

## Bollards (BLS, BLR)

### Housing

One-piece extruded from corrosion resistant low copper aluminum 8" diameter (round) or 6-3/4" (square) secured to a cast aluminum mounting base with four tamper resistant screws.

### Finish

The Bollard is finished in all weather bronze polyester powder coating (other finishes are available).

### Optical Assembly

Reflector Assembly: An Alzak finished aluminum parabolic reflector located in the top cap redirects the light downward where the finished aluminum cone shaped reflector evenly spreads the light down and out in a symmetrical pattern below eye level.

### Lamping

AC LED or DC LED (requires LED driver).

### Installation & Mounting

Luminaire shall be completely pre-wired for ease of installation. Installation by using four 9" anchor bolts, leveling nuts and washers. A 1/4" thick acrylic diffuser is sealed to the post with a full EPDM gasket, sealing out moisture and dust. Easy component and lamp access is provided by removing 2 tamper resistant screws on top of the cap. All electrical components are mounted within easy reach.

### Warranty & Certifications

Suitable for wet locations.

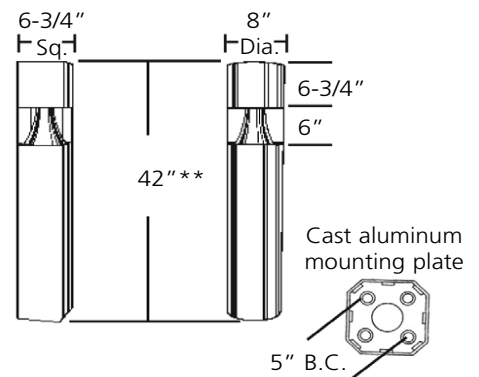
### Electrical Assembly

LED Light Engines: 14W AC LED, 23W AC LED or 39W DC LED, operating below 85° junction temperature delivering maintained illumination to meet LM80 L70 lumen maintenance for greater than five years illumination life based on 25°C ambient operating temperature.

14W AC LED = 0.50 fc @ 7 feet; Recommended spacing 14 ft for 1.0 fc avg.  
23W AC LED = 0.50 fc @ 9 feet; Recommended spacing 18 ft for 1.0 fc avg.  
39W DC LED = 0.50 fc @ 12 feet; Recommended spacing 24 ft for 1.0 fc avg.



*Suitable for wet locations*

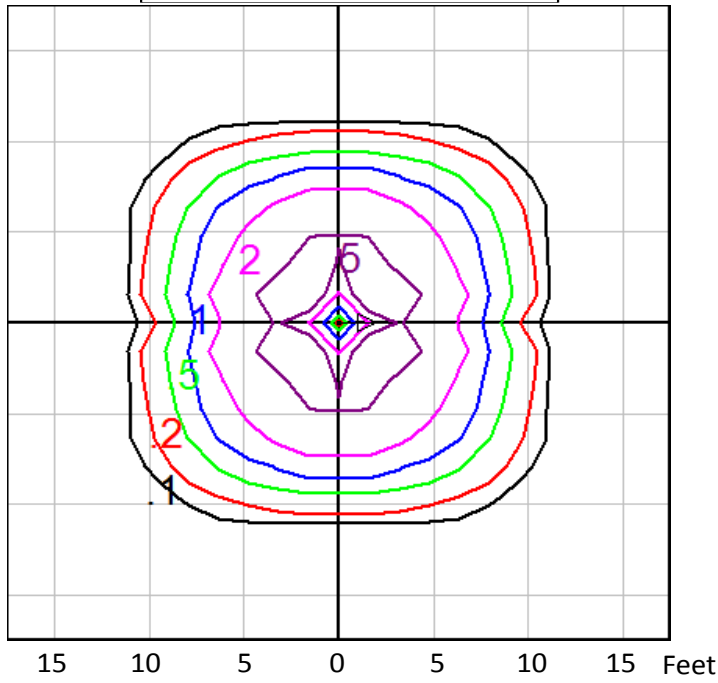


\*\*Specify other size (minimum 19")

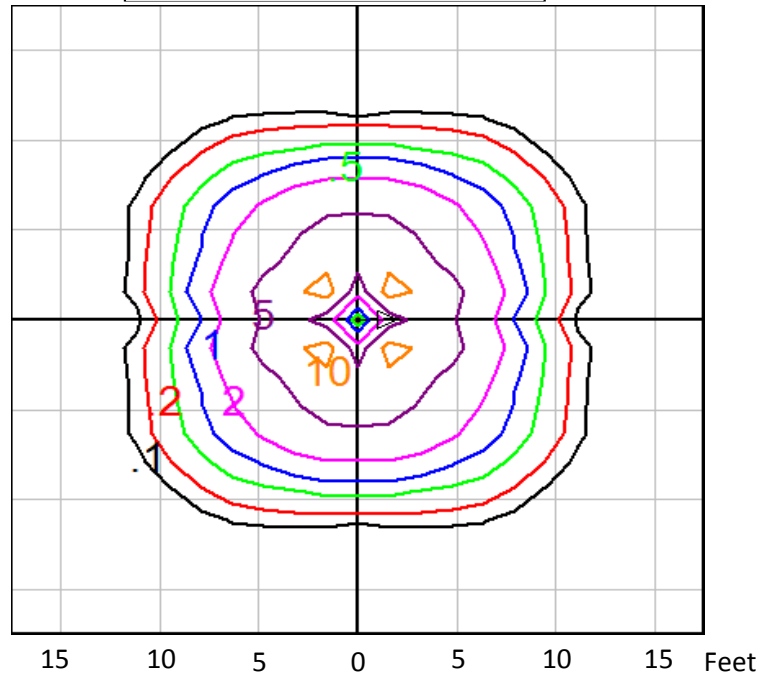
# Bollards (BLS, BLR)

