

DESCRIPTION

The Ventus™ LED area luminaire provides uncompromising optical performance and outstanding versatility for a wide variety of area and roadway applications. Patented modular LightBAR™ technology delivers uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and any security lighting application. UL/cUL Listed for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Die-cast aluminum frame secures thermally conductive, extruded aluminum heat sink to independent electrical chamber. Heavy-wall, die-cast aluminum housing and door isolates driver components for cooler operation. The unique construction allows for passive cooling and natural cleaning of the extruded heat sink ensuring reliable operation at 40°C high ambient conditions. Stainless steel fasteners and hinging allow access to electrical components for installation and maintenance. Optional tool-less hardware available for ease of entry into electrical chamber.

Optics

Choice of twelve patented, high-efficiency AccuLED Optics™ distributions. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optics 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, 5000K CCT and 5700K 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.

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. 480V is compatible for use with 480V Wye systems only. Greater than 0.9 power factor, less than 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 an 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

Internal mast arm mount accepts a 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) horizontal tenon, while a two-bolt clamping mechanism secures fixture. Cast-in leveling guides provide +/-5° vertical leveling adjustment. Optional cast aluminum 6" arm includes bolt guides allowing for easy positioning of fixture during installation to pole or wall surface.

Finish

Cast components and arm finished in a five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

Five-year warranty.



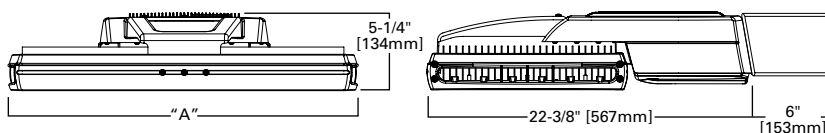
VST VENTUS LED

2 - 12 LightBARs
Solid State LED

AREA LUMINAIRE



DIMENSIONS



DIMENSIONAL DATA

Number of LightBars	"A" Width	Weight		EPA [Square Feet]	
		Without Arm	With Arm	Without Arm	With Arm
2-4	12-7/8" [328mm]	24 lbs. [10.91 kgs.]	29 lbs. [13.18 kgs.]	0.94	1.00
5-8	18" [458mm]	30 lbs. [13.64 kgs.]	35 lbs. [15.91 kgs.]	1.10	1.20
9-12	25-7/8" [658mm]	39 lbs. [17.73 kgs.]	44 lbs. [20.00 kgs.]	1.31	1.44

CERTIFICATION DATA

UL/cUL Listed
LM79 / LM80 Compliant
IP66 LightBARs
3G Vibration Rated
ISO 9001

ENERGY DATA

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

SHIPPING DATA

Approximate Net Weight:
(See Tabulated Reference Data)

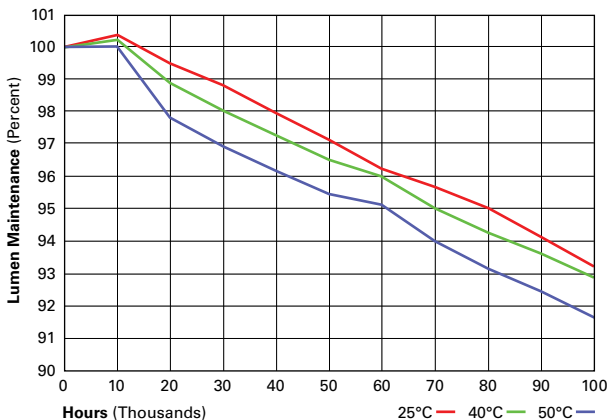
POWER AND LUMENS BY BAR COUNT (21 LED LIGHTBAR)

