

ROUND CONTEMPORARY COLUMN BOLLARD

AXIM ROUND BOLLARD

Luminaire Head and Column Shaft

Luminaire Head is comprised of heavy cast aluminum (A356 alloy, <0.2% copper) heatsink, base, and top cover. Four 316 stainless steel struts secure the top of the head to the base. Struts are a brushed finish to accent the luminaire or can be optionally color matched powdercoated. Luminaire head secures to the shaft using a hidden mounting mechanism which allows for rotation and fine adjustment of the head. No hardware is visible for the mounting of the luminaire head to the column shaft. Driver is accessible through a cover at the base of the luminaire head. Shaft is 3/16" wall T6063-T6 aluminum. Internal ring mechanism is integrated at top of column shaft for mounting luminaire head. 4" x 6" Integrated Hand Hole. Hardware is Stainless Steel.

Anchorage

Integrated 3/4" thick baseplate is circumferentially welded into shaft for internal mounting of column anchorage. Four 3/4" x 24" x 4" galvanized steel anchor bolts and hardware provided.

PLED™ Optics

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side, maximizing usable light. Optional house side shields are available that cover each individual optic. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments. Quick-disconnects are provided above each panel for fast field replacement. No lens (NL) and all flat lens options will provide "U0" no uplight optical packages that are Dark Sky friendly.

Lenses

No lens - Open Frame is standard for highest efficacy and U0 optics. Optional Clear Acrylic Lens (CA) provides high efficacy. Optional White Acrylic Lens (WA) provides glare control and general diffused lighting. Lenses are impact resistant, UV stable acrylic.

LED Emitters

LED thermal management is designed to maintain LED operating temperature below 90 °C, well below the manufacturers thermal max of 150 °C for long life, high lumen maintenance and color stability. High Power White LED's are driven between 350mA and 875mA for a maximum output of 2.5 Watts nominal. LED's are available in standard 2700K & 3000K, 4000K, or 5000K. All Standard LED's have a minimum of 70 CRI. Consult Factory for other LED options. Lumen Maintenance of L94 at 60,000 hours (TM-21 calculated at 6x Test Time).

True Amber LED's TRA-True Amber LED's emit light in the amber spectral bandwidth centered on 585-590nm. True Amber has negligible blue light and is suitable for wildlife.

LED Driver

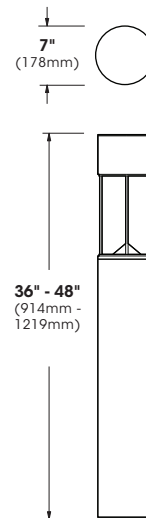
Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50,60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field installation.)

Finish

Super TGIC polyester powder coating is applied onto a metal substrate this has been pretreated with a four-stage process for maximum adhesion and color retention. The top coat is baked at 400° F for maximum hardness and exterior durability.



AXMRB



2024054

SPECIFICATIONS

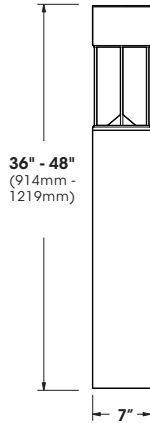
OPTIONS

AXMR7
 Max Weight = 22lbs
 Max Height = 48"
 12 LED
 7 to 26 Watts

PLED™



12 LED Module

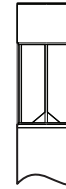


LENS OPTIONS

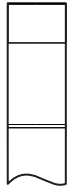
Standard No Lens
 Open Frame
 Highest Efficacy
 U0 Optics
 Area & Roadway



Clear Acrylic - CA
 High Efficacy
 Some Uplight
 Area & Roadway



White Acrylic - WA
 Lower Efficacy
 Higher Uplight
 General Diffused
 Low Glare



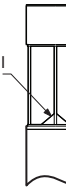
STRUT OPTIONS

Standard Struts
 are Brushed
 316 Stainless Steel
 Option to Match Struts to
 Shaft and Head
 Powdercoat Color - PS

