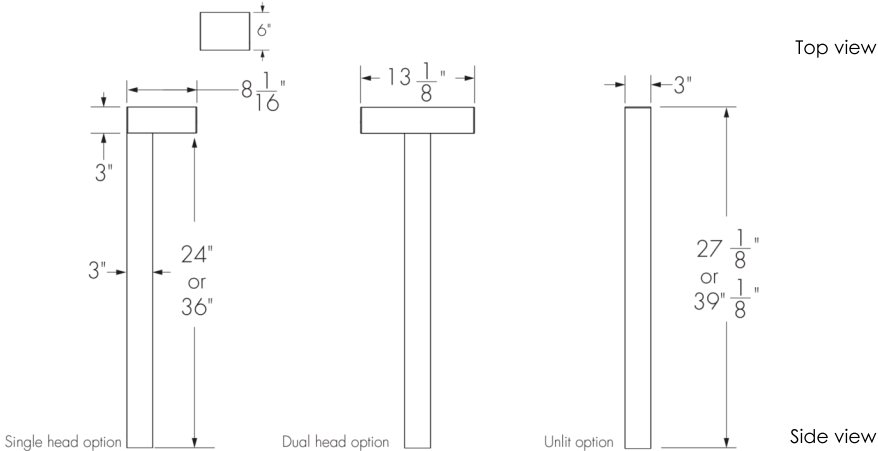


Project Name

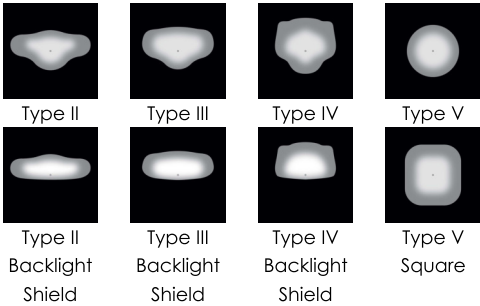
Qty

Type

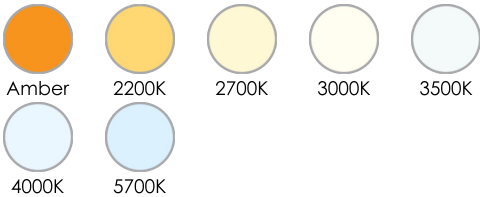
Catalog / Part Number



Distributions



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



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 DarkSky approval, low outputs, and a BUG rating of 0.

Features

Mounting	Single head, Dual head, Unlit bollard
Height	2 ft, 3 ft
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louver
Color and Color Temperature	True Amber 585nm-595nm (Turtle-Friendly), 2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Options	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
Warranty	5-year limited warranty
Performance	
Output (Nominal Lumens)	Minimum 200lm (single head)/ Maximum 2000lm (dual head)
Efficacy	Up to 86 lm/W (N10 lumen output, 4000K, CRI 70+, Type III)
Color Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+

Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C [77 - 122 °F])
DarkSky	DarkSky Approved (2200K, 2700K, 3000K and Amber color temperatures, BUG rating of U0)

Physical

Head Option	Bollard Head
Housing Material	Extruded aluminium 6000 alloy series
Lens Material	Optical tempered clear glass (Clearsite lens), Optical tempered frosted glass (Frostsites lens), Optical tempered half-frosted glass (Half-Frostsites lens)
Surface Finish	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).

Weight	16.53 lbs
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Electrical and Control

Voltage	120 Volts, 208 Volts, 240 Volts, 277 Volts, 347 Volts, 480 Volts
Control	On/Off Control, 0-10V Dimming, Lumentalk

Environmental

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

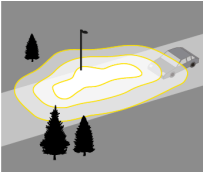
Important

Virtual Patent Marking Notice


This website (<https://www.lmpg.com/patents-trademarks>) is provided to satisfy the virtual patent marking provisions of applicable jurisdictions. Some products listed may be covered by additional patents not referenced here.

