

# SOLID STATE BOLLARDS

## BSA SERIES-LED

### SPECIFICATIONS

#### BOLLARD

Durable corrosion resistant extruded and cast aluminum construction. 1/4" wall thickness. Lens surrounds clear anodized twin reflector system.

#### LED POWER ARRAY™

Three-dimensional array consisting of 6 individual LED tubes for the BDA8 model and 4 individual LED tubes for the BDA6 model, which are fastened to a retaining plate equally spaced to provide 360° of even illumination output. Each LED tube consists of a circuit board populated with a multiple of LED's which is fastened to a radial aluminum heat sink. A white polycarbonate lens and end caps protect each LED tube's internal components and provides diffusion to prevent shadowing and striations.

**INTERNAL LOUVER (IL)** - A specular louver stack conceals the inner LED Power Array Module and provides uplight and glare control through the external clear polycarbonate lens.

**CAST LOUVER (CL)** - External cast aluminum louver stack protects the internal LED Power Array Module and provides uplight and glare control. An internal clear polycarbonate lens is integrated with the LED Power Array Module.

**OPAL LENS (WP)** - Exterior white polycarbonate lens protects the internal LED Power Array Module and provides a uniform white glow.

#### RADIAL LED MODULE

LED'S are mounted to a circular heatsink in a radial array. The radial LED module is concealed in the cap of the bollard. LED's are not directly visible from angles above 90°.

**PARABOLIC REFLECTOR (TR)** - A specular Parabolic Reflector reflects a portion of the distribution from the radial LED module and provides a uniform wide angle throw through the outer clear polycarbonate lens.

#### LED EMITTERS

High Output LED's are driven at 350mA for nominal 1 Watt output each. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

#### LED DRIVER

UL and CUL recognized Constant Current LED drivers operate on input voltages from 120-277VAC, 50/60hz. Consult Factory for (347-480VAC). Driver is mechanically fastened to a retaining bracket. Driver has a minimum 4KV of internal surge protection, 10KV & 20KV Surge Protector optional. Dimmable and High-Low Driver options available.

#### FINISH

Polyester powder coat incorporates four step iron phosphate process to pretreat metal surface for maximum adhesion. Top coat is baked at 400°F for maximum hardness and exterior durability.

PROJECT NAME: \_\_\_\_\_

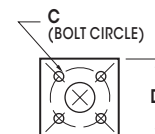
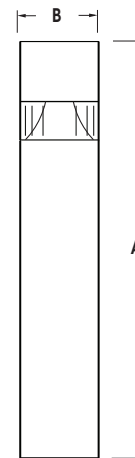
FIXTURE TYPE: \_\_\_\_\_



**BSA**

BSA8 SHOWN WITH -IL OPTICS

PATENT PENDING



BOLLARD	A	B	C	D
<b>BSA8</b>	42" 1067mm	8" 203mm	6" 152mm	8" 203mm
<b>BSA6</b>	42" 1067mm	6" 152mm	4" 102mm	6" 152mm

