AL143

2x3 Spot Light

Product Highlights

- Our AL143 2x3 spot light is ideal for medium working distances and comes available in a variety of wavelengths.

General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	365, 375, 385, 395, 405	0.36 A	0.36 A Max
	455, 470, 505, 530, WHI	0.36 A	0.48 A Max
	590, 625, 660, 730	0.36 A	0.46 A Max
	850	0.36 A	0.51 A Max
	940	0.36 A	0.32 A Max
Normal Operating Temperature	0 - 60°C		
Weight	141.8g (5oz)		
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 850, 940 Group 1 (Low-Risk) Applicable Wavelengths: 455, 470, 505, 530, 590, 625, 660, 730, WHI Group 2 (Moderate-Risk) Applicable Wavelengths: 365, 375, 385, 395, 405		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP65 Sealed, IP50 Unsealed		

Lumen Maintenance	L70 = 50,000 Hours

Part Number Key

Model	Lens Type	-	Peak Wavelength	Connector/ Control	Washdown Option	Light Conditioning Option	-	Alternative Connector
AL143	X	-	XXX	XX	X	X	-	XXX
AL143	N (Narrow)		365 (UV)[3]	C1	W	D (Diffuser)		M8[1]
	M (Medium)		375 (UV)[3]	C5		P[2] (Polarizer)		M12[1]
	W (Wide)		385 (UV)[3]	IC				
			395 (UV)[3]	I3				
			405 (violet)	I3S				
			455 (royal blue)	24				
			470 (blue)					
			505 (cyan)					
			530 (green)					
			590 (amber)					
			625 (red orange)					
			660 (red)					
			730 (IR)					
			850 (IR)					
			940 (IR)					
			WHI (white)					

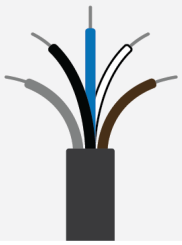
Example Part Numbers:
AL143-WHIC1
AL142N-625ICD

Beam Angle (FWHM):
Narrow = 8°
Medium = 21°
Wide = 29°

[1] Available with IC, I3, I3S, I4 and 24 V options only
[2] 470 (blue) will reduce life of the polarizer
[3] Available with medium (M) lens option only; not available with polarizer

Electrical Specs

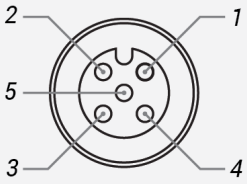
Standard Flying Lead Functions for 24V, IC, I3 and I3S Control Options



COLOR	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC	24 V DC
WHITE	N/A	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND	DC GND
BLACK	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

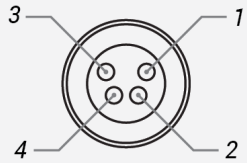
M12 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options



PIN	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	N/A	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND	DC GND
4	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options



PIN	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	N/A	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND	DC GND
4	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

*The functions listed above are only applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Change Notice

PCN No: 144

Date Issued: February 22, 2018

Notice Type: Product Change

Type: Washdown Lights

Change Notification Summary

Advanced illumination (Ai) is improving the way we manufacture washdown lights which will change their outward appearance. We will be replacing the black cordstock with clear flowable silicon. This change will provide a more durable finish and will effect the following lights: AL116, AL126, AL143, AL179, AL295, BL128, QM116, QM126, LL174 and SL147.

Please contact your Ai Sales Representative if you have any questions.

Washdown Lights Flowable Silicon

PCN No: 122

Date Issued: May 13, 2016

Notice Type: Product Revision Change

Product Type: AL143

Change Notification Summary

In an effort to improve our products, Advanced illumination (Ai) will update the LEDs used in the AL143 design. This change will result in a brighter, more uniform light at the same price*. Customers may still buy the current revision of this model until August 5th of 2016. After that time, orders for these products will be converted to their respective AL143 Revison A models.

This LED change will result in additional wavelengths being available: 365nm, 375nm, 385nm, 405nm, 455nm, 505nm, 660nm, 730nm, and 940nm. Additionally the white LED color temperture will be changing from 6100K to 5500K.

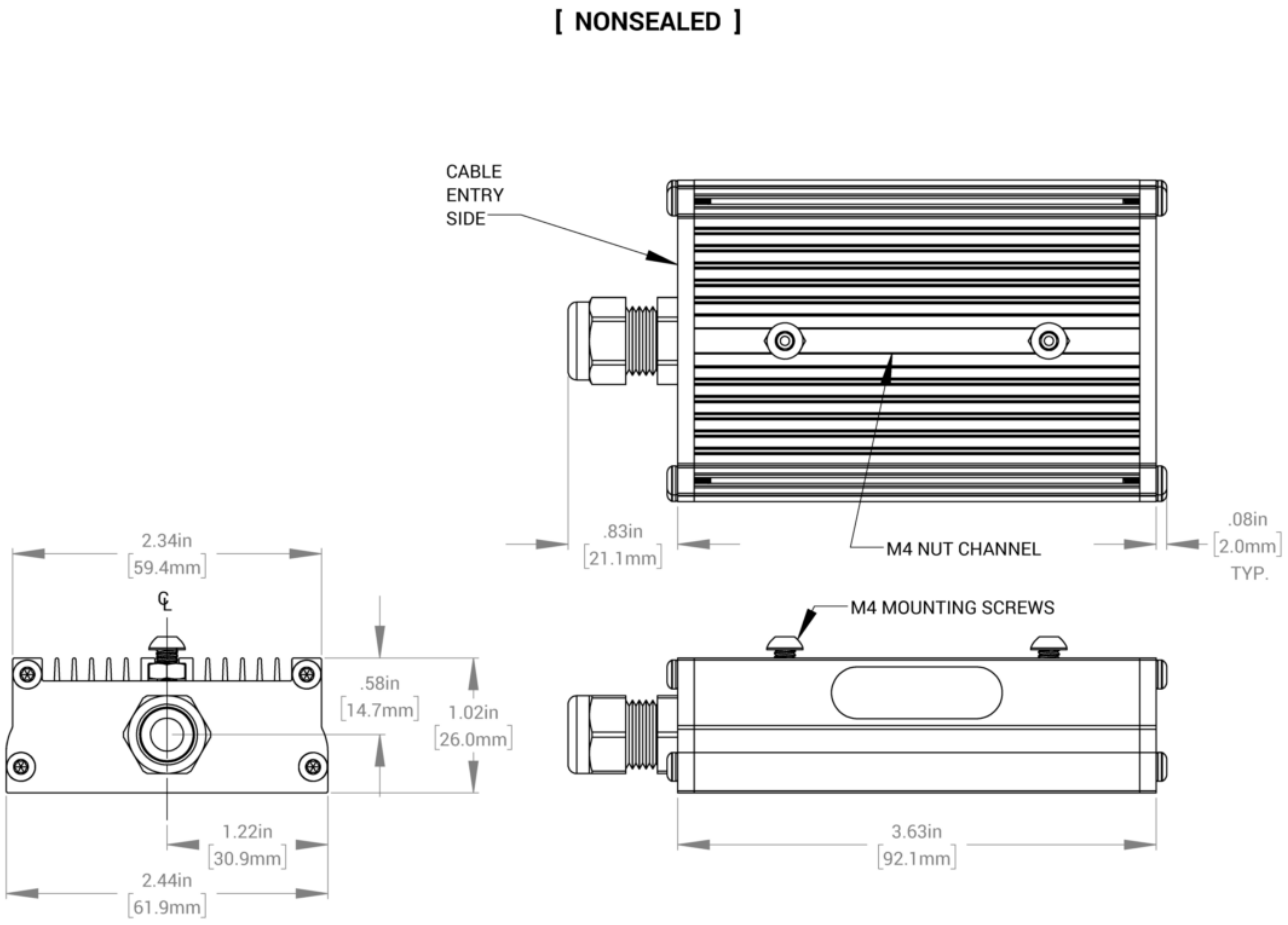
*Pricing for IR wavelengths (730nm, 850nm & 940nm) will be reduced to the same price as visible wavelengths, while UV wavelengths (365nm, 375nm, 385nm & 395nm) will increase from $605 to $750.

