



Catalog #: _____ Project: _____

Prepared By: _____ Date: _____ Type: _____

Mirada Large (MRL)

Outdoor LED Area Light



OVERVIEW	
Lumen Package	40,000 - 78,000
Wattage Range	286 - 648
Efficacy Range (LPW)	115 - 154
Weight lbs(kg)	60 (27.2)

QUICK LINKS

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

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing, optical frame, and driver access cover.
- 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: 68 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 house-side shield (IH) options available for improved back-light control without sacrificing street side performance. See page 5 for more details.

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).
- L90 Calculated Life: >100k Hours (See Lumen Maintenance on Page 4)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 65L and 78L 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 5 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 page 8 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 for installing/servicing.

- Included terminal block accepts up to 12 ga. wire.
- Utilizes both B3 and B5 drill patterns for easy fastening of LSI products. (See drawing on page 8)

Warranty

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

Listings

- Listed to UL 1598 and UL 8750.
- State of California Title 24 Compliant; with IMSBT, ALSC, or ALSCH Options.
- 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.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Suitable for wet locations.
- IP66 rated Luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- IK08 rated luminaire per IEC 66262 mechanical impact code
- 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.

Specifications and dimensions subject to change without notice.



Mirada Large Outdoor LED Area Light

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ORDERING GUIDE

TYPICAL ORDER EXAMPLE: **MRL LED 40L SIL FTA L UNV DIM 50 70CRI ALSCS04 BRZ IL**

Prefix	Lens	Lumen Package	Lens	Distribution	Orientation ²	Voltage
MRL - Mirada Large	LED	40L - 40,000 lms 50L - 50,000 lms 65L - 65,000 lms 78L - 78,000 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)

Driver	Color Temperature	Color Rendering	Controls	Finish	Options
DIM - 0-10v Dimming (10-100%)	50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT AMB - Phosphor Converted Amber ¹¹	70CRI - 70 CRI	(Blank) - None Wireless Controls System ALSC - AirLink Synapse Control System ALSCH - AirLink Synapse Control System Host/Satellite ³ ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor ALSCH02 - AirLink Synapse Control System Host / Satellite with 12-20' Motion Sensor ³ ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor ALSCH04 - AirLink Synapse Control System Host / Satellite with 20-40' Motion Sensor ³ ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height) ALBCS2 - 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 C136.41 ⁵ IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH) ⁴ IMSBT2 - Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH) ⁴ Button Type Photocells PCI120 - 120V PCI208-277 - 208 -277V PCI347 - 347V	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 Houseside Shield ² IL - Integral Louver (Sharp Spill Light Cutoff) ²

Accessory Ordering Information⁶

Controls Accessories	
Description	Order Number
Twist Lock Photocell (120V) for use with CR7P ⁷	122514
Twist Lock Photocell (208-277) for use with CR7P ⁷	122515
Twist Lock Photocell (347V) for use with CR7P ⁷	122516
Twist Lock Photocell (480V) for use with CR7P ⁷	1225180
AirLink 5 Pin Twist Lock Controller ⁷	661409
AirLink 5 Pin Twist Lock Controller ⁷	661410
Pole-Mounted Occupancy Sensor (24V) ^{8,9}	663284CLR
Shorting Cap for use with CR7P ⁷	149328

Fusing Options ¹⁰	
Description	Order Number
Single Fusing (120V)	See Fusing Accessory Guide
Single Fusing (277V)	
Double Fusing (208V, 240V)	
Double Fusing (480V)	
Double Fusing (347V)	

Shielding Options	
Description	Order Number
Mirada Small	See Shielding Guide
Mirada Medium	
Mirada Large	
Zone Medium	
Zone Large	
Slice Medium	

Mounting Accessories ⁸	
Description	Order Number
Universal Mounting Bracket	684616CLR
Adjustable Slip Fitter (2" - 2 3/8" Tenon)	688138CLR
Quick Mount Pole Bracket (Square Pole)	687073CLR
Quick Mount Pole Bracket (4-5" Round Pole)	689903CLR
15 Tilt Quick Mount Pole Bracket (Square Pole)	688003CLR
15 Tilt Quick Mount Pole Bracket (4-5" Round Pole)	689905CLR
Wall Mount Bracket	382132CLR
Wood Pole Bracket (6" Minimum Pole Diameter)	751219CLR