## Photometry- Round

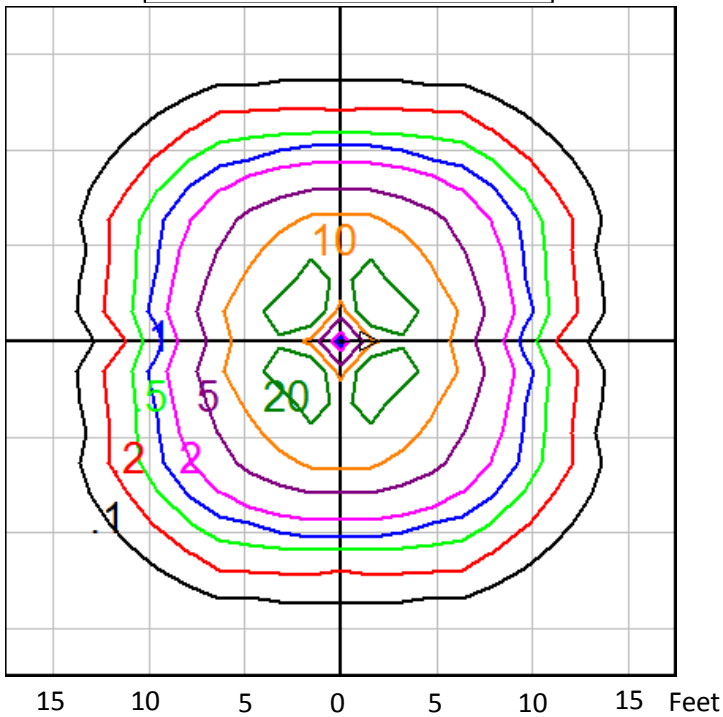
BLR 14W FOOT CANDLE ISO LINE



BLR 23W FOOT CANDLE ISO LINE



BLR 39W FOOT CANDLE ISO LINE

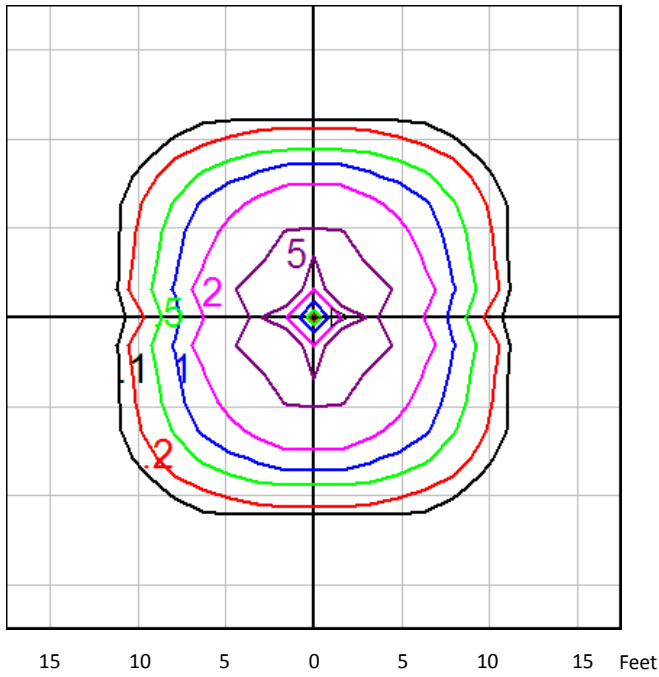


BOLLARD FOOT CANDLE COLOR CODE	
FOOT CANDLES	COLOR CODE
20	Dark Green
10	Orange
5	Purple
2	Magenta
1	Blue
0.5	Light Green
0.2	Red
0.1	Black

