



The MetroScape LED pendant luminaires combine style and performance to create flexible, durable and attractive energy-saving solutions that blend in well with traditional-styled urban architecture. Now available with comfort optics, it provides reduced glare for an enhanced user experience. Includes Service Tag, Philips innovative way to provide assistance throughout the life of the product.

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

### Ordering guide

example: MSR-C-196L450WW-G1-1-UNV-DMG-SMA-RCD-BKTX

Series	LED module	Gen.	Optical system	Voltage	Driver options	Adapters	Options			Poles/ Brackets	Finish
							Receptacle	Control	Luminaire		
MSR-C MSRC-C MetroScape LED pendant luminaire with Comfort optics	3000K <sup>1</sup>	G2 Gen2	1 Type I (ASYM)	UNV 120-277VAC	DMG 0-10V	MA1 1 1/4" NPT threaded hole adapter, accepts threaded tube	RCD <sup>3</sup> Receptacle for twist-lock photocell or shorting cap, 5-pin (standard)	PH8 <sup>4</sup> Twist-lock Photoelectric Cell	BX Bird repellent	Visit us online at <a href="http://Signify.com/luminaires">Signify.com/luminaires</a> for details and the complete line of poles and brackets.	Textured
	196L450WW										2 Type II (ASYM)
	196L650WW	3 Type III (ASYM)	480 480VAC	SRD1 <sup>2</sup> Sensor ready driver, alternate configuration	RCD7 <sup>3</sup> Receptacle for twist-lock photocell or shorting cap, 7-pin (optional)	PHXL <sup>2,4</sup> Twist-lock Photoelectric Cell, extended life, UNV (120-277VAC)	SP2 20kV / 20kA Surge Protector (optional)	BAC <sup>5</sup> Meets the requirements of the Buy American Act of 1933 (BAA)	BE6TX Ocean Blue		
	196L1150WW								4 Type IV (ASYM)		SMA Decorative retro side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"
	196L1675WW	5 Type V (SYMM)	SMA Decorative retro side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"	SMB Decorative contemporary side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"	RD2TX Burgundy	RD4TX Scarlet	WHTX White				
	196L2100WW							4000K	SMA Decorative retro side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"		SMB Decorative contemporary side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"
	196L450NW	4000K	SMA Decorative retro side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"	SMB Decorative contemporary side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"	RD2TX Burgundy	RD4TX Scarlet	WHTX White				
	196L650NW							4000K	SMA Decorative retro side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"		SMB Decorative contemporary side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"
	196L1150NW	4000K	SMA Decorative retro side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"	SMB Decorative contemporary side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"	RD2TX Burgundy	RD4TX Scarlet	WHTX White				
	196L1675NW							4000K	SMA Decorative retro side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"		SMB Decorative contemporary side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"
196L2100NW	4000K	SMA Decorative retro side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"	SMB Decorative contemporary side-mounted cast-aluminum, accepts tubes from 1 1/8" to 2 3/8"	RD2TX Burgundy	RD4TX Scarlet	WHTX White					

1. CCT's 3000K and warmer are IDA Dark Sky Approved.  
 2. Not available with 347V and 480V.  
 3. Use of photoelectric cell or shorting cap is required to ensure proper illumination.  
 4. Either RCD or RCD7 must be selected for this option.

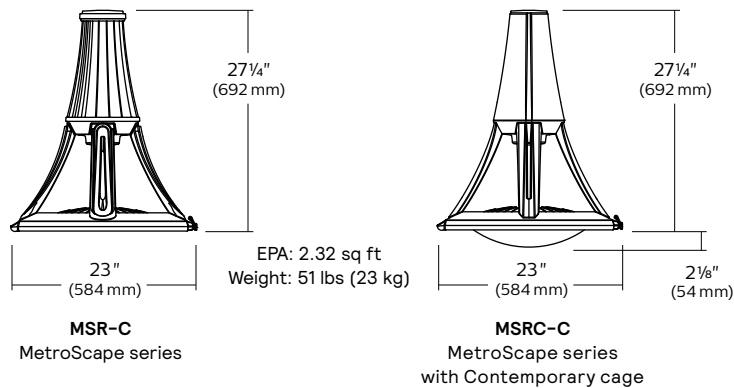
5. Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) 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.



