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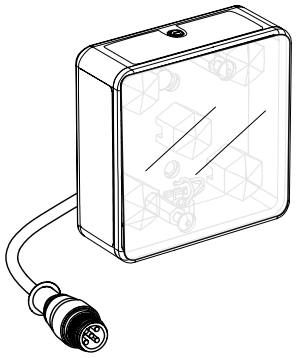
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# LED..A70XD5-..High-Intensity Area Light

## 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<br>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<br>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 |

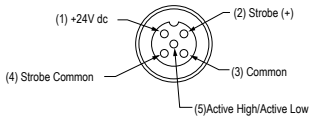



*Figure 1. Pinouts for Mating Cordsets*

## 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

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)

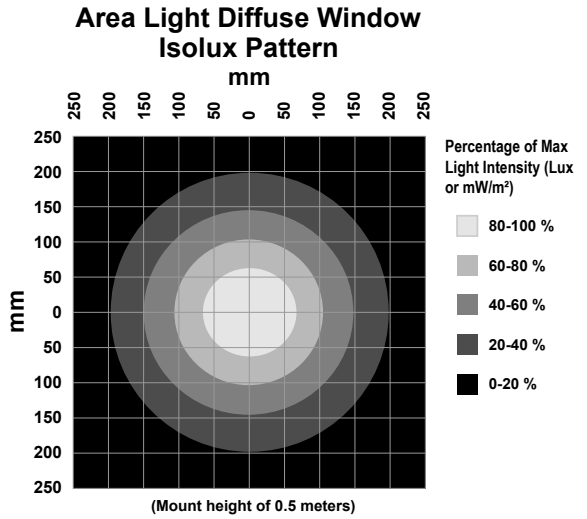
Certifications

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 |

[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%.

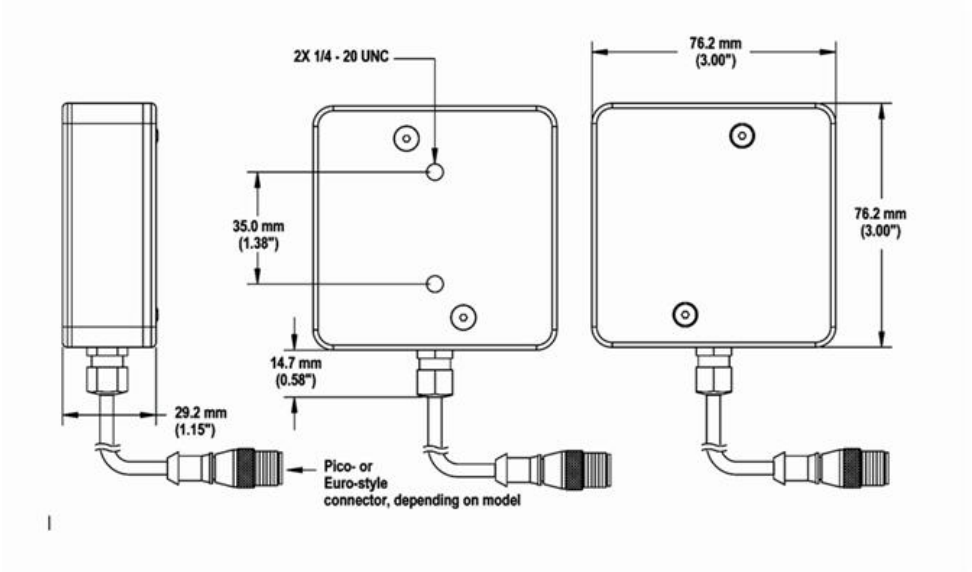
Optical Data




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

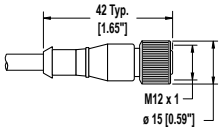
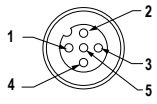
All measurements are listed in millimeters [inches], unless noted otherwise.

## 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 |  | <br>1 = Brown<br>2 = White<br>3 = Blue<br>4 = Black<br>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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