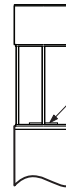


BOTTOM CAP OPTIONS

Standard Conical
 Bottom Cap



Optional Flat
 Bottom Cap - FBC

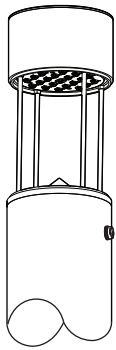


ORDERING INFORMATION

Spec/Order Example: AXMRB-42/PLED-II/12LED-350mA/27K/347/9005-T/CA/PS

Luminaire	Optics	# of LED's	Drive Current	CCT	Voltage	Finish	Options
Luminaire	Optics	LED			Voltage	Finish	Options
AXMRB	Area & Roadway (Clear Patterned Lenses)	# of LED's	Drive Current	Color Temp-CCT	Voltage	Standard Textured Finish	Lens Options: (No Lens Open Frame is Standard)
<input type="checkbox"/> 36" <input type="checkbox"/> 42" <input type="checkbox"/> 48"	For No Lens and CA Lens Option: <input type="checkbox"/> PLED-II <input type="checkbox"/> PLED-II-FR <input type="checkbox"/> PLED-III <input type="checkbox"/> PLED-III-W <input type="checkbox"/> PLED-IV <input type="checkbox"/> PLED-IV-FT <input type="checkbox"/> PLED-VSQ-N <input type="checkbox"/> PLED-V-SQ-M <input type="checkbox"/> PLED-V-SQ-W For WA Lens Option: <input type="checkbox"/> PLED-ASY <input type="checkbox"/> PLED-ASY-HS (Internal HS) <input type="checkbox"/> PLED-SYM	<input type="checkbox"/> 12LED	<input type="checkbox"/> 175mA <input type="checkbox"/> 350mA <input type="checkbox"/> 525mA <input type="checkbox"/> 700mA	<input type="checkbox"/> 27K (2700K) <input type="checkbox"/> 30K (3000K) <input type="checkbox"/> 40K (4000K) <input type="checkbox"/> 50K (5000K) Consult Factory for Other LED Color, CCT, & CRI Options <input type="checkbox"/> TRA True Amber* *TRA Available only in 350mA and 525mA Drive Currents	<input type="checkbox"/> UNV (120-277) <input type="checkbox"/> 347 <input type="checkbox"/> 480	<input type="checkbox"/> Black RAL-9005-T <input type="checkbox"/> White RAL-9003-T <input type="checkbox"/> Grey RAL-7004-T <input type="checkbox"/> Dark Bronze RAL-8019-T <input type="checkbox"/> Green RAL-6005-T Premium Finishes <input type="checkbox"/> Rust <input type="checkbox"/> Patina Copper PC For smooth finish replace suffix "T" with suffix "S" (Example: RAL-9500-S) Consult factor for custom colors	<input type="checkbox"/> Clear Acrylic CA <input type="checkbox"/> Opal Acrylic WA Strut Options: (Brushed Stainless Steel is Standard) <input type="checkbox"/> Powdercoated Struts (Matched to Shaft) PS Bottom Cap Options: (Conical Cap is Standard) <input type="checkbox"/> Flat Bottom Cap FBC <input type="checkbox"/> Internal House Side Shield incl. LED Count (Example: HS-PLED/48) HS-PLED <input type="checkbox"/> High-Low Dimming for Switch by Others/Select Levels 50/100 or 25/100 (Example: HLSW/25) HLSW <input type="checkbox"/> Single Fuse (Example: DF277V) SF+V <input type="checkbox"/> Double Fuse (Example: DF240V) DF+V

OPTIONS (cont.)