Shielding & Miscellaneous Accessories	
Description	Order Number
Integral Louver/Shield	743416
Internal Houseside Shield	686485
10' Linear Bird Spike Kit (4' Recommended per Luminaire)	751632

FOOTNOTES:

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

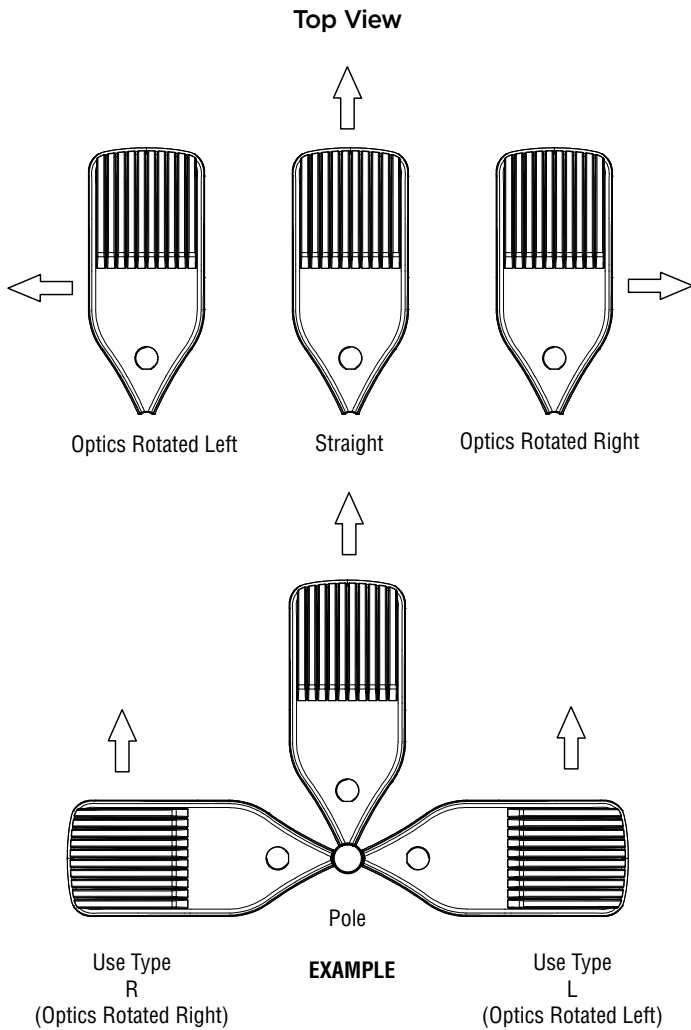
- Accessories are shipped separately and field installed.
- Factory installed CR7P option required. See Options.
- "CLR" denotes finish. See Finish options.
- Only available with ALSC/ALSCH control options.
- Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.
- Only available in 40L Lumen Package. Consult factory for lead time and availability.





Mirada Large Outdoor LED Area Light

OPTICS ROTATION

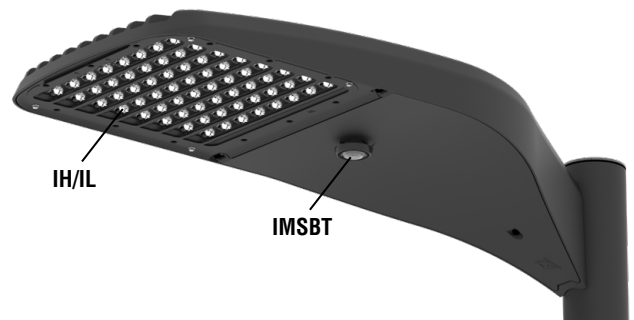


ACCESSORIES/OPTIONS

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

Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (L) 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 with the optical distribution.

