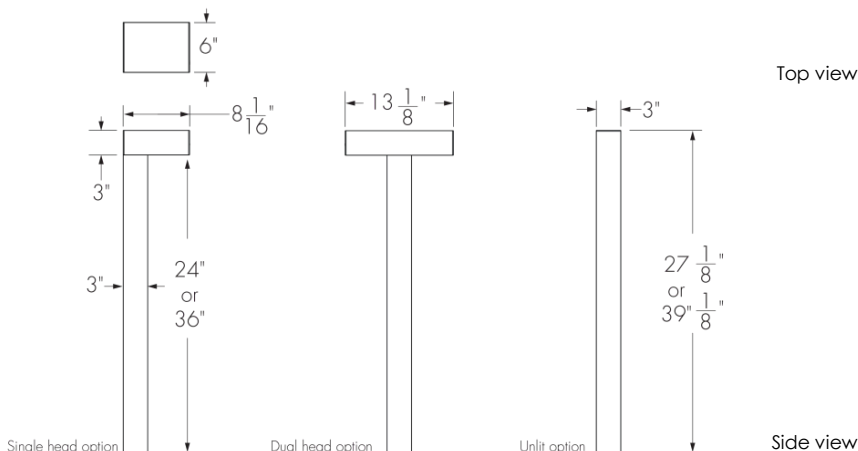
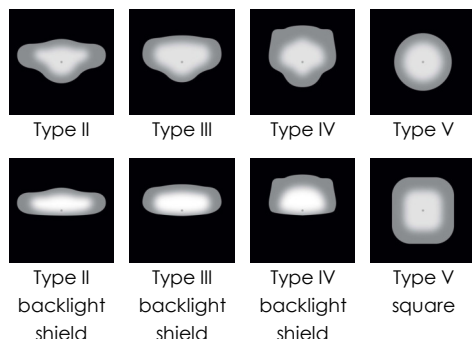


Project Name \_\_\_\_\_ Qty \_\_\_\_\_

Type \_\_\_\_\_ Catalog / Part Number \_\_\_\_\_



**Distributions**



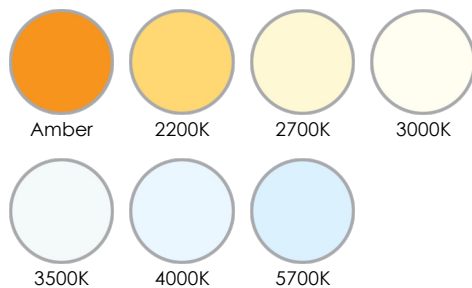
**Description**

The Lumenpulse Lumenblade Bollard is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Options include: heights of either two feet or three feet, with a Single or Dual head. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with low outputs and with a BUG rating of 0.

**Features**

<b>Mounting</b>	Single head, Dual head, Unlit bollard
<b>Height</b>	2 ft, 3 ft
<b>Color and Color Temperature</b>	Amber, 2200K, 2700K, 3000K, 3500K, 4000K, 5700K
<b>Distributions</b>	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
<b>Optical Option (factory installed)</b>	Louver
<b>Vibration Rating</b>	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
<b>Options</b>	Vibration Rated for Bridge and Overpass, Corrosion-resistant coating for hostile environments, Surge protector, Photoelectric Cell Button Type, Ground Fault Duplex Receptacle, Duplex receptacle with USB A and USB C
<b>Warranty</b>	5-year limited warranty

**Color and Color Temperature**



**Control**

ON/OFF 0-10V LT

**Ratings**

IP66 (optical chamber) IK06 (lens) IK10\*(frame)  
\*IK10 polycarbonate lens option available, consult factory.