**MINI BUTTON
PHOTOCELL
(PC+V)**

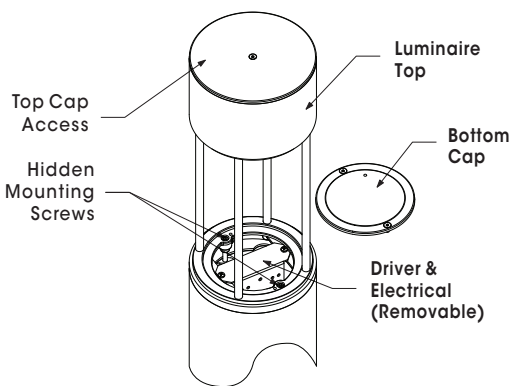
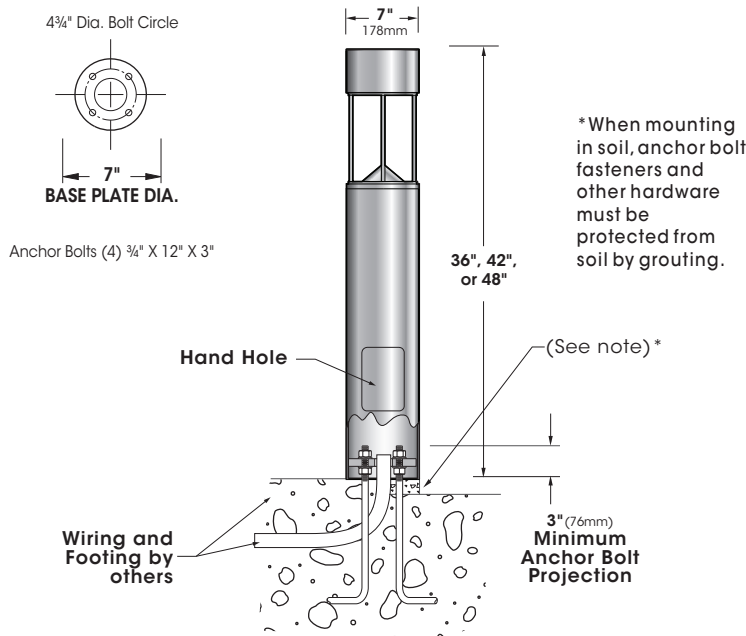
High Low Dimming For Switches (HLSW)

The HLSW is a small Electronic Switch which provides High Low Dimming Control through the LED Driver's 0-10V Control. Switching is done by adding a secondary AC Switched Hot Trigger Line to the HLSW in addition to the normal AC Power Line. When the Secondary Trigger Line is powered, the Fixture will go to 100% dimming. With no power to the Trigger, the Fixture will operate at 50% or 25% dimming. Switches for the Trigger Line can be a normal AC Switch/Breaker or Timed Switch/Breaker.

Wireless and Other Fixture Controls

Contact factory for Wireless and other Fixture Controls and recommendations. Most Controls can be integrated and factory installed.

INSTALLATION AND ACCESS DETAILS



Luminaire Head is mounted to shaft by interting head by placing the mounting screws through cutouts on the internal shaft ring. Luminaire Head is then rotated into alignment. Proper alignment should be verified by way of the LED Module alignment and struts. The Mounting Screws are then tightened. Captive Track Nuts on the Mounting Screws retain the head to the internal ring.

Electrical connections can be before or after mounting the head by removing the Driver and Electrical Bracket.

Bottom Cap is screwed in place to seal the Luminaire and Electrical.

For Lensed versions, the Top Cap, Luminaire Top, and Lens are disassembled prior to mounting the top and to access electrical.

ELECTRICAL DATA GUIDE - AMPERAGE CHART

ELECTRICAL LOAD			CURRENT (A)				
# of LEDs	mA	System Watts	120V	208V	277V	347V	480V
12	175	6.5	0.05	0.03	0.02	0.02	0.01
12	350	13.0	0.11	0.06	0.05	0.04	0.03
12	525	20.0	0.17	0.10	0.07	0.06	0.04
12	700	26.0	0.22	0.13	0.09	0.07	0.05