# MSR-C MetroScape pendant

Urban luminaire with comfort optics

## Dimensions



## 3000K Lumen Values

Ordering Code	Total LEDs	LED current (mA)	Ave. System Wattage (W)	Type 1			Type 2			Type 3		
				Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
196L450WW-G2	196	450	21	2431	B1-U0-G1	116	2090	B1-U0-G1	100	2334	B1-U0-G1	112
196L650WW-G2	196	650	30	3503	B2-U0-G2	117	3012	B1-U0-G1	100	3363	B2-U0-G2	112
196L1150WW-G2	196	1150	51	5988	B3-U0-G3	117	5148	B2-U0-G2	101	5749	B2-U0-G2	113
196L1675WW-G2	196	1675	74	8357	B3-U0-G3	113	7185	B3-U0-G3	97	8024	B3-U0-G3	109
196L2100WW-G2	196	2100	93	10000	B3-U0-G3	107	8598	B3-U0-G3	92	9601	B3-U0-G3	103

Ordering Code	Total LEDs	LED current (mA)	Ave. System Wattage (W)	Type 4			Type 5		
				Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
196L450WW-G2	196	450	21	2521	B1-U0-G1	121	2270	B1-U0-G1	109
196L650WW-G2	196	650	30	3632	B1-U0-G1	121	3271	B2-U0-G1	109
196L1150WW-G2	196	1150	51	6208	B2-U0-G2	122	5591	B3-U0-G2	110
196L1675WW-G2	196	1675	74	8666	B2-U0-G2	118	7804	B3-U0-G2	106
196L2100WW-G2	196	2100	93	10369	B3-U0-G3	111	9338	B3-U0-G2	100

## 4000K Lumen Values

Ordering Code	Total LEDs	LED current (mA)	Ave. System Wattage (W)	Type 1			Type 2			Type 3		
				Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
196L450NW-G2	196	450	21	2528	B1-U0-G1	121	2174	B1-U0-G1	104	2427	B1-U0-G1	116
196L650NW-G2	196	650	30	3643	B2-U0-G2	121	3132	B1-U0-G1	104	3498	B2-U0-G2	117
196L1150NW-G2	196	1150	51	6228	B3-U0-G3	122	5354	B2-U0-G2	105	5979	B2-U0-G2	117
196L1675NW-G2	196	1675	74	8691	B3-U0-G3	118	7472	B3-U0-G3	101	8345	B3-U0-G3	113
196L2100NW-G2	196	2100	93	10400	B3-U0-G3	112	8942	B3-U0-G3	96	9985	B3-U0-G3	107

Ordering Code	Total LEDs	LED current (mA)	Ave. System Wattage (W)	Type 4			Type 5		
				Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
196L450NW-G2	196	450	21	2622	B1-U0-G1	125	2361	B1-U0-G1	113
196L650NW-G2	196	650	30	3777	B1-U0-G1	126	3402	B2-U0-G1	113
196L1150NW-G2	196	1150	51	6456	B2-U0-G2	127	5815	B3-U0-G2	114
196L1675NW-G2	196	1675	74	9013	B2-U0-G2	122	8116	B3-U0-G2	110
196L2100NW-G2	196	2100	93	10784	B3-U0-G3	116	9712	B3-U0-G2	104

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). Consult DLC QPL to confirm your specific fixture selection is DLC approved. Note: Some data may be scaled based on tests of similar but not identical luminaires.

# MSR-C MetroScape pendant

## Urban luminaire with comfort optics

### Specifications

#### Cage

In a round shape, this cage is made of four cast aluminum 356 decorative arms welded to the housing and to the access mechanism.

#### Housing

In a round shape, this housing is made of cast 356 aluminum, c/w a watertight grommet, mechanically assembled to the bracket with four bolts 3/8 16 UNC. This suspension system permits for a full rotation of the luminaire in 90° increments. The housing is complete with a watertight access cap mechanically secured with two captive screws, giving access to the driver. Rated IP66.

#### Access-Mechanism

Made of cast aluminum 356 technical, ring with latch and hinge. The mechanism shall offer tool free access to the Light engine.

#### Light Engine

Light guide technology provides low-glare, uniform illumination. Composed of 196 LEDs strategically positioned on the edge of the optical plate. Light engine luminous opening size optimized to best achieve a balance between lumen output and optical performance with the need to provide visual comfort. Light engine frame ensures contact with housing to provide heat conduction and sealing against the elements. Light engine is RoHS compliant. Maximum ambient operating temperature up to 40°C(104°F). Standard color temperatures: 3000K +/- 130K, 4000K +/- 130K, Minimum CRI of 80. Also available in 2700K, 3500K, 5000K and Amber (>590nm) with extended lead times. Contact factory for details.

#### Optical System

The advanced LED comfort optical system provides Types 1, 2, 3, 4 and 5. Composed of high performance UV-stabilized optical grade lens with molded micro-optics to achieve desired distribution optimized to get an exceptional lighting uniformity. Performance tested per LM-79 and TM-15 (IESNA) certifying its photometric performance. Street side indicated luminaire designed with 0% uplight (UO per IESNA TM-15).

