

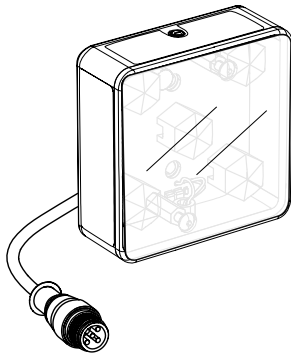
# LED..A70XD5-..High-Intensity Area Light



## Datasheet

For use with Banner Vision Systems

To view or download the latest technical information about this product, including specifications, dimensions, accessories, and wiring, see <http://www.bannerengineering.com>.



- Compact area light for Banner Vision Systems
- Five extremely bright LEDs for illumination of targets from 0.15 meters to beyond 2 meters
- Continuous or strobed operation
- Fixed or adjustable intensity, depending on model
- Maintenance-free, rugged construction
- Optically isolated strobe signal

## Models

Model		LED Color	Cable
Fixed Intensity	Adjustable Intensity		
LEDRA70XD5-XQ	LEDRA70XD5-PQ	Red, 620 nm to 630 nm	150 mm (6 in) pigtail with threaded 5-pin Euro-style connector Requires Euro-style mating cordset
LEDWA70XD5-XQ	LEDWA70XD5-PQ	White, 5000 K to 8300 K	
LEDBA70XD5-XQ	LEDBA70XD5-PQ	Blue, 465 nm to 485 nm	
LEDGA70XD5-XQ	LEDGA70XD5-PQ	Green, 520 nm to 535 nm	
LEDIA70XD5-XQ	LEDIA70XD5-PQ	Infrared, 850 nm	
LEDUV395A70XD5-XQ	LEDUV395A70XD5-PQ	UV, 395 nm	
LEDRA70XD5-XM	LEDRA70XD5-PM	Red, 620 nm to 630 nm	2 m (6.5 ft) pigtail with threaded 3-pin Pico-style connector Connects directly to the P4 or VE sensor
LEDWA70XD5-XM	LEDWA70XD5-PM	White, 5000 K to 8300 K	
LEDBA70XD5-XM	LEDBA70XD5-PM	Blue, 465 nm to 485 nm	
LEDGA70XD5-XM	LEDGA70XD5-PM	Green, 520 nm to 535 nm	
LEDIA70XD5-XM	LEDIA70XD5-PM	Infrared, 850 nm	
LEDUV395A70XD5-XM	LEDUV395A70XD5-PM	UV, 395 nm	

The following caution applies to UV 395 nm models:



**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



## Wiring

Wire Purpose	Cable Wire Color <sup>1</sup>	Continuous On Mode	Strobed Mode	PresencePlus Pro Controller Terminal Block
Power Wires	Brown (1)	+24 V dc	+24 V dc	Pin 01 <sup>2</sup>
	Blue (3)	common	common	Pin 02
Strobe Polarity Control	Gray (5)	open	Active Low: open	Open — Active Low
			Active High: connect to common (Blue wire)	Pin 02 — Active High
Strobe Voltage Wires	White (2)	open	0 V dc = ON (Active Low)      +5 V dc to 24 V dc = OFF (Active Low)	Pin 04
	Black (4)	open	0 V dc = OFF (Active High)      +5 V dc to 24 V dc = ON (Active High)	
<p>Figure 1. Pinouts for Mating Cordsets</p>				

## Light Intensity Adjustment

Adjust the light's intensity by turning the 270° Intensity potentiometer with a small flat-blade screwdriver. Apply power to the light and turn the potentiometer all the way clockwise for max. intensity. If the object to be sensed is too bright at max. intensity, turn the potentiometer down a little at a time, testing with the object, until the correct brightness is achieved.

## Specifications

### Supply Voltage and Current

- Operating Voltage: 24 V dc ±10%
- Strobe Voltage: 5 V dc to 24 V dc at 15 mA maximum
- Current Draw at Full Intensity: 500 mA max
- Built-in constant current regulator for LEDs
- Adjustable intensity control varies intensity for "P" models

### Light Source

- Five high-intensity LEDs; see models table for wavelengths

### Illumination

- 610 mm (24 in) diameter usable light pattern at 1 m (3.28 ft)

### Strobe

- Optically isolated

### Connections

- Integral 5-pin M12/Euro-style male quick disconnect (QD), accessory cordset required

### Construction

- Enclosure rating: IP50 (when mounted using the two ¼ - 20 holes in back)
- Housing: aluminum, black anodized
- Window: acrylic, clear with frosted diffusing surface on inside

### 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 °C to +50 °C (+32 °F to +122 °F)
- Humidity: 90% maximum relative humidity (non-condensing)