**Certifications**



**Performance**

<b>Output (nominal lumens)</b>	Minimum 200lm (single head)/ Maximum 2000lm (dual head)
<b>Efficacy</b>	Up to 86 lm/W (N10 lumen output, 4000K, CRI 70+, Type III)
<b>Color Rendering</b>	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
<b>Lumen Maintenance</b>	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
<b>Dark Sky</b>	Dark sky compliant (2200K, 2700K, 3000K and Amber color)

temperatures, BUG rating of U0)

**Physical**

<b>Housing Material</b>	Extruded aluminium 6000 alloy series
<b>Lens Material</b>	Optical tempered clear glass (Clearsite lens), Optical tempered frosted glass (Frostsites lens), Optical tempered half-frosted glass (Half-Frostsites lens)
<b>Head Option</b>	Bollard Head
<b>Surface Finish</b>	Super durable resistant exterior polyester powder coating meets AAMA 2604-98 requirements (5-years Florida exposure) a corrosion resistant finish (CRC) pre-finish is available to meet ASTM B-117 & ASTM D-1654 (salt spray resistance) and ASTM D-2247 requirements (humidity resistance).
<b>Weight</b>	16.53 lbs

**Electrical and control**

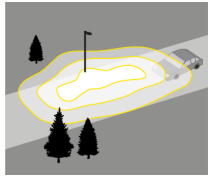
<b>Voltage</b>	120 volts, 208 volts, 240 volts, 277 volts, 347 volts, 480 volts
<b>Control</b>	On/Off control, 0-10V dimming, Lumentalk

**Environmental**

<b>Storage Temperature</b>	-40°C to 50°C [-40°F to 122°F] (device must reach start-up temperature value before operating)
<b>Operating Temperature</b>	-40°C [-40 °F] to 50°C [122 °F]
<b>Start-up Temperature</b>	-25°C [-13 °F] to 50°C [122 °F]
<b>Impact Resistance Rating</b>	IK06 (glass lens), IK10 (frame) *IK10 polycarbonate lens option available, consult factory
<b>Ingress Protection Rating</b>	IP66 (optical chamber), Wet location rated
<b>Environment</b>	Dry/damp/wet location

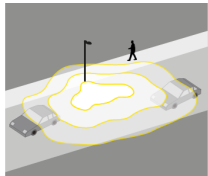
**Photometric information**

**Type II, 4000K, CRI 70+, Clearsite lens**



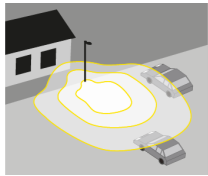
Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating			Typical maximum power 120/277V (W)
			B	U	G	
<b>N03</b>	209	70	0	0	0	3
<b>N05</b>	428	71	0	0	0	6
<b>N07</b>	672	75	0	0	0	9
<b>N10</b>	873	79	0	0	0	11

**Type III, 4000K, CRI 70+, Clearsite lens**



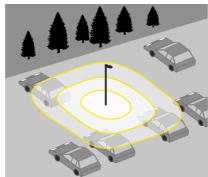
Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating			Typical maximum power 120/277V (W)
			B	U	G	
<b>N03</b>	228	76	0	0	0	3
<b>N05</b>	465	78	0	0	0	6
<b>N07</b>	731	81	0	0	0	9
<b>N10</b>	950	86	0	0	0	11

**Type IV, 4000K, CRI 70+, Clearsite lens**



Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating			Typical maximum power 120/277V (W)
			B	U	G	
<b>N03</b>	186	62	0	0	0	3
<b>N05</b>	380	63	0	0	0	6
<b>N07</b>	597	66	0	0	0	9
<b>N10</b>	775	70	0	0	0	11

**Type V square, 4000K, CRI 70+, Clearsite lens**

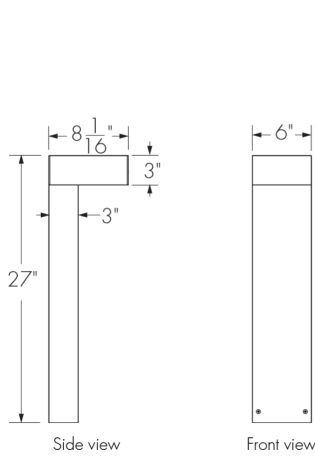


Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating			Typical maximum power 120/277V (W)
			B	U	G	
<b>N03</b>	191	64	0	0	0	3
<b>N05</b>	390	65	0	0	0	6
<b>N07</b>	613	68	0	0	0	9
<b>N10</b>	797	72	1	0	1	11