Number of LightBARs	E02	E03	E04	E05	E06	E07	E08	E09	E10	E11	E12	
Drive Current	350mA Drive Current											
Power (Watts)	52W	75W	97W	127W	149W	173W	195W	226W	247W	270W	292W	
Current @ 120V (A)	0.44	0.63	0.82	1.07	1.26	1.45	1.63	1.89	2.08	2.26	2.45	
Current @ 277V (A)	0.20	0.28	0.36	0.48	0.56	0.64	0.71	0.84	0.92	0.99	1.07	
Power (Watts)	58W	82W	99W	132W	159W	174W	196W	227W	247W	271W	293W	
Current @ 347V (A)	0.19	0.28	0.29	0.39	0.48	0.56	0.57	0.68	0.76	0.85	0.86	
Current @ 480V (A)	0.15	0.20	0.21	0.30	0.36	0.41	0.42	0.51	0.57	0.62	0.63	
T2	Lumens	6,173	9,260	12,347	15,434	18,520	21,607	24,694	27,780	30,867	33,954	37,041
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T3	Lumens	6,117	9,175	12,233	15,292	18,350	21,409	24,467	27,525	30,584	33,642	36,700
	BUG Rating	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T4	Lumens	5,953	8,929	11,905	14,882	17,858	20,835	23,811	26,787	29,764	32,740	35,716
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
5MQ	Lumens	6,398	9,597	12,795	15,994	19,193	22,392	25,591	28,790	31,989	35,187	38,386
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5WQ	Lumens	6,315	9,472	12,630	15,787	18,945	22,102	25,260	28,417	31,575	34,732	37,890
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
5XQ	Lumens	6,325	9,488	12,650	15,813	18,975	22,138	25,301	28,463	31,626	34,788	37,951
	BUG Rating	B3-U1-G2	B3-U1-G3	B4-U1-G3	B4-U1-G3	B4-U1-G4	B5-U1-G4	B5-U2-G5	B5-U2-G5	B5-U2-G5	B5-U2-G5	B5-U2-G5
SL2	Lumens	6,018	9,026	12,035	15,044	18,053	21,061	24,070	27,079	30,088	33,096	36,105
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G4
SL3	Lumens	6,034	9,051	12,067	15,084	18,101	21,118	24,135	27,152	30,169	33,186	36,202
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL4	Lumens	5,802	8,703	11,604	14,505	17,406	20,307	23,207	26,108	29,009	31,910	34,811
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
RW	Lumens	6,231	9,346	12,462	15,577	18,692	21,808	24,923	28,039	31,154	34,270	37,385
	BUG Rating	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	5,375	8,062	10,749	13,436	16,124	18,811	21,498	24,186	26,873	29,560	32,247
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5

LUMEN MAINTENANCE

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

* Per IESNA TM-21 data.



LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96

LIGHTBAR OPERATION WITH 2L BI-LEVEL SWITCHING OPTION

Number of LightBars	Circuit 1	Circuit 2
2	1	1
3	2	2
4	2	2
5	3	2
6	3	3
7	4	3
8	4	4
9	5	4
10	6	4
11	7	4
12	8	4

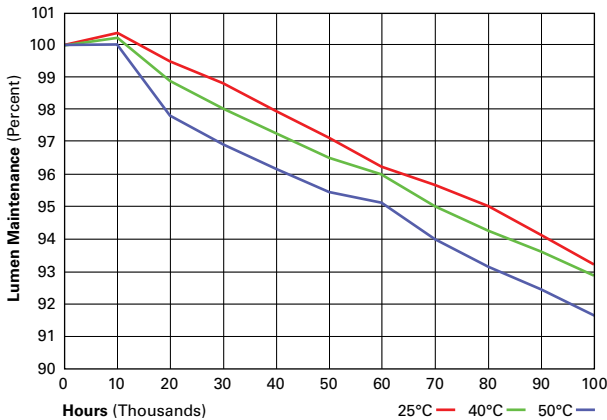
POWER AND LUMENS BY BAR COUNT (7 LED LIGHTBAR)

