## DESCRIPTION

The geometric form of MESA LED luminaire allows it to adapt to either contemporary or traditional architectural settings. Available in single or twin pole mount configurations with optional wall mounting capability, the MESA LED luminaire's mounting options allow for harmonized site design whether at the entryway or in the parking lot. UL/cUL listed for use in wet locations.

| | | |
|---|---|---|
| **Catalog #** | | **Type** |
| **Project** | | |
| **Comments** | | **Date** |
| **Prepared by** | | |

## SPECIFICATION FEATURES

### Construction

HOUSING: Die-cast aluminum main housing and spider mount base maintain a minimum 0.125 wall thickness. Integral aluminum heat sink provides superior thermal heat transfer in +40°C ambient environments. DOOR ASSEMBLY: Top mounted, heavy wall, die-cast aluminum door maintains a nominal 0.125 thickness. Door includes a self-retaining interior hinge. GASKET: Continuous silicone gasket provided to seal housing door assembly and optic tray. LENS: Downlight lens is LED board integrated acrylic over-optics, each individually sealed for IP66 rating. HARDWARE: Four iinset fasteners on underside of housing provide access to luminaire interior. Concealed, stainless steel four bar hinge lock allows door to lock in the open position.

### Optics

Choice of twelve patented, high-efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optic technology, creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT and 5000K CCT. For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2, SL3 or SL4 optics. LightBAR optic tray is removable and able to rotate 360° in 90° increments for specific placement of the distribution relative to fixture.

### Electrical

LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life. Standard drivers feature electronic universal voltage (120-277V 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less that 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature and IP66 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21. Occupancy sensor and dimming options available.

### Mounting

Fitter assembly mounts over 3" O.D. tenon and is secured via three concealed stainless steel set screws. Design of fitter provides seamless transition to 4" round poles. Additional mounting accessories include a dual fixture post top mounting arm and wall mount arm.

### Finish

Housing is finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. LightBAR™ cover plates are standard white and may be specified to match finish of luminaire housing. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

### Warranty

Five-year warranty.

