Kelvin nominal (3985K +/- 275K or 3710K to 4260K), CRI 70 Min. 75 Typical, Or color temperature as per ANSI bin Warm White, 3000 Kelvin nominal (3045K +/- 175K or 2870K to 3220K), CRI 70 Min. 75 Typical.

Heat Sink

Made of die cast A360.1 Aluminum alloy optimizing the LEDs efficiency and life. Mechanically assembled to the globe. Product does not use any cooling device with moving parts (only passive cooling device)

Globe (ACDR-C)

Made of one-piece seamless injected-molded clear impact-resistant (DR) acrylic. The globe is assembled on the fitter.

Globe (PC)

Made of one-piece seamless injected-molded clear polycarbonate UV protected. The globe is assembled on the fitter and is rated IP66.

Optical System

ClearGuide technology (Type III or Type V), IES type III-V (asymmetrical-symmetrical). Composed of high performance optical grade molded PMMA (polymethyl methacrylate) acrylic light guide with precision rings provides superior optical control to achieve desired distribution optimized to get maximum spacing and target lumens. Use of ClearGuide technology optics for optimal light distribution without direct view of the LED's. This system provides glare control, visual comfort, and facial recognition for safety and creates light designed for vertical uniform illumination of the environment. Performance shall be tested per LM 63, LM 79 and TM 15 (IESNA) certifying its photometric performance. Street side indicated.

Note: HS only available with Type 3. **HS option is factory installed only.**

VLR ClassicStyle LED Post Top

Urban Luminaire

Specifications (continued)

Driver

UNV: High power factor >90%. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I, THD <20%. Maximum ambient operating temperature from 40F(40C) to 130F(55C) degrees. Certified in compliance to UL1310 cULus requirement. Dry and damp location. Assembled on a unitized removable tray with quick disconnect plug. Values based on 120 volt. Driver comes with dimming compatible 0 10 volts.

HVU: High power factor >95%. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 347 to 480 VAC rated for both application line to line or line to neutral, Class I, THD <15%. Maximum ambient operating temperature from 40F(40C) to 130F(55C) degrees. Certified in compliance to UL1310 cULus requirement. Dry and damp location. Assembled on a unitized removable tray with quick disconnect plug. Values based on 347 volt. 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 Protection

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. **SP2 Option:** Integral surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure with elevated 20kV/20kA 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.

Fitter

Made of die cast A360.1 Aluminum alloy 0.110 (2.8mm) minimum thickness, the fitter rated IP66 is complete with a door giving easy access to the driver. Comes with an easy self-adjusting system with two 2 set screws 3/8 16 UNC for ease of maintenance and installation. Removal of door not required to install luminaire. Fits on a 4"(102mm) outside diameter by 4"(102mm) long tenon.

Wiring

Gauge (#14) TEW/AWM 1015 or 1230 wires, 6" (152mm) minimum exceeding from luminaire.

Hardware

All exposed screws shall be complete with Ceramic primer seal base-coat 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.

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.

Entire luminaire is rated for operation in ambient temperature of -40°C / -40°F up to +35°C / +95°F.

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 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 VLR meets the ANSI C136.31 2001, 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

CSA, cULus Listed for Canada and USA.