### Predicted Lumen Depreciation Data

Predicted lumen depreciation data <sup>1</sup>				
Ambient Temperature (°C)	Driver (mA)	Calculated L70 hours <sup>1,2</sup>	L70 per TM-21 <sup>2,3</sup>	Lumen Maintenance % @ 60,000 hours
25°C	up to 2100 mA	>100,000	>60,000	84%

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. L70 is the predicted time when LED performance depreciates to 70% of initial lumen output.
3. Calculated per IESNA TM21-11. Published L70 hours limited to 6 times actual LED test hours.

#### Driver

High power factor of 95%. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 and 347 to 480 VAC rated for both application line to line or line to neutral, Class 2, THD of 20% max. Maximum ambient operating temperature from 40°F (40°C) to 130°F (50°C). Certified in compliance to UL1310 cULus requirement. Dry and damp location. Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221°F (105°C). Dimmable driver 0-10V. 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) with DALI, driver is class 1.

#### Driver options

**DMG:** Dimmable driver 0-10V.

**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.

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

#### LED 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.

#### Hardware

All exposed screws shall be stainless steel with Ceramic primer seal basecoat to reduce seizing of the parts. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

#### Service Tag

Each individual luminaire is uniquely identifiable, thanks to the Signify Service tag application. With a simple scan of a QR code, placed inside the luminaire, 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](http://signify.com/servicetag)

#### Quality Control

Manufactured to ISO 9001 2008 & ISO 14001 2004 International Quality Standards Certification.

#### Vibration Resistance

Meets the ANSI C136.31, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications.

#### Certifications and Compliance

CSA, cULus Listed for Canada and USA. Compliant configurations listed on Design Lights Consortium (DLC) qualified products list.

# MSR-C MetroScape pendant

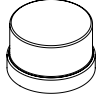
## Urban luminaire with comfort optics

### Specifications (continued)

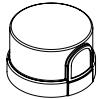
#### Control options



**PH8** (allows a 90° rotation)  
Photoelectric Cell, Twist-lock  
Type complete with receptacle.



**PH9** Shorting cap, Twist-lock  
Type complete with receptacle.



**PHXL** (allows a 90° rotation)  
Extended life photoelectric cell,  
Twist-lock Type complete with  
receptacle.

#### Receptacle options



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

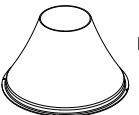


**RCD7** Receptacle 7-pins.

#### Luminaire options

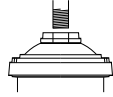


**BX** Bird repellent.

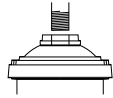


**DH** Opaque decorative hood.

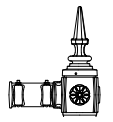
#### Adapters



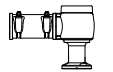
**MA1** The luminaire is suspended  
by means of a mounting adapter  
with a 1 1/4" (32mm) NPT threaded  
hole accepting a threaded tube  
from the mounting. Retrofit  
adapter for existing mounting.



**MA2** The luminaire is suspended  
by means of a mounting adapter  
with a 1 1/2" (38mm) NPT threaded  
hole accepting threaded tube  
from the mounting. Retrofit  
adapter for existing mounting.



**SMA** The luminaire is suspended  
by means of a decorative  
side-mounted cast aluminum  
adapter. This adapter accepts  
tubes from 1 5/8" to 2 3/8" (41 to  
60 mm) and is adjustable to more or less 5°. The  
adapter features a cast aluminum decorative  
cover and finial.



**SMB** The luminaire is suspended  
by means of a decorative  
side-mounted cast aluminum  
adapter. This adapter accepts tubes from 1 5/8"  
to 2 3/8" (41 to 60 mm) and is adjustable to more  
or less 5°.

#### 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.

#### Textured Finish Options:

**BE2TX:** Textured Midnight Blue  
**BE6TX:** Textured Ocean Blue  
**BE8TX:** Textured Royal Blue  
**BG2TX:** Textured Sandstone  
**BKTX:** Textured Black  
**BRTX:** Textured Bronze  
**GN4TX:** Textured Blue Green  
**GN6TX:** Textured Forest Green  
**GN8TX:** Textured Dark Forest Green  
**GNTX:** Textured Green  
**GY3TX:** Textured Medium Grey  
**RD2TX:** Textured Burgundy  
**RD4TX:** Textured Scarlet  
**WHTX:** Textured White

#### Non-Textured Finish Options:

**GR:** Gray Sandtex  
**NP:** Natural Aluminum  
**TG:** Hammer-tone Gold  
**TS:** Hammer-tone Silver