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	
	N03	209	70	0	0	0	3
	N05	428	71	0	0	0	6
	N07	672	75	0	0	0	9
	N10	873	79	0	0	0	11

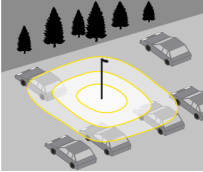
Type III, 4000K, CRI 70+, Clearsite Lens

	Nominal output [lm]	Typical delivered output [lm]	Efficiency (lm/W)	BUG Rating			Typical maximum power 120/277V (W)
				B	U	G	
	N03	228	76	0	0	0	3
	N05	465	78	0	0	0	6
	N07	731	81	0	0	0	9
	N10	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	
	N03	186	62	0	0	0	3
	N05	380	63	0	0	0	6
	N07	597	66	0	0	0	9
	N10	775	70	0	0	0	11

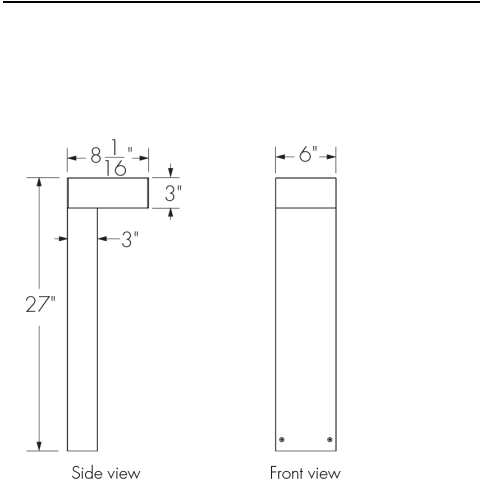
Type V Square, 4000K, CRI 70+, Clearsite Lens

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

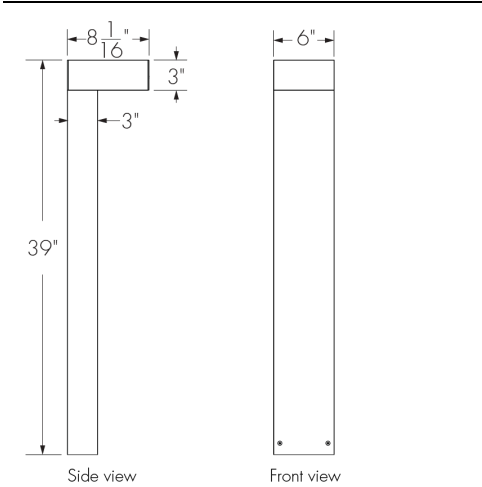
*Photometric performance is measured in compliance with IESNA LM-79-19. Due to rapid and continous advances in LED technology, photometric information is subject to change without notice.

