



Mirada Medium (MRM)

Outdoor LED Area Light

TOWN OF CALEDON
PLANNING
RECEIVED
May 1, 2023



OVERVIEW

Lumen Package	7,000 - 48,000
Wattage Range	48 - 401
Efficacy Range (LPW)	117 - 160
Weight lbs(kg)	30 (13.6)

QUICK LINKS

[Ordering Guide](#)
[Performance](#)
[Photometrics](#)
[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 37 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral louver (IL) and integral half louver (IH) options available for enhanced backlight control.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
 - 0-10V dimming (10% - 100%) standard.
 - Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
 - L80 Calculated Life: >100k Hours (See Lumen Maintenance chart)
 - Total harmonic distortion: <20%
 - Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C.
 - Power factor: >.90
 - Input power stays constant over life.
 - Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
 - High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
 - Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- ### Controls
- Optional integral passive infrared Bluetooth™ motion and photocell sensor (see page 8 for more details). Fixtures operate independently and can be commissioned via iOS or Android configuration app
 - LSI's AirLink™ wireless control system options reduce energy and maintenance

costs while optimizing light quality 24/7. (see controls section for more details).

Installation

- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional 3" drill pattern B3 for easy fastening of LSI products.

Warranty

- LSI LED Fixtures carry a 5-year warranty.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP66 rated Luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)
- IK08 rated luminaire per IEC 66262 mechanical impact code

Mirada Medium Outdoor LED Area Light

Type : _____

 **Have questions?** Call us at (800) 436-7800

ORDERING GUIDE

[Back to Quick Links](#)

TYPICAL ORDER EXAMPLE: MRM LED 36L SIL FTA UNV DIM 50 70CRI ALS04 BRZ IL

Prefix	Light Source	Lumen Package	Lens	Distribution	Orientation ²	Voltage	Driver
MRM - Mirada Medium Area Light	LED	7L - 7,000 lms 9L - 9,000 lms 12L - 12,000 lms 18L - 18,000 lms 24L - 24,000 lms 30L - 30,000 lms 36L - 36,000 lms 42L - 42,000 lms 48L - 48,000 lms Custom Lumen Packages ¹	SIL - Silicone	2 - Type 2 3 - Type 3 5W - Type 5 Wide FT - Forward Throw FTA - Forward Throw Automotive AM - Automotive Merchandise	(blank) - standard L - Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming (0-10%)
Color Temp		Color Rendering	Finish		Options		
50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT AMB - Phosphor Converted Amber ¹²		70CRI - 70 CRI	BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite		MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White		(Blank) - None IH - Integral Half Louver (Moderate Spill Light Cutoff) ² IL - Integral Louver (Sharp Spill Light Cutoff) ²

Controls (Choose One)

(Blank) - None

Wireless Controls System

- ALSC** - AirLink Synapse Control System
- ALSCH** - AirLink Synapse Control System Host / Satellite³
- ALS02** - AirLink Synapse Control System with 12-20' Motion Sensor
- ALS02** - AirLink Synapse Control System Host / Satellite with 12-20' Motion Sensor³
- ALS04** - AirLink Synapse Control System with 20-40' Motion Sensor
- ALS04** - AirLink Synapse Control System Host / Satellite with 20-40' Motion Sensor³
- ALBS1** - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height)
- ALBS2** - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)

Stand-Alone Controls

- EXT** - 0-10V Dimming leads extended to housing exterior
- CR7P** - 7 Pin Control Receptacle ANSI C136.41⁶
- IMSBT1** - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH)⁵
- IMSBT2** - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH)⁵

Button Type Photocells

- PC120** - 120V
- PC208-277** - 208-277V
- PC347** - 347V



Need more information?
Click here for our glossary

Have additional questions?
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ACCESSORY ORDERING INFORMATION⁷

CONTROLS ACCESSORIES	
Description	Order Number
PC120 Photocell for use with CR7P option (120V) ⁸	122514
PC208-277 Photocell for use with CR7P option (208V, 240V, 277V) ⁸	122515
Twist Lock Photocell (347V) for use with CR7P ⁸	122516
Twist Lock Photocell (480V) for use with CR7P ⁸	1225180
AirLink 5 Pin Twist Lock Controller ⁸	661409
AirLink 7 Pin Twist Lock Controller ⁸	661410
Shorting Cap for use with CR7P	149328

FUSING OPTIONS ¹¹	
Single Fusing (120V)	See Fusing Accessory Guide
Single Fusing (277V)	
Double Fusing (208V, 240V)	
Double Fusing (480V)	
Double Fusing (347V)	

SHIELDING OPTIONS	
Mirada Small	See Shielding Guide
Mirada Medium	
Mirada Large	
Zone Medium	
Zone Large	
Slice Medium	

1. Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
 2. Not available with 5W distribution
 3. Consult Factory for availability.
 4. Not available in HV.
 5. IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
 6. Control device or shorting cap must be ordered separately. See Accessory Ordering Information.

7. Accessories are shipped separately and field installed.
 8. Factory installed CR7P option required. See Options.
 9. "CLR" denotes finish. See Finish options.
 10. Only available with ALS02/ALS04 control options.
 11. Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.
 12. Only available in 9L, 12L, 18L and 24L Lumen Packages. Consult factory for lead time and availability.