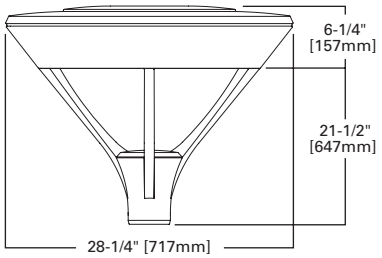
# **MSA** MESA LED

**1-6 LightBARs**

**Solid State LED**

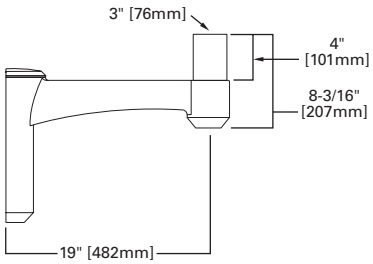
**DECORATIVE LUMINAIRE**

## DIMENSIONS

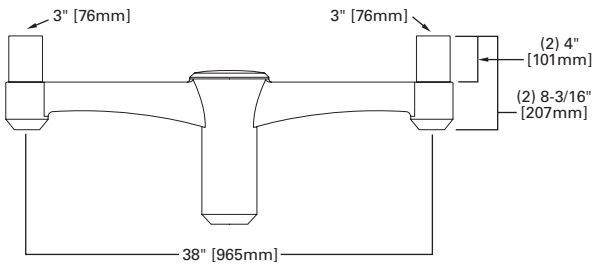



## MOUNTING ACCESSORIES

**WALL MOUNT ARM**




**DUAL MOUNT ARM** (EPA 1.36)




## CERTIFICATION DATA

UL/cUL Listed
ISO 9001
IP66 LightBARs
LM79 / LM80 Compliant
2G Vibration Tested

## ENERGY DATA

**Electronic LED Driver**
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

## EPA

**Effective Projected Area:** (Sq. Ft.)
Single Mount 1.1

## SHIPPING DATA

**Approximate Net Weight:**
50 lbs. (22.7 kgs.)

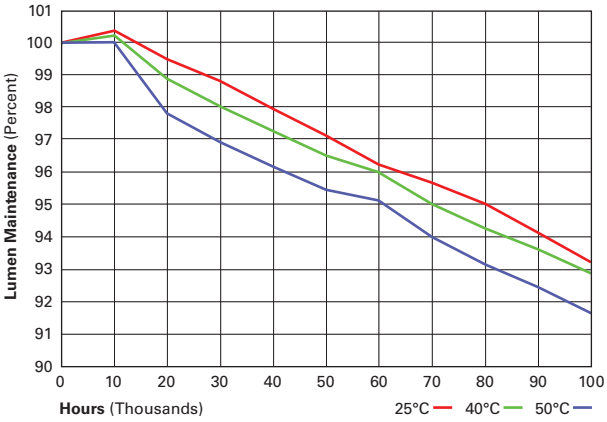
## POWER AND LUMENS BY BAR COUNT (21 LED LIGHTBARS)

| **Number of LightBARs** | | **E01** | **E02** | **E03** | **E04** | **E05** | **E06** |
|---|---|---|---|---|---|---|---|
| **Drive Current** | | 350mA Drive Current | | | | | |
| **Power** (Watts) | | 25W | 52W | 75W | 97W | 127W | 150W |
| **Current @ 120V** (A) | | 0.22 | 0.44 | 0.63 | 0.82 | 1.07 | 1.26 |
| **Current @ 277V** (A) | | 0.10 | 0.20 | 0.28 | 0.36 | 0.48 | 0.56 |
| **Power** (Watts) | | 31W | 58W | 82W | 99W | 132W | 159W |
| **Current @ 347V** (A) | | 0.11 | 0.19 | 0.28 | 0.29 | 0.39 | 0.48 |
| **Current @ 480V** (A) | | 0.09 | 0.15 | 0.20 | 0.21 | 0.30 | 0.36 |
| **T2** | Lumens | 2,460 | 4,920 | 7,379 | 9,839 | 12,299 | 14,759 |
| | BUG Rating | B1-U0-G1 | B2-U0-G2 | B2-U0-G2 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 |
| **T3** | Lumens | 2,485 | 4,970 | 7,456 | 9,941 | 12,426 | 14,911 |
| | BUG Rating | B1-U0-G1 | B2-U0-G2 | B2-U0-G2 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 |
| **T4** | Lumens | 2,423 | 4,845 | 7,268 | 9,690 | 12,113 | 14,535 |
| | BUG Rating | B1-U0-G1 | B1-U0-G2 | B1-U0-G2 | B2-U0-G2 | B2-U0-G3 | B2-U0-G3 |
| **5MQ** | Lumens | 2,615 | 5,230 | 7,844 | 10,459 | 13,074 | 15,689 |
| | BUG Rating | B2-U0-G1 | B3-U0-G1 | B3-U0-G1 | B3-U0-G2 | B4-U0-G2 | B4-U0-G2 |
| **5WQ** | Lumens | 2,604 | 5,207 | 7,811 | 10,415 | 13,018 | 15,622 |
| | BUG Rating | B2-U0-G1 | B3-U0-G1 | B3-U0-G2 | B4-U0-G2 | B4-U0-G2 | B4-U0-G2 |
| **5XQ** | Lumens | 2,603 | 5,206 | 7,809 | 10,412 | 13,015 | 15,618 |
| | BUG Rating | B2-U0-G1 | B3-U0-G2 | B3-U0-G2 | B4-U0-G3 | B4-U0-G3 | B4-U0-G3 |
| **SL2** | Lumens | 2,445 | 4,891 | 7,336 | 9,781 | 12,226 | 14,672 |
| | BUG Rating | B1-U0-G1 | B1-U0-G1 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B3-U0-G3 |
| **SL3** | Lumens | 2,461 | 4,921 | 7,382 | 9,842 | 12,303 | 14,763 |
| | BUG Rating | B1-U0-G1 | B1-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 | B3-U0-G3 |
| **SL4** | Lumens | 2,376 | 4,752 | 7,128 | 9,504 | 11,880 | 14,256 |
| | BUG Rating | B1-U0-G1 | B1-U0-G2 | B1-U0-G2 | B2-U0-G2 | B2-U0-G3 | B2-U0-G3 |
| **RW** | Lumens | 2,398 | 4,796 | 7,194 | 9,591 | 11,989 | 14,387 |
| | BUG Rating | B1-U0-G1 | B2-U0-G2 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 | B4-U0-G4 |
| **SLL/SLR** | Lumens | 2,227 | 4,453 | 6,680 | 8,906 | 11,133 | 13,360 |
| | BUG Rating | B1-U1-G1 | B1-U1-G2 | B1-U1-G3 | B1-U1-G3 | B2-U2-G3 | B2-U2-G4 |