Configuration Dimensions

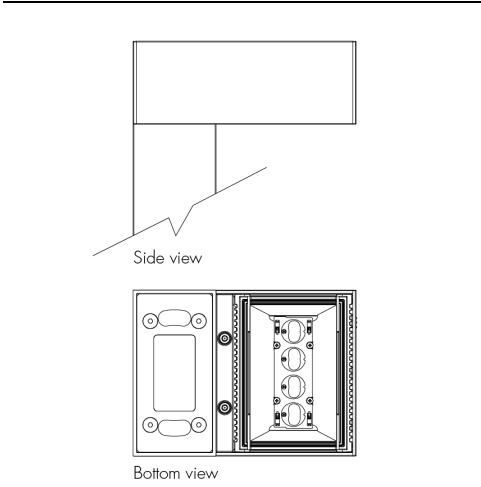
TM1 - Single Head Bollard, 2 ft



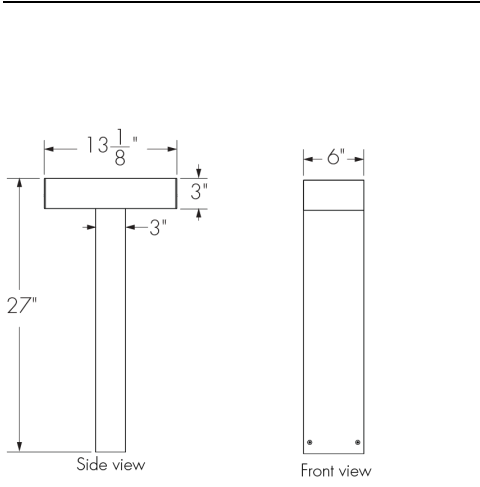
TM1 - Single Head Bollard, 3 ft



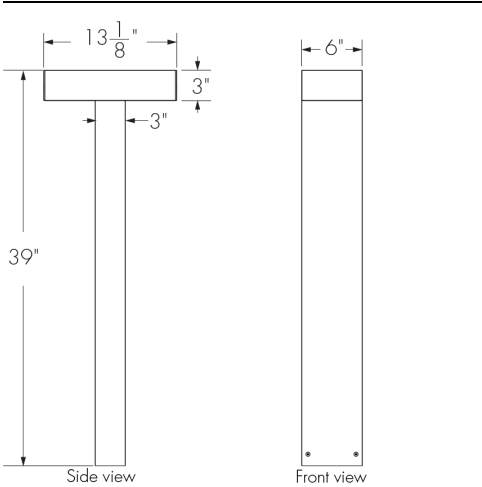
TM1 - Single Luminaire Head



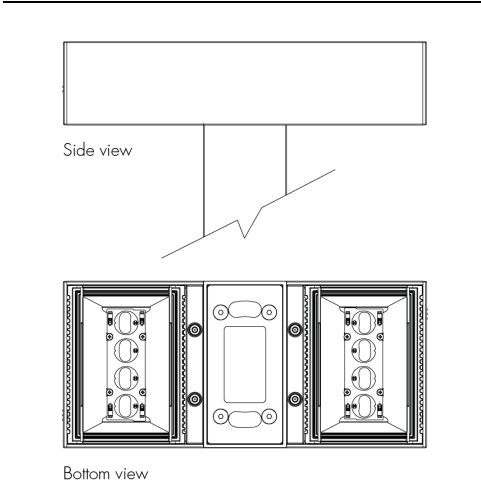
TM2 - Dual Head Bollard, 2 ft



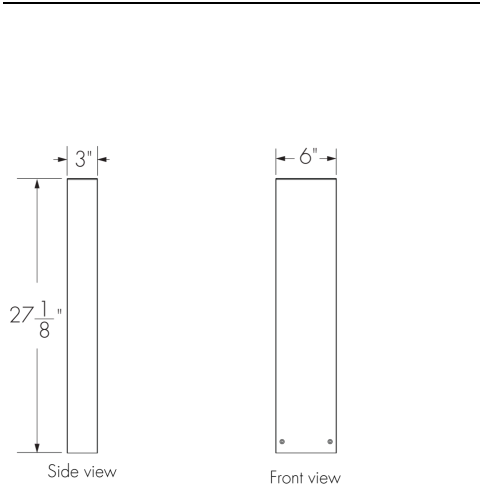
TM2 - Dual Head Bollard, 3 ft



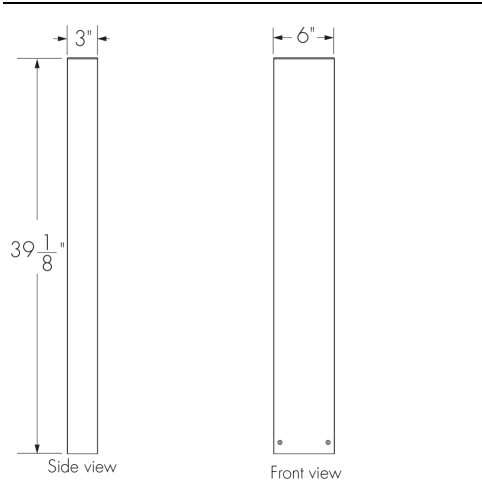
TM2 - Dual Luminaire Head



UNLIT - Unlit Bollard 2 ft



UNLIT - Unlit Bollard 3 ft

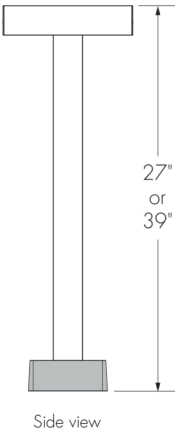


VRBO Option Dimensions

