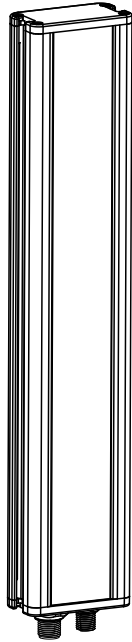


Linear Array with Intensity Adjustment

High-Power Lighting with Intensity Adjustment for use with Vision Systems



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



- Four high-intensity, visible wavelengths, plus IR and UV
- The following array lengths are available:
 - 290 mm (11.4")
 - 435 mm (17.7")
 - 580 mm (22.8")
 - 870 mm (34.2")
 - 1160 mm (45.6")
- Dual intensity control: potentiometer and Analog wire
- 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 $\pm 6.5^\circ$ on visible and IR models, lens angle of $\pm 5^\circ$ on UV 395 nm models, reflector cup angle of $\pm 15^\circ$ 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 or 3 inches)

Dual Intensity Control

The LED..LA..X..6-P..Q Series Linear Array Lights have a potentiometer and an analog wire that control the intensity of the light from maximum brightness (0V dc) to dark (10V dc). The potentiometer set to full counter-clockwise is equivalent to 10V dc; set to full clockwise it is equivalent to 0V dc. Generally, users will control the intensity using either the potentiometer or the analog (gray) wire independently. If using the potentiometer to control intensity, apply 0V dc to the analog (gray) wire; if using the analog (gray) wire to control intensity, set the potentiometer to maximum intensity in its full clockwise position.

If using the potentiometer and analog (gray) wire together to control intensity, it is important to note that, either control applying any voltage greater than 0 to the light reduces the maximum achievable intensity. For example, assume you want a maximum light intensity of 50%, with further adjustability down to dark:

Initial Setting	Available Adjustment for Other Control
Potentiometer sets maximum intensity to 50% (midway point between clockwise and counter-clockwise)	Analog (gray) wire can adjust between 5V and 10V dc
Analog (gray) wire sets maximum intensity to 50% (5V dc)	Potentiometer can adjust from 1/2 counter-clockwise to full counter-clockwise



NOTE: The range of intensity of the light is from 100%, down to just below 10% before the light goes completely dark.



Model Key

Light Source	LED Color	Linear Array	Array Length	Housing	Window Material*	Relative Intensity	Intensity Control	Strobe Polarity	Connector
LED	R	LA	290	X	P	6 —	P	L	Q
	R = Red W = White B = Blue G = Green I = IR UV365 = UV365 nm† UV395 = UV395 nm‡		290 mm 435 mm 580 mm 870 mm 1160 mm	X = IP50	P=Clear Plastic G = Glass D = Diffuse Plastic		P = Pot & analog wire	L = Low H = High	Q = QD

* UV365 Only available with glass window

† Risk Group 1 :
NOTICE: 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

‡ Risk Group 2:
CAUTION: 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

Light Source

LED Color	Wavelength	Optional Filter *
Infrared	850 nm	FLTI
Red	620-630 nm	FTRL
Blue	465-485 nm	FLTB
Green	520-535 nm	FLTG
White	5000-8300 K	FLTB or FLTG
UV	365 nm	FLTB
	395 nm	

*Recommended Ambient Light filter kit for use with *PresencePLUS* Cameras.

Supply Voltage and Current

- 290 mm Models:** 24V dc ± 10% @ 1 A max.
- 435 mm Models:** 24V dc ± 10% @ 1.5 A max.
- 580 mm Models:** 24V dc ± 10% @ 2 A max.
- 870 mm Models:** 24V dc ± 10% @ 3 A max.
- 1160 mm Models:** 24V dc ± 10% @ 4 A max.