## LUMEN MAINTENANCE

| **Ambient Temperature** | **25,000 Hours*** | **50,000 Hours*** | **60,000 Hours*** | **100,000 Hours** | **Theoretical L70 (Hours)** |
|---|---|---|---|---|---|
| **25ºC** | > 99% | > 97% | > 96% | > 93% | > 450,000 |
| **40ºC** | > 98% | > 97% | > 96% | > 92% | > 425,000 |
| **50ºC** | > 97% | > 96% | > 95% | > 91% | > 400,000 |

* Per IESNA TM-21 data.




## LUMEN MULTIPLIER

| **Ambient Temperature** | **Lumen Multiplier** |
|---|---|
| **10ºC** | 1.02 |
| **15ºC** | 1.01 |
| **25ºC** | 1.00 |
| **40ºC** | 0.99 |
| **50ºC** | 0.96 |

## POWER AND LUMENS BY BAR COUNT (7 LED LIGHTBARS)

| **Number of LightBARs** | | **F01** | **F02** | **F03** | **F04** | **F05** | **F06** |
|---|---|---|---|---|---|---|---|
| **Drive Current** | | 1A Drive Current | | | | | |
| **Power** (Watts) | | 26W | 55W | 78W | 102W | 133W | 157W |
| **Current @ 120V** (A) | | 0.22 | 0.46 | 0.66 | 0.86 | 1.12 | 1.31 |
| **Current @ 277V** (A) | | 0.10 | 0.21 | 0.29 | 0.37 | 0.50 | 0.58 |
| **Power** (Watts) | | 32W | 60W | 85W | 105W | 137W | 164W |
| **Current @ 347V** (A) | | 0.11 | 0.19 | 0.28 | 0.30 | 0.41 | 0.49 |
| **Current @ 480V** (A) | | 0.09 | 0.15 | 0.21 | 0.22 | 0.31 | 0.37 |
| **T2** | Lumens | 2,031 | 4,061 | 6,092 | 8,122 | 10,153 | 12,184 |
| | BUG Rating | B1-U0-G1 | B1-U0-G1 | B2-U0-G2 | B2-U0-G2 | B3-U0-G3 | B3-U0-G3 |
| **T3** | Lumens | 2,052 | 4,103 | 6,155 | 8,206 | 10,258 | 12,310 |
| | BUG Rating | B1-U0-G1 | B2-U0-G2 | B2-U0-G2 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 |
| **T4** | Lumens | 2,000 | 4,000 | 6,000 | 7,999 | 9,999 | 11,999 |
| | BUG Rating | B1-U0-G1 | B1-U0-G1 | B1-U0-G2 | B1-U0-G2 | B2-U0-G2 | B2-U0-G3 |
| **5MQ** | Lumens | 2,159 | 4,317 | 6,476 | 8,634 | 10,793 | 12,951 |
| | BUG Rating | B1-U0-G1 | B2-U0-G1 | B3-U0-G1 | B3-U0-G2 | B3-U0-G2 | B4-U0-G2 |
| **5WQ** | Lumens | 2,149 | 4,299 | 6,448 | 8,597 | 10,747 | 12,896 |
| | BUG Rating | B2-U0-G1 | B3-U0-G1 | B3-U0-G2 | B3-U0-G2 | B4-U0-G2 | B4-U0-G2 |
| **5XQ** | Lumens | 2,149 | 4,298 | 6,446 | 8,595 | 10,744 | 12,893 |
| | BUG Rating | B2-U0-G1 | B3-U0-G2 | B3-U0-G2 | B3-U0-G3 | B4-U0-G3 | B4-U0-G3 |
| **SL2** | Lumens | 2,019 | 4,037 | 6,056 | 8,075 | 10,093 | 12,112 |
| | BUG Rating | B1-U0-G1 | B1-U0-G1 | B1-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| **SL3** | Lumens | 2,031 | 4,062 | 6,094 | 8,125 | 10,156 | 12,187 |
| | BUG Rating | B1-U0-G1 | B1-U0-G1 | B1-U0-G2 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| **SL4** | Lumens | 1,961 | 3,923 | 5,884 | 7,846 | 9,807 | 11,769 |
| | BUG Rating | B1-U0-G1 | B1-U0-G1 | B1-U0-G2 | B1-U0-G2 | B2-U0-G2 | B2-U0-G3 |
| **RW** | Lumens | 1,980 | 3,959 | 5,939 | 7,918 | 9,898 | 11,877 |
| | BUG Rating | B1-U0-G1 | B2-U0-G2 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 | B3-U0-G3 |
| **SLL/SLR** | Lumens | 1,838 | 3,676 | 5,514 | 7,352 | 9,191 | 11,029 |
| | BUG Rating | B0-U1-G1 | B1-U1-G2 | B1-U1-G2 | B1-U1-G3 | B1-U1-G3 | B2-U2-G3 |