Luminaire Shown with IMSBT & IL/IH Options



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

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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	
40L	2	70	39770	139	B5-U0-G4	41255	144	B5-U0-G4	42864	150	B5-U0-G4	286
	3		40747	142	B5-U0-G4	42269	148	B4-U0-G4	43917	154	B4-U0-G4	
	5W		40392	141	B5-U0-G4	41901	147	B5-U0-G4	43535	152	B5-U0-G4	
	FT		40342	141	B4-U0-G4	41848	146	B4-U0-G5	43480	152	B4-U0-G5	
	FTA		40673	142	B4-U0-G4	42192	148	B4-U0-G4	43838	153	B4-U0-G4	
	AM		40823	143	B4-U0-G3	42347	148	B4-U0-G3	43998	154	B4-U0-G3	
50L	2	70	49372	132	B5-U0-G4	51216	137	B5-U0-G4	53213	142	B5-U0-G4	375
	3		50586	135	B4-U0-G5	52475	140	B4-U0-G5	54521	145	B4-U0-G5	
	5W		50145	134	B5-U0-G4	52018	139	B5-U0-G4	54047	144	B5-U0-G4	
	FT		50082	134	B4-U0-G5	51952	139	B4-U0-G5	53978	144	B4-U0-G5	
	FTA		50493	135	B5-U0-G4	52379	140	B5-U0-G4	54422	145	B5-U0-G4	
	AM		50680	135	B4-U0-G3	52572	140	B4-U0-G3	54622	146	B4-U0-G3	
65L	2	70	63328	122	B5-U0-G4	65692	127	B5-U0-G5	68255	132	B5-U0-G5	518
	3		64884	125	B5-U0-G5	67307	130	B5-U0-G5	69932	135	B5-U0-G5	
	5W		64320	124	B5-U0-G5	66722	129	B5-U0-G5	69324	134	B5-U0-G5	
	FT		64239	124	B5-U0-G5	66638	129	B5-U0-G5	69237	134	B5-U0-G5	
	FTA		64766	125	B5-U0-G5	67185	130	B5-U0-G5	69805	135	B5-U0-G5	
	AM		65005	125	B4-U0-G3	67432	130	B5-U0-G3	70062	135	B5-U0-G3	
78L	2	70	74667	115	B5-U0-G5	77456	120	B5-U0-G5	80476	124	B5-U0-G5	648
	3		74667	115	B5-U0-G5	77455	120	B5-U0-G5	80476	124	B5-U0-G5	
	5W		74018	114	B5-U0-G5	76782	118	B5-U0-G5	79777	123	B5-U0-G5	
	FT		73925	114	B5-U0-G5	76685	118	B5-U0-G5	79676	123	B5-U0-G5	
	FTA		74532	115	B5-U0-G5	77315	119	B5-U0-G5	80330	124	B5-U0-G5	
	AM		74805	115	B5-U0-G3	77599	120	B5-U0-G3	80625	124	B5-U0-G3	

*LEDs are frequently updated therefore values are nominal.

DELIVERED LUMENS*				
Lumen Package	Distribution	Phosphor Converted Amber (Peak 610nm)		
		Delivered Lumens	Efficacy	BUG Rating
40L	2	18519	60	B3-U0-G3
	3	18895	61	B3-U0-G3
	5W	18512	60	B5-U0-G3
	FT	19035	62	B2-U0-G2
	FTA	18366	59	B3-U0-G3
	AM	18695	61	B3-U0-G3

FOOTNOTES:

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

ELECTRICAL DATA (AMPS)*						
Lumens	120V	208V	240V	277V	347V	480V
40L	2.38	1.38	1.19	1.03	0.82	0.60
50L	3.13	1.80	1.56	1.35	1.08	0.78
65L	4.32	2.49	2.16	1.87	1.49	1.08
78L	5.40	3.12	2.70	2.34	1.87	1.35

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

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



Mirada Large Outdoor LED Area Light

PHOTOMETRICS

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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%.

See <https://www.lsicorp.com/product/mirada-large/> for detailed photometric data.