Number of LightBARs		F02	F03	F04	F05	F06	F07	F08	F09	F10	F11	F12
Drive Current		1A Drive Current										
Power (Watts)		55W	78W	102W	133W	157W	180W	204W	235W	259W	283W	307W
Current @ 120V (A)		0.46	0.66	0.86	1.12	1.31	1.51	1.71	1.97	2.17	2.37	2.57
Current @ 277V (A)		0.21	0.29	0.37	0.50	0.58	0.66	0.74	0.88	0.96	1.04	1.12
Power (Watts)		60W	85W	105W	137W	164W	181W	204W	236W	259W	284W	308W
Current @ 347V (A)		0.19	0.28	0.30	0.41	0.49	0.58	0.60	0.71	0.79	0.88	0.90
Current @ 480V (A)		0.15	0.21	0.22	0.31	0.37	0.43	0.44	0.53	0.59	0.65	0.66
T2	Lumens	5,096	7,644	10,193	12,741	15,289	17,837	20,385	22,933	25,482	28,030	30,578
	BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T3	Lumens	5,050	7,574	10,099	12,624	15,149	17,673	20,198	22,723	25,248	27,772	30,297
	BUG Rating	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4
T4	Lumens	4,914	7,371	9,828	12,285	14,742	17,199	19,656	22,114	24,571	27,028	29,485
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
5MQ	Lumens	5,281	7,922	10,563	13,204	15,844	18,485	21,126	23,767	26,407	29,048	31,689
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3
5WQ	Lumens	5,213	7,820	10,426	13,033	15,640	18,246	20,853	23,459	26,066	28,672	31,279
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5XQ	Lumens	5,222	7,832	10,443	13,054	15,665	18,276	20,886	23,497	26,108	28,719	31,330
	BUG Rating	B3-U1-G2	B3-U1-G3	B4-U1-G3	B4-U1-G3	B4-U1-G3	B4-U1-G4	B5-U1-G4	B5-U2-G4	B5-U2-G5	B5-U2-G5	B5-U2-G5
SL2	Lumens	4,968	7,451	9,935	12,419	14,903	17,387	19,870	22,354	24,838	27,322	29,806
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	4,981	7,471	9,962	12,452	14,943	17,433	19,924	22,414	24,905	27,395	29,886
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL4	Lumens	4,790	7,184	9,579	11,974	14,369	16,764	19,158	21,553	23,948	26,343	28,738
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
RW	Lumens	5,144	7,716	10,287	12,859	15,431	18,003	20,575	23,147	25,719	28,290	30,862
	BUG Rating	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	4,437	6,655	8,874	11,092	13,311	15,529	17,747	19,966	22,184	24,403	26,621
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5

LUMEN MAINTENANCE

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

* Per IESNA TM-21 data.



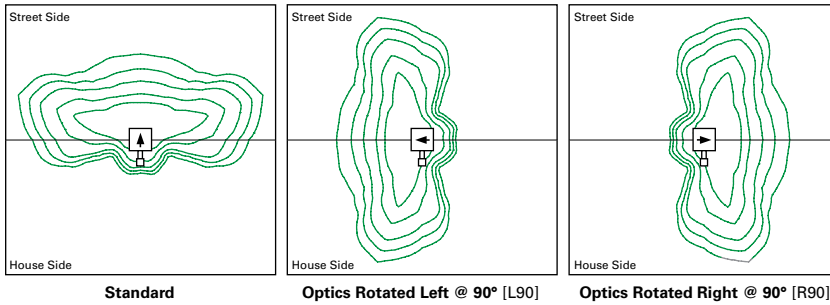
LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96

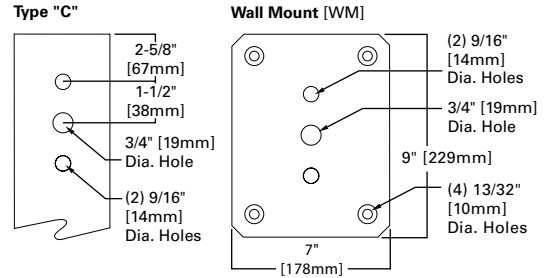
LIGHTBAR OPERATION WITH 2L BI-LEVEL SWITCHING OPTION

Number of LightBars	Circuit 1	Circuit 2
2	1	1
3	2	2
4	2	2
5	3	2
6	3	3
7	4	3
8	4	4
9	5	4
10	6	4
11	7	4
12	8	4

OPTIC ORIENTATION



DRILLING PATTERNS



ORDERING INFORMATION

Sample Number: VST-E12-LED-E-U-T3-GM

Product Family ¹	Number of LightBARs ^{2,3}	Lamp Type	Ballast Type	Voltage	Distribution	Color	
VST=Ventus	E02 =(2) 21 LED LightBARs E03 =(3) 21 LED LightBARs E04 =(4) 21 LED LightBARs E05 =(5) 21 LED LightBARs E06 =(6) 21 LED LightBARs E07 =(7) 21 LED LightBARs E08 =(8) 21 LED LightBARs E09 =(9) 21 LED LightBARs E10 =(10) 21 LED LightBARs E11 =(11) 21 LED LightBARs E12 =(12) 21 LED LightBARs	F02 =(2) 7 LED LightBARs F03 =(3) 7 LED LightBARs F04 =(4) 7 LED LightBARs F05 =(5) 7 LED LightBARs F06 =(6) 7 LED LightBARs F07 =(7) 7 LED LightBARs F08 =(8) 7 LED LightBARs F09 =(9) 7 LED LightBARs F10 =(10) 7 LED LightBARs F11 =(11) 7 LED LightBARs F12 =(12) 7 LED LightBARs	LED=Solid State Light Emitting Diodes	E=Electronic	U =Universal (120-277V) 8 =480V ^{4,5} 9 =347V ⁴	T2 =Type II T3 =Type III T4 =Type IV 5MQ =Type V Square Medium 5WQ =Type V Square Wide 5XQ =Type V Square Extra Wide RW =Rectangular Wide SL2 =Type II with Spill Control SL3 =Type III with Spill Control SL4 =Type IV with Spill Control SLL =90° Spill Light Eliminator Left SLR =90° Spill Light Eliminator Right	AP =Grey BZ =Bronze BK =Black DP =Dark Platinum GM =Graphite Metallic WH =White