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ACCESSORIES

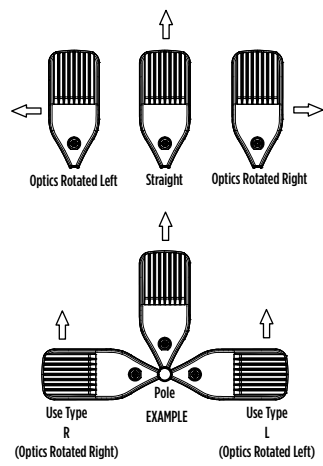
MOUNTING ACCESSORIES	
Side Arm	Universal Mounting Bracket Mounts to $\geq 3"$ square or round (tapered/straight) poles with (2) mounting hole spaces between 3.5" to 5" Part Number: BKA UMB CLR 
	Quick Mount Plate True one person installation to existing/new construction poles with hole spaces between 2.4 to 4.6" Part Number: BKS PQM B3B5 XX CLR 
	15° Tilt Quick Mount Plate True one person installation to existing/new construction poles with hole spaces between 2.4 to 4.6" Part Number: BKS PQ15 B3B5 XX CLR 
Tenon / Slipfitter	Adjustable Slipfitter Mounts onto a 2" (51mm) IP, 2.375" (60mm) O.D. tenon and provides 180° of tilt (max 45° above horizontal) Part Number: BKA ASF CLR 
	Square Tenon Top Mounts onto a 2" (51mm) IP, 2.375" (60mm) O.D. tenon and allows for mounting up to 4 luminaires Part Number: BKA XNM * 
	Square Internal Slipfitter Mounts inside 4" or 5" square pole and allows for mounting up to 4 luminaires Part Number: BKA X_ISF * CLR 
Wall Mount/ Wood Pole	Wall Mount Bracket Mounts onto vertical wall surface (hardware/anchors not included) Part Number: BKS XBO WM CLR 
	Wood Pole Bracket Mounts onto wooden poles (6" minimum OD, hardware/anchors not included) Part Number: BKS XBO WP CLR 

SHIELDING, POLES & MISC. ACCESSORIES	
Shielding	Integral Louver Field Install Integral Louver provides maximum backlight control by shielding each individual row of LEDs Part Number: 690981 
	Integral Half Louver Field Install Integral Half Louver provides great backlight control without impacting front side distribution. Part Number: 743415 
	External Shield External shield blocks view of light source from anyside of luminaire, additional shielding configurations available Part Number: 785970BLK (3") / 785962BLK (6") 
Poles	Square Poles 14 - 39" steel and aluminum poles in 4", 5" and 6" sizes for retrofit and new construction Part Number: 45Q/55Q/65Q 
	Round Poles 10 - 30" steel and aluminum poles in 4" and 5" sizes for retrofit and new construction Part Number: 4RP/5RP 
	Tapered Poles 20" - 39" steel and aluminum poles for retrofit and new construction Part Number: RTP 
Misc.	Bird Spikes 10' Linear Bird Spike Kit, 4' recommended per luminaire, includes silicone adhesive and application tool Part Number: 736795 

Replace CLR with paint finish description
 Replace XX with SQ for square pole or RD for round pole ($\geq 3"$ OD)
 Replace * with S (Single), D180 (Double @180°), D90 (Double @90°), T90 (Triple), Q90 (Quad)
 Replace _ with 4 (4" square pole) or 5 (5" square pole)

OPTICS ROTATION

Top View



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Integral louver (IL) and half louver (IH) accessory shields available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (IL) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate

Luminaire Shown with Integral Louver (IL)



Luminaire Shown with IMSBT Option



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with CR7P



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PERFORMANCE

[Back to Quick Links](#)

DELIVERED LUMENS*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
7L	2	70	7560	157	B2-U0-G2	7560	157	B2-U0-G2	7560	157	B2-U0-G2	48
	3		7616	159	B1-U0-G2	7616	159	B1-U0-G2	7616	159	B1-U0-G2	
	5W		7292	152	B3-U0-G1	7292	152	B3-U0-G1	7292	152	B3-U0-G1	
	FT		7562	158	B2-U0-G2	7562	158	B2-U0-G2	7562	158	B2-U0-G2	
	FTA		7595	158	B2-U0-G2	7595	158	B2-U0-G2	7595	158	B2-U0-G2	
	AM		7687	160	B1-U0-G1	7687	160	B1-U0-G1	7687	160	B1-U0-G1	
9L	2	70	9853	159	B2-U0-G2	9853	159	B2-U0-G2	9853	159	B2-U0-G2	62
	3		9926	160	B2-U0-G2	9926	160	B2-U0-G2	9926	160	B2-U0-G2	
	5W		9504	153	B3-U0-G2	9504	153	B3-U0-G2	9504	153	B3-U0-G2	
	FT		9856	159	B2-U0-G3	9856	159	B2-U0-G3	9856	159	B2-U0-G3	
	FTA		9900	160	B2-U0-G2	9900	160	B2-U0-G2	9900	160	B2-U0-G2	
	AM		10019	162	B2-U0-G1	10019	162	B2-U0-G1	10019	162	B2-U0-G1	
12L	2	70	13135	155	B3-U0-G2	13135	155	B3-U0-G2	13135	155	B3-U0-G2	85
	3		13232	156	B2-U0-G2	13232	156	B2-U0-G2	13232	156	B2-U0-G2	
	5W		12669	149	B4-U0-G2	12669	149	B4-U0-G2	12669	149	B4-U0-G2	
	FT		13138	155	B2-U0-G3	13138	155	B2-U0-G3	13138	155	B2-U0-G3	
	FTA		13196	155	B2-U0-G2	13196	155	B2-U0-G2	13196	155	B2-U0-G2	
	AM		13355	157	B2-U0-G2	13355	157	B2-U0-G2	13355	157	B2-U0-G2	
18L	2	70	19318	143	B3-U0-G3	19318	143	B3-U0-G3	19318	143	B3-U0-G3	135
	3		19461	144	B3-U0-G3	19461	144	B3-U0-G3	19461	144	B3-U0-G3	
	5W		18633	138	B4-U0-G2	18633	138	B4-U0-G2	18633	138	B4-U0-G2	
	FT		19324	143	B3-U0-G3	19324	143	B3-U0-G3	19324	143	B3-U0-G3	
	FTA		19408	144	B3-U0-G3	19408	144	B3-U0-G3	19408	144	B3-U0-G3	
	AM		19641	145	B3-U0-G2	19641	145	B3-U0-G2	19641	145	B3-U0-G2	
24L	2	70	25957	147	B4-U0-G3	25957	147	B4-U0-G3	25957	147	B4-U0-G3	176
	3		26149	149	B3-U0-G4	26149	149	B3-U0-G4	26149	149	B3-U0-G4	
	5W		25037	142	B5-U0-G3	25037	142	B5-U0-G3	25037	142	B5-U0-G3	
	FT		25964	148	B3-U0-G4	25964	148	B3-U0-G4	25964	148	B3-U0-G4	
	FTA		26077	148	B3-U0-G3	26077	148	B3-U0-G3	26077	148	B3-U0-G3	
	AM		26393	150	B3-U0-G2	26393	150	B3-U0-G2	26393	150	B3-U0-G2	
30L	2	70	32417	140	B4-U0-G3	32417	140	B4-U0-G3	32417	140	B4-U0-G3	232
	3		32656	141	B3-U0-G4	32656	141	B3-U0-G4	32656	141	B3-U0-G4	
	5W		31267	135	B5-U0-G3	31267	135	B5-U0-G3	31267	135	B5-U0-G3	
	FT		32424	140	B3-U0-G4	32424	140	B3-U0-G4	32424	140	B3-U0-G4	
	FTA		32566	140	B4-U0-G3	32566	140	B4-U0-G3	32566	140	B4-U0-G3	
	AM		32960	142	B3-U0-G3	32960	142	B3-U0-G3	32960	142	B3-U0-G3	
36L	2	70	38275	133	B4-U0-G4	38275	133	B4-U0-G4	38275	133	B4-U0-G4	288
	3		38557	134	B4-U0-G5	38557	134	B4-U0-G5	38557	134	B4-U0-G5	
	5W		36917	128	B5-U0-G4	36917	128	B5-U0-G4	36917	128	B5-U0-G4	
	FT		38283	133	B4-U0-G5	38283	133	B4-U0-G5	38283	133	B4-U0-G5	
	FTA		38450	134	B4-U0-G4	38450	134	B4-U0-G4	38450	134	B4-U0-G4	
	AM		38916	135	B3-U0-G3	38916	135	B3-U0-G3	38916	135	B3-U0-G3	