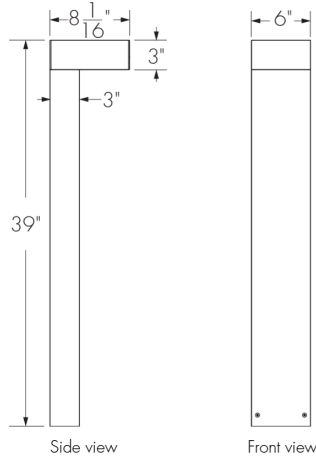
\*Photometric performance is measured in compliance with IESNA LM-79-19. Due to rapid and continuous advances in LED technology, photometric information is subject to change without notice.

**Configuration dimensions**

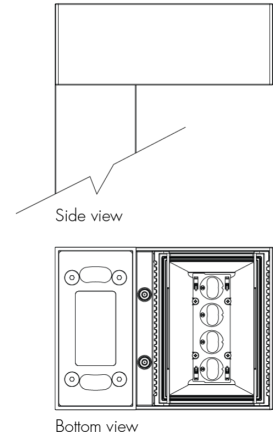
**TM1 - Single head bollard, 2 ft**



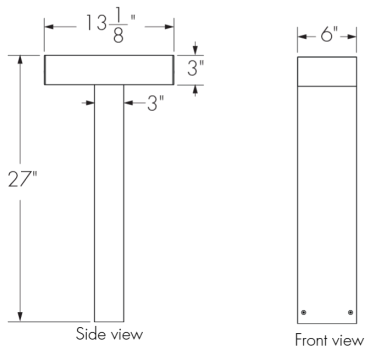
**TM1 - Single head bollard, 3 ft**



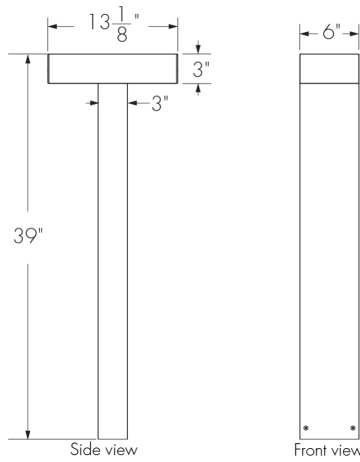
**TM1 - Single luminaire head**



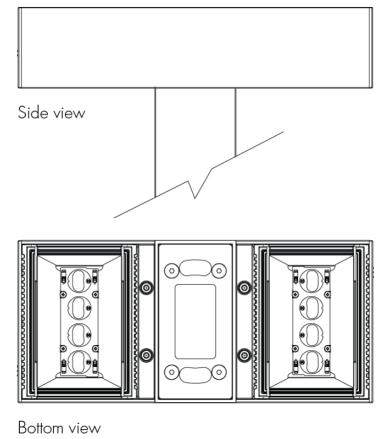
**TM2 - Dual head bollard, 2 ft**



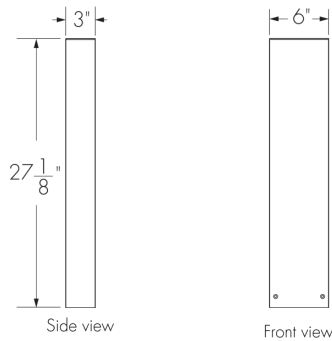
**TM2 - Dual head bollard, 3 ft**



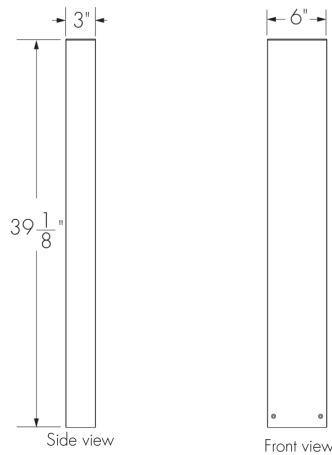