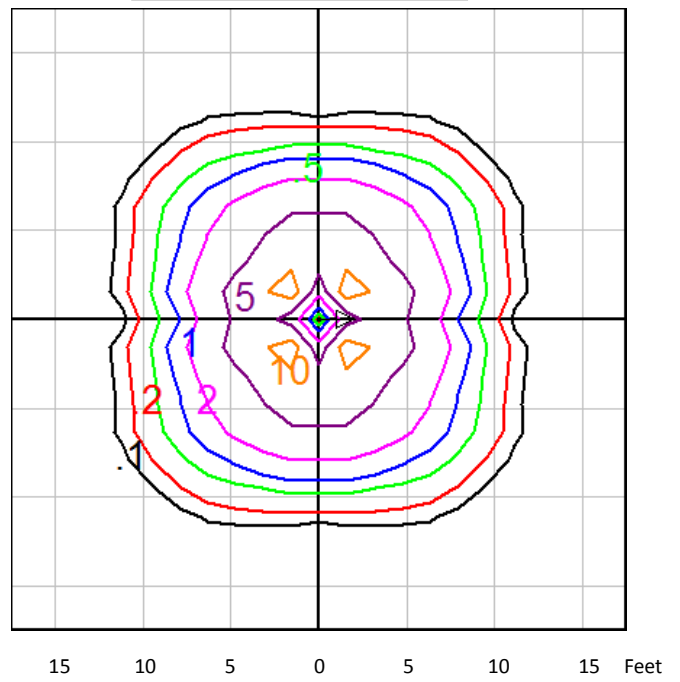
# Bollards (BLS, BLR)

## Photometry- Square

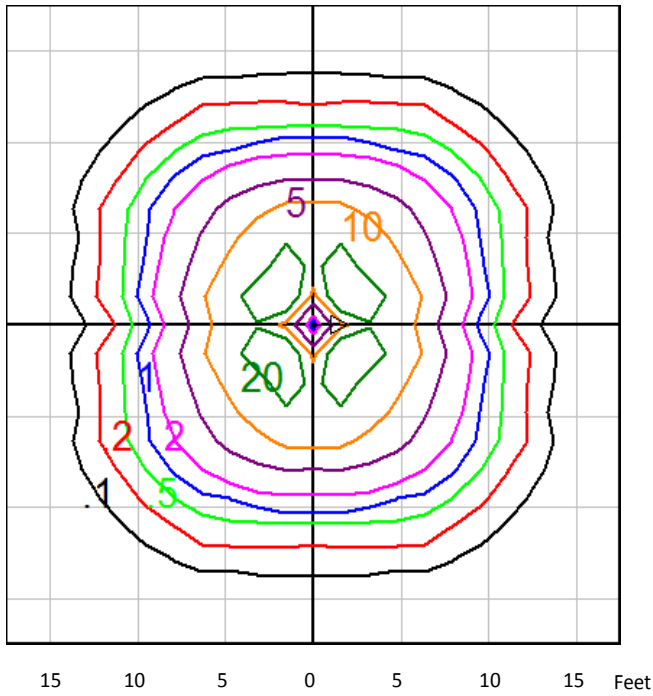
BLS 14W FOOT CANDLE ISO LINE



BLS 23W FOOT CANDLE ISO LINE



BLS 39W FOOT CANDLE ISO LINE



BOLLARD FOOT CANDLE COLOR CODE	
FOOT CANDLES	COLOR CODE
20	
10	
5	
2	
1	
0.5	
0.2	
0.1	

# Bollards (BLS, BLR)

BLR POWER AND LUMEN DATA						
SYSTEM WATTS (W)	LED POWER (W)	COLOR TEMP (K)	LED LUMENS (+/- 5%)	LED LUMENS/WATT	LUMINAIRE LUMENS (+/- 5%)	LUMINAIRE LUMENS/WATT
14	12	3000	1350	96	875	63
14	12	4000	1400	100	907	65
23	20	3000	1850	80	1199	52
23	20	4000	1900	82	1231	54
39	34	2700	4148	122	2688	69
39	34	3000	4420	130	2864	73
39	34	4000	4760	140	3084	79
39	34	5000	5100	150	3305	85

BLS POWER AND LUMEN DATA						
SYSTEM WATTS (W)	LED POWER (W)	COLOR TEMP (K)	LED LUMENS (+/- 5%)	LED LUMENS/WATT	LUMINAIRE LUMENS (+/- 5%)	LUMINAIRE LUMENS/WATT
14	12	3000	1350	96	904	65
14	12	4000	1400	100	937	67
23	20	3000	1850	80	1239	54
23	20	4000	1900	82	1272	55
39	34	2700	4148	122	2777	71
39	34	3000	4420	130	2960	76
39	34	4000	4760	140	3187	82
39	34	5000	5100	150	3415	88

## Ordering Guide

<b>1</b>   Model:	<b>2</b>   Wattage:	<b>3</b>   CCT Color Temp:	<b>4</b>   Input VAC:
BLR - Round BLS - Square	14 - 14 W AC 23 - 23 W AC 39 - 39 W DC	27K - 2700K* 30K - 3000K 40K - 4000K 50K - 5000K*	120 - 120VAC 277 - 277VAC (select one)

<b>5</b>   Lighting Control:	<b>6</b>   Accessories:	<b>7</b>   Finishes:
ND - Non Dimming DIM - Dimming	PE - Photocell HSS - House Side Shield SIF - Single Inline Fuse DIF - Double Inline Fuse GFI - Ground Fault Interrupter (square only)	GR = Gray BZ = Bronze WT = White BK = Black SV = Silver

\* DC Only

Due to continuing efforts to improve our products, North Star Lighting reserves the right to make changes to this product at any time without prior notice. REV40219

