High-Power Unsealed Linear Array Lights

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more sensors, more solutions
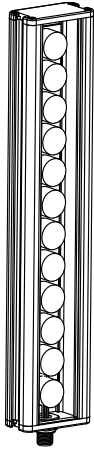
Datasheet

Lighting for use with Vision Systems

For the latest technical information about this product, including specifications, dimensions, and wiring, see *http://www.bannerengineering.com*.

- Four high-intensity, visible wavelengths, plus IR and UV
- The following array lengths are available:

    290 mm (11.4 in)
    435 mm (17.7 in)
    580 mm (22.8 in)
    870 mm (34.2 in)
    1160 mm (45.6 in)

- High-power, solid-state LED array; continuous or strobed operation is selectable via sensor software (P4 models) or via hookup
- Optically isolated strobe signal
- Active High or Active Low strobe models available
- LEDs directly illuminate target
- Lens angle of ±6.5° on visible and IR models, lens angle of ±5° on UV 395 nm models, reflector cup angle of ±15° on UV 365 nm models
- Three window materials from which to choose: clear acrylic, clear glass, and clear diffusing acrylic
- Maintenance-free, rugged construction
- Built-in constant current regulation
- Very even light pattern as close as 76.2 mm (3 in)

Model Key

Light Source	LED Color	Linear Array	Array Length[1]	Housing	Window Material[1]	Relative Intensity	Intensity Control	Connector
LED	R	LA	145	X	P	6 —	X	Q
	R = Red W = White B = Blue G = Green I = IR UV365 = UV365 nm UV395 = UV395 nm		145 mm 290 mm 435 mm 580 mm 870 mm 1160 mm	X = IP50	P = Clear Plastic G = Glass D = Diffuse Plastic		X = Not Adjustable	Q = QD

The following caution applies to UV365 nm models:

⚠ CAUTION:

Risk Group 1: UV Emitted from this product.

Minimize exposure to eyes or skin. Use appropriate shielding and eye protection. Risk Group 1 (RG 1) products are safe for most use applications, except for very prolonged exposures where direct ocular exposures may be expected.

- IEC 62471

The following caution applies to UV395 nm models:

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[1] UV365 Only available with glass window.

⚠️ CAUTION:

Risk Group 2: UV Emitted from this product.

Eye or skin irritation may result from exposure. Use appropriate shielding and eye protection. Risk Group 2 (RG 2) products generally do not pose a realistic optical hazard if aversion responses limit the exposure duration or where lengthy exposures are unrealistic.

- IEC 62471

Specifications

Supply Voltage and Current
  145 mm Models: 24 V dc ± 10% at 500 mA maximum
  290 mm Models: 24 V dc ± 10% at 1 A maximum
  435 mm Models: 24 V dc ± 10% at 1.5 A maximum
  580 mm Models: 24 V dc ± 10% at 2 A maximum
  870 mm Models: 24 V dc ± 10% at 3 A maximum
  1160 mm Models: 24 V dc ± 10% at 4 A maximum
  Strobe Voltage: 5 V dc to 24 V dc
  Built-in constant current regulator for LEDs

Light Source

LED Color	Wavelength	Optional Filter[2]
Infrared	850 nm	FLTI
Red	620 nm to 630 nm	FTLR
Blue	465 nm to 485 nm	FLTB
Green	520 nm to 535 nm	FLTG
White	5000 K to 8300 K	FLTB or FLTG
UV	365 nm	FLTB
	395 nm	

Operating Conditions
  0 °C to +50 °C (+32 °F to +122 °F)
Connections
  Integral 5-pin threaded M12/Euro-style male quick disconnect, accessory cordset required
Construction
  Housing: black anodized aluminum
  Window: acrylic or glass, depending on model
Mounting
  4 M5 T-nuts included, brackets available
Useful Life
  When operated within specifications, output will decrease less than 30% after 50,000 hours for visible and IR models; 20,000 hours for UV models
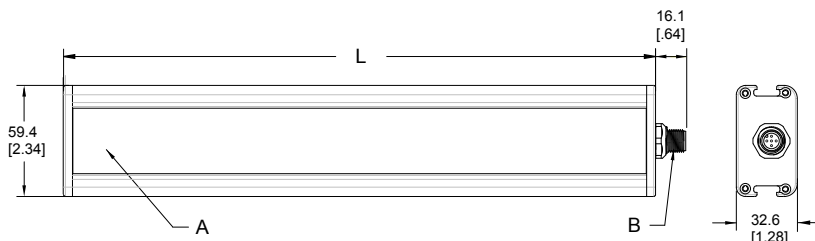Environmental Rating
  IEC IP50
Certification

c (UL) US LISTED

Dimensions

16.1 [.64]