**TM2 - Dual luminaire head**



**UNLIT - Unlit bollard 2 ft**

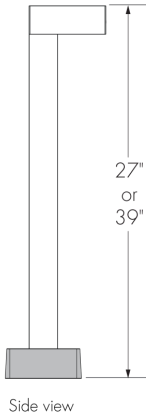


**UNLIT - Unlit bollard 3 ft**

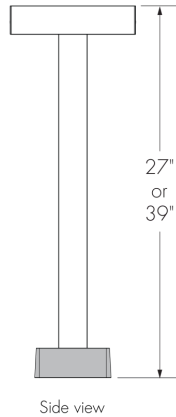


**VRBO option dimensions**

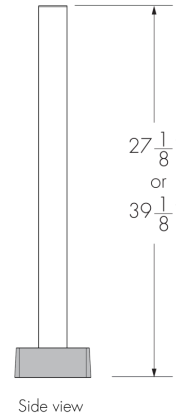
TM1 - Single head bollard



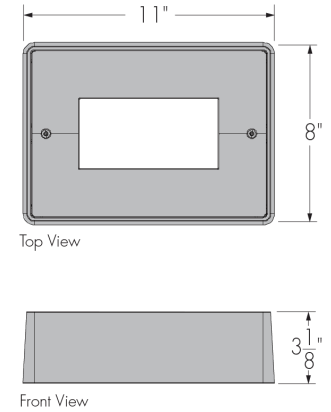
TM2 - Dual head bollard



UNLIT - Unlit bollard

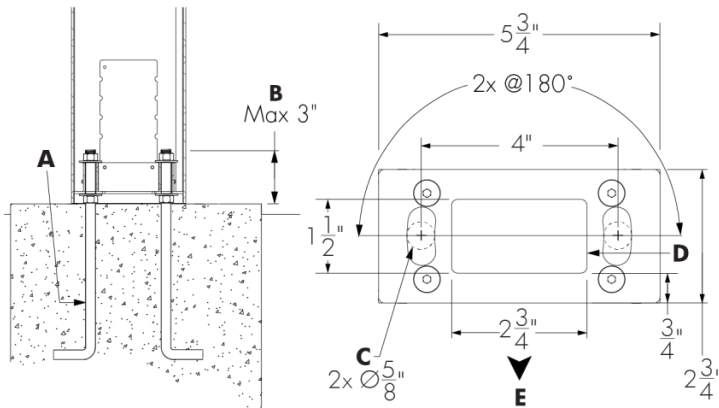


Base cover



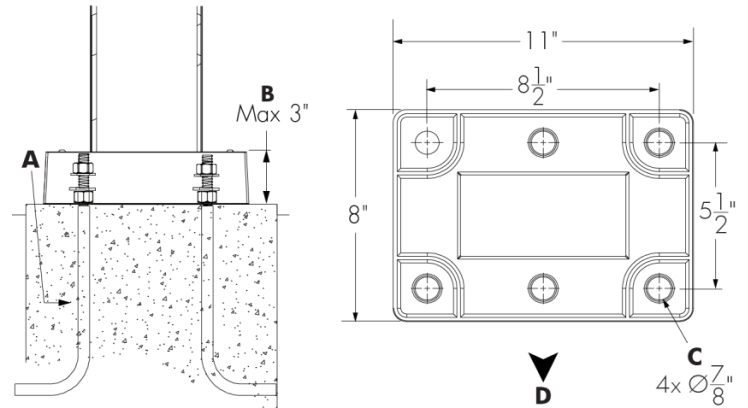
**Anchoring details**

Standard anchoring



- A** - (2x)  $\varnothing 1/2$  in by 12 in long anchor bolts with flats washers and nuts for each
- B** - Between 2.5 in and 3 in of the anchor bolts must be above ground for installation
- C** - Bolt circle
- D** - Hole for conduit (conduit by others)
- E** - Street side/Light side

