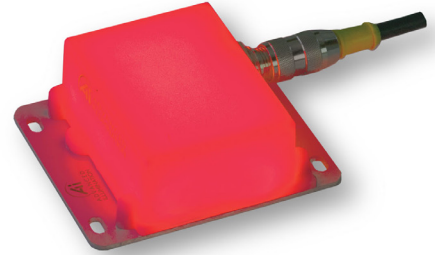


# BL-S050075 EuroBrite™ Backlight


## S Version Combination Strobe/Continuous

### Product Highlights

- Cost-effective, feature-rich design
- Robust, sealed IP67 enclosure
- On-board smart driver - seamless strobe or continuous
- Adaptive Overdrive - optimized power under all strobe conditions
- Adaptive Power - factors in your light heat sink options and external temperature options to maximize performance and lifespan

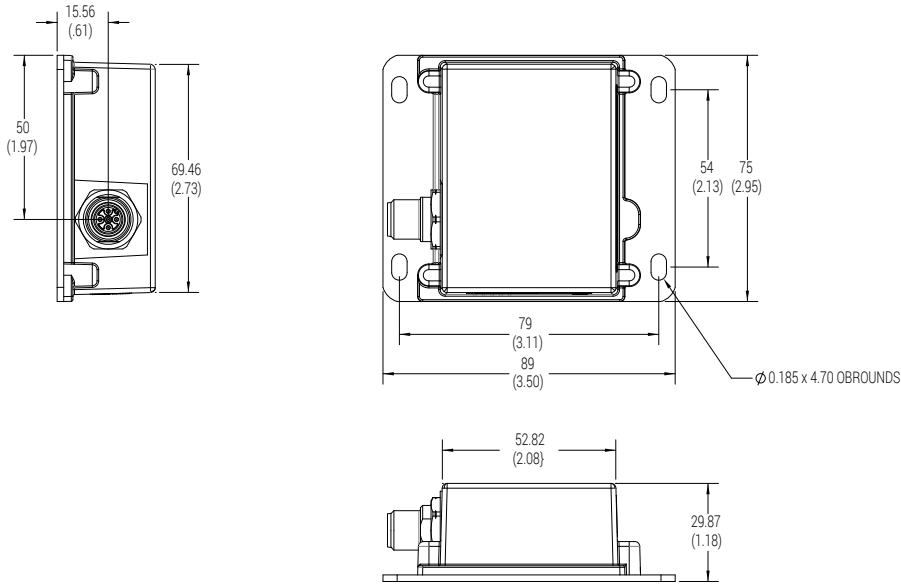


### General Specifications

	Color	Current
<b>Electrical Specifications</b> <small>Driver internal to light source inputs are tolerant to 30VDC</small>	WHI, 455, 470, 505, 530, 590, 625, 660, 730, 850, 940	~0.27A  <small>Current draw will depend on what the EuroBrite™ is trained to do. If it is attached to a heat sink, draw will be slightly higher. No heat sinking, draw will be slightly lower.</small>
Input Voltage Range	24V nom. (min 22/max 28)	
Maximum Input Current	0.42-0.49A	
Strobe/On-Off Control	up to 5X overdrive, active high	
Analog Intensity Control	Analog 0.7-10V; 0.7V=10% 10V=100%	
Trigger-to-Pulse Latency	10µsec	
Normal Operating Temperature	0 - 60°C	
Weight (g)	94.35g (3.33oz)	
Standard Cable Information	<b>No cable included;</b> see part number <b>LC2-M12-5-FM</b> or use standard coded 5-pin M12.	
Photobiological Risk Factor IEC 62471	<b>Exempt :</b> 730, 850, 940 <b>Group 1 (Low-Risk):</b> 455, 470, 505, 530, 590, 625, 660, WHI	
Compliance		
IP Rating	IP67	
Lumen Maintenance	L70 = 50,000 hours	

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## Mechanical Specifications



DIMENSIONS ARE IN MILLIMETERS (INCHES)

## Part Number Key

Model	—	Control	Model Indicator	—	Spectral Wavelength
BL	—	X	XXXXXX	—	XXX
BL		S (strobe)	050075		(royal blue) 455 (blue) 470 (cyan) 505 (green) 530 (amber) 590 (red orange) 625 (red) 660 (IR) 730 (IR) 850 (IR) 940 (white) WHI
Ex: BL-S050075-WHI BL-S050075-470					

**Stock Product:** *shipped within 3 days*

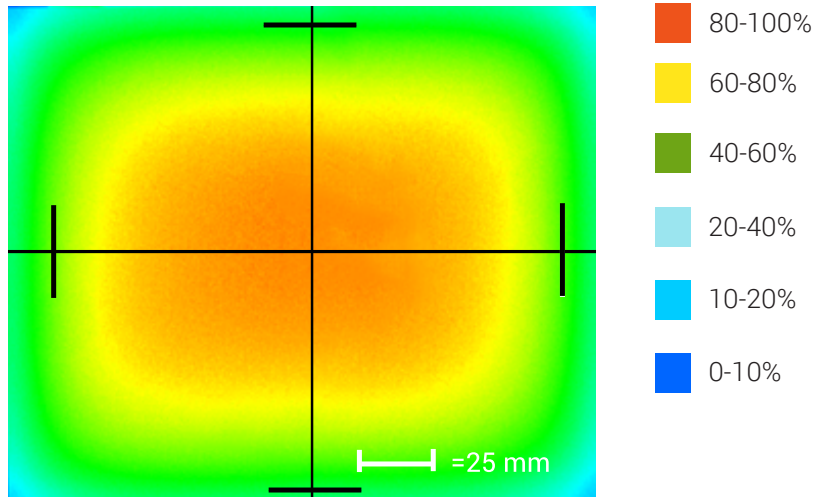
**Build to Order:** *shipped within 2 weeks*