PHOTOMETRIC DATA GUIDE - LM-80 LUMEN MAINTENANCE

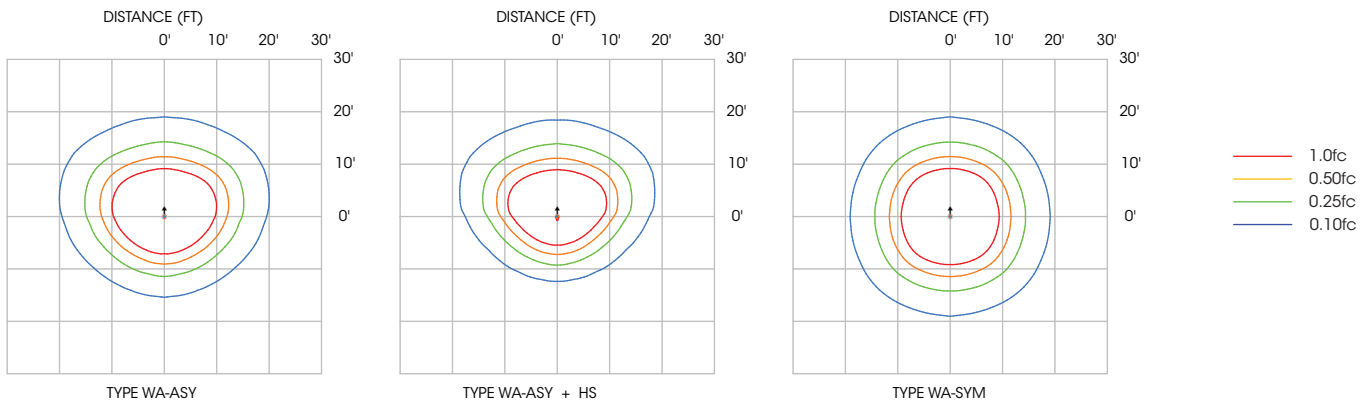
LED LUMEN MAINTENANCE (350mA to 1050mA)		
LED Life / Operating Hours	Lumen Depreciation	Lumen Depreciation Scale Factor
60,000	L96	0.96x
100,000 (6X LED Test Hrs)	L93	0.93x
150,000 (Theoretical)	L89	0.90x
200,000 (Theoretical)	L86	0.87x

TM-21 6x Test Time Dictates that L93 > 100,000 Hours.

Lumen Depreciation Calculations Done in Accordance With IESNA TM-21 & LM-80 (25°C Ambient)

PHOTOMETRIC GUIDE - ISOFOOTCANDLE PLOTS (AXMRB)

AXMRB-PLED-WA-12LED-525mA-40K - 42"



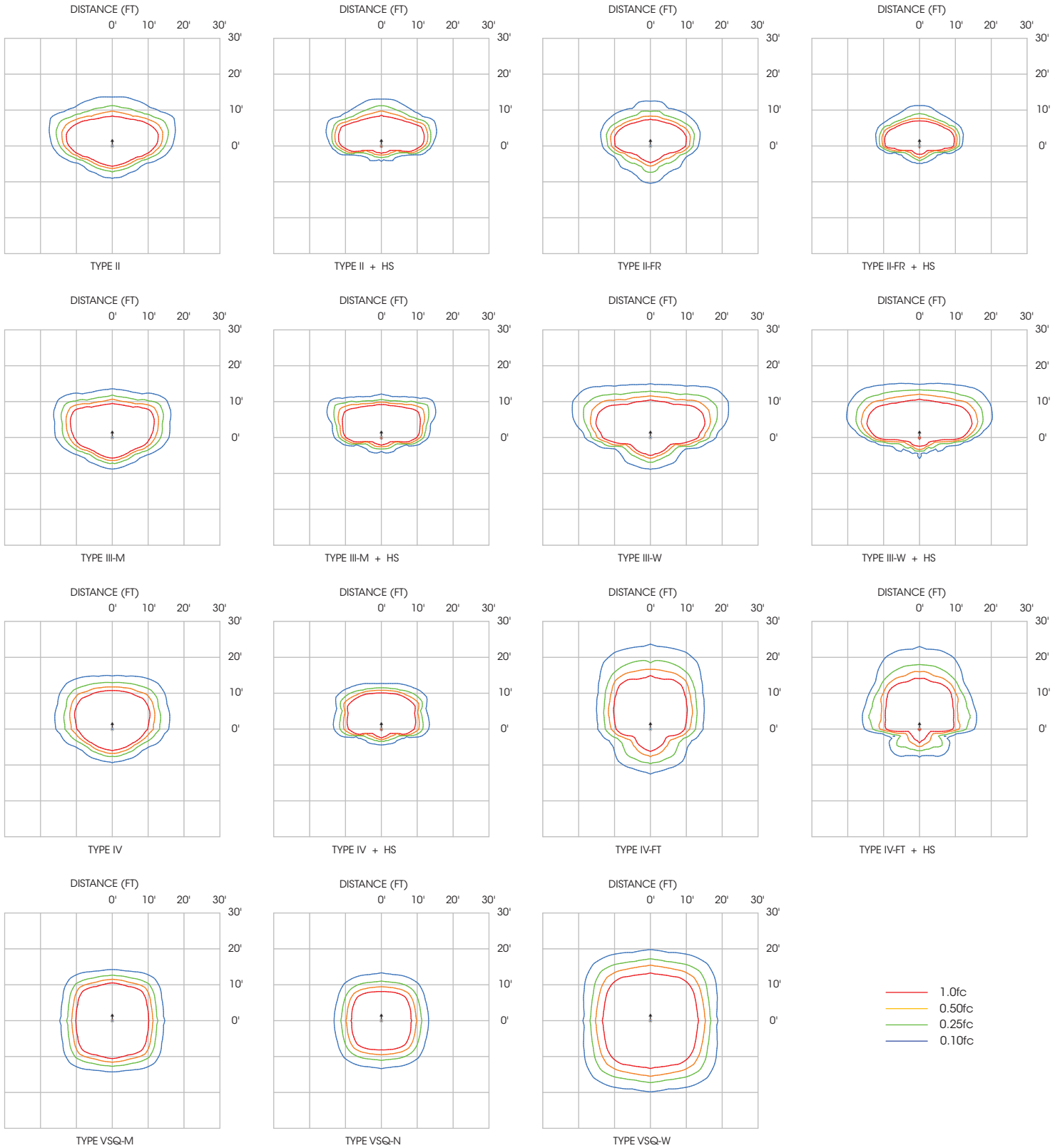
PHOTOMETRIC GUIDE - LUMEN TABLES (AXMRB)