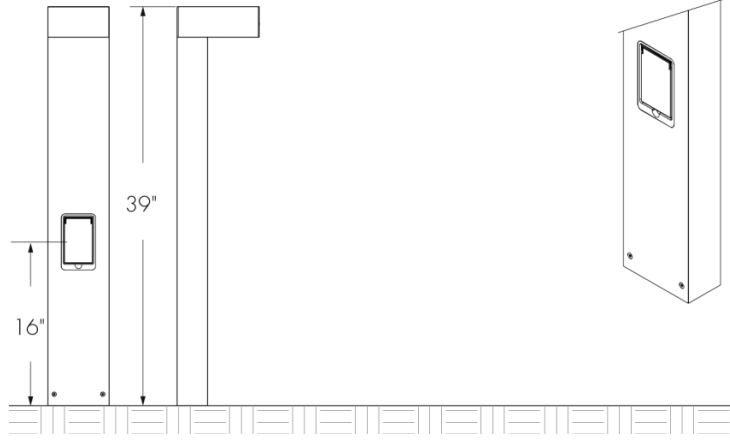
BLDB-VRBO anchoring



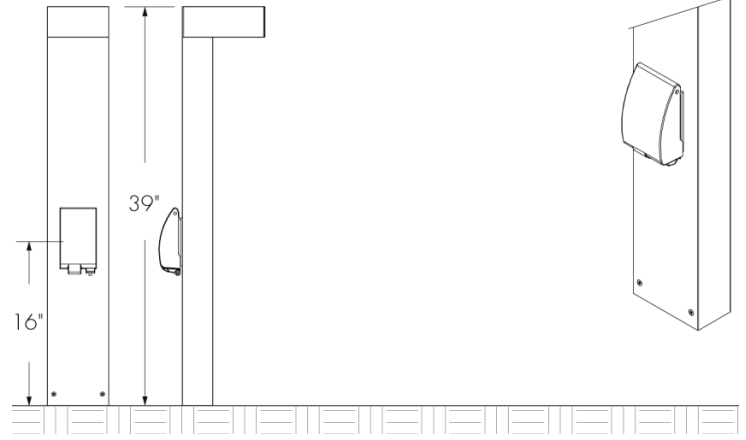
- A** - (4x)  $\varnothing 3/4$  in by 26 in long anchor bolts with flats washers and nuts for each
- B** - Between 2.5 in and 3 in of the anchor bolts must be above ground for installation
- C** - Bolt circle
- D** - Access door and street side

**Duplex Receptacle installation dimensions**

DRG - Ground fault duplex receptacle  
USB - Duplex receptacle with USB A and USB C



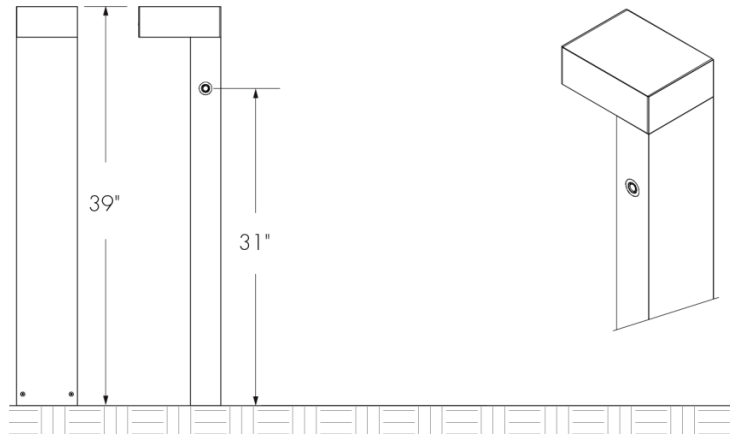
DRG IU - Ground Fault Duplex Receptacle (while in use)  
USB IU - Duplex receptacle with USB A and USB C (while in use)



The duplex receptacle must be installed in accordance with applicable national and local electrical and construction codes by a person familiar with the construction and operation of the product and the hazards involved. Refer to national and local electrical codes before selecting a duplex receptacle to ensure all requirements are met.