MRL-LED-65L-SIL-2-40-70CRI

LUMINAIRE DATA

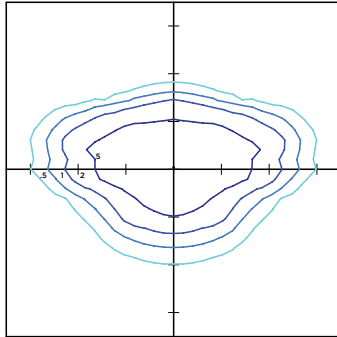
Type 2 Distribution

Description	4000 Kelvin, 70 CRI
Delivered Lumens	65,693
Watts	518
Efficacy	127
IES Type	Type II - Short
BUG Rating	B5-U0-G5

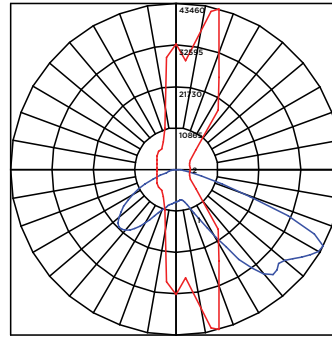
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	10825	16%
Medium (30-60)°	41026	62%
High (60-80)°	13243	20%
Very High (80-90)°	598	1%
Uplight (90-180)°	0	0%
Total Flux	65693	100%

ISO FOOTCANDLE



POLAR CURVE



30' Mounting Height/ 30' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

MRL-LED-65L-SIL-3-40-70CRI

LUMINAIRE DATA

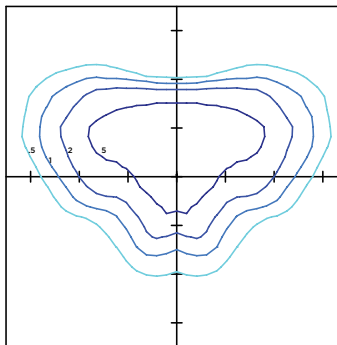
Type 3 Distribution

Description	4000 Kelvin, 70 CRI
Delivered Lumens	67,307
Watts	518
Efficacy	130
IES Type	Type III - Short
BUG Rating	B5-U0-G5

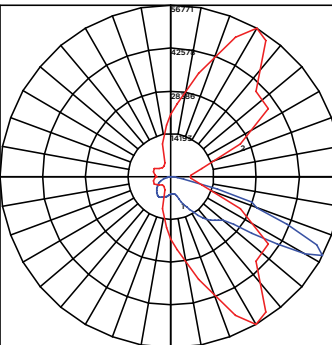
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	6980	10%
Medium (30-60)°	37817	56%
High (60-80)°	21783	32%
Very High (80-90)°	727	1%
Uplight (90-180)°	0	0%
Total Flux	67307	100%

ISO FOOTCANDLE



POLAR CURVE



30' Mounting Height/ 30' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

MRL-LED-65L-SIL-FT-40-70CRI

LUMINAIRE DATA

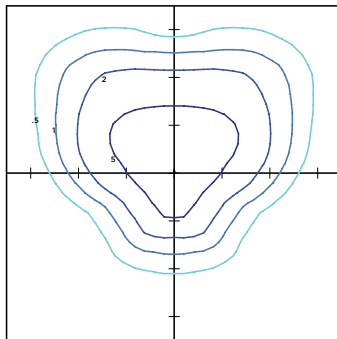
Type FT Distribution

Description	4000 Kelvin, 70 CRI
Delivered Lumens	66,638
Watts	518
Efficacy	129
IES Type	Type IV - Short
BUG Rating	B5-U0-G5

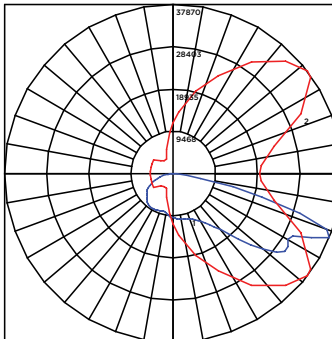
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	8542	13%
Medium (30-60)°	33055	50%
High (60-80)°	23973	36%
Very High (80-90)°	1069	2%
Uplight (90-180)°	0	0%
Total Flux	66638	100%

