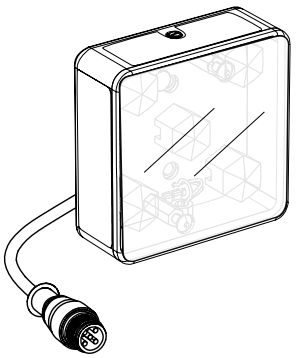
LED..A70XD5-..High-Intensity Area Light

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 *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[1]	Continuous On Mode	Strobed Mode		*Presence*Plus Pro Controller Terminal Block
Power Wires	Brown (1)	+24 V dc	+24 V dc		Pin 01[2]
	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
			0 V dc = OFF (Active High)	+5 V dc to 24 V dc = ON (Active High)	
	Black (4)	open	Strobe common		Pin 02

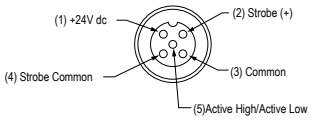


Figure 1. Pinouts for Mating Cordsets

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
Use only with a suitable Class 2 power supply (UL) or SELV power supply (CE)

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 quick disconnect, 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)

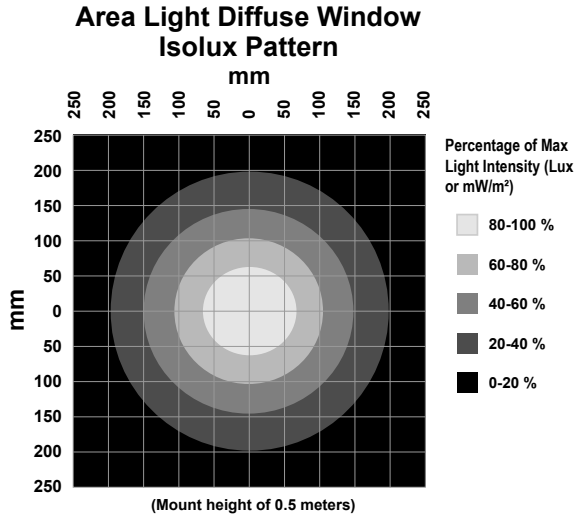
Certifications

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

1 For Banner-supplied wire.
2 When connecting the light to a *Presence*PLUS Pro controller terminal block, the controller supply must be 24 V dc ± 10%.

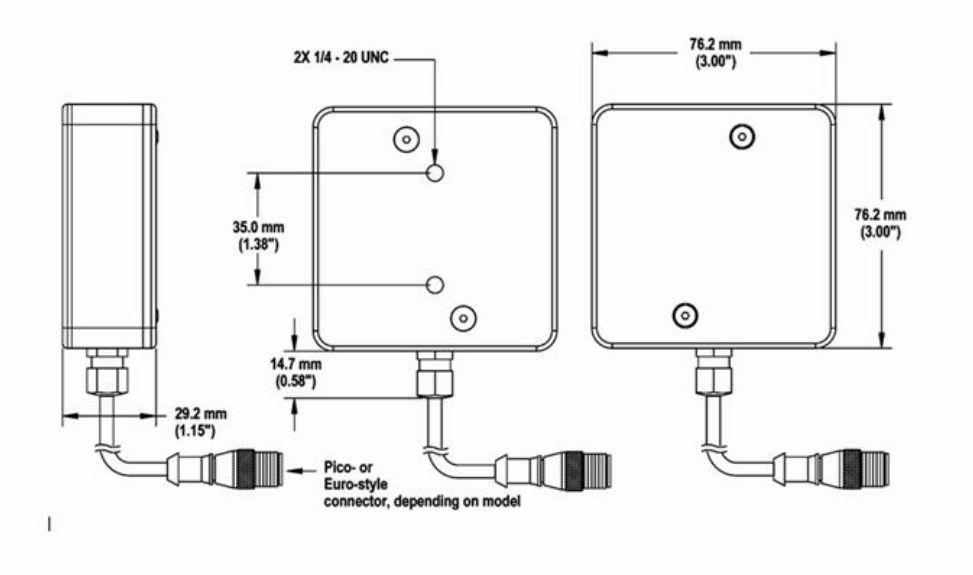
Optical Data



Values shown are typical at 25 °C.

Distance (m)	Max Center Beam Lux (lux)				Max Center Beam Irradiance (mW/m²)		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



Front View Back View

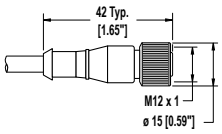
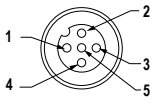
All measurements are listed in millimeters [inches], unless noted otherwise.

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		 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Gray
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

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