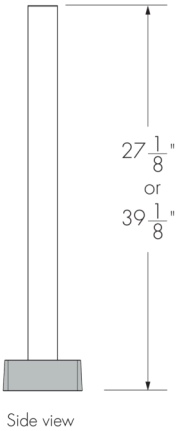
TM1 - Single Head Bollard



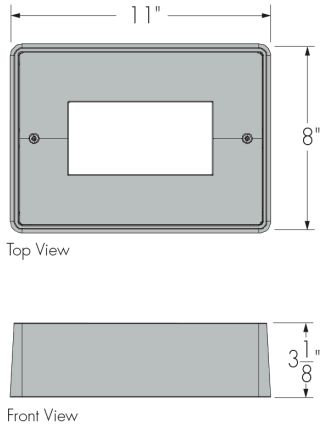
TM2 - Dual Head Bollard



UNLIT - Unlit Bollard

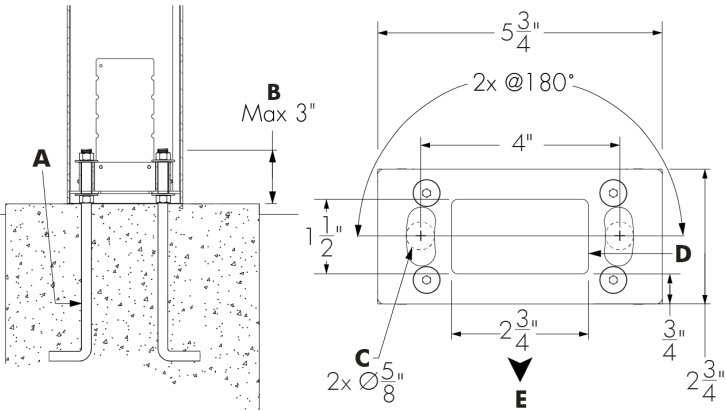


Base Cover



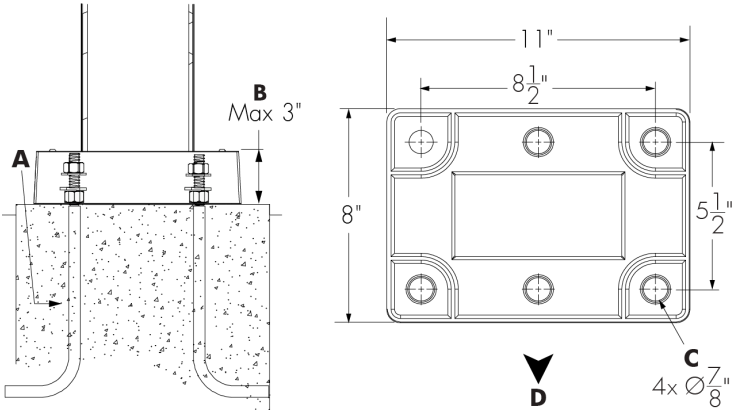
Anchoring Details

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

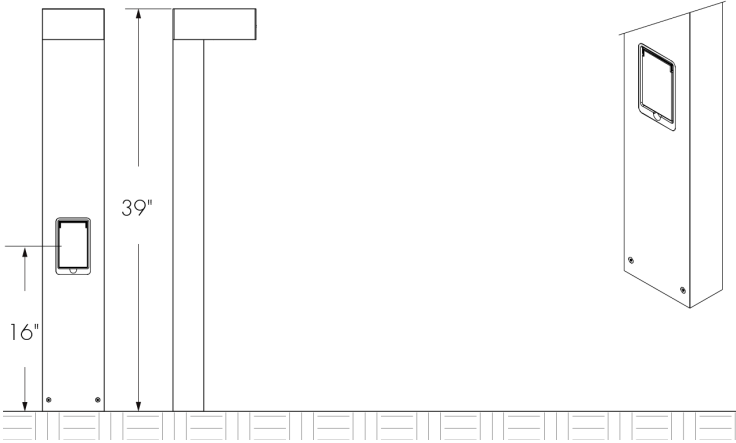
BLDB-VRBO Anchoring



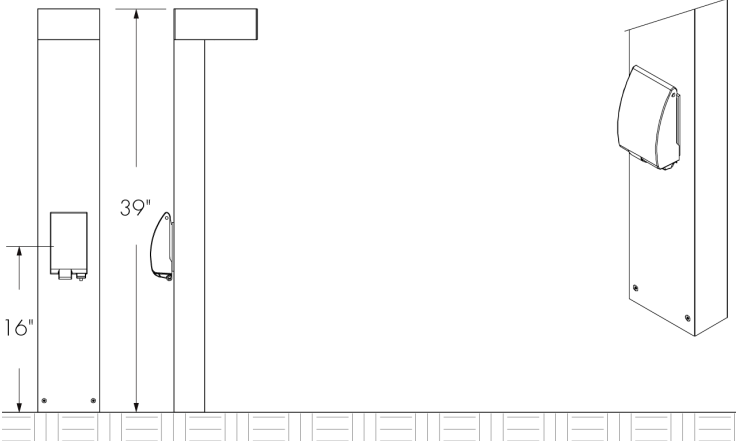
- A** - (4x) $\varnothing 3/4$ in by 26 in long anchor bolts with flats washers and nuts for each
- B** - Between 2.5 in and 3 in of the anchor bolts must be above ground for installation