BL-S050075-470  
 BL-S050075-625  
 BL-S050075-WHI

# BL-S050075 EuroBrite™ Backlight

## Optical Performance

### Intensity Distribution

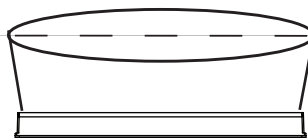


Optical measurement taken using BL-S050075-WHI

### Area of Illuminance & Intensity

Working Area (FWHM)  
@ Working Distance

61 X 43.2 (mm)  
@**surface**



Light Output

Irradiance (W/M<sup>2</sup>): Min 243.3; Typ 285  
Illuminance (kLux): Min 85.6; Typ 101

# BL-S050075 EuroBrite™ Backlight

## Operation & Wiring

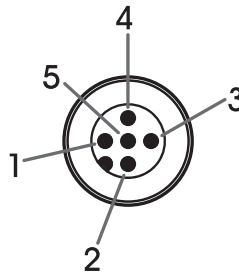
### Modes of Operation

Continuous	Strobe	Thermal Foldback	Factory Reset
<p>To enable output: Tie Trigger+ (black) HIGH to &gt;0.5V.</p> <p>The light remains ON as long as Trigger+ is high</p> <p>Analog dimming is available: pin 5, gray</p>	<p>EuroBrite™ S-version uses Adaptive Overdrive™ to produce overdrive pulses while the trigger is HIGH.</p> <p>Overdrive period occurs from 0-5msec; light output can be increased by as much as 5X.</p> <p>Overdriving does not occur when pulses exceed 5msec.</p> <p>Analog dimming is available: pin 5, gray</p>	<p>To engage Thermal Foldback: Before turning the light on, tie pin 2 (white) to pin 3 (GND, blue).</p> <p>Onboard thermistor is sampled for 5 minutes. Light intensity will automatically adjust based on the case temperature during the training period.</p> <p>The beginning of training is signified by a series of rapid flashes. While training, the light will blink every two seconds. A few slower blinks signal the end of the training period</p>	<p>To engage Factory Reset: Before turning the light on, tie pin2 (white) to pin 3 (blue).</p> <p>For factory reset to occur, the light must be trained for thermal foldback first.</p> <p>Light will appear dim for 3-5 seconds then brightness will be set to factory default.</p> <p>After factory reset is complete disconnect white wire from blue wire for normal operation (before turning light back on).</p> <p>Tying pin 2 (white) to pin 3 (blue) will alternate between factory reset and thermal foldback modes.</p>

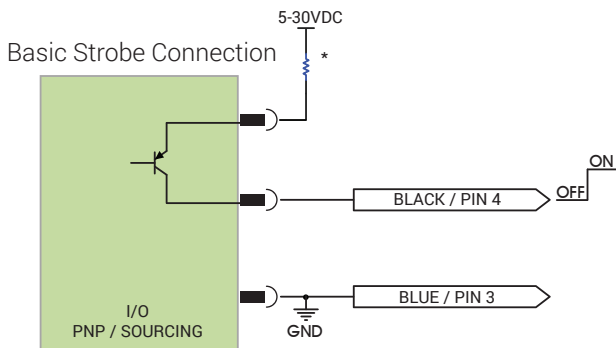
### Standard Wiring Information

Pin	Function	Wire Color	Type
1	24VDC	Brown	Power
2	Thermal Foldback	White	Input
3	GND	Blue	Power
4	Trigger +	Black	Input
5	Analog	Gray	Input

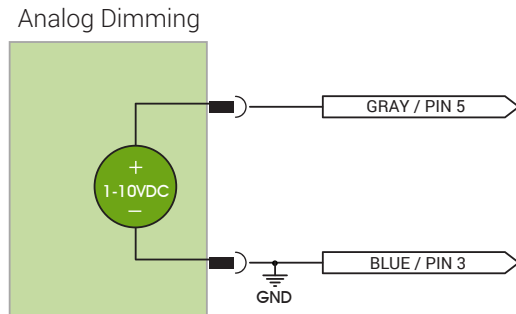
### Male 5-Position



### Wiring Diagrams



\*External resistors may not be needed  
Check documentation on I/O for recommendations and voltage limits



Analog dimming works in both strobe and continuous

# BL-S050075 EuroBrite™ Backlight

## Warranty Information

Every Advanced illumination, Inc. (Ai) product is thoroughly inspected and tested before leaving the factory. Products are warranted to be free of defects in workmanship and materials for a period of two years from the original date of purchase. Should a defect develop during this period, please contact Ai Customer Service or your Ai distributor for a Return Merchandise Authorization (RMA), and return the complete product, freight prepaid, to Ai. If a defect is found, Ai will - at our discretion - repair or replace the product without charge. Ai claims no liability for any implied warranties, including "merchantability" and "fitness for a specific purpose."

## Electromagnetic Compatibility

This product was tested and complies with the regulatory requirements and limits for electromagnetic compatibility (EMC) as stated in the product specifications. These requirements and limits are designed to provide reasonable protection against harmful interference only when the product is operated in its intended industrial electromagnetic environment. To minimize the potential for electromagnetic interference or unacceptable performance degradation, install and use this product in strict accordance with the instructions in the product documentation.

## Customer Service

For information on existing orders, or to make an order adjustment, contact us Monday through Friday 8:00 am to 5:00 pm, EST or send an email to [orders@advill.com](mailto:orders@advill.com).

## Company Information

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