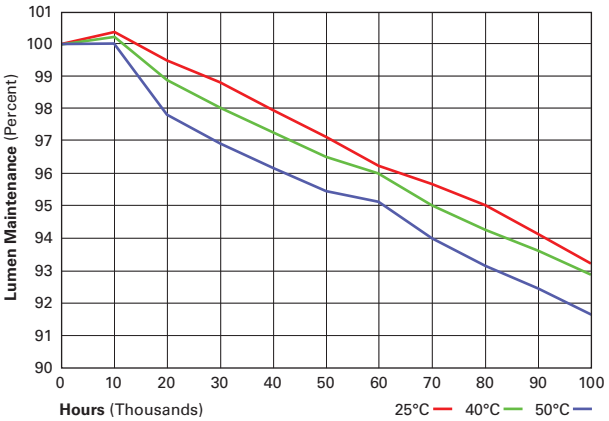
## LUMEN MAINTENANCE

| **Ambient Temperature** | **25,000 Hours*** | **50,000 Hours*** | **60,000 Hours*** | **100,000 Hours** | **Theoretical L70 (Hours)** |
|---|---|---|---|---|---|
| **25ºC** | > 99% | > 97% | > 96% | > 93% | > 450,000 |
| **40ºC** | > 98% | > 97% | > 96% | > 92% | > 425,000 |
| **50ºC** | > 97% | > 96% | > 95% | > 91% | > 400,000 |

* Per IESNA TM-21 data.

## LUMEN MULTIPLIER

| **Ambient Temperature** | **Lumen Multiplier** |
|---|---|
| **10ºC** | 1.02 |
| **15ºC** | 1.01 |
| **25ºC** | 1.00 |
| **40ºC** | 0.99 |
| **50ºC** | 0.96 |



## CONTROL OPTIONS

**0-10V** (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

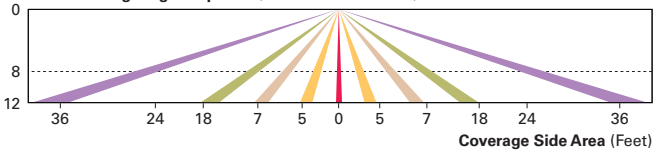
**Photocontrol** (PC, PER and PER7)
Optional button-type photocontrol (PC) and photocontrol receptacles (PER and PER7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

**Dimming Occupancy Sensor** (MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines.

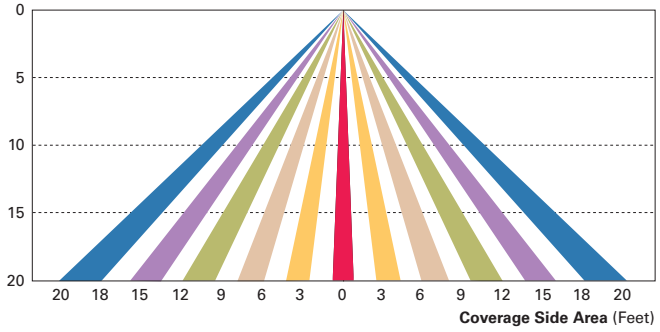
These occupancy sensors includes an integral photocell that can be activated with the FSIR-100 accessory for "dusk-to-dawn" control or daylight harvesting - the factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters.