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PERFORMANCE (CONT.)

DELIVERED LUMENS*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
42L	2	70	44118	125	B5-U0-G4	44118	125	B5-U0-G4	44118	125	B5-U0-G4	354
	3		44444	126	B4-U0-G5	44444	126	B4-U0-G5	44444	126	B4-U0-G5	
	5W		42555	120	B5-U0-G4	42555	120	B5-U0-G4	42555	120	B5-U0-G4	
	FT		44130	125	B4-U0-G5	44130	125	B4-U0-G5	44130	125	B4-U0-G5	
	FTA		44322	125	B4-U0-G4	44322	125	B4-U0-G4	44322	125	B4-U0-G4	
	AM		44859	127	B4-U0-G3	44859	127	B4-U0-G3	44859	127	B4-U0-G3	
48L	2	70	48795	122	B5-U0-G4	48795	122	B5-U0-G4	48795	122	B5-U0-G4	401
	3		49156	123	B4-U0-G5	49156	123	B4-U0-G5	49156	123	B4-U0-G5	
	5W		47066	117	B5-U0-G4	47066	117	B5-U0-G4	47066	117	B5-U0-G4	
	FT		48809	122	B4-U0-G5	48809	122	B4-U0-G5	48809	122	B4-U0-G5	
	FTA		49021	122	B5-U0-G4	49021	122	B5-U0-G4	49021	122	B5-U0-G4	
	AM		49615	124	B4-U0-G3	49615	124	B4-U0-G3	49615	124	B4-U0-G3	

ELECTRICAL DATA (AMPS)*						
Lumens	120V	208V	240V	277V	347V	480V
7L	0.40	0.23	0.20	0.17	0.14	0.10
9L	0.52	0.30	0.26	0.22	0.18	0.13
12L	0.71	0.41	0.35	0.31	0.24	0.18
18L	1.13	0.65	0.56	0.49	0.39	0.28
24L	1.47	0.85	0.73	0.64	0.51	0.37
30L	1.93	1.12	0.97	0.84	0.67	0.48
36L	2.40	1.38	1.20	1.04	0.83	0.60
42L	2.95	1.70	1.48	1.28	1.02	0.74
48L	3.4A	1.9A	1.7A	1.5A	1.2A	0.8A

ELECTRICAL DATA - PHOSPHOR CONVERTED AMBER (AMPS)*							
Lumens	Watts	120V	208V	240V	277V	347V	480V
9L	74.3	0.6A	0.4A	0.3A	0.3A	0.2A	0.2A
12L	102.9	0.9A	0.5A	0.4A	0.4A	0.3A	0.2A

*Electrical data at 25°C (77°F). Actual wattage may differ by +/-10%

RECOMMENDED LUMEN MAINTENANCE ¹ (7-18L)					
Ambient	Initial ²	25h ²	50hr ²	75hr ²	100hr ²
0-50 C	100%	96%	92%	88%	84%

RECOMMENDED LUMEN MAINTENANCE ¹ (24-48L)					
Ambient	Initial ²	25h ²	50hr ²	75hr ²	100hr ²
0-40 C	100%	100%	97%	94%	92%