**Photoelectric Cell Button installation dimensions**

PB - Photoelectric Cell Button Type

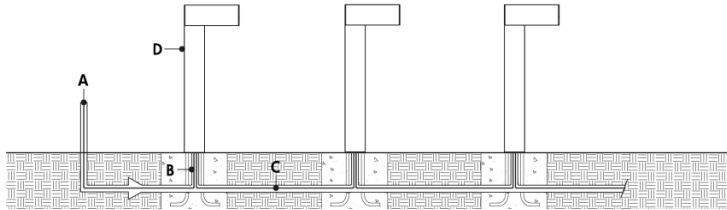


**Typical Wiring Diagrams**

**Wiring Color Code**

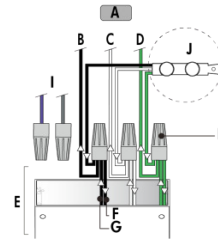
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0 -10V+	0 -10V -

**On/Off Control (NO)**



- A** - Power input (120-480V)
- B** - Conduit (by others)
- C** - Power wiring (by others)
- D** - Lumenblade Bollard

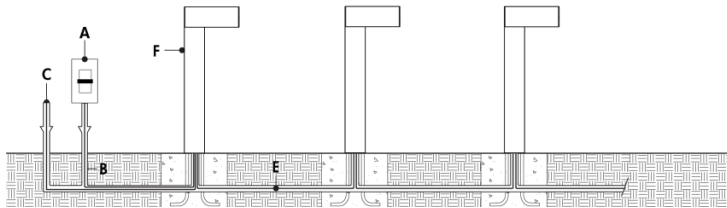
**On/Off Control (NO) - wiring detail**



- A** - To fixture
- B** - Line
- C** - Line/Neutral
- D** - Ground
- E** - Conduit (by others)
- F** - To next fixture
- G** - Power input or from previous fixture
- H** - Wire-nuts (by others)
- I** - Not required
- J** - Wiring for SP option

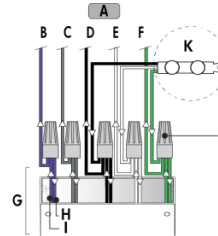
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

**0-10V dimming (DIM)**



- A** - Dimmer (by others)
- B** - Data wiring (by others)
- C** - Power input (120-480V, wiring by others)
- D** - Conduit (by others)
- E** - Power and data wiring (by others)
- F** - Lumenblade Bollard

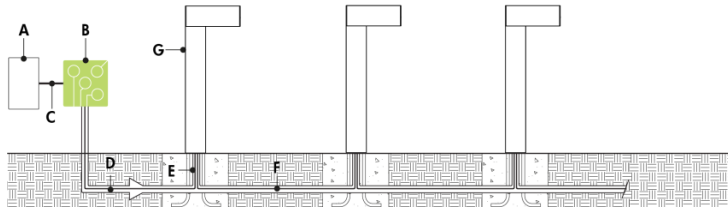
**0-10V dimming (DIM) - wiring detail**



- A** - To fixture
- B** - 0-10V +
- C** - 0-10V -
- D** - Line
- E** - Neutral
- F** - Ground
- G** - Conduit (by others)
- H** - To next fixture
- I** - Power input or from previous fixture
- J** - Wire-nuts (by others)
- K** - Wiring for SP option

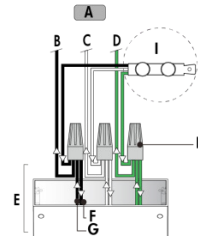
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

## Lumentalk (LT)



- A - Dimmer/controller (order separately from Lumenpulse, or by others)
- B - Lumentranslator (LTL-010)
- C - Data wiring (by others)
- D - Power line (120-277V, wiring by others)
- E - Conduit (by others)
- F - Power wiring (by others)
- G - Lumenblade Bollard

## Lumentalk (LT) - wiring detail



- A - To fixture
- B - Line
- C - Line/Neutral
- D - Ground
- E - Conduit (by others)
- F - To next fixture
- G - Power input or from previous fixture
- H - Wire-nuts (by others)
- I - Wiring for SP option

- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- Lumentalk enabled fixtures must be commissioned using LumentalkID software and a LID-LT. Consult factory for details.
- Maximum of 1 transmitter (Lumentranslator or Lumenlink) per system.
- No third party fixtures allowed on the same circuit.
- DRG or USB option must be on a separated circuit.