A variety of sensor lens are available to optimize the coverage pattern for mounting heights from 8'-40'.

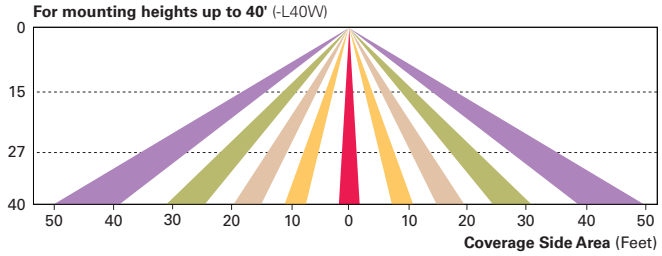
**For mounting heights up to 8'** (-L08 - Cutoff 8' to 24')




**For mounting heights up to 20'** (-L20)



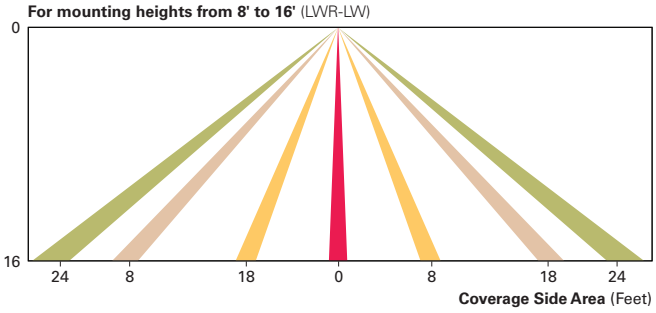

**For mounting heights up to 40'** (-L40W)



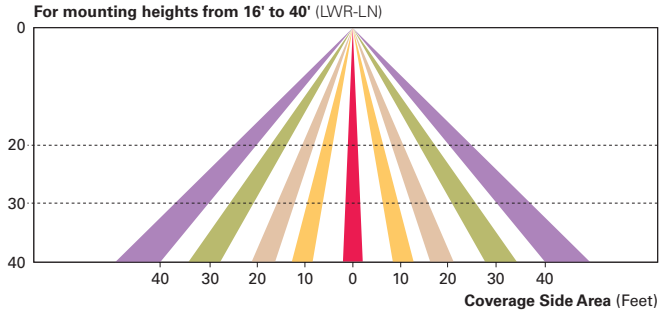

**LumaWatt Pro Wireless Control and Monitoring System** (LWR-LW and LWR-LN)
The LumaWatt Pro system is a peer-to-peer wireless network of luminaire-integral sensors for any sized project. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication. The end-user can securely create and manage sensor profiles with browser-based management software. The software will automatically broadcast to the sensors via wireless gateways for zone-based and individual luminaire control. The LumaWatt Pro software provides smart building solutions by utilizing the sensor to provide easy-to-use dashboard and analytic capabilities such as improved energy savings, traffic flow analysis, building management software integration and more.

For additional details, refer to the LumaWatt Pro product guides.