1. Lumen maintenance values at 25C are calculated per TM-21 based on LM-80 data and in-situ testing.

2. In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.

3. In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing.

DELIVERED LUMENS*					
Lumen Package	Distribution	Phosphor Converted Amber (Peak 610nm)			Wattage
		Delivered Lumens	Efficacy	BUG Rating	
9L	2	5848	80	B2-U0-G2	74
	3	6018	82	B1-U0-G2	
	5W	5471	74	B3-U0-G1	
	FT	5801	79	B1-U0-G2	
	FTA	5924	81	B1-U0-G1	
	AM	5995	81	B1-U0-G1	
12L	2	7550	74	B2-U0-G2	102
	3	7749	76	B1-U0-G2	
	5W	7045	69	B3-U0-G2	
	FT	7470	73	B2-U0-G2	
	FTA	7628	75	B2-U0-G2	
	AM	7720	76	B1-U0-G1	
18L	2	9311	69	B2-U0-G2	135
	3	9582	71	B2-U0-G2	
	5W	8712	65	B3-U0-G2	
	FT	9237	68	B2-U0-G2	
	FTA	9433	70	B2-U0-G2	
	AM	9546	71	B2-U0-G1	
24L	2	10955	63	B2-U0-G2	175
	3	11273	64	B2-U0-G2	
	5W	10249	59	B3-U0-G2	
	FT	10867	62	B2-U0-G2	
	FTA	11097	63	B2-U0-G2	
	AM	11230	64	B2-U0-G1	

*LEDs are frequently updated therefore values are nominal.

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PHOTOMETRICS

[Back to Quick Links](#)

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

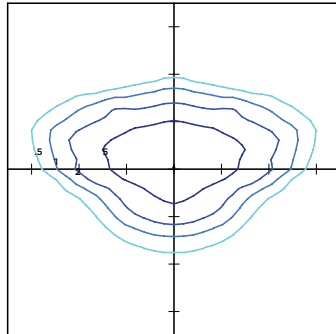
See the individual product page on <https://www.lsicorp.com/> for detailed photometric data.

MRM-LED-30L-SIL-2-40-70CRI

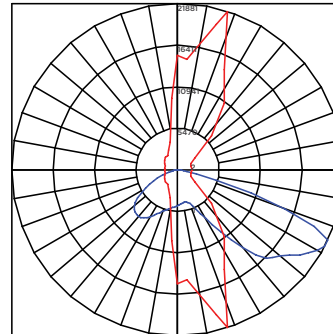
Luminaire Data	
Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,416
Watts	232
Efficacy	140
IES Type	Type II - Short
BUG Rating	B4-U0-G3

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	4796	15%
Medium (30-60°)	19811	61%
High (60-80°)	7474	23%
Very High (80-90°)	335	1%
Uplight (90-180°)	0	0%
Total Flux	32416	100%

ISO Footcandle



POLAR CURVE



25' Mounting Height/ 25' Grid Spacing

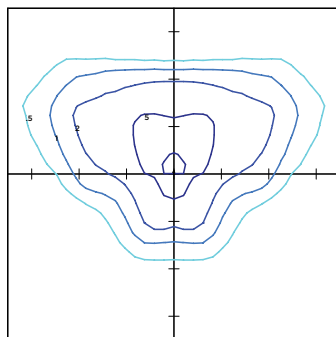
■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

MRM-LED-30L-SIL-3-40-70CRI

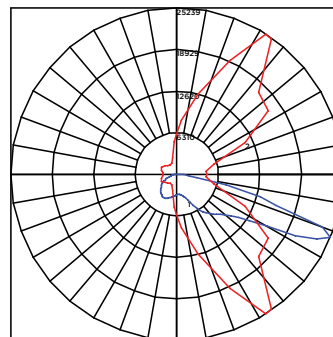
Luminaire Data	
Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,656
Watts	232
Efficacy	141
IES Type	Type III - Short
BUG Rating	B3-U0-G4

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	3385	10%
Medium (30-60°)	16250	50%
High (60-80°)	12430	38%
Very High (80-90°)	591	2%
Uplight (90-180°)	0	0%
Total Flux	32656	100%

ISO Footcandle



POLAR CURVE



25' Mounting Height/ 25' Grid Spacing

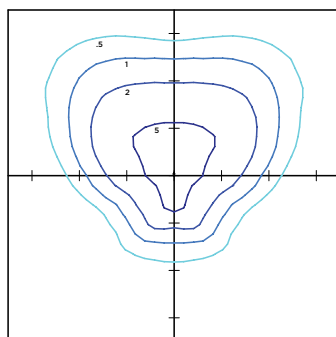
■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

MRM-LED-30L-SIL-FT-40-70CRI

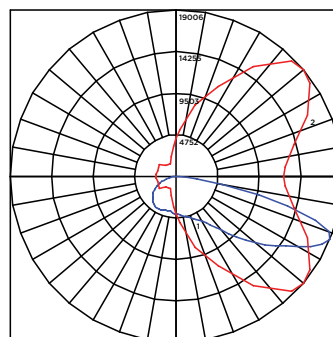
Luminaire Data	
Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,424
Watts	232
Efficacy	140
IES Type	Type IV - Short
BUG Rating	B3-U0-G4

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	3952	12%
Medium (30-60°)	15505	48%
High (60-80°)	12279	38%
Very High (80-90°)	688	2%
Uplight (90-180°)	0	0%
Total Flux	32424	100%

ISO Footcandle



POLAR CURVE



25' Mounting Height/ 25' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Mirada Medium Outdoor LED Area Light

Type : _____

 Have questions? Call us at (800) 436-7800

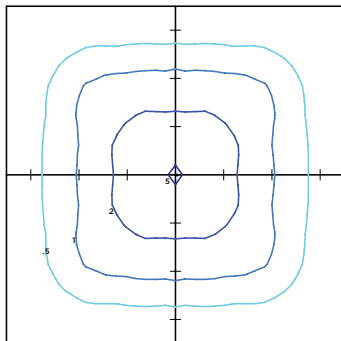
PHOTOMETRICS (CONT)