Options (Add as Suffix)	Accessories (Order Separately) ²⁰
3 =Three-Position Terminal Block 4 =NEMA Twistlock Photocontrol Receptacle 4N7 =NEMA 7-PIN Twistlock Photocontrol Receptacle ⁶ U =UL and cUL Listed HA =50°C High Ambient Temperature Rating ^{7,8} 2L =Two Circuits ^{9,10,11} L90 =Optics Rotated 90° Left ¹² R90 =Optics Rotated 90° Right ¹² 7030 =70 CRI / 3000K CCT ¹³ 7050 =70 CRI / 5000K CCT ¹³ 7060 =70 CRI / 5700K CCT ¹³ 8030 =80 CRI / 3000K CCT ¹³ LCF =LightBAR Cover Plate Matches Housing Finish AIR =Arm Included for Round Pole AIS =Arm Included for Square Pole WM =Wall Mount with Arm MS-LXX =Motion Sensor for On/Off Operation ¹⁴ MS/X-LXX =Motion Sensor for Bi-Level Operation ¹⁵ MS/DIM-LXX =Motion Sensor for Dimming Operation ^{16,17} DIM =0-10V Dimming Drivers ¹⁸ HSS =Factory Installed House Side Shield ¹⁹	VA1033-XX =Single Tenon Adapter for 2-3/8" O.D. Tenon VA1034-XX =2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon VA1035-XX =3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon VA1036-XX =4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon VA1037-XX =2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon VA1038-XX =3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon VA1039-XX =2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon VA1040-XX =Single Tenon Adapter for 3-1/2" O.D. Tenon VA1041-XX =2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon VA1042-XX =3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon VA1043-XX =4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon VA1044-XX =2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon VA1045-XX =3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon VA1046-XX =2 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon OA/RA1016 =NEMA Photocontrol - Multi-Tap OA/RA1027 =NEMA Photocontrol - 480V OA/RA1201 =NEMA Photocontrol - 347V OA1223 =10kV Circuit Module Replacement LS/HSS =Field Installed House Side Shield ²¹

- NOTES:**
- Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
 - Standard 4000K CCT and nominal 70CRI.
 - 21 LED LightBAR powered at 350mA, 7 LED LightBAR powered at 1A.
 - Not available with HA option.
 - 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).
 - Must specify DIM option to add dimming driver(s). Only available in E02-E06 and F02-F06.
 - Not available with DIM option or MS/DIM-LXX.
 - Not available with motion sensor. 120 - 277V only.
 - Requires two electrical circuits to luminaire. See LightBAR operation table for additional information.
 - Consult factory before ordering in combination with MS-LXX or MS/X-LXX options.
 - Not available in 347V or 480V.
 - Not available with 5MQ, 5WQ or 5XQ distributions. Not available with HSS option.
 - Extended lead times apply.
 - Sensor housed in external box mounted to the luminaire. Available in E02-E12 and F02-F12 configurations. Replace XX with mounting height in feet for proper lens selection, (e.g., MS-L25). Consult factory for additional information.
 - Sensor housed in external box mounted to the luminaire. Available in E02-E12 and F02-F12 configurations. Replace X with number of bars operating in low output mode and replace XX with mounting height for proper lens selection, (e.g., MS/3-L25). Maximum 4 bars in low output mode. Consult factory for additional information.
 - Not available with HA option. Only available in E02-E06 and F02-F06. Includes Dimming Drivers. Not available in 347V or 480V.
 - Replace XX with mounting height in feet for proper lens selection, (e.g., MS/DIM-L25).
 - Available in E02-E06 and F02-F06 only.
 - Only for use with SL2, SL3 and SL4 distributions. Not available with L90 or R90 options.
 - Replace XX with color suffix.
 - One required for each LightBAR. Not available with L90 or R90 options.