**How to Order**

Housing	Mounting	Voltage	Height	Lens <sup>(3)</sup>	Output (nominal lumens) <sup>(8)</sup>	Color and Color Temperature	Color Rendering	Distributions	Optical Option	Finish	Control
BLDB Lumenblade Bollard	TM1 Single head	120 120 volts	2FT 2 ft	CSL Clearsite lens <sup>(4)</sup>	N02 200lm (4 LEDs) <sup>(4) (9) (10)</sup>	AMB Amber <sup>(4) (10) (11)</sup>	CRI 70 CRI 70+ <sup>(15)</sup>	2 Type II	LV Louver <sup>(18) (19)</sup>	BK Black Sandtex®	DIM 0-10V dimming <sup>(23)</sup>
		208 208 volts	3FT 3 ft								
	UNLIT Unlit bollard	240 240 volts	HFSL Half-Frostsites lens <sup>(6) (7)</sup>	N05 500lm (4 LEDs)	27K 2700K <sup>(13)</sup>	CRI 90 CRI 90+ <sup>(17)</sup>	3 Type III	SI Silver Sandtex®	BKTX Textured Black		
		277 277 volts								N07 700lm (4 LEDs)	30K 3000K
	347 347 volts <sup>(2)</sup>	N10 1000lm (4 LEDs)	35K 3500K	4 Type IV	4BLS Type IV backlight shield	GRNTX Textured Green					
	480 480 volts <sup>(2)</sup>						5 Type V	40K 4000K	5S Type V square	WHTX Textured White	
		57K 5700K <sup>(14)</sup>	40K 4000K	4BLS Type IV backlight shield	CC Custom Color & Finish <sup>(20) (21) (22)</sup>						
						57K 5700K <sup>(14)</sup>	40K 4000K	4BLS Type IV backlight shield	CC Custom Color & Finish <sup>(20) (21) (22)</sup>		
		57K 5700K <sup>(14)</sup>	40K 4000K	4BLS Type IV backlight shield	CC Custom Color & Finish <sup>(20) (21) (22)</sup>						
						57K 5700K <sup>(14)</sup>	40K 4000K	4BLS Type IV backlight shield	CC Custom Color & Finish <sup>(20) (21) (22)</sup>		
		57K 5700K <sup>(14)</sup>	40K 4000K	4BLS Type IV backlight shield	CC Custom Color & Finish <sup>(20) (21) (22)</sup>						
						57K 5700K <sup>(14)</sup>	40K 4000K	4BLS Type IV backlight shield	CC Custom Color & Finish <sup>(20) (21) (22)</sup>		
	57K 5700K <sup>(14)</sup>	40K 4000K	4BLS Type IV backlight shield	CC Custom Color & Finish <sup>(20) (21) (22)</sup>							

**Notes:**

- A ground fault duplex receptacle (DRG or DRG-IU) and a duplex USB receptacle (USB or USB-IU) cannot be combined with TM2 mounting.
- Not available with LT control option.
- Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.
- Not available with type 5 distribution.
- Available with type 3 and 5 distributions only.
- Available with type 2, 3 and 4 distributions only.
- Available for N03, N05, N07 and N10 outputs only.
- Lumen output will vary according to the lens and distribution specified for the fixture. Please consult the photometric information section of the specification sheet for more details.
- Available with AMB color temperature only.
- Not available for FSL and HFSL lens.
- Available with N02 output only.
- Available for CRI 80 only.
- Available for CRI 80 and CRI 90 only.
- Available for CRI 70 and CRI 80 only.
- Binning within a 3-step MacAdam ellipse, with the exception of 5700K.
- Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
- Binning within a 2-step MacAdam ellipse.
- Available with CSL and HFSL lenses only.
- Factory installed, not field changeable.
- Specify RAL number followed by "TX" for textured finish [ex: RAL9007TX] or STX for Sandtex finish [ex: RAL9007STX]. Textured or Sandtex finishes are recommended for the durability of all products. If a finish is not specified with the RAL number [ex: RAL9007], a glossy finish will be provided. Please consult factory for other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.
- Setup charges apply for RAL colors. Consult factory for details.
- Longer lead times can be expected for custom RAL color finishes.
- DIM control can be used as NO (On/off control) if no data is required.
- Not available with PB option.
- When combined with 2 ft height option, Lumentalk cannot be combined with a ground fault duplex receptacle (DRG or DRG-IU) or a duplex USB receptacle (USB or USB-IU).