Orders for customized (dash numbers) versions of AL143 will be honored until December 1st of 2016. Ai will be actively working with customers for those products to simplify the transition.

Please contact your Ai Sales Representative if you have any questions.

PCN 122 AL143

Mechanical Specs



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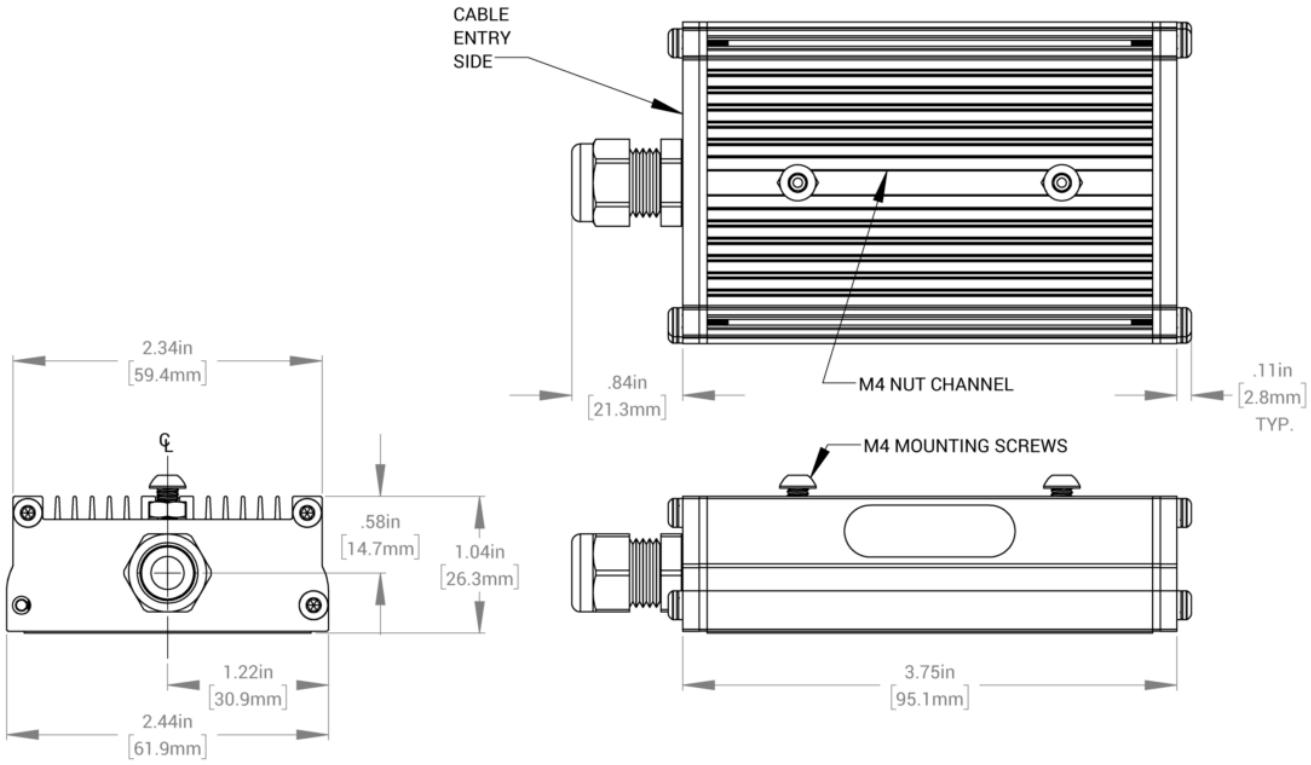
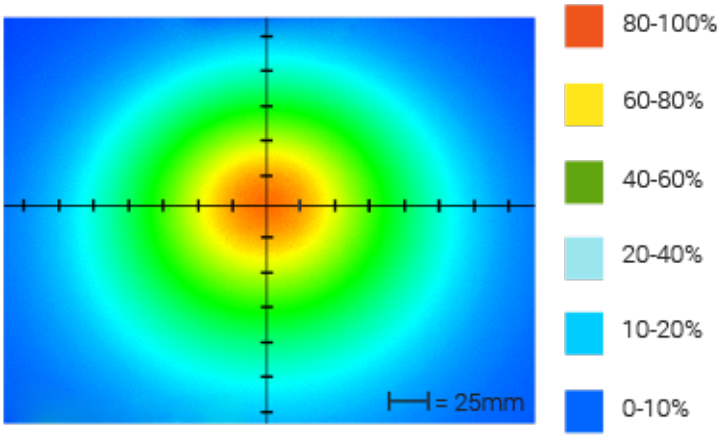