**For mounting heights from 8' to 16'** (LWR-LW)




**For mounting heights from 16' to 40'** (LWR-LN)



## ORDERING INFORMATION

**Sample Number:** MSA-E06-LED-E1-T3-GM

| Product Family | Number of LightBARs [1, 2] | Lamp Type | Voltage | Distribution | Color [5] |
|---|---|---|---|---|---|
| **MSA**=Mesa | **E01**=(1) 21 LED LightBAR [3]<br>**E02**=(2) 21 LED LightBARs<br>**E03**=(3) 21 LED LightBARs<br>**E04**=(4) 21 LED LightBARs<br>**E05**=(5) 21 LED LightBARs<br>**E06**=(6) 21 LED LightBARs<br>**F01**=(1) 7 LED LightBAR [3]<br>**F02**=(2) 7 LED LightBARs<br>**F03**=(3) 7 LED LightBARs<br>**F04**=(4) 7 LED LightBARs<br>**F05**=(5) 7 LED LightBARs<br>**F06**=(6) 7 LED LightBARs | **LED**=Solid State Light Emitting Diodes | **E1**=Electronic (120-277V)<br>**347**=347V<br>**480**=480V [4] | **T2**=Type II<br>**T3**=Type III<br>**T4**=Type IV<br>**SL2**=Type II w/Spill Control<br>**SL3**=Type III w/Spill Control<br>**SL4**=Type IV w/Spill Control<br>**RW**=Rectangular Wide<br>**5MQ**=Type V Square Medium<br>**5WQ**=Type V Square Wide<br>**5XQ**=Type V Square Extra Wide<br>**SLL**=90° Spill Light Eliminator Left<br>**SLR**=90° Spill Light Eliminator Right | **AP**=Grey<br>**BZ**=Bronze<br>**BK**=Black<br>**DP**=Dark Platinum<br>**GM**=Graphite Metallic<br>**WH**=White |

| **Options** (Add as Suffix) | **Accessories** (Order Separately) [18] |
|---|---|
| **PC**=Button Type Photocontrol (Specify Voltage)<br>**R**=NEMA Twistlock Photocontrol Recepetacle<br>**2L**=Two Circuits [6]<br>**LCF**=LightBAR Cover Plate Matches Housing Finish<br>**7030**=70 CRI / 3000K CCT [7]<br>**7050**=70 CRI / 5000K CCT [7]<br>**8030**=80 CRI / 3000K CCT [7]<br>**ICB**=Integral Cold Weather Battery Pack (Specify 120 or 277V) [8]<br>**LWR-LW**=LumaWatt Pro Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [9]<br>**LWR-LN**=LumaWatt Pro Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [9]<br>**HSS**=Factory Installed House Side Shield [10]<br>**MS/DIM-L08**=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height [11, 12, 13, 14, 15]<br>**MS/DIM-L20**=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [11, 12, 13, 14, 16]<br>**MS/DIM-L40W**=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range) [11, 12, 13, 14, 17] | **VA6028-XX**=Dual Mount Arm (EPA 1.38)<br>**VA6029-XX**=Wall Mount Arm<br>**OA/RA1016**=NEMA Photocontrol - Multi-Tap<br>**OA/RA1027**=NEMA Photocontrol - 480V<br>**OA/RA1201**=NEMA Photocontrol - 347V<br>**MA1253**=10kV Circuit Module Replacement<br>**LB/HSS-21**=Field Installed House Side Shield for "E" LightBARs [10, 19]<br>**LB/HSS-07**=Field Installed House Side Shield for "F" LightBARs [10, 19] |

**NOTES:**
**1.** Standard 4000K CCT and nominal 70 CRI.
**2.** 21 LED LightBAR powered at 350mA, 7 LED LightBAR powered at 1A.
**3.** Streetside orientation 90° to LightBAR.
**4.** Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
**5.** Cutsom and RAL color matching available upon request. Consult your lighting representative at Eaton for more information.
**6.** Low-level output varies by bar count. Consult factory. Not availalbe with 347V or 480V. Requires quantity two or more LightBARs.
**7.** Consult factory for lead times and lumen multiplier.
**8.** Available with E01-E04 or F01-F04 configurations only. Specify 120V or 277V. LED cold weather integral battery pack is rated for minimum operating temperature -40°F (-20°C). Operates one LightBAR for 90-minutes. Not available in all configuration, consult factory. Rated for use in 25°C ambient.
**9.** LumaWatt wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
**10.** Only for use with SL2, SL3 and SL4 distributions.
**11.** Consult factory for more information.
**12.** Utilizes internal step-down transformer when 347V or 480V is selected.
**13.** The FSIR-100 accessory is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
**14.** Not available with HA option.
**15.** Approximately 22' detection diameter at 8' mounting height.
**16.** Approximately 40' detection diameter at 20' mounting height.
**17.** Approximately 100' detection diameter at 40' mounting height.
**18.** Replace XX with color designation.
**19.** One required for each LightBAR.