- C** - Bolt circle
- D** - Access door and street side

Duplex Receptacle Installation Dimensions

DRG - Ground Fault Duplex Receptacle
USB - Duplex Receptacle With USB A and USB C



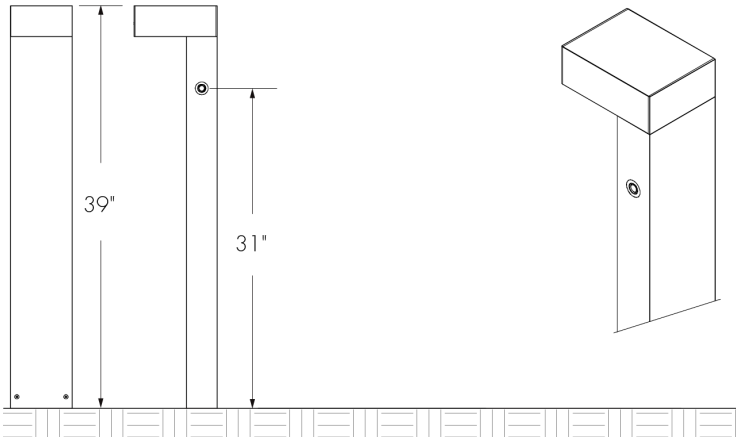
DRG IU - Ground Fault Duplex Receptacle (While in Use)
USB IU - Duplex Receptacle With USB A And USB C (While In Use)



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

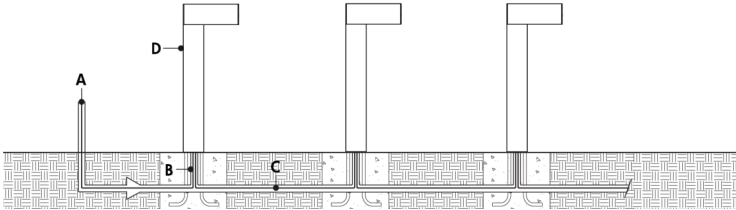


Typical Wiring Diagrams

Wiring Color Code

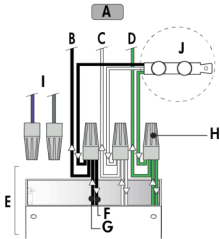
Color	Black	White	Green	Purple	Gray
Use	Line	Line/Neutral	Ground	0-10V+	0-10V-