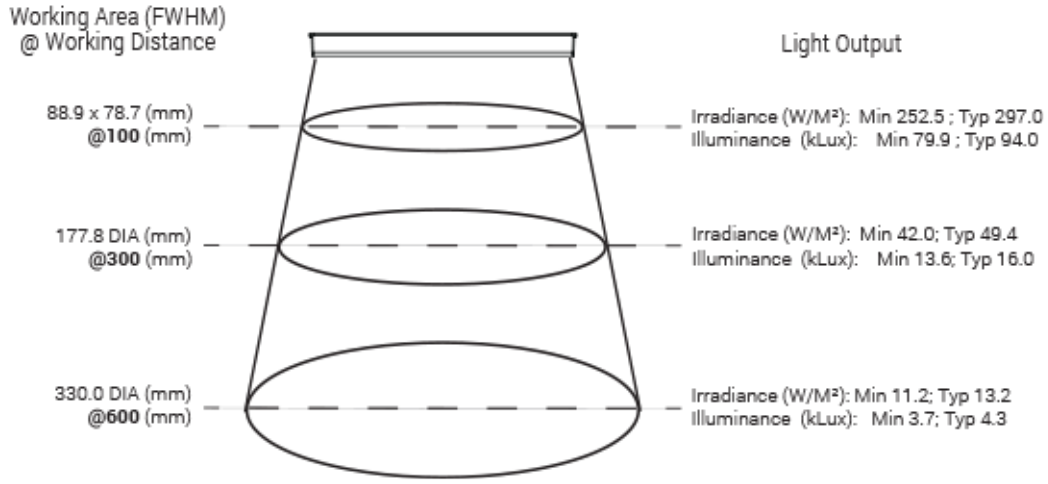
Optical Specs

Intensity Distribution



Optical measurement taken using AL143-WHIIC Rev. A @ 300 mm

Area of Illuminance & Intensity



Control Specs

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	24
For use with: **DCS Series Controllers**	*For use with:* **Pulsar 320 Strobe Controller.**	Continous in-line controller *Powered with:* **24V power supply**	Combination strobe/continous in-line controller *Powered with:* **24V power supply**	Default-OFF strobe/continous in-line controller *Powered with:* **24V power supply**	Flying/tinned leads *Powered with:* **24V power supply**

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty.
No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

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 ET or send an email to orders@advancedillumination.com.

Company Information

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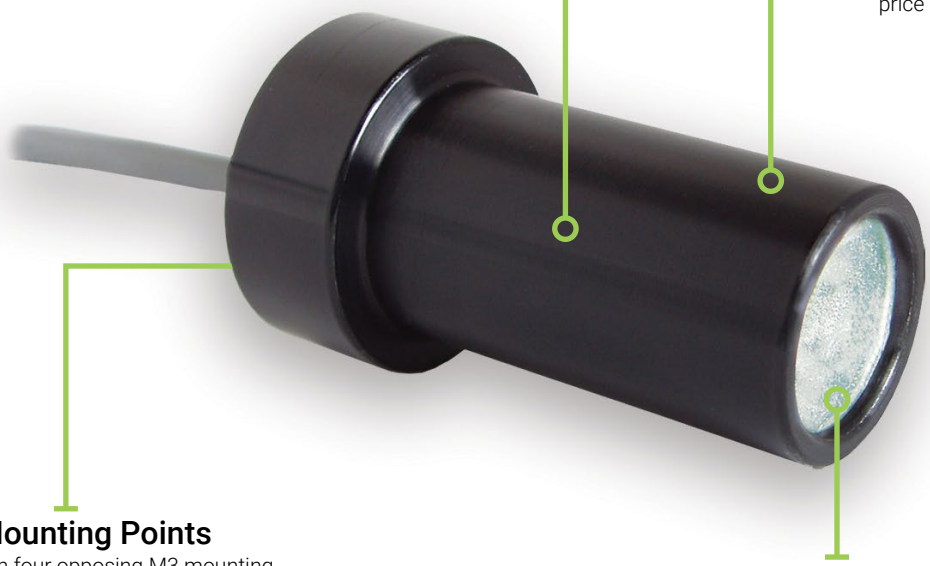
SL073

Compact Spot Light
Product Datasheet

ADVANCED ILLUMINATION by Exaktera

Compact, Space-Saving Design
Ideally suited for space-restricted and/or relatively close working distances

Lower Cost Spot Light Alternative
Optimized performance/ price ratio



M3 Mounting Points
Engineered with four opposing M3 mounting points for secure positioning

Multiple Light Conditioning Options
Available light conditioning options: additional diffusion and polarization

SL073 Series Description

The SL073 is a compact spot light best suited for use in space-restrictive areas and relatively close working distance applications. It is an excellent low-cost spot light alternative.

Standard visible monochromatic wavelengths, including white and also 850nm NIR are available, as are additional diffusers and polarization.

The SL073 differs from the SL164 in being smaller diameter and offering fewer wavelength choices (no UV), with a single lens option in favor of it's small barrel diameter.

- **Moderate Intensity, Low Cost**
- **Diffusion and Polarization**
- **6 Wavelengths Available**
- **Multiple Control Options**
- **1-2 Week BTO Lead Times Typical**

General Information

General Specifications

Category	Specification			Detail	
Optical	Available Wavelengths			White, 470nm, 530nm, 590nm, 625nm, 850nm	
	Available Lensing			Narrow (8°)	
	Available Light Conditioning			Diffuser & or Polarizer	
Electrical	Power Consumption Info			See Power Requirements on Page 8	
	Cable Info			80” -0/+6” Long (2 m -0/+150 mm), 105 °C Rated, Foil Shield w/ Drain	
Mechanical	Sizing Info	Standard	Diameter	1.20”(30.5mm)	See Page 7 for More Details
			Length	2.21”(56.2mm)	
	Weight Info (Standard)			~ 0.11 lbs (~49 g) per Unit	
	Mounting Info			M3 Mounting Holes	
	Material Info			Anodized Aluminum Housing, Acrylic Window, Nylon Strain Relief, PVC Cable Jacket, Steel Black Oxide Fasteners, Buna-N Rubber O-Ring	
Thermal	Operating Case Temperatures			25 °C to 60 °C	
	Operating Ambient Temperatures			0 °C to 35 °C	
Certification	Compliance			CE, RoHS, IEC 62471	
	IP Rating			IP50	
	Lumen Maintenance - White Only			L70 (50,000 Hours)	

General Information - Continued

Part Number Key

Model	-	Peak Wavelength	Connector/Control	Light Conditioning Options	-	Alternative Connector
SL073	-	XXX	XX	X	-	XXX
SL073		470 (blue)	C1	D (Diffuser)		M12 [1]
		530 (green)	C5	P [2] (Polarizer)		M8 [1]
		590 (amber)	IC			
		625 (red)	I3			
		850 (IR)	I3S			
		WHI (white)	24			
more info on page		5	8			10

Example Part Numbers:
SL073-470C1D
SL073-625I3P-M12

[1] Available with 24, IC, I3, and I3S options only
[2] Not available in 850 (IR); 470 (blue) will reduce the life of the polarizer

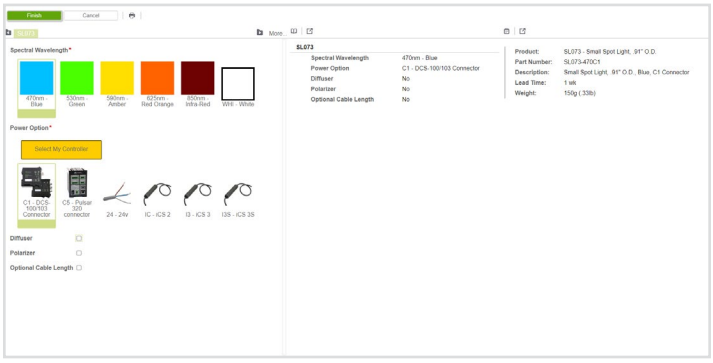
In Stock

SL073-WHIIC
SL073-625IC
SL073-WHI24

Lead Times

Stock products ship within three days.
Build-to-Order custom products ship within one to two weeks.

