

# GEM®1 LED Performance Bollard

ALUMINUM SHAFT

**Type:**

**Job:**

**Catalog number:**

**Approvals:**

**GEM1**

Fixture

Electrical Module

Top Cap Finish

(Includes top cap and shaft)

Options

See page 2

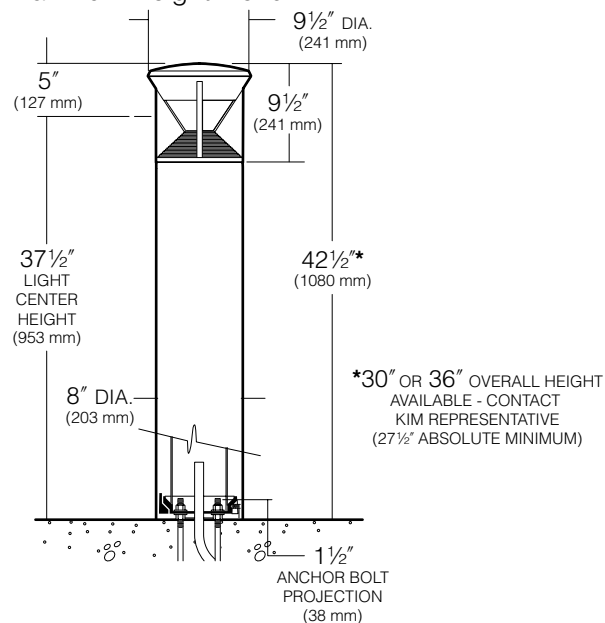
See page 3

## Specifications

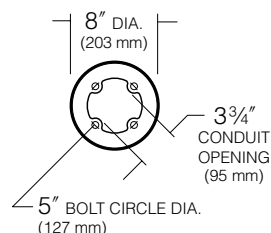
**GEM Models**

**GEM1**

Maximum weight: 28 lb



### BASE PLAN GEM ALUMINUM SHAFT



**Top Cap:** Die-cast, low copper (< 0.6% Cu) aluminum secured to rib body by captive stainless steel allen cap screws. For lamp access, allen screws shall not require complete removal.

**Supports:** Die-cast, low copper (< 0.6% Cu) aluminum supports secured in place as a complete cage assembly. The top section provides a cutoff lamp compartment. The supports are secured to the shaft by four stainless steel tie rods.

**Refractor:** Thermally tempered soda lime glass sealed with silicone gaskets top and bottom.

**Shaft:** One-piece aluminum extrusion, .125" minimum wall thickness with a heavy cast aluminum anchor base concealed within the shaft. Hex socket stainless steel set screws shall lock the shaft onto the cast frangible anchor base.

**LED Optical System:** A total of 9 mid power LED emitters configured in a rectangular array comprised together as a module. Two (2) modules, 18 diodes for Type I version; three (3) modules, 27 diodes for Type III version; and four (4) modules, 36 diodes for Type V version. Available in 580nm Amber, 3000K, 4000K and 5000K color temperatures.

**LED Driver:** Universal voltage from 120 to 277V with a  $\pm 10\%$  tolerance. -40°F. starting temperature. All drivers are Underwriters Laboratories recognized.

**Anchor Bolts:** Four C " x 10" + 2" zinc plated J-bolts, each with two nuts, washers and a rigid pressed board template.

**Finish:** Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish.

**Listed to:** UL 1598 Standard for Luminaires - UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products and CSA C22.2#250.0 Luminaires. RoHS compliant. Meets Buy American provisions within ARRA.

**CAUTION:** Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

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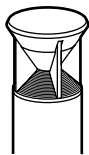


Standard Features


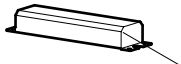
Fixture	Cat. No. <b>GEM1</b> Fixture with Aluminum Shaft		
Electrical Module LED = Light Emitting Diode	Cat. Nos. for LED Electrical Modules available: <div><div><div>xL</div><div>Source:</div><div>  18L= Type I</div><div>  27L= Type III</div><div>  36L= Type V</div></div><div><div>xK</div><div>Color Temperature:</div><div>  2K = 580nm - Amber</div><div>  3K = 3000K</div><div>  4K = 4000K</div><div>  5K = 5000K</div></div><div><div>UV</div><div>Voltage:</div><div>  UV Universal Voltage shall range from 120V-277V</div></div></div>		
Finish TGIC thermoset polyester powder coat paint over a titanated zirconium conversion coating on fixture and shaft.	Top Cap Cat. No.: Color: <div><div>  BLS Black Gloss Smooth</div><div>  BLT Black Matte Textured</div><div>  DBS Dark Bronze Gloss Smooth</div><div>  DBT Dark Bronze Matte Textured</div><div>  GTT Graphic Matte Textured</div><div>  LGS Light Grey Gloss Smooth</div></div>	Cat. No.: Color: <div><div>  LGT Light Grey Matte Textured</div><div>  PSS Platinum Silver Gloss Smooth</div><div>  VGT Verde Green Matte Textured</div><div>  WHS White Gloss Smooth</div><div>  WHT White Matte Textured</div><div>  CC¹ Custom Color</div></div>	¹Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description:_____
0-10V Dimming Interface	Driver has a 0-10V dimming interface with a dimming range of 10-100%. Is compatible with most control systems. <div><div><div>Fixture Housing</div><div><div>Standard Input Black (+)</div><div>White (-)</div><div>Green (GND)</div><div>Pink Dimming Lead (-)</div><div>Purple Dimming Lead (+)</div><div>← 30 mA Max</div></div></div></div>		

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Optional Features

<b>Houseside Shield</b> Cat. No.   <b>HS</b>   <b>No Option</b>	90° houseside shield. .032" thick aluminum, painted to match fixture.	
<b>Battery Back-up</b> Cat. No.   <b>EM</b>   <b>No Option</b>	Internal battery pack provides 90 minutes of supplemental light at 25% of initial lamp lumens.	 Battery Back-up
<b>Optional Duplex Receptacle</b> Cat. No.   <b>DR</b>   <b>DR-GFI</b>   <b>No Option</b>	Mounted 18" from bottom of shaft, in a cast aluminum box that is internally welded and sealed with a gasketed While-In-Use cover with locking tab. Painted to match bollard. <b>Duplex Receptacle (DR)</b> rated 20A, 125V. <b>Duplex Receptacle with Ground Fault Circuit Interrupter (DR-GFI)</b> rated 20A, 125V.	

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Lumen Data

Electrical Drive Current - @350mA						
Volts - AC	Type 1		Type 3		Type 5	
	Amps - AC	System Watts	Amps - AC	System Watts	Amps - AC	System Watts
120	0.18	21	0.26	31	0.34	41
208	0.10	21	0.15	31	0.20	41
240	0.09	21	0.13	31	0.17	41
277	0.08	21	0.11	31	0.15	41

B.U.G. Rating (TM15) in Lumens where B = Backlight, U = Uplight, G = Glare			
Temperature	TYPE 1	TYPE 3	TYPE 5
3000K	B1 U3 G1	B1 U3 G1	B1 U3 G1
4000K	B1 U3 G1	B1 U3 G1	B1 U3 G1
5000K	B1 U3 G1	B1 U3 G1	B1 U3 G1

Absolute Lumens			
Temperature	TYPE 1	TYPE 3	TYPE 5
3000K	1101	1750	2290
4000K	1129	1794	2349
5000K	1142	1815	2376

LED performance and lumen output continues to improve at a rapid pace.  
For custom optics and color temperature configurations, contact factory.