

Features

For use with Banner Vision Systems

To view or download the latest technical information about this product, including specifications, dimensions, accessories, and wiring, go to 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

IMPORTANT: Read the following instructions before operating the light. Please download the complete LED..A70XD5-..High-Intensity Area Light technical documentation, available in multiple languages, from www.bannerengineering.com for details on the proper use, applications, Warnings, and installation instructions of this device.

IMPORTANT: Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde www.bannerengineering.com toda la documentación técnica de los LED..A70XD5-..High-Intensity Area Light, disponibles en múltiples idiomas, para detalles del uso adecuado, aplicaciones, advertencias, y las instrucciones de instalación de estos dispositivos.

IMPORTANT: Lisez les instructions suivantes avant d'utiliser le luminaire. Veuillez télécharger la documentation technique complète des LED..A70XD5-..High-Intensity Area Light sur notre site www.bannerengineering.com pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.

Models

Model	Intensity	LED Color	Cable
LEDRA70XD5-XQ	Fixed	Red, 620 nm to 630 nm	150 mm (6 in) PVC-jacketed cable with a 5-pin M12 male quick-disconnect connector Requires M12 mating cordset
LEDRA70XD5-PQ	Adjustable		
LEDWA70XD5-XQ	Fixed	White, 5000 K to 8300 K	
LEDWA70XD5-PQ	Adjustable		
LEDBA70XD5-XQ	Fixed	Blue, 465 nm to 485 nm	
LEDBA70XD5-PQ	Adjustable		
LEDGA70XD5-XQ	Fixed	Green, 520 nm to 535 nm	
LEDIA70XD5-XQ	Fixed	Infrared, 850 nm	
LEDUV395A70XD5-XQ	Fixed	UV, 395 nm	
LEDUV395A70XD5-PQ	Adjustable		
LEDRA70XD5-XM	Fixed	Red, 620 nm to 630 nm	2 m (6.5 ft) PVC-jacketed cable with a 3-pin M8 male quick-disconnect connector
LEDWA70XD5-PM	Adjustable	White, 5000 K to 8300 K	
LEDIA70XD5-XM	Fixed	Infrared, 850 nm	Connects directly to the P4 or VE sensor

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

For a list of discontinued models, see [Discontinued Models](#).

Wiring

Wire Purpose	Cable Wire Color ⁽¹⁾	Continuous On Mode	Strobed Mode		PresencePlus 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

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 $\pm 10\%$
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)
 See the electrical characteristics on the product label.

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 male quick-disconnect connector, 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)

⁽¹⁾ For Banner-supplied wire.

⁽²⁾ When connecting the light to a PresencePLUS Pro controller terminal block, the controller supply must be 24 V DC $\pm 10\%$.

Certifications

Banner Engineering BV
Park Lane, Culliganlaan 2F bus 3
1831 Diegem, BELGIUM

**Required Overcurrent Protection**

WARNING: Electrical connections must be made by qualified personnel in accordance with local and national electrical codes and regulations.

Overcurrent protection is required to be provided by end product application per the supplied table.

Overcurrent protection may be provided with external fusing or via Current Limiting, Class 2 Power Supply.

Supply wiring leads < 24 AWG shall not be spliced.

For additional product support, go to www.bannerengineering.com.

Supply Wiring (AWG)	Required Overcurrent Protection (A)	Supply Wiring (AWG)	Required Overcurrent Protection (A)
20	5.0	26	1.0
22	3.0	28	0.8
24	2.0	30	0.5

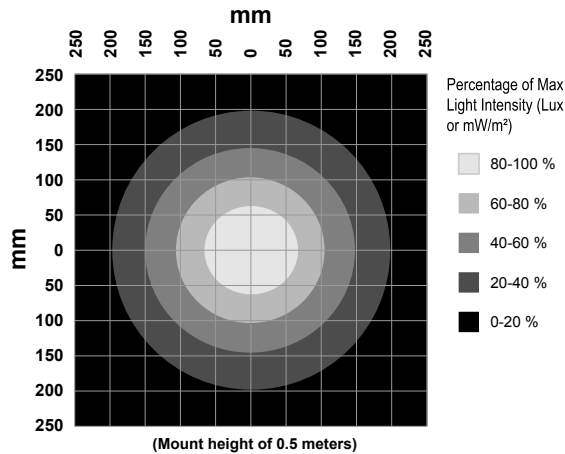
Light Characteristics

Values shown are typical at 25 °C.