Configurator

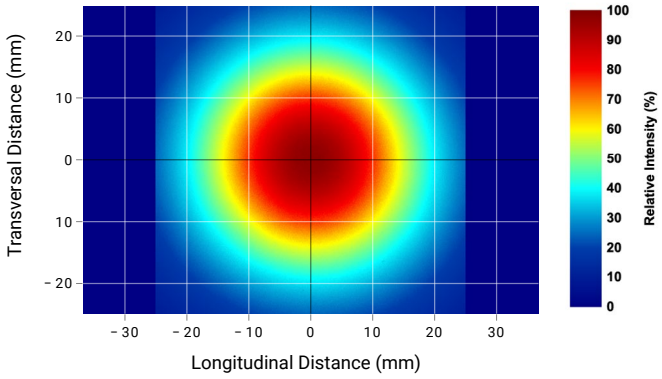


Need a build-to-order custom lighting solution in 2 weeks or less? Advanced Illumination's online configurator helps you tailor our SL073 Compact Spot Light to your specific needs. For a guided configuration, visit our online configurator.

Optical Information

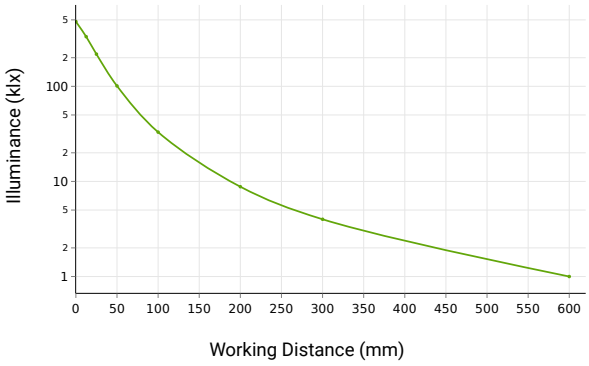
Intensity Characteristics

Intensity Distribution Image at 100 mm Working Distance



Intensity distribution sample image was taken with a white SL073 unit.

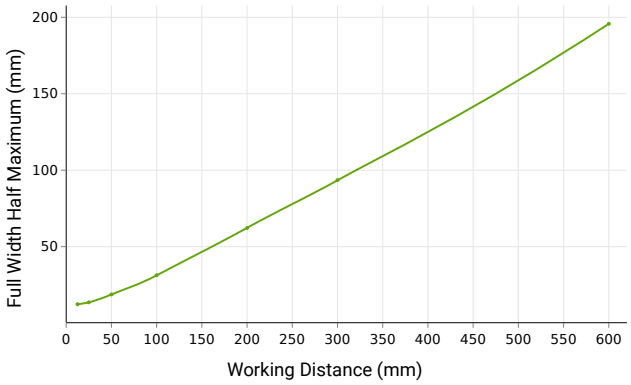
Illuminance vs Working Distance



Illuminance data was collected using a white SL073 unit.

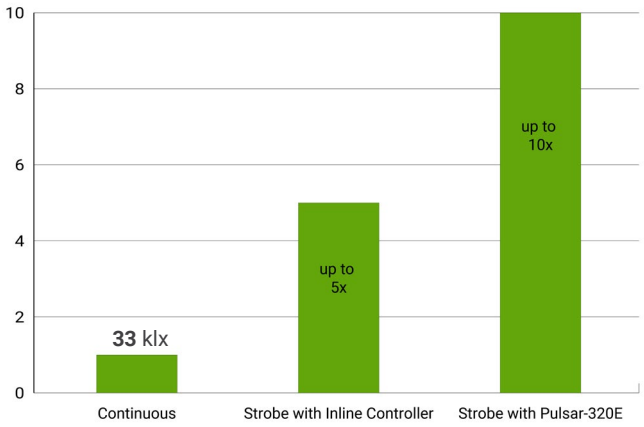
FWHM vs Working Distance

FWHM vs Working Distance



FWHM data was collected using a white SL073 unit.

Continuous vs Strobe Intensity

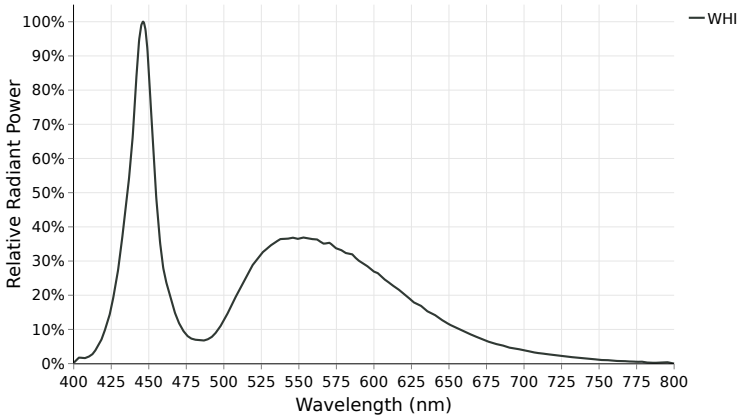


Under continuous operation, a white SL073 unit will output an **illuminance of 33 klx** and an **irradiance of 108 W/m²** at a 100mm working distance. For applications that require higher output, the SL073 Series has been engineered to be overdrive strobe capable. When configured with AI's strobe enabled Inline Controller (I3, and I3s), the SL073 is capable of outputting up-to 5X continuous levels. When configured with a C5 connector, compatible with AI's Pulsar 320E, a **SL073 can be strobed up-to 10X continuous intensity levels.**

Disclaimer: The measurements provided above are for approximations only and may vary depending on the method of measurement and the specific configuration being measured.

Optical Information - Continued

White Spectral Profile

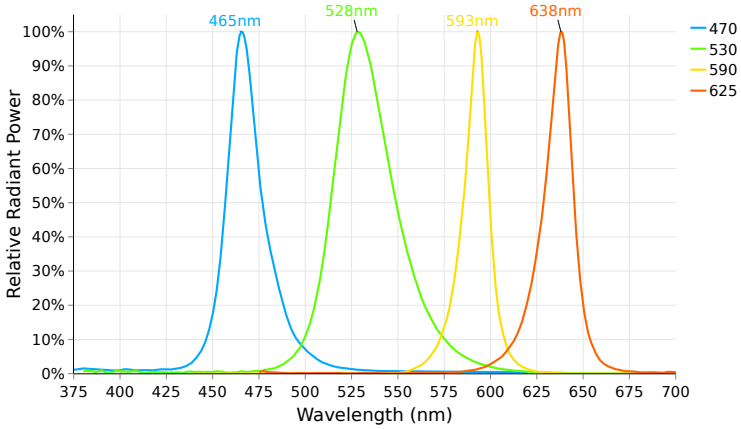


White LED illumination is the most commonly used machine vision lighting configuration. It is often the default choice when specific features of interest do not require color-based highlighting. However, white LEDs can vary in color temperature, which can impact machine vision systems, specifically when matching white light sources.