Strobe Voltage: 5-24V dc

Built-in constant current regulator for LEDs

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

Operating Conditions

Temperature: 0° to + 50° C (+32° to 122° F)

Connections

5-pin Euro-style (M12) male connector; accessory cordset required for operation

Construction

Housing: black anodized aluminum

Window: acrylic or glass, depending on model

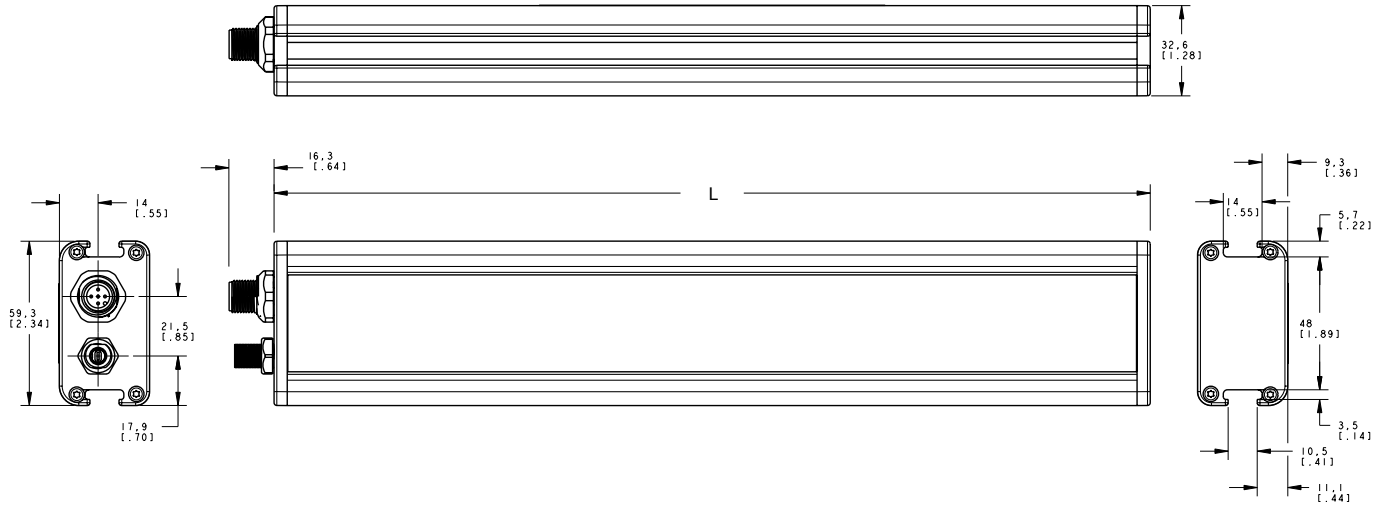
Mounting

4 M5 T-nuts included, brackets available

Environmental Rating

IP50

Dimensions



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

Wiring Table

Wire Purpose	Cable Wire Color*	Wire Connections	PresencePLUS Pro Controller Terminal Block
Power Wires	Brown (1)	+24V dc	Pin 01**
	Blue (3)	common	Pin 02
Intensity	Gray (5)	0-10V dc Intensity Control	N/A
Strobe Voltage Wires	White (2)	Active Low: 0V dc = ON +5 to 24V dc = OFF	Pin 04
		Active High: 0V dc = OFF +5 to 24V dc = ON	
	Black (4)	Strobe common	Pin 02

The diagram shows a circular 5-pin connector. Five pins are arranged in a circle. Arrows point from labels to each pin: (1) +24V dc points to the top-left pin, (2) Strobe (+/0) points to the top-right pin, (3) Common points to the bottom-right pin, (4) Strobe Common points to the bottom-left pin, and (5) 0-10V dc Intensity Control points to the bottom-center pin.

Figure 1. Pinouts for Mating Cable

* For Banner-supplied wire.

** When connecting the light to a PresencePLUS Pro controller terminal block, the controller supply must be 24V dc \pm 10%.



NOTE: Connection to earth ground recommended.

Accessory Cordsets

5-Pin Quick-Disconnect (QD) Cordsets

5-wire cable, straight female Euro-style (M12) connector (nickel-plated brass coupling nut) at one end, with flying leads at opposite end.

MQDC20-506, 2 m (6')

MQDC20-515, 5 m (15')

MQDC20-530, 9 m (30')

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 1/4-20 screws (socket drive, button head), lock nuts, washers



Combination View

Replacement Windows

Array Length	Clear Glass	Clear Acrylic	Diffuse Acrylic	White Diffuse Acrylic
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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