On/Off Control (NO)



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

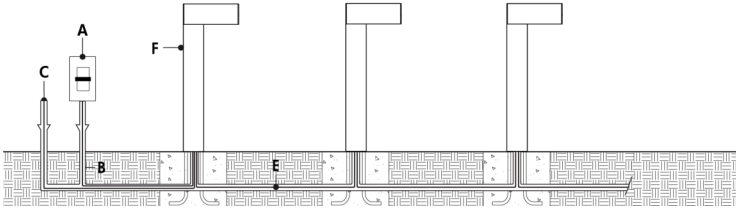
On/Off Control (NO) - Wiring Detail



- 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

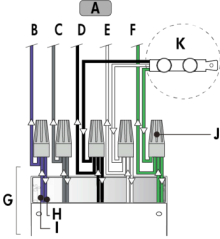
- Consult factory for specific applications and maximum fixture count/cable length recommendations.

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

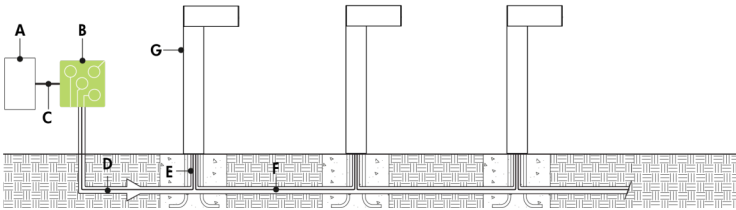
0-10V Dimming (DIM) - Wiring Detail



- 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

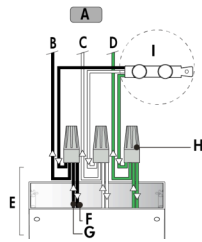
- Consult factory for specific applications and maximum fixture count/cable length recommendations.
- 0-10V mA ratings: passive dimmer (Current Sink): 3mA per fixture, active dimmer (Current Source): 0.5mA per fixture.
- 1% minimum dimming value.

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 ⁽³⁾	Output (Nominal Lumens) ⁽⁸⁾	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 ⁽⁴⁾	N02 200lm [4 LEDs] ^{(4) (9) (10)}	AMB Amber ^{(4) (10) (11)}	CRI 70 CRI 70+ ⁽¹⁴⁾	2 Type II	LV Louver ^{(19) (20)}	BK Black Sandtex®	DIM 0-10V Dimming ⁽²⁴⁾
	TM2 Dual head ⁽¹⁾	208 208 Volts	3FT 3 ft	FSL Frostsit Lens ⁽⁵⁾	N03 300lm (4 LEDs)	22K 2200K ⁽¹²⁾	CRI 80 CRI 80+ ⁽¹⁷⁾	2BLS Type II Backlight Shield		BRZ Bronze Sandtex®	LT Lumentalk ^{(25) (26)}
	UNLIT Unlit bollard	240 240 Volts		HFSL Half-Frosted Site Lens ^{(4) (7)}	N05 500lm (4 LEDs)	27K 2700K ⁽¹³⁾	CRI 90 CRI 90+ ⁽¹⁸⁾	3 Type III		SI Silver Sandtex®	
		277 277 Volts			N07 700lm (4 LEDs)	30K 3000K		3BLS Type III Backlight Shield		BKTX Textured Black	
		347 347 Volts ⁽²⁾			N10 1000lm (4 LEDs)	35K 3500K ⁽¹⁴⁾		4 Type IV		BRZTX Textured Bronze Non- Metallic	
		480 480 Volts ⁽²⁾				40K 4000K ⁽¹⁴⁾		4BLS Type IV Backlight Shield		GRATX Textured Medium Gray	
						57K 5700K ^{(14) (15)}		5 Type V		GRNTX Textured Green	
								5S Type V Square		WHTX Textured White	
										CC Custom Color & Finish ^{(21) (22) (23)}	

Notes:

1. A ground fault duplex receptacle (DRG or DRG IU) and a duplex USB receptacle (USB or USB IU) cannot be combined with TM2 mounting.