The SL073 Series white LEDs have a relatively neutral color correlated temperature (CCT) of **5500 K.**

For a more detailed look at the white spectral data, download the csv file of the raw spectral values and refer to our Product Spectra Distribution Charts PDF.

Visible Spectral Profiles

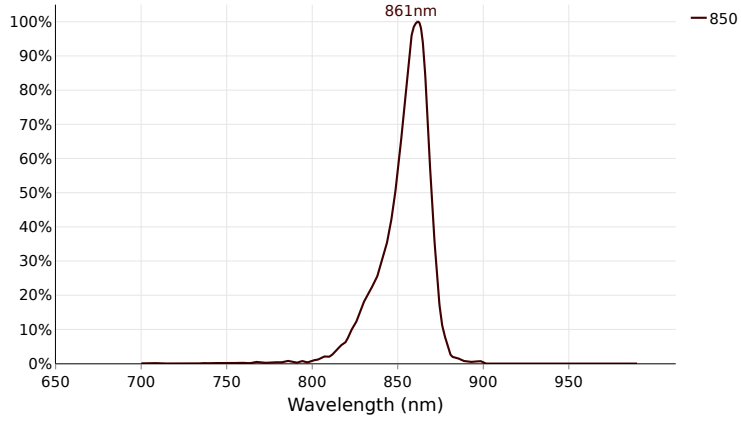


Visible color illumination consists of using wavelengths between 400-700 nm to either create or eliminate contrast on an inspection subject based on differences in a features color hue. When referring to a color wheel, simply remember the following: like colors reflect and brighten surfaces; conversely, opposing colors absorb and darken surfaces.

The SL073 Series is available in **470 nm, 530 nm, 590 nm. and 625 nm** configurations.

For a more detailed look at the visible color spectral data, download the csv file of the raw spectral values and refer to our Product Spectra Distribution Charts PDF.

Non-Visible Spectral Profiles



Near-infrared (NIR) imaging is a machine vision technique using longer wavelengths of 700-1000 nm to penetrate specific materials that are otherwise opaque to under the visible spectrum. When paired with a NIR camera, a NIR light can be ideal for applications such as fill level inspection, circuit board inspection, food safety inspection, and medical imaging.

The SL073 Series is available in an **850 nm** configuration.

For a more detailed look at the NIR spectral data, download the csv file of the raw spectral values and refer to our Product Spectra Distribution Charts PDF.

Disclaimer: The measurements provided above are for approximations only and may vary depending on the method of measurement and the specific configuration being measured.

Optical Information - Continued

Photobiological Risk Factors

Group	Description	Affected Wavelengths (nm)
Exempt	No Photobiological Hazard	850
Group 1	No Photobiological hazard under normal behavioral limitations	470, 530, 590, 625, WHI
Group 2	Does not pose a hazard due to aversion response to bright light or thermal discomfort	N/A

Advanced Illumination's lighting products have been tested and classified to IEC standards by accredited testing services. For more information on photobiological risk factors, please view the following PDF: https://www.advancedillumination.com/wp-content/uploads/2019/04/IEC-040119.pdf

Cleaning Guidelines

To clean our light's optics, it is best to only clean when necessary. Dusting is always the first step in cleaning your optics. Wiping a dusty optic is like cleaning it with sandpaper. So always dust with a canned air duster or compressed and filtered air before wiping any optic. If the dusted optic has no visible stains after you dust it, then remember: "If it's not dirty, don't clean it." Avoid wiping optics when possible.

If dusting did not clean the lens or the lens has stains, use only de-ionized water and mild dish soap with a low lint cloth designed for optics to avoid damage to the optic by any harsh chemicals.

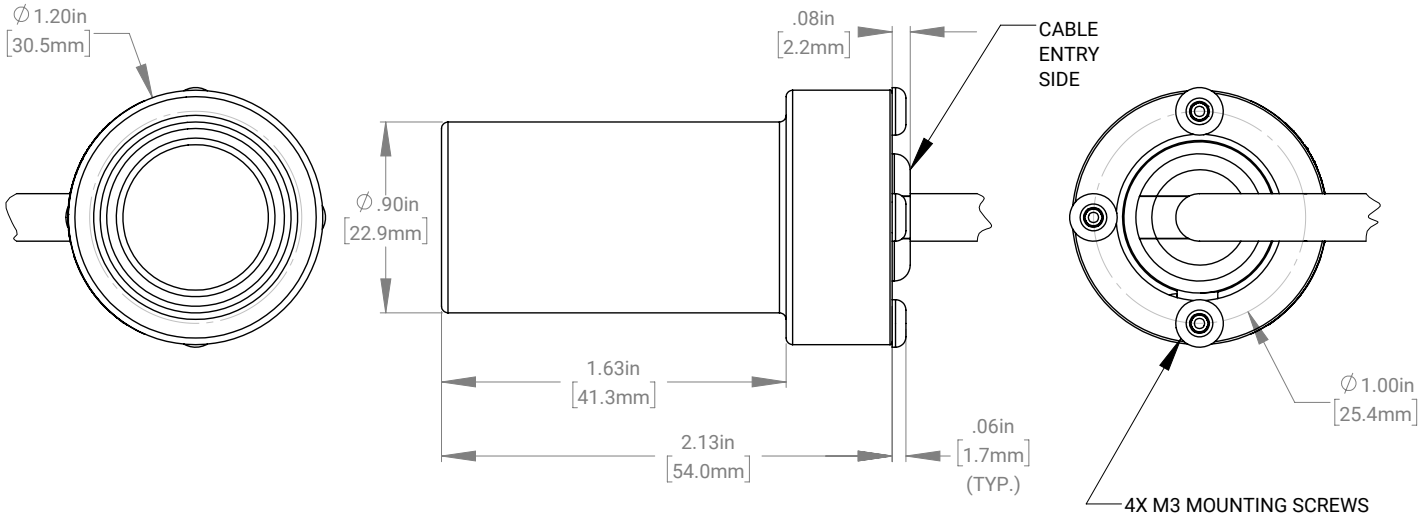
Polarizers, beam splitters and collimated films should never be wiped with any type of cloth or solvent, only use the air dusting method to clean these types of optics.

The aluminum housing can be wiped down when dusting is not a sufficient means to thoroughly clean.

Disclaimer: The measurements provided above are for approximations only and may vary depending on the method of measurement and the specific configuration being measured.

Mechanical Information

Installation Drawings



For full installation drawings and complete CAD models of this configuration, please visit the downloads section of the product webpage.