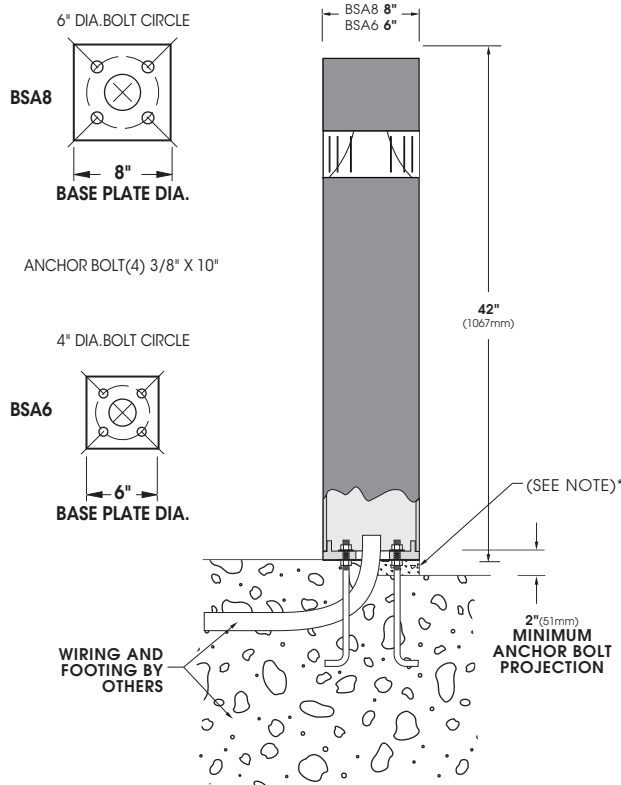


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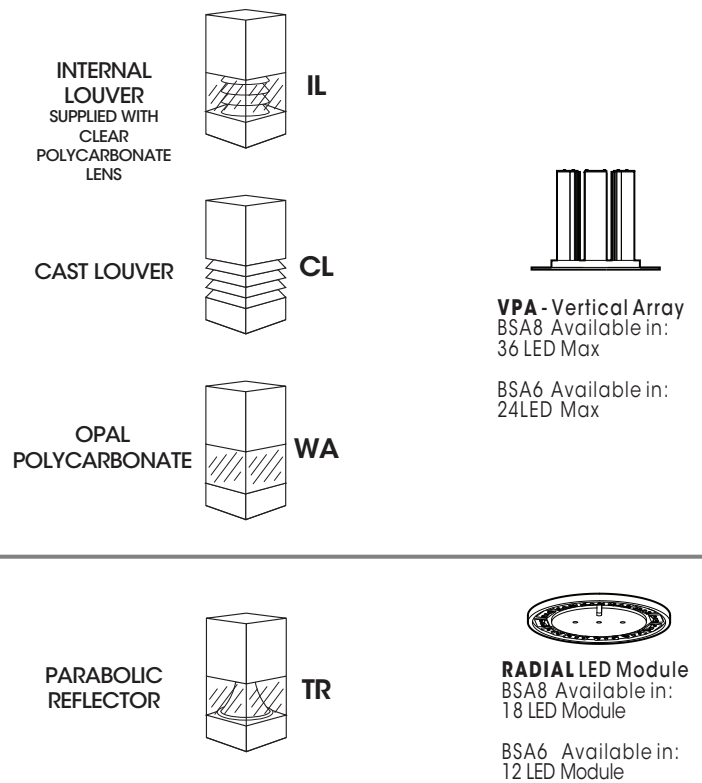
## S P E C I F I C A T I O N S

### INSTALLATION



\*When mounting in soil, anchor bolt fasteners and other hardware must be protected from soil by grouting.

### OPTICS



Spec/Order Example: BSA8-CL/36LED2480CW/RAL-9003-S/20SP

## O R D E R I N G I N F O R M A T I O N

BOLLARD	OPTICS	# of LED's	COLOR	VOLTAGE	MOUNTING	FINISH	OPTIONS
<input type="checkbox"/> BSA8-LED	<input type="checkbox"/> INTERNAL LOUVER ..... IL	<input type="checkbox"/> 36LED <sup>1</sup> (42 Watts)	<input type="checkbox"/> NW (4000K) Standard		<input type="checkbox"/> GROUND INSTALLATION ..... I	<input type="checkbox"/> BLACK RAL-9005-T	<input type="checkbox"/> DIMMABLE DRIVER (0-10V PROVIDED) ..... DIM
<input type="checkbox"/> BSA6-LED	<input type="checkbox"/> CAST LOUVER ..... CL	<input type="checkbox"/> 24LED (28 Watts)	<input type="checkbox"/> CW (5000K)		<input type="checkbox"/> WM ..... W	<input type="checkbox"/> WHITE RAL-9003-T	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR ..... HLSW
	<input type="checkbox"/> OPAL POLYCARBONATE ..... WP*		<input type="checkbox"/> WW (3000K)			<input type="checkbox"/> GREY RAL-7004-T	<input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD ..... HS
	<input type="checkbox"/> PARABOLIC REFLECTOR ..... TR	<input type="checkbox"/> 18LED <sup>1</sup> (21 Watts)	OTHER LED COLORS AVAILABLE CONSULT FACTORY			<input type="checkbox"/> DARK BRONZE RAL-8019-T	<input type="checkbox"/> DUPLEX RECEPTACLE ..... DUP
		<input type="checkbox"/> 12LED <sup>2</sup> (15 Watts)	VOLTAGE			<input type="checkbox"/> GREEN RAL-6005-T	<input type="checkbox"/> GROUND FAULT RECEPTACLE ..... GFI
			<input type="checkbox"/> 120			FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9500-S)	<input type="checkbox"/> 10KV SURGE PROTECTOR ..... 10SP
		NOTES: 1 - AVAILABLE IN BSA8 ONLY. 2 - AVAILABLE IN BSA6 ONLY.	<input type="checkbox"/> 208			SEE USALTG.COM FOR ADDITIONAL COLORS	<input type="checkbox"/> 20KV SURGE PROTECTOR (277V & 480V Only) ..... 20SP
			<input type="checkbox"/> 240				OPTIONAL HEIGHTS:
			<input type="checkbox"/> 277				<input type="checkbox"/> 30"
			<input type="checkbox"/> 347				<input type="checkbox"/> 36"
			<input type="checkbox"/> 480				

\*WP OPTICS USE OPAL POLYCARBONATE LENS