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

Optical Data

Area Light Diffuse Window Isolux Pattern

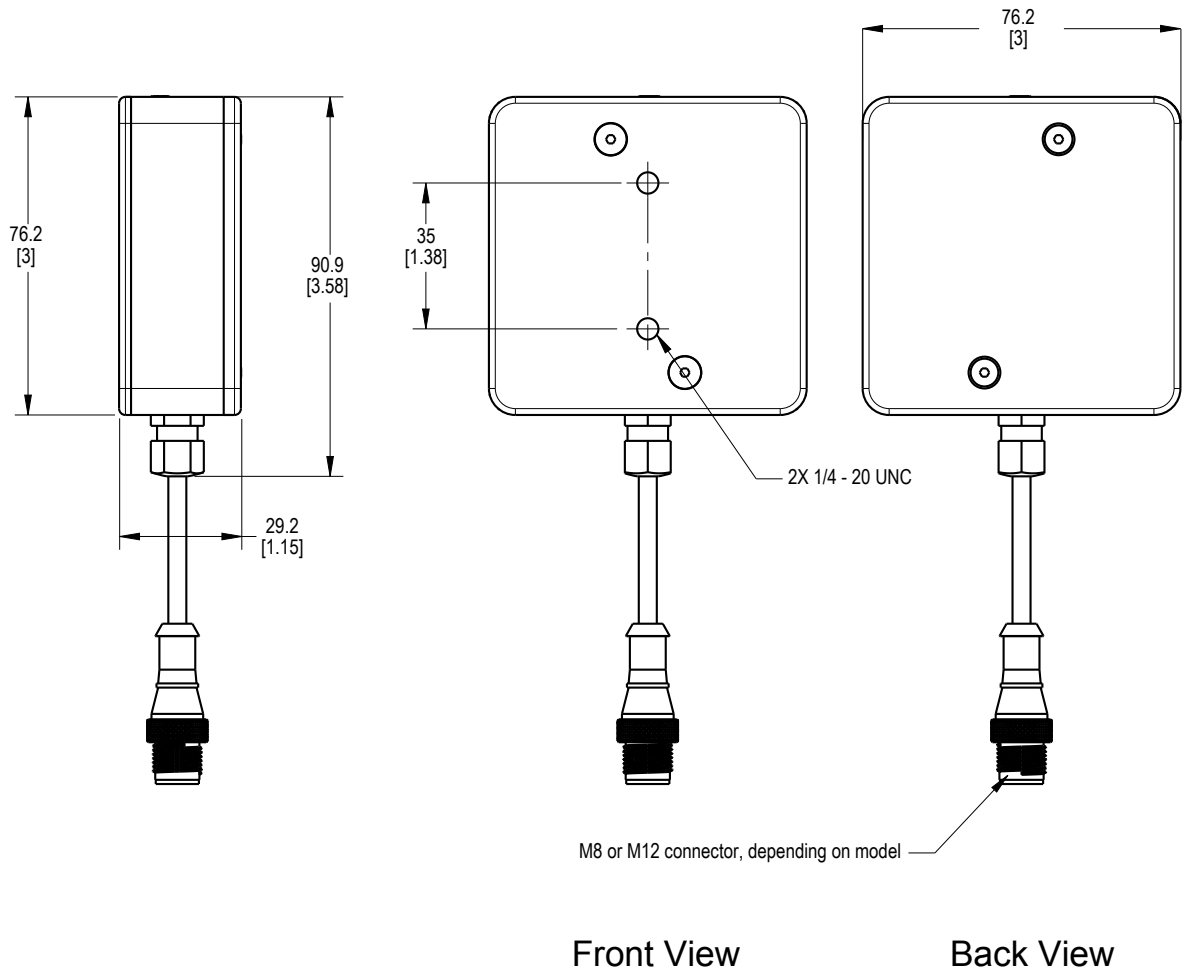


Values shown are typical at 25 °C.

Distance (m)	Max Center Beam Lux (lux)				Max Center Beam Irradiance (mW/m ²)		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
0.5	7,030	5,510	2,723	2,027	14,313	7,727	0.26	0.27
1	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. The measurements provided are subject to change.



Accessories

Cordsets

5-Pin Single-Ended M12 Female Cordsets				
Model	Length	Style	Dimensions	Pinout (Female)
MQDC20-506	2 m (6.56 ft)	Straight		
MQDC20-515	5 m (16.4 ft)			
MQDC20-530	9 m (29.5 ft)			

Bracket

SMBAMS70A

- Zinc-plated cold rolled steel right-angle bracket
- Articulated slots for 90+ degrees rotation
- Two 1/4-20 screws included
- CAD Files: [DXF](#), [PDF](#), [IGS](#), [STP](#)



Product Support and Maintenance

Discontinued Models

The following models are no longer available for order but are still covered by the information in this document.

Model	Intensity	LED Color	Cable
LEDGA70XD5-PQ	Adjustable	Green, 520 nm to 535 nm	150 mm (6 in) PVC-jacketed cable with a 5-pin M12 male quick-disconnect connector Requires M12 mating cordset
LEDIA70XD5-PQ	Adjustable	Infrared, 850 nm	
LEDRA70XD5-PM	Adjustable	Red, 620 nm to 630 nm	2 m (6.5 ft) PVC-jacketed cable with a 3-pin M8 male quick-disconnect connector Connects directly to the P4 or VE sensor
LEDWA70XD5-XM	Fixed	White, 5000 K to 8300 K	
LEDBA70XD5-XM	Fixed	Blue, 465 nm to 485 nm	
LEDBA70XD5-PM	Adjustable		
LEDGA70XD5-XM	Fixed	Green, 520 nm to 535 nm	
LEDGA70XD5-PM	Adjustable		
LEDIA70XD5-PM	Adjustable	Infrared, 850 nm	
LEDUV395A70XD5-XM	Fixed	UV, 395 nm	
LEDUV395A70XD5-PM	Adjustable		

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For patent information, see www.bannerengineering.com/patents.

Mexican Importer

Banner Engineering de México, S. de R.L. de C.V. | David Alfaro Siqueiros 103 Piso 2 Valle oriente | San Pedro Garza Garcia Nuevo León, C. P. 66269

81 8363.2714