2. Not available with LT control option.

3. Standard IK06 rating for glass lens. IK10 rated polycarbonate lens available, please consult factory.

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.

8. 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.

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. Not DarkSky Approved.
15. Available for CRI 70 and CRI 80 only.

16. Binning within a 3-step MacAdam ellipse, with the exception of 5700K.

17. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.

18. Binning within a 2-step MacAdam ellipse.

19. Available with CSL and HFSL lenses only.

20. Factory installed.

21. 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.

22. Setup charges apply for RAL colors. Consult factory for details.

23. Longer lead times can be expected for custom RAL color finishes.

24. DIM control can be used as NO (On/Off control) if no data is required.

25. Not available with PB option.

26. 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	Anchor Bolts Option	Head Option	Head Lens	Head Output	Head Color and Color Temperature	Head Color Rendering	Head Distributions	Head Optical Option
VRBO Vibration Rated for Bridge and Overpass ⁽²⁷⁾ ⁽²⁸⁾ CRC Corrosion-Resistant Coating ⁽²⁹⁾ ⁽³⁰⁾ SP Surge Protector PB Photoelectric Cell Button Type ⁽²⁾ ⁽³¹⁾ DRG Ground Fault Duplex Receptacle ⁽³²⁾ DRG IU Ground Fault Duplex Receptacle (While in Use) ⁽³²⁾ USB Duplex Receptacle with USB A and USB C ⁽³²⁾ USB IU Duplex Receptacle with USB A and USB C (While in Use) ⁽³²⁾	AB Anchor Bolts ⁽³³⁾	BH Bollard Head	CSL Clearsite Lens ⁽⁴⁾ FSL Frostsight Lens ⁽⁵⁾ HFSL Half-Frosted Site Lens ⁽⁶⁾ ⁽⁷⁾	N02 200lm (4 LEDs) ⁽⁴⁾ ⁽⁹⁾ ⁽¹⁰⁾ N03 300lm (4 LEDs) ⁽⁵⁾ N05 500lm (4 LEDs) ⁽⁵⁾ N07 700lm (4 LEDs) ⁽⁵⁾ N10 1000lm (4 LEDs) ⁽⁵⁾	AMB Amber ⁽⁴⁾ ⁽¹⁰⁾ ⁽¹¹⁾ 22K 2200K ⁽¹²⁾ 27K 2700K ⁽¹³⁾ 30K 3000K 35K 3500K ⁽¹⁴⁾ 40K 4000K ⁽¹⁴⁾ 57K 5700K ⁽¹⁴⁾ ⁽¹⁵⁾	CRI 70 CRI 70+ ⁽¹⁶⁾ CRI 80 CRI 80+ ⁽¹⁷⁾ CRI 90 CRI 90+ ⁽¹⁸⁾	2 Type II 2BLS Type II Backlight Shield 3 Type III 3BLS Type III Backlight Shield 4 Type IV 4BLS Type IV Backlight Shield 5 Type V 5S Type V Square	LV Louver ⁽¹⁹⁾

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. Not DarkSky Approved.

15. Available for CRI 70 and CRI 80 only.
16. Binning within a 3-step MacAdam ellipse, with the exception of 5700K.

17. Binning within a 2-step MacAdam ellipse, with the exception of 2200K and 5700K.

18. Binning within a 2-step MacAdam ellipse.

19. Available with CSL and HFSL lenses only.

27. Vibration tested in accordance with ANSI 136.31 2018 for bridge and overpass applications at 5Gv.

28. Specify only if a bridge or overpass application is required.

29. Use only when exposed to salt spray. This option is not required for normal outdoor exposure.

30. Setup charges apply. Consult factory for details.

31. Not available for 480V voltage option.

32. A ground fault duplex receptacle (DRG or DRG IU) and a duplex USB receptacle (USB or USB IU) cannot be combined.

33. Anchor bolts provided with double nuts, washers and template. One template provided for every 5 luminaires.