Electrical Information

Power Requirements

Current Required for Power Supply Sizing

Wavelengths (nm)	Configured w/ Voltage Drive (24)	Configured w/ Standard Controller (C1, C5, IC, I3, I3S)
470, 530, 590, 625, 850, WHI	0.350A	0.050A

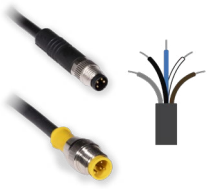
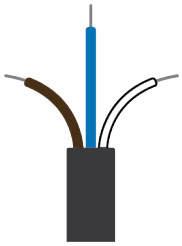
Note: All Advanced Illumination lights and controllers are nominally powered by 24V DC unless otherwise noted. Strobe overdriving with controller based models may require more current and voltage overhead. The values above do not include background current draw from the controller (~100 mA total).

Control Options

Controller Image	Controller Details	Connector Image
	**DCS Single Output Controller - Compatible with C1 Configurations** *PN: DCS-100E* The DCS-100E is a compact, din-rail mounted general-purpose external controller with one C1 output connector, wired with three channels. Capable of providing single channel control or multi-channel control for RGB compatible lights. **Output Power:** 90 W Max Continuous, 540 W Max Pulsed (Overdrive Strobe) **Output Current:** 4.5A Max Continuous, 15 A Max Pulsed **I/Os:** 3 External Trigger Inputs **Interface:** 10/100 Ethernet with Software and browser-based GUIs. SDKs are also available. For more information about our DCS-100E, please visit the controller product page.	
	**DCS Triple Output Controller - Compatible with C1 Configurations** *PN: DCS-103E* The DCS-103E is a din-rail mounted general-purpose multi-light controller with three C1 output connectors. Capable of driving three lights in sync or asynchronously. **Output Power:** 30 W Max Continuous / Output, 180 W Max Pulsed / Output **Output Current:** 1.5A Max Continuous / Output, 5 A Max Pulsed / Output **I/Os:** 3 External Trigger Inputs **Interface:** 10/100 Ethernet with Software and browser-based GUIs. SDKs are also available. For more information about our DCS-103E, please visit the controller product page.	
	**Pulsar 320E High Current Controller - Compatible with C5 Configuration** *PN: Pulsar 320E* The Pulsar 320E is a high-power, dual output, pulse-only controller geared for overdriving driving lights at very short flash durations with very high current. **Output Power:** 2500 W Max Pulsed / Output **Output Current:** 50 A Max Pulsed / Output I**/Os:** 2 External Trigger Inputs **Interface:** 10/100 Ethernet with Software GUI. SDKs are also available. For more information about our Pulsar 320E, please visit the controller product page.	

Electrical Information - Continued

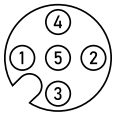
Control Options - Continued

Controller Image	Controller Details	Connector Image
	**Inline Controller - Continuous Only - IC Configurations** *PN: N/A* The IC is an inline, cable-mounted continuous-only controller configured/wired directly for the ordered light head. **Output Power:** 25 W Max Continuous **Output Current:** 1.25 A Max Continuous **I/O:** 1 0-10 V Analog Dimming Input **Interface:** Direct Cable (flying leads or optional connector) For more information about our IC Controller please visit the controller product page.	
	**Inline Controller - Strobe and Continuous - I3 & I3S Configurations** *PN: N/A* The I3 and I3S are inline, cable-mounted continuous and pulse (overdrive strobe) capable controllers configured/wired directly for the ordered light head. When operated in pulsed mode, the I3 is a default-on device on power up, whereas the I3S is default-off, requiring a trigger to illuminate. **Output Power:** 25 W Max Continuous, 125 W Max Pulsed **Output Current:** 1.25 A Max Continuous, 8 A Max Pulsed (Load Dependent) **I/Os:** 1 Gated Trigger Signal, 1 0-10 V Analog Dimming Input **Interface:** Direct Cable (flying leads or optional connector) For more information about our I3/I3S Controller, please visit the controller product page.	
	**24V Driver - Continuous Only - 24 Configurations** *PN: N/A* 24V option allows lights to operate continuous output with 24V connection and no additional controllers. **Modes:** Continuous, can be wired to some 3rd party controllers or external relays for gated operation **Interface:** Direct cable (flying leads or connector options)	

Electrical Information - Continued

Inline Control Option Wiring Information

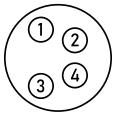
Standard Flying Lead and Optional M12 Connector Pinout Functions

Pin (M12)	Wire Color	24V Functions	IC Functions	I3/I3S Functions	M12 Pinout
1	BROWN	24V DC	24V DC	24V DC	
2	WHITE	N/A	0-10V Analog Control	Reserved	
3	BLUE	DC GND	DC GND	DC GND	
4	BLACK	N/A	Gate Low	PNP/Active High Trigger	
5	GRAY	N/A	N/A	0-10V Analog Control	

5-Position Male Connector

The functions above are only applicable when ordering an 24, IC, I3, or I3s power configuration with our without an M12 connector. For more wiring information pertaining to strobing and dimming functionality, please download the controller manuals and datasheets.

Optional M8 Connector Pinout Functions

Pin (8)	Wire Color	24V Functions	IC Functions	I3/I3S Functions	M8 Pinout
1	BROWN	24V DC	24V DC	24V DC	
2	WHITE	N/A	0-10V Analog Control	Reserved	
3	BLUE	DC GND	DC GND	DC GND	
4	BLACK	N/A	Gate Low	Active High Trigger	

4-Position Male Connector

The functions above are only applicable when ordering an 24, IC, I3, or I3s power configuration with our without an M8 connector. For more wiring information pertaining to strobing and dimming functionality, please download the controller manuals and datasheets.

Accessories

Category	Accessory Image	Accessory Detail
Power Supply		**24 Volt DC Power Supply** *PN: PS24-TL* This convenient power source is a universal AC input switching power supply with a regulated output DC current. The power supply comes with an LED Power Indicator, tinned leads marked Positive (+) and Negative (-) and 2 WAGO connectors for simplified assembly. For more information about our 24 Volt DC Power Supply, please visit this webpage.
Dimmer		**Manual Dimming Accessory for the IC, I3 and I3s** *PN: DCS-MP* The DCS-MP is a 30-position potentiometer, detented for precision level control and provides repeatable dimming with cable inline controllers. Features include DIN-rail mountable, a flip up cover to prevent accidental adjustments, spring clamp wiring terminal for flying leads or an M12 connector for use with the IC or I3/I3S Inline Controllers. For more information about our Manual Dimming Accessory please visit this webpage.
Dimmer		**Manual Dimming Accessory for the IC** *PN: MP-ICS* The MP-ICS is a dimmer which is designed for use on lights with the IC Inline Controller. This unit provides for 0 – 100% intensity control. It is NOT COMPATIBLE with LLI37, BLI38, LLI67, and BLI68 "IC" Lights or lights built with the "24v controller" option. For more information about our Manual Dimming Accessory, please visit this webpage.