### Certifications



### Light Characteristics

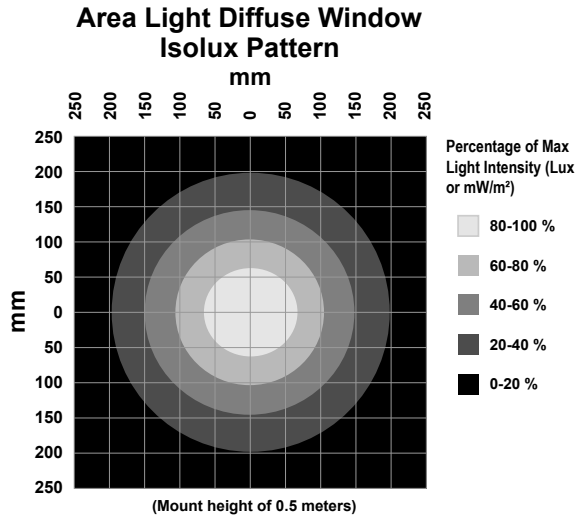
Values shown are typical at 25°C.

	Lumens				mWatts	
	Cool White	Green	Red	Blue	IR	UV395
LEDxA70	555	435	215	160	1130	610

<sup>1</sup> For Banner-supplied wire.

<sup>2</sup> When connecting the light to a PresencePLUS Pro controller terminal block, the controller supply must be 24 V dc ± 10%.

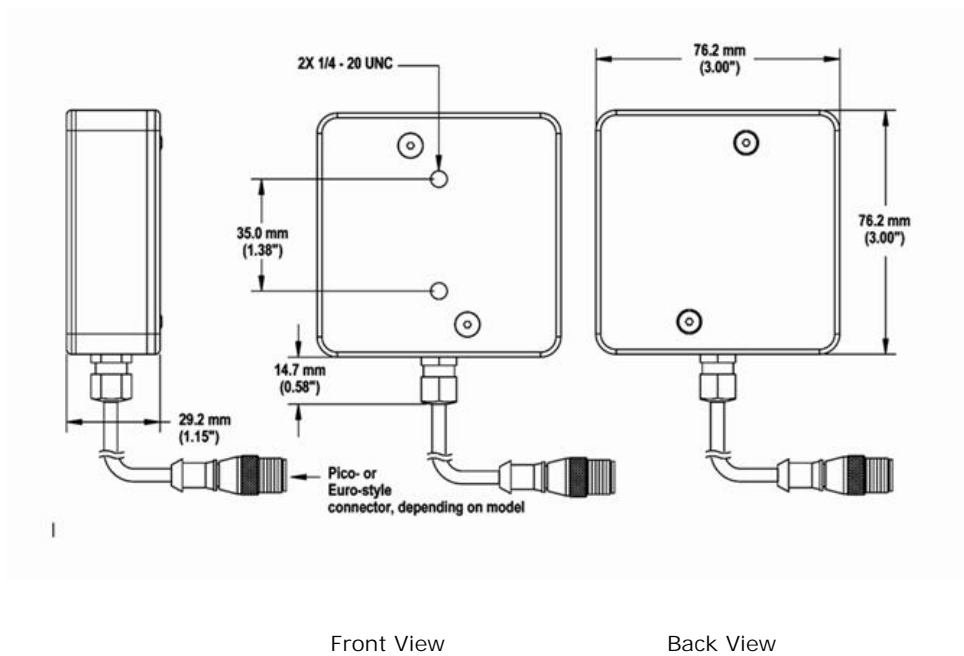
Optical Data



Values shown are typical at 25 °C.

Distance (m)	Max Center Beam Lux (lux)				Max Center Beam Irradiance (mW/m <sup>2</sup> )		Beam Width (m)	
	Cool White	Green	Red	Blue	IR	UV395	Vertical (Spread 29.1°)	Horizontal (Spread 30.7°)
0.25	22,990	18,019	8,906	6,628	46,808	25,268	0.13	0.14
0.50	7,030	5,510	2,723	2,027	14,313	7,727	0.26	0.27
1.00	1,850	1,450	717	533	3,767	2,033	0.52	0.55

Dimensions



All measurements are listed in millimeters [inches], unless noted otherwise.

Accessories

The following describes available cordset and bracket options for these lights.

## Cordsets



NOTE: These 5-pin cordsets can also be used on 4-pin connector lights.

5-Pin Threaded M12/Euro-Style Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC20-506	1.83 m (6 ft)	Straight		<p>1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray</p>
MQDC20-515	4.57 m (15 ft)			
MQDC20-530	9.14 m (30 ft)			

## Bracket

### SMBAMS70A

- Zinc-plated cold rolled steel right-angle bracket
- Articulated slots for 90+ degrees rotation
- two 1/4-20 screws included



## Banner Engineering Corp. Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp. Any misuse, abuse, or improper application or installation of this product or use of the product for personal protection applications when the product is identified as not intended for such purposes will void the product warranty. Any modifications to this product without prior express approval by Banner Engineering Corp will void the product warranties. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time. Specifications and product information in English supersede that which is provided in any other language. For the most recent version of any documentation, refer to: [www.bannerengineering.com](http://www.bannerengineering.com).