L

59.4 [2.34]

A

B

32.6 [1.28]

Array Length	Length "L"
145 mm	171 mm (6.73 in)
290 mm	316.5 mm (12.46 in)
435 mm	462 mm (18.19 in)
580 mm	607.5 mm (23.92 in)
870 mm	898.5 mm (35.37 in)
1160 mm	1189.5 mm (46.83 in)

A = Window (glass or acrylic, depending on model)
B = 5-pin Euro-style male connector

All measurements are listed in millimeters (inches), unless noted otherwise.

Wiring

Wire Purpose	Cable Wire Color[3]	Wire Connections	PresencePLUS Pro Controller Terminal Block
Power Wires	Brown (1)	+24 V dc	Pin 01[4]

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[2] Recommended Ambient Light filter kit for use with PresencePLUS Cameras.
[3] For Banner-supplied wire.
[4] When connecting the light to a PresencePLUS Pro controller terminal block, the controller supply must be 24 V dc ± 10%.

Wire Purpose	Cable Wire Color[3]	Wire Connections		*Presence*PLUS Pro Controller Terminal Block
	Blue (3)	common		Pin 02
Strobe Polarity Control	Gray (5)	Active Low: open		Pin 02 or open
		Active High: connect to common (Blue wire)		
Strobe Voltage Wires	White (2)	Active Low: 0 V dc = ON	+5 V dc to 24 V dc = OFF	Pin 04
		Active High: 0 V dc = OFF	+5 V dc to 24 V dc = ON	
	Black (4)	Strobe common		Pin 02

(1) +24V dc
(2) Strobe (+/0)
(4) Strobe Common
(3) Common
(5)Active High/Active Low

Figure 1. Pinouts for Mating Cable

NOTE: Connection to earth ground recommended.

Accessory Cordsets

5-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC20-506	1.83 m (6 ft)	Straight	42 Typ. [1.65"] M12 x 1 ø 15 [0.59"]	1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray
MQDC20-515	4.57 m (15 ft)			
MQDC20-530	9.14 m (30 ft)			

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[3] For Banner-supplied wire.

Accessory Brackets

SMBLAXRA
- Right-angle stainless steel bracket
- May be used individually or in combination with SMBLAXU to provide swivel adjustment

Includes:
- 2 Brackets
- 4 M5 screws (socket drive, button head)
- 4 M5 T-nuts

SMBLAXU
- U-shaped stainless steel bracket
- For use with SMBLAXRA to provide swivel adjustment

Includes:
- 2 Brackets
- 4 M5 screws (socket-drive, button head)
- 4 M5 T-nuts
- Four each stainless steel ¼-20 screws (socket drive, button head), lock nuts, washers

Combination View

Replacement Windows

Array Length	Clear Glass	Clear Acrylic	Diffuse Acrylic	White Diffuse Acrylic
145 mm	LEDLA145XW-G	LEDLA145XW-P	LEDLA145XCDW-P	LEDLA145XWDW-P
290 mm	LEDLA290XW-G	LEDLA290XW-P	LEDLA290XCDW-P	LEDLA290XWDW-P
435 mm	LEDLA435XW-G	LEDLA435XW-P	LEDLA435XCDW-P	LEDLA435XWDW-P
580 mm	LEDLA580XW-G	LEDLA580XW-P	LEDLA580XCDW-P	LEDLA580XWDW-P
870 mm	LEDLA870XW-G	LEDLA870XW-P	LEDLA870XCDW-P	LEDLA870XWDW-P
1160 mm	LEDLA1160XW-G	LEDLA1160XW-P	LEDLA1160XCDW-P	LEDLA1160XWDW-P

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