Accessories - Continued

Category	Accessory Image	Accessory Detail
Extension Cable		**DCS-100E/103E Extension Cable, Single Light Power Cable - C1 Configuration** *PN: LC-XX-S* This extension cable was designed for applications requiring power cables longer than the standard 2 meters provided with Ai lights. This single light cable features a single male and single female 7 pin locking connector (C1) and can be purchased in 3 - 15-meter lengths. For more information about our DCS-100E/103E Extension Cable, Single Output, please visit this webpage.
Extension Cable		**DCS-100E/103E Extension Cable, Dual Light Power Cable - C1 Configuration** *PN: LC-XX-Y* This extension cable was designed for applications requiring two identical lights to be powered through a single controller. These Y cables feature a single male and dual female 7 pin locking connectors (C1) and can be purchased in 3 - 15-meter lengths. See attached spec sheet for compatible light configuration. For more information about our DCS-100E/103E Extension Cable, Split Output, please visit this webpage.
Extension Cable		**Pulsar 320E Extension Cable - C5 Configuration** *PN: LC-XX-S-C5* This extension cable was designed for applications requiring power cables longer than the standard 2 meters provided with Ai lights. This single light cable features a single male and single female Pulsar 320 connector (C5) and can be purchased in 3 - 15 meter lengths. For more information about our Pulsar 320E Extension Cable, please visit this webpage.
Adaptor Cable		**Cognex Gen2 Inline Controller Adaptor Cable** *PN: AD-I3-CGX2* This cable adaptor is for connecting I3/I3S configured lights with Cognex Gen2 Cameras, and comes with a male to female M12 connectors. For more information about our Cognex Gen2 Inline Controller Adaptor Cable, please visit this webpage.
Filters		**Camera Lens Band Pass FIlters** *PN: BPXXX-YYY* Eliminating all but a narrow band of light (+/- 40nm) centered on the specified wavelength, band pass filters are used to enhance colors, or to stop unwanted ambient light from reaching the camera. Filtering can replace existing shrouds, simplifying the physical set up of an inspection site. Ai offers 635nm and 660nm band pass filters to fit several different lens sizes. For more information about our Camera Lens Band Pass FIlters, please visit this webpage.

Additional Information

Warranty

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty. No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

Compliancy

Our lighting products are designed and tested to meet CE, RoHS, and IEC standards. As a global ISO 9001 certified company, we understand the importance of compliance and perform accelerated testing on every product before shipment. For more information on our compliance standards, please see our compliancy documentation here: https://www.advancedillumination.com/services/compliance-statements/

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 ET or send an email to orders@advancedillumination.com.

Company Information

Advanced Illumination
440 State Garage Road, Rochester, VT 05767
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Fax: +1 (802) 767 2636
Email: info@advancedillumination.com
Web: advancedillumination.com

SL112

Medium Intensity Spot/Coaxial Light

Product Highlights

- The SL112 is characterized as a Medium Intensity Spot/Coaxial Light and is designed primarily to replace fiber optic light sources in coaxial lensing applications.
- Optional couplers are available for use with Dolan-Jenner, Fostec, and Moritex fiber bundles.

General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	625	N/A	0.11 A Max
	WHI, 470, 530, 590	N/A	0.28 A Max
Normal Operating Temperature	0 - 60°C		
Weight	39.7g (1.4oz)		
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Group 1 (Low-Risk) Applicable Wavelengths: WHI, 470, 530, 590, 625		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 Hours		

Part Number Key

Model	–	Peak Wavelength	Connector/ Control	–	Alternative Connector
SL112	–	XXX	XX	–	XXX
SL112		470 (blue)	C1		M8[1]
		530 (green)	C5		M12[1]
		590 (amber)	IC		
		625 (red orange)	I3		
		WHI (white)	I3S		

EX:
SL112-470C1
SL112-625I3-M12

[1] Available with IC, I3, and I3S options only

See website product page for in-stock product numbers.

Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

Change Notice

PCN No: 172

Date Issued: 7/14/25
Notice Type: Product Revision Change
Product Type: SL073 & SL112

Change Notification Summary

In an effort to improve our products, Advanced illumination (Ai) will update the LEDs used in the SL073 & SL112 design. This change will result in a brighter, more uniform light at the same price*. Customers may still buy the current revision of this model until October 14, 2025. After that time, orders for these products will be converted to their respective SL073 & SL112 Revison A models.

This LED change will result in additional wavelengths being available: 455nm, 505nm, 660nm, 730nm, and 940nm.

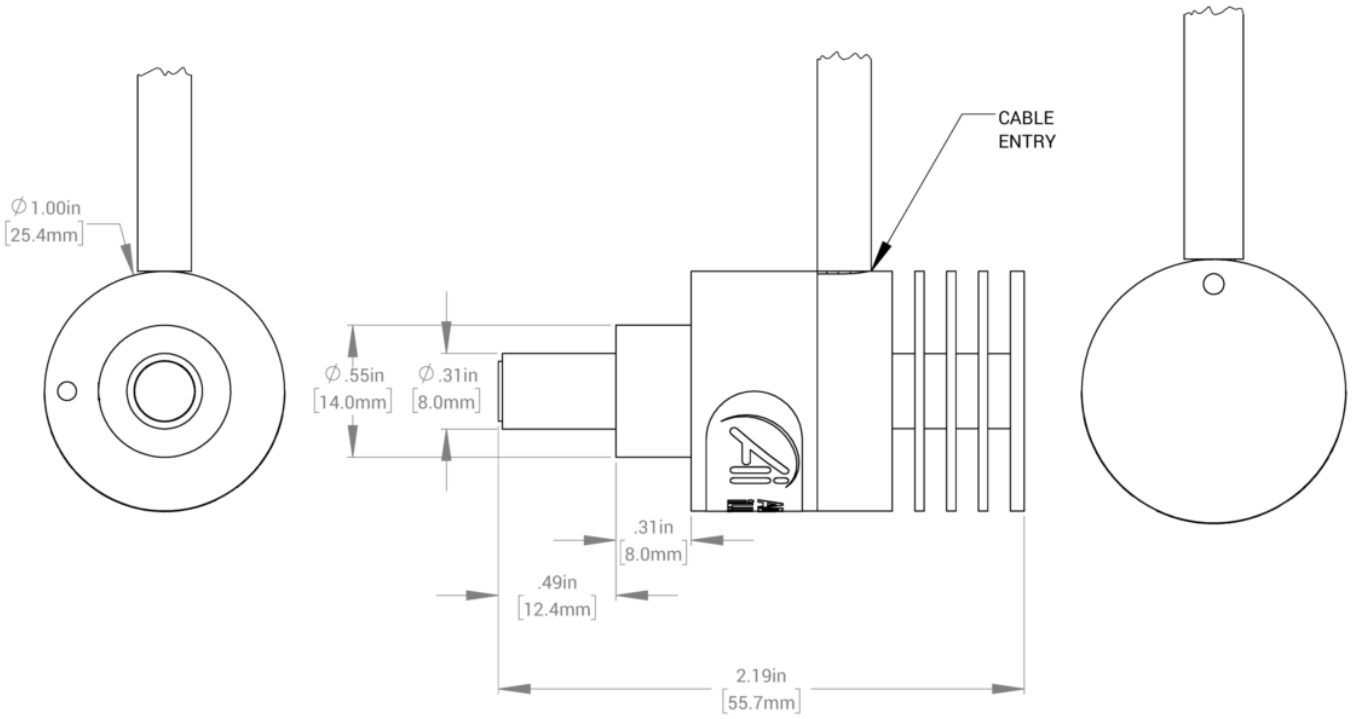
*Visable and IR wavelengths that did not exist will prior will be sold at the same list price as similar wavelengths.

