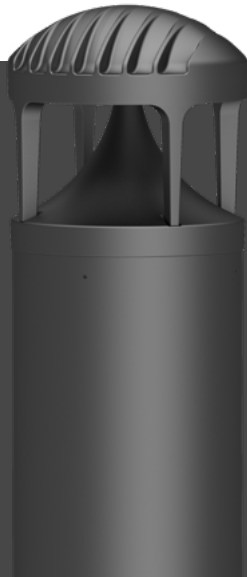| Catalog # :	Project :
Prepared By :	Date :

Mirada Bollard - MRB
LED Architectural Bollard

The Mirada Bollard combines superior engineering with purity of design & attention to detail. The durable construction, universal mounting base plate & two photometric distributions make it ideal for illuminating low lewel mounting height areas, such as entryways, pathways and most pedestrian-scale applications, requiring unique aesthetics in tandem with outstanding performance.
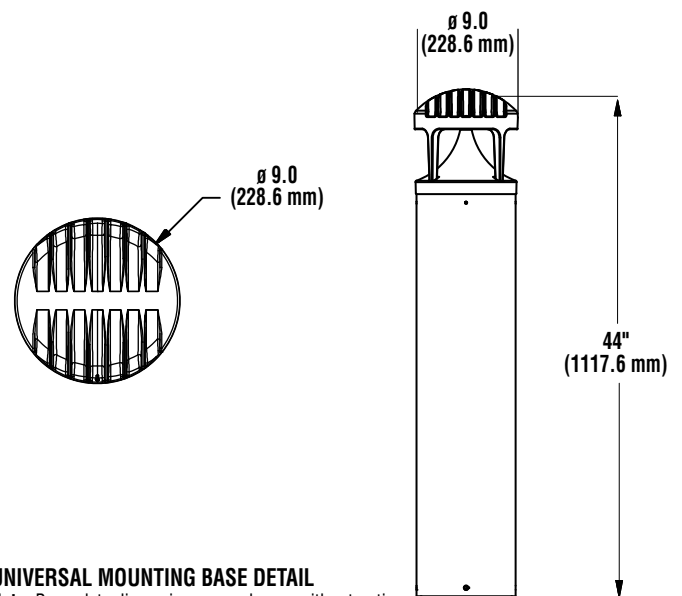
Features & Specifications

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. Consult Factory for Higher CRI requirements.

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.
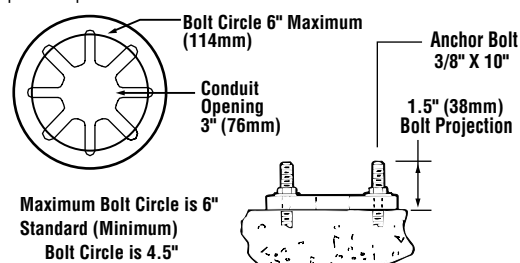
Dimmable   IDA DARK SKY APPROVED   IP66   RoHS COMPLIANT   ARRA Funding Compliant   cULus LISTED

MANUFACTURED IN THE USA   TITLE 24 COMPLIANT

Product Dimensions

ø 9.0 (228.6 mm)

ø 9.0 (228.6 mm)

44" (1117.6 mm)

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.

Bolt Circle 6" Maximum (114mm)

Conduit Opening 3" (76mm)

Anchor Bolt 3/8" X 10"

1.5" (38mm) Bolt Projection

Maximum Bolt Circle is 6"
Standard (Minimum)
Bolt Circle is 4.5"

Features & Specifications (Cont.)

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.
- Luminaire is proudly manufactured in the U.S. of U.S. and imported parts.
- 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: 40 lbs in carton.

Controls

- Electronic Button photocell available in dedicated voltages (120v, 277v, 347v).

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 LED Fixtures carry a 5-year warranty.
- 1 Year warranty on optional Battery Back Up. Test regularly in accordance with local codes.

Listings

- Listed to UL 1598 and UL 8750.
- RoHS Compliant.
- Lighting Facts Approved.
- 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.

Performance

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

Performance

Lumen Package	Lens Type	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	ACR	S	70	1713	56	2242	74	2156	71	2487	82	2485	81	30.5
30L	ACR	S	70	2110	55	2761	71.9	2655	69	3063	80	3061	80	38.4
25L	ACR	A	70	1327	58	1736	75.5	1670	73	1926	84	1925	84	23.0
30L	ACR	A	70	1634	56	2138	73.5	2056	71	2372	82	2370	81	29.1

DELIVERED LUMENS*

*LED Chips are frequently updated therefore values are nominal.

All published luminaire photometric testing performed to IESNA LM-79 standards. ISO footcandle plots below demonstrate the (MRB) light patterns only. Not for total fixture output. For complete specifications and IES files, see website.
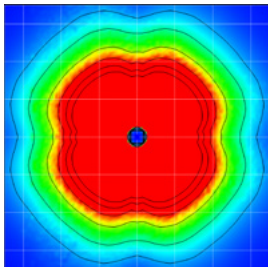
Symmetric
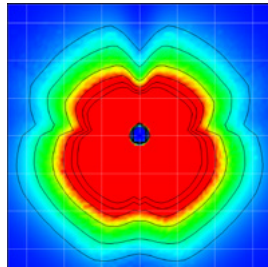
Asymmetric

Luminaire Ordering Information

TYPICAL ORDER EXAMPLE:	MRB	LED	30L	ACR	S	UNV	DIM	40	PCI120	BB	BRZ	HSS

Prefix	Source	Lumen Package	Lens	Distribution	Voltage	Driver
MRB (Mirada Bollard)	LED	**25L** - 2,500 lm **30L** - 3,000 lm **Custom Lumen Packages**[5]	**ACR -** Acrylic	**A** - Asymmetric **S** - Symmetrical	**UNV** - Universal Voltage (120-277V) **HV** - High Voltage (347 - 480v)	**DIM** - 0-10v Dimming (10-100%)

Color Temp	CRI	Controls (Choose one)	Battery Backup[4]	Finish	Options
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 -** Dark Bronze **GMG -** Gun Metal Gray **GPT -** Graphite **MSV -** Metallic Silver **PLP -** Platinum Plus **SVG -** Satin Verde Green **WHT -** White	**H** - XX (Specify Height)[1][2] **GFR** - GFI Duplex Receptacle **LAB** - Less Anchor Bolts **RN** - Roughneck Heavy Duty Mtg Plate

Accessory Ordering Information[3]

Description	Order 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 seperately 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.