**How to Order**

Option	Head Option	Head Lens	Head Output	Head Color and Color Temperature	Head Color Rendering	Head Distributions	Head Optical Option
<b>VRBO</b> Vibration Rated for Bridge and Overpass <sup>(26)</sup> <sup>(27)</sup> <b>CRC</b> Corrosion-resistant coating <sup>(28)</sup> <sup>(29)</sup> <b>SP</b> Surge protector <b>PB</b> Photoelectric Cell Button Type <sup>(2)</sup> <sup>(30)</sup> <b>DRG</b> Ground Fault Duplex Receptacle <sup>(31)</sup> <b>DRG IU</b> Ground Fault Duplex Receptacle (while in use) <sup>(31)</sup> <b>USB</b> Duplex receptacle with USB A and USB C <sup>(31)</sup> <b>USB IU</b> Duplex receptacle with USB A and USB C in-use <sup>(31)</sup>	<b>BH</b> Bollard Head	<b>CSL</b> Clearsite lens <sup>(4)</sup> <b>FSL</b> Frostsites lens <sup>(5)</sup> <b>HFSL</b> Half-Frostsites lens <sup>(6)</sup> <sup>(7)</sup>	<b>N02</b> 200lm (4 LEDs) <sup>(4)</sup> <sup>(9)</sup> <sup>(10)</sup> <b>N03</b> 300lm (4 LEDs) <b>N05</b> 500lm (4 LEDs) <b>N07</b> 700lm (4 LEDs) <b>N10</b> 1000lm (4 LEDs)	<b>AMB</b> Amber <sup>(4)</sup> <sup>(10)</sup> <sup>(11)</sup> <b>22K</b> 2200K <sup>(12)</sup> <b>27K</b> 2700K <sup>(13)</sup> <b>30K</b> 3000K <b>35K</b> 3500K <b>40K</b> 4000K <b>57K</b> 5700K <sup>(14)</sup>	<b>CRI 70</b> CRI 70+ <sup>(15)</sup> <b>CRI 80</b> CRI 80+ <sup>(14)</sup> <b>CRI 90</b> CRI 90+ <sup>(17)</sup>	<b>2</b> Type II <b>2BLS</b> Type II backlight shield <b>3</b> Type III <b>3BLS</b> Type III backlight shield <b>4</b> Type IV <b>4BLS</b> Type IV backlight shield <b>5</b> Type V <b>5S</b> Type V square	<b>LV</b> Louver <sup>(18)</sup>

**Notes:**

- 2. Not available with LT control option.
- 4. Not available with type 5 distribution.
- 5. Available with type 3 and 5 distributions only.
- 6. Available with type 2, 3 and 4 distributions only.
- 7. Available for N03, N05, N07 and N10 outputs only.
- 9. Available with AMB color temperature only.
- 10. Not available for FSL and HFSL lens.
- 11. Available with N02 output only.
- 12. Available for CRI 80 only.
- 13. Available for CRI 80 and CRI 90 only.
- 14. Available for CRI 70 and CRI 80 only.
- 15. Binning within a 3-step MacAdam ellipse, with the exception of 5700K.
- 16. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.
- 17. Binning within a 2-step MacAdam ellipse.
- 18. Available with CSL and HFSL lenses only.
- 26. Vibration tested in accordance with ANSI 136.31 2018 for bridge and overpass applications at 5Gv.
- 27. Specify only if a bridge or overpass application is required.
- 28. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.
- 29. Setup charges apply. Consult factory for details.
- 30. Not available for 480V voltage option.
- 31. A ground fault duplex receptacle (DRG or DRG IU) and a duplex USB receptacle (USB or USB IU) cannot be combined.