ISO FOOTCANDLE



POLAR CURVE



30' Mounting Height/ 30' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC



Mirada Large Outdoor LED Area Light

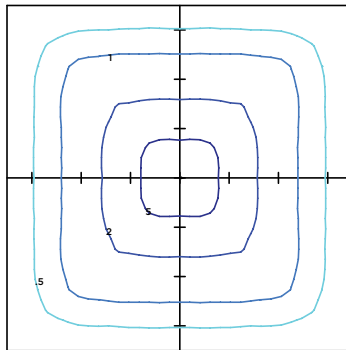
PHOTOMETRICS (CONT)

MRL-LED-65L-SIL-5W-40-70CRI

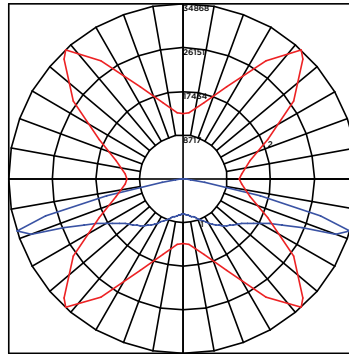
LUMINAIRE DATA

Type 5W Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	66,722
Watts	518
Efficacy	129
IES Type	Type VS - Short
BUG Rating	B5-U0-G5

ISO FOOTCANDLE



POLAR CURVE



30' Mounting Height/ 30' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Zonal Lumen Summary

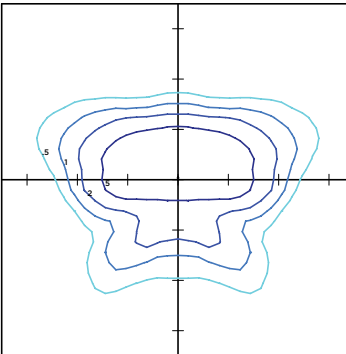
Zone	Lumens	%Luminaire
Low (0-30)°	6379	10%
Medium (30-60)°	33102	50%
High (60-80)°	26808	40%
Very High (80-90)°	433	1%
Uplight (90-180)°	0	0%
Total Flux	66722	100%

MRL-LED-65L-SIL-FTA-40-70CRI

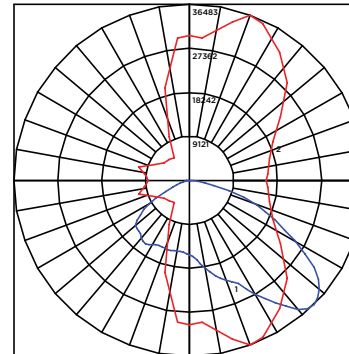
LUMINAIRE DATA

Type FTA Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	67,185
Watts	518
Efficacy	130
IES Type	Type I - Very Short
BUG Rating	B5-U0-G5

ISO FOOTCANDLE



POLAR CURVE



30' Mounting Height/ 30' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

Zonal Lumen Summary

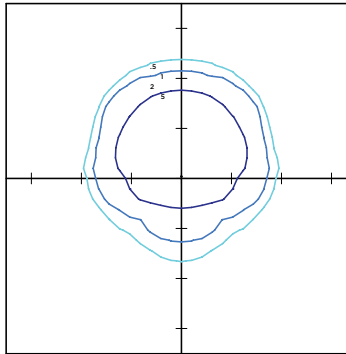
Zone	Lumens	%Luminaire
Low (0-30)°	14876	22%
Medium (30-60)°	39340	59%
High (60-80)°	12095	18%
Very High (80-90)°	874	1%
Uplight (90-180)°	0	0%
Total Flux	67185	100%