Orders for customized (dash numbers) versions of SL073 & SL112 will be honored until January 14, 2026. Ai will be actively working with customers for those products to simplify the transition.

Please contact your Ai Sales Representative if you have any questions.

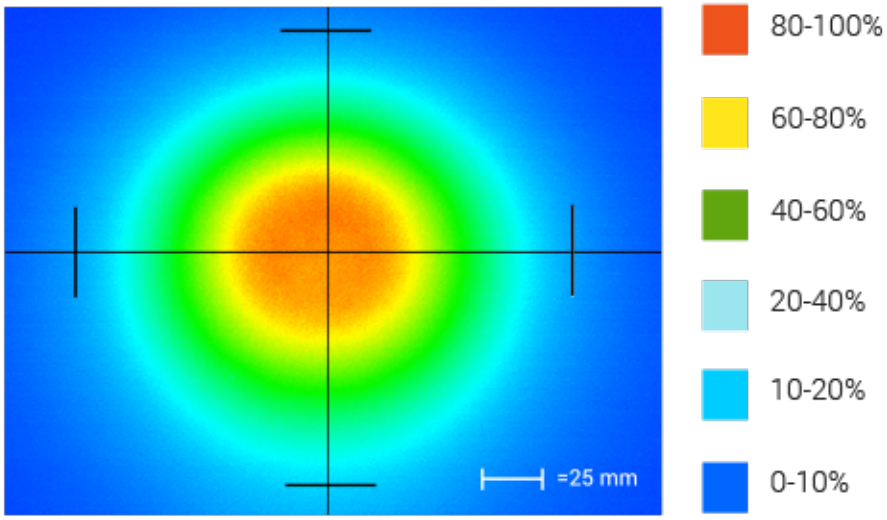
PCN 172

Mechanical Specs



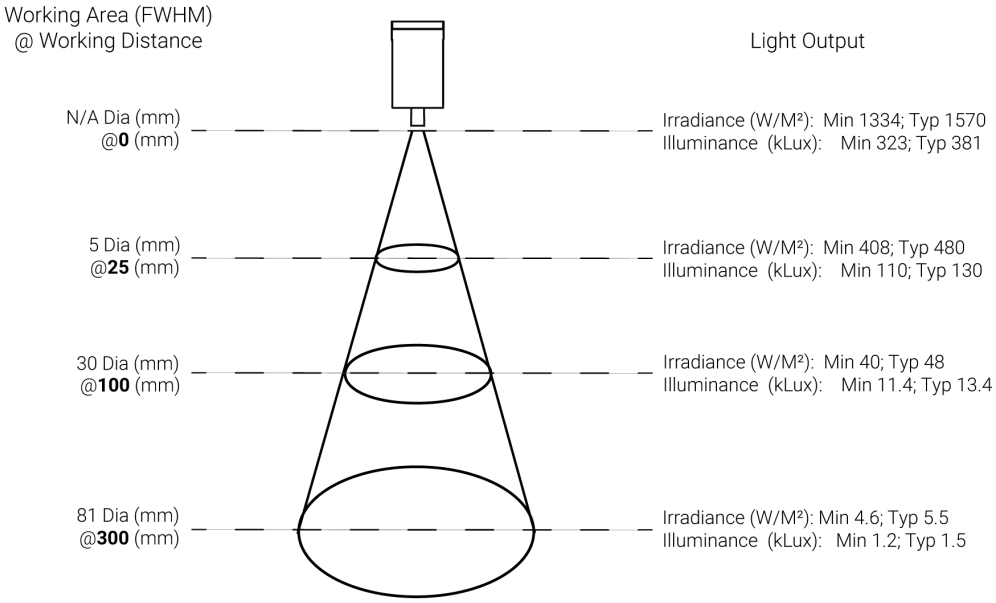
Optical Specs

Intensity Distribution



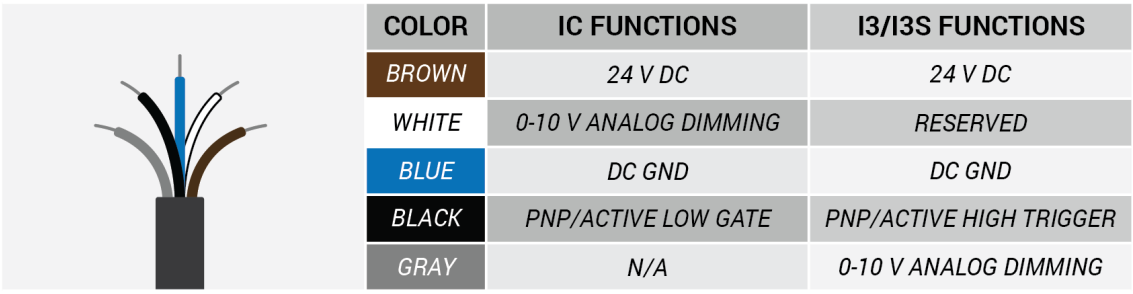
Optical measurement taken using SL112-WHIIC @ 300 mm

Area of Illuminance & Intensity



Electrical Specs

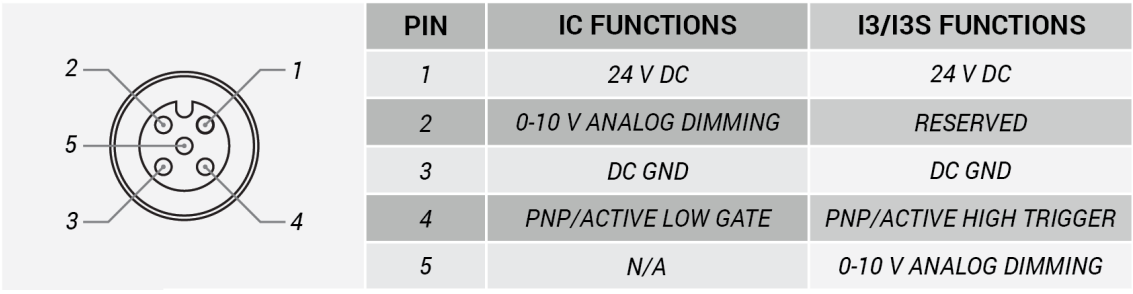
Standard Flying Lead Functions for IC, I3 and I3S Control Options



COLOR	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC
WHITE	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND
BLACK	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