MRM-LED-30L-SIL-5W-40-70CRI

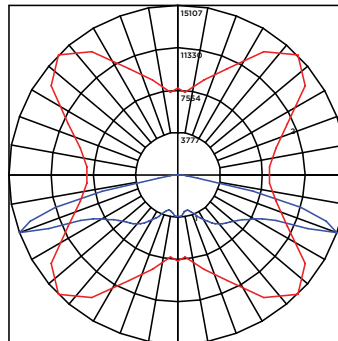
Luminaire Data	
Type 5W Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	31,267
Watts	232
Efficacy	135
IES Type	Type VS - Short
BUG Rating	B5-U0-G3

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	3138	10%
Medium (30-60°)	13193	42%
High (60-80°)	14641	47%
Very High (80-90°)	296	1%
Uplight (90-180°)	0	0%
Total Flux	31267	100%

ISO Footcandle



POLAR CURVE



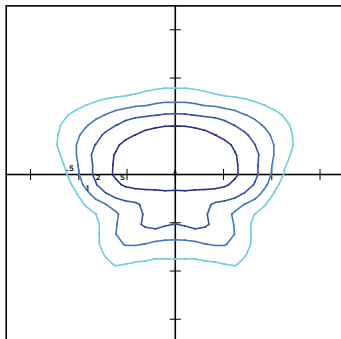
25' Mounting Height/ 25' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

MRM-LED-30L-SIL-FTA-40-70CRI

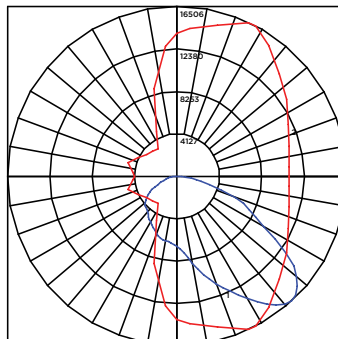
Luminaire Data	
Type FTA Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,566
Watts	232
Efficacy	140
IES Type	Type VS - Short
BUG Rating	B4-U0-G3

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	6986	21%
Medium (30-60°)	19172	59%
High (60-80°)	5875	18%
Very High (80-90°)	534	2%
Uplight (90-180°)	0	0%
Total Flux	32566	100%

ISO Footcandle



POLAR CURVE



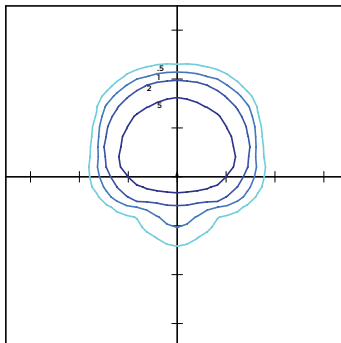
25' Mounting Height/ 25' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

MRM-LED-30L-SIL-AM-40-70CRI

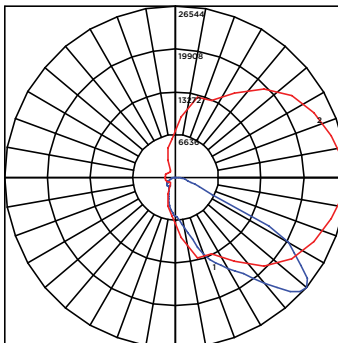
Luminaire Data	
Type AM Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,960
Watts	232
Efficacy	142
IES Type	Type III - Very Short
BUG Rating	B3-U0-G3

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
Low (0-30°)	6363	19%
Medium (30-60°)	22026	67%
High (60-80°)	4192	13%
Very High (80-90°)	379	1%
Uplight (90-180°)	0	0%
Total Flux	32960	100%

ISO Footcandle



POLAR CURVE



25' Mounting Height/ 25' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

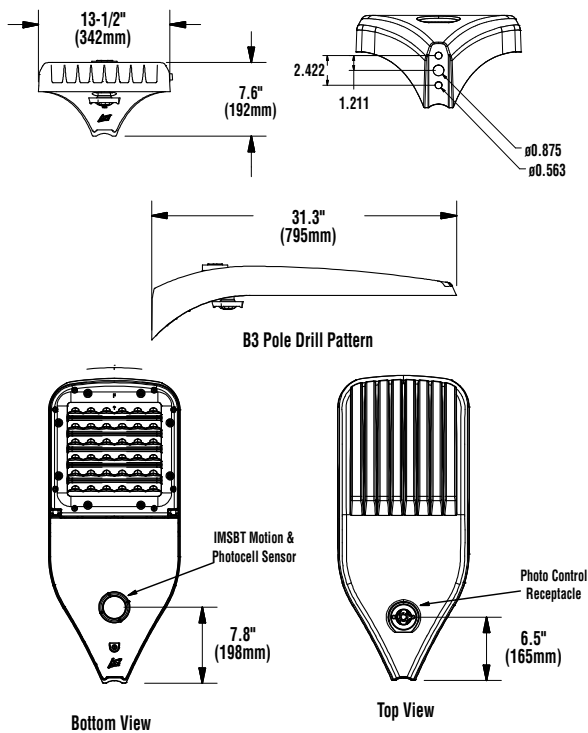
Mirada Medium Outdoor LED Area Light







Type: _____

 **Have questions?** Call us at (800) 436-7800

PRODUCT DIMENSIONS

[Back to Quick Links](#)



LUMINAIRE EPA CHART - MRM									
Tilt Degree		0°	30°	45°	Tilt Degree	0°	30°	45°	
	Single	0.5	1.5	1.9		T90°	1.0	2.5	2.8
	D180°	1.0	1.5	1.9		TN120°	1.0	3.3	3.9
	D90°	0.8	1.9	2.3		Q90°	1.0	2.5	2.8

CONTROLS

AirLink Wireless Lighting Controller

The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

Click the link below to learn more details about AirLink.