AXMRB-PLED-WA (White Acrylic Lens)																			
LED Count	Drive Current (mA)	System Watts	Dist'n Type	27K (2700K - 70CRI)			30K (3000K - 70CRI)			40K (4000K - 70CRI)			50K (5000K - 70CRI)			System Watts	TRA (590nm)		
				LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING		LUMENS	LPW	BUG RATING
12	175	6.5	ASY	734	108	B0-U3-G1	734	113	B0-U3-G1	764	118	B0-U3-G1	794	122	B0-U3-G1	5.0	275	55	B0-U3-G1
			SYM	741	114	B0-U3-G1	773	119	B1-U3-G1	805	124	B1-U3-G1	837	129	B1-U3-G1		290	58	B0-U3-G1
			ASY-HS	530	82	B0-U3-G1	554	85	B0-U3-G1	577	89	B0-U3-G1	599	92	B0-U3-G1		207	41	B0-U2-G1
12	350	13.0	ASY	1278	98	B1-U3-G1	1333	103	B1-U3-G1	1389	107	B1-U3-G1	1444	111	B1-U3-G1	10.0	445	44	B0-U3-G1
			SYM	1347	104	B1-U3-G1	1406	108	B1-U3-G1	1464	113	B1-U3-G1	1523	117	B1-U3-G1		469	47	B0-U3-G1
			ASY-HS	965	74	B0-U3-G1	1006	77	B0-U3-G1	1048	81	B0-U3-G1	1090	84	B0-U3-G1		336	34	B0-U3-G1
12	525	20.0	ASY	1836	92	B1-U3-G2	1916	96	B1-U3-G2	1996	100	B1-U3-G2	2076	104	B1-U3-G2	15.0	519	35	B0-U3-G1
			SYM	1935	97	B1-U3-G2	2019	101	B1-U3-G2	2104	105	B1-U3-G2	2188	109	B1-U3-G2		547	36	B0-U3-G1
			ASY-HS	1386	69	B0-U3-G1	1446	72	B0-U3-G2	1507	75	B0-U3-G2	1567	78	B1-U3-G2		391	26	B0-U3-G1
12	700	26.0	ASY	2325	89	B1-U4-G2	2425	93	B1-U4-G2	2527	97	B1-U4-G2	2628	101	B1-U4-G2	N/A	N/A		
			SYM	2450	94	B1-U4-G2	2555	98	B1-U4-G2	2663	102	B1-U4-G2	2770	107	B1-U4-G2		N/A		
			ASY-HS	1754	67	B1-U3-G2	1831	70	B1-U3-G2	1907	73	B1-U3-G2	1983	76	B1-U3-G2		N/A		

IES File downloads for this product can be found at www.usaltg.com/downloads/bollards.html

PHOTOMETRIC GUIDE - ISOFOOTCANDLE PLOTS (AXMRB)

AXMRB-PLD-NL-12LED-525mA-40K - 42" Height



IES File downloads for this product can be found at www.usaltg.com/downloads/bollards.html