MRL-LED-65L-SIL-AM-40-70CRI

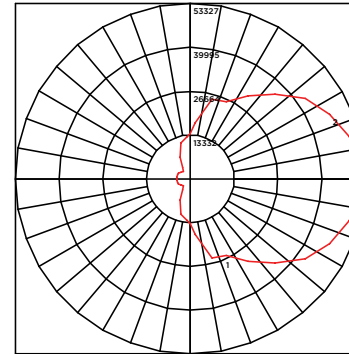
LUMINAIRE DATA

Type AM Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	67,432
Watts	518
Efficacy	130
IES Type	Type III - Very Short
BUG Rating	B5-U0-G3

ISO FOOTCANDLE



POLAR CURVE



30' Mounting Height/ 30' Grid Spacing
 ■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

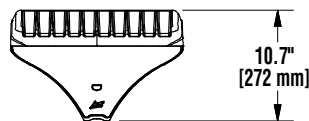
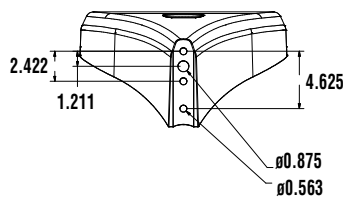
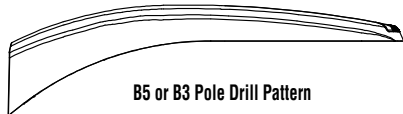
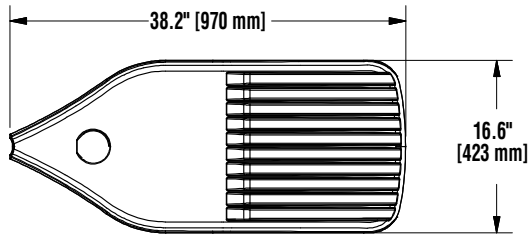
Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	13837	9%
Medium (30-60)°	44654	43%
High (60-80)°	8162	48%
Very High (80-90)°	779	1%
Uplight (90-180)°	0	0%
Total Flux	67432	100%



Mirada Large Outdoor LED Area Light

PRODUCT DIMENSIONS

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LUMINAIRE EPA CHART - MRL				Tilt Degree		
Tilt Degree	0°	30°	45°	0°	30°	45°
Single	0.8	2.2	2.9	T90°	2.0	3.8
D180°	1.6	2.2	2.9	TN120°	2.0	5.0
D90°	1.2	3.0	3.7	Q90°	2.0	3.8

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/documents/datasheets/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/documents/datasheets/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.lsi-airlink.com/airlink-blue/>



Mirada Large Outdoor LED Area Light


POLES & BRACKETS

LSI offers a full line of poles and mounting accessories to complete your lighting assembly. Aluminum and steel in both square and round shafts. In addition, LSI offers round tapered, fluted and hinge based poles. Designed and engineered for durability and protected with our oven baked DuraGrip Protection System. Also available with our DuraGrip+ Protection system for unmatched corrosion resistance and an extended warranty. American made in our Ohio facility with industry leading lead times.

Click the link below to learn more details about poles & brackets.


<https://www.lsicorp.com/products/poles-and-brackets-area-street.aspx>

BKA UMB CLR




The 3G rated UMB allows for seamless integration of LSI luminaires onto existing/ retrofit or new construction poles. The UMB was designed for square or round (tapered or straight) poles with two mounting hole spacings between 3.5" - 5".

BKS PQM15 CLR



The Pole Quick Mount Bracket allows for preset 15° up tilt of LSI luminaires for greater throw of light and increased vertical illumination as well as fast installation onto poles with LSI's 3" or 5" bolt pattern.

BKA ASF CLR



The adjustable Slip Fitter is a 3G rated rugged die cast aluminum adapter to mount LSI luminaires onto a 2" iron pipe, 2 3/8 OD tenon. The Adjustable Slip Fitter can be rotated 180° allowing for tilting LSI luminaires up to 45° and 90° when using a vertical tenon.

BKS PQMH CLR



The Pole Quick Mount Bracket allows for lightning fast installation of LSI luminaires onto existing and new construction poles with LSI's B3 or B5 standard pole bolt patterns.



Square Pole
14'-39'



Round Pole
10'-30'



Tapered Pole
20'-39'