<https://www.lsicorp.com/wp-content/uploads/documents/products/airlink-outdoor-specsheet.pdf>

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click the link below to learn more details about IMSBT.

<https://www.lsicorp.com/wp-content/uploads/documents/products/imsbt-specsheet.pdf>

AirLink Blue

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click the link below to learn more details about AirLink Blue.

<https://www.lsicorp.com/product/airlink-blue/>



Mirada Bollard (MRB)

Low Level Lighting



OVERVIEW

Lumen Package	1,000 - 3,000
Wattage Range	23 - 38
Efficacy Range (LPW)	72 - 84
Weight lbs (kg)	40 (18)

QUICK LINKS

[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Precision 2pc die-cast aluminum head maintains durability and consistency while providing vandal resistance, effective heat dissipation, and superior aesthetics.
- 8-5/8" OD one-piece extruded aluminum heavy wall .322 inch thick seamless shaft. Various heights are available in 6" increments starting at a minimum of 26" (maximum height is 62").
- Lower housing attaches to cast aluminum universal base plate with four stainless steel roll pins. Accommodates 4.5" - 6" bolt circles.
- Optional roughneck zinc plated steel base plate (.375" thick) with welded U shaped reinforcement. 3/8" diameter 302 stainless steel roll pins with 10,000 lb. shear load.
- IP66 rated Optical and Driver compartment protects integral components from harsh environments.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Luminaire is proudly manufactured in the U.S. of U.S. and imported parts.
- Shipping weight: 40 lbs in carton.

Optical System

- Available in two optical distributions, symmetrical and asymmetrical.
- High transmission clear flat acrylic lens seals the luminaire's optical chamber to IP66.
- Available in 5000K, 4000K, 3000K, and 2700K color temperatures per ANSI

C78.377. Also available in Phosphor Converted Amber. Consult Factory for other color temperature requirements.

- Minimum CRI of 70.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz. Optional High Voltage 347-480 Vac Input available.
- L91 Calculated Life: >100k Hours calculated @ 25°C per IESNA TM-21-11.
- Total harmonic distortion: <20%.
- Operating temperature: -40°C to +50°C (-40°F to +122°F); Cold-weather emergency battery backup rated for -20°C minimum ambient.
- Power factor: >.90.
- Input power stays constant over life.
- High-efficacy LEDs with integrated circuit board mount to the housing to maximize heat dissipation and promote long life.
- Driver components are fully encased in potting long material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.
- Electrical components are mounted on a removable power tray.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

- Optional 120v-277v integral emergency battery pack is available. The 90- minute batteries provide constant power to the LED system, ensuring code compliance. A test switch/indicator button is installed on the housing for ease of maintenance.

Installation

- Easy leveling even in uneven areas and full 360-degree rotation for precise alignment during installation.
- Base plate installs with four heavy-duty 3/8" x 10" galvanized steel anchor bolts.
- Base plate attaches to lower extruded housing via four stainless steel roll pins.

Warranty

- LSI luminaires carry a 5-year limited warranty. Refer to <https://www.lsiindustries.com/resources/terms-and-warranty.aspx> for more information.

Listings

- Listings
- Listed to UL 1598 and UL 8750.
- RoHS Compliant.
- Meets Buy American Act requirements.
- Suitable for wet locations.
- IP66 rated Driver compartment and IP66 rated optical chamber per IEC 60598.
- IDA compliant; with 3000K or 2700K color temperature selection.

**ORDERING GUIDE**[Back to Quick Links](#)TYPICAL ORDER EXAMPLE: **MRB LED 25L ACR S UNV DIM 40 PCI120 BLK**

Prefix	Technology	Lumen Package	Lens	Distribution	Voltage	Driver	Color Temp	CRI	Controls	Battery Backup	Finish	Options
MRB - Mirada Bollard	LED	25L - 2,500 lm 30L - 3,000 lm Custom Lumen Packages ⁵	ACR - Acrylic	A - Asymmetric S - Symmetric	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming (10-100%)	50 - 5,000K 40 - 4,000K 30 - 3,000K 27 - 2,700K ¹ AMB - Phosphor Converted Amber ¹	(Blank) - 70CRI	Button Type Photocells PCI120 - 120V PCI208-277 - 208-277V PCI347 - 347V	BB - Battery Backup CWBB - Cold Weather Battery Backup	BLK - Black BRZ - Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White	H - XX (Specify Height) ² GFR - GFI Duplex Receptacle LAB - Less Anchor Bolts RN - Roughneck Heavy Duty Mtg Plate

Accessory Ordering Information

Description	Part Number
HSS - House Side Shield	699105
Galvanized anchor Bolt kit	285560

FOOTNOTES:

- 1 - Consult Factory for availability.
- 2 - Standard height is 44". Non Standard heights are available in 6" increments. Minimum height is 26", 32" with battery backup option. Maximum height is 62".
- 3 - Accessories are shipped separately and field installed.
- 4 - Not available in HV Voltage.
- 5 - Custom lumen and wattage packages available consult factory. Values are within industry standard tolerances but not DLC listed.

PERFORMANCE[Back to Quick Links](#)

DELIVERED LUMENS*													
Lumen Package	Distribution	CRI	AMB CCT		2700K CCT		3000K CCT		4000K CCT		5000K CCT		Wattage
			Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	Delivered Lumens	Efficacy	
25L	S	70	1713	56	2242	74	2156	71	2487	82	2485	81	30.5
30L			2110	55	2761	72	2655	69	3063	80	3061	80	38.4
25L	A		1327	58	1736	76	1670	73	1926	84	1925	84	23.0
30L			1634	56	2138	74	2056	71	2372	82	2370	81	29.1

*LED Chips are frequently updated therefore values are nominal.

ELECTRICAL DATA (Amps)*							
Lumen Package	Distribution	120V	208V	240V	277V	347V	480V
25L	S	0.25	0.15	0.13	0.11	0.09	0.06
30L	S	0.32	0.18	0.16	0.14	0.11	0.08
25L	A	0.19	0.11	0.10	0.08	0.07	0.05
30L	A	0.24	0.14	0.12	0.10	0.08	0.06

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

Recommended Lumen Maintenance ¹					
AMBIENT TEMP C	INITIAL ²	25K HR ²	50K HR ²	75K HR ³	100K HR ³
0 C	100%	98%	95%	93%	90%
10 C	100%	98%	95%	93%	90%
20 C	100%	98%	95%	93%	91%
25 C	100%	98%	96%	93%	91%
30 C	99%	96%	93%	91%	88%
40 C	99%	95%	91%	88%	85%
50 C	99%	94%	89%	84%	80%

- 1- Lumen maintenance values at 25C are calculated per TM-21 based on LM-80 data and in-situ testing.
- 2- In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
- 3- In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing



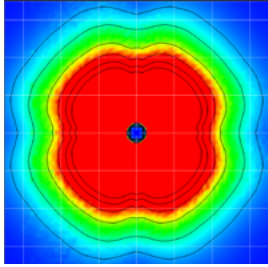


Mirada Bollard MRB

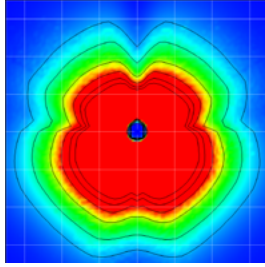
PHOTOMETRICS

[Back to Quick Links](#)

Luminaire photometry has been conducted by an accredited laboratory in accordance with IESNA LM-79. As specified by IESNA LM-79 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

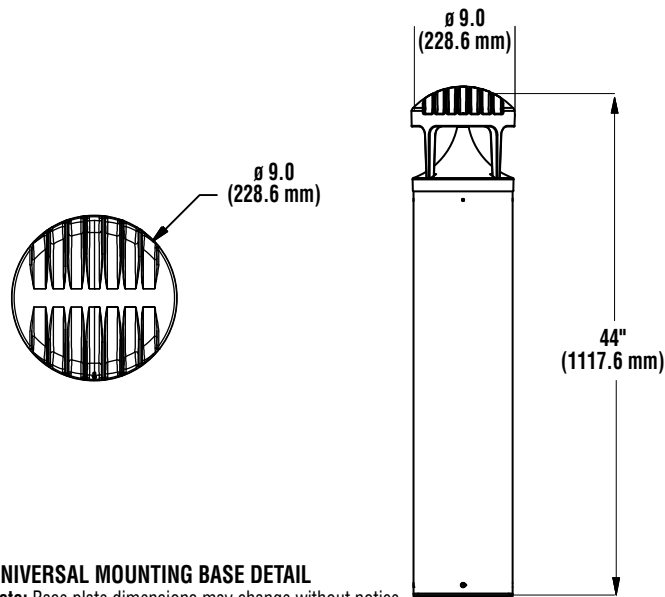


Symmetric



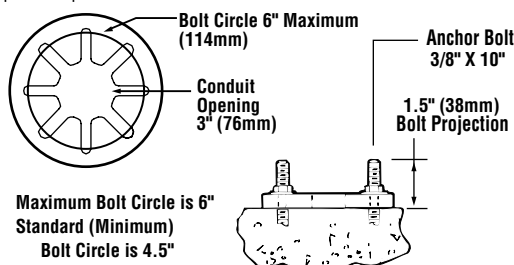
Asymmetric

PRODUCT DIMENSIONS



UNIVERSAL MOUNTING BASE DETAIL

Note: Base plate dimensions may change without notice. Do not use for setting anchor bolts. Consult factory for base plate templates.



MILLENIUM™ OVAL

MO13 SERIES – HORIZONTAL LOW PROFILE

PRODUCT FEATURES:

- » Surface mount – ceiling; 13"W×9"H×4"D
- » Aluminum baseplate with UV-stabilized high impact lens
- » Peace of Mind Guarantee® against breakage
- » ADA Compliant
- » Tested to IESNA LM-79-08 standards



PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____

SPECIFICATIONS

BASEPLATE: Marine grade die-cast aluminum. Integral heat sinks. Baseplate flange interlocks and wraps around lens base producing maximum moisture deflection and resistance to prying. Baseplate provided with four-point mounting holes, one wireway hole and temporary junction box mounting capabilities. Standard matte black, dark bronze or matte white exterior TGIC polyester powder coat – 5-step pre-treatment. See Ordering Information for optional finishes.

REFLECTOR: Full reflector/wire cover – 92% reflectivity.

LENS: UV-stabilized, high impact resistant, virgin injection molded polycarbonate. High efficiency blondel fluted lens maximizes uniformity. Close tolerance mating of injection molded lens and lens base facilitates set up and installation. Lens and lens base secured with two concealed captive Torx® with center pin fasteners.

LENS BASE/GRILLE: High impact resistant, injection molded matte black, dark bronze or matte white polycarbonate. Optional Light Gray, Silver, Forest Green or Custom Color (see Ordering Information below) are chemically bonded, impact resistant finishes.

EYELID: High impact resistant, injection molded opaque black, bronze or white polycarbonate. Internal rib reinforced design. Eyelid shields lamp from viewing angle and provides backlight. For optional chemically bonding, impact resistant finishes, see Ordering Information.

GASKETING: Die-cut, closed cell neoprene self adhesive gasket seals baseplate to mounting surface. Closed cell, silicone "O" ring gaskets positioned and friction secured in gasket channels of lens base, baseplate and optional surface adapter.

HARDWARE: Two stainless steel Torx® T-20 with center pin fasteners.

ELECTRICAL: Available in 3500K, 4000K, and 5000K color temperatures, 80 CRI. 120-277VAC, 50/60Hz electrical input with high power factor electronic, constant-current driver (>.90 PF). Standard 0-10V dimming with 1-100% range; maximum driver source of 200 µA.

SENSOR & CONTROLS: Optional sensor available with compatible third party controls. To see the full list of compatible controls, [click here](#).

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric information, go to www.kenall.com.

WARRANTY: Limited five (5) year LED warranty. [Peace of Mind Guarantee against breakage](#).

LISTINGS: Luminaire is certified to UL Standards by either Underwriters Laboratory or Intertek Laboratory for Wet Location (includes Emergency Battery Pack "LEL" option). UL certified IP64 per IEC 60598. ADA compliant.



ORDERING INFORMATION (Ex: MO13HL-PP-DB-16L40K-DV)

Model	Lens Type	Finish	Lamp Type	Voltage	Options	Accessories
PP						
Model			Lamp Type		Options	
MO13HL	Eyelid		MO13HL		LEL-SA	LED Emergency Battery Backup with Die-cast Surface Adapter (SA) - Non ADA (n/a with 347V)
MO13HBL	Bar		8L35K	8 Watt 3500K LED	BPC-SA	Photo Control – Shielded Button Type with Die-cast Surface Adapter (SA) - Non ADA (120V or 277V only)
			8L40K	8 Watt 4000K LED	FS	Single Fuse & Holder
			8L50K	8 Watt 5000K LED	NAT	Natatorium Environment Option
Lens Type			16L35K	16 Watt 3500K LED		
PP	Pearlescent Polycarbonate		16L40K	16 Watt 4000K LED		
			16L50K	16 Watt 5000K LED		
Finish			MO13HBL		Accessories	
DB	Dark Bronze		10L35K	10 Watt 3500K LED	SA	Die-Cast Surface Adapter – Non ADA
FG	Forest Green		10L40K	10 Watt 4000K LED		
LG	Light Gray		10L50K	10 Watt 5000K LED		
MB	Matte Black		20L35K	20 Watt 3500K LED		
MW	Matte White		20L40K	20 Watt 4000K LED		
SL	Silver		20L50K	20 Watt 5000K LED		
CC	Custom Color (Consult factory)					
			Voltage			
			120	120 Volts		
			277	277 Volts		
			347†*	347 Volts		
			DV†	120-277 Volts		

† n/a with BPC
* When 347V is ordered, fixture will be supplied with Die-Cast Surface Adapter (SA) — Non ADA



www.kenall.com | P: 800-4-Kenall | F: 262-891-9701 | 10200 55th Street Kenosha, Wisconsin 53144, USA

A brand of **Legrand**

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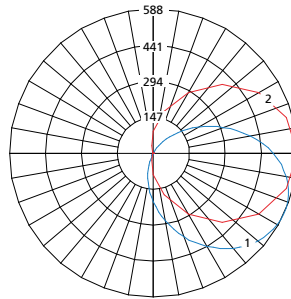
MILLENIUM™ OVAL

MO13 SERIES – HORIZONTAL LOW PROFILE

PERFORMANCE		Initial Delivered Lumens		Input Power (W)	Drive Current (mA)	Estd. L70 LED Life (hrs)
Model	Lamp Type	@ 25°C (lm)	Efficacy (lm/W)			
MO13HL	8L35K	963	84	11	75	85,000
	8L40K	963	84	11	75	85,000
	8L50K	1,050	92	11	75	85,000
	16L35K	1,574	79	20	150	85,000
	16L40K	1,574	79	20	150	85,000
	16L50K	1,716	86	20	150	85,000
MO13HBL	10L35K	931	71	13	75	85,000
	10L40K	931	71	13	75	85,000
	10L50K	1015	77	13	75	85,000
	20L35K	1796	75	24	150	85,000
	20L40K	1796	75	24	150	85,000
	20L50K	1958	82	24	150	85,000

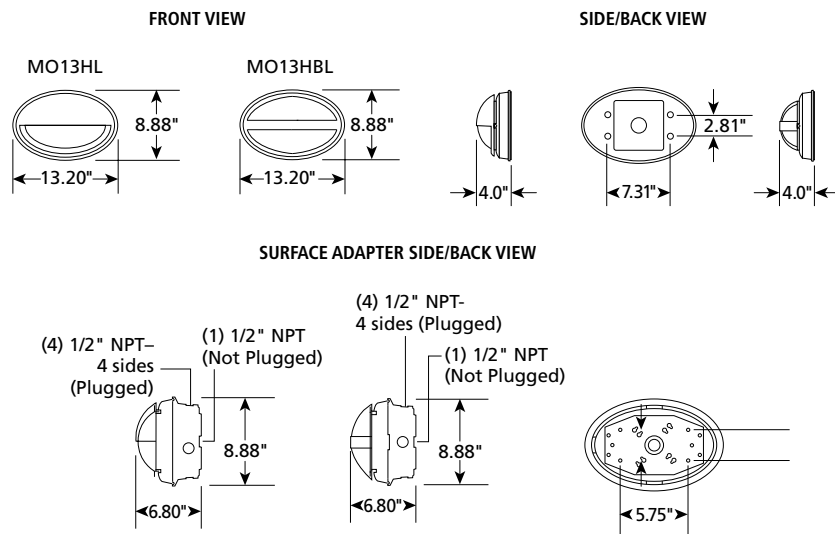
Info subject to change. Visit www.kenall.com for IES files and additional information.

Model: MO13HL-PP-MW-16L40K-DV



Max Candela = 588 Located At Horizontal Angle = 0, Vertical Angle = 65
 1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
 2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

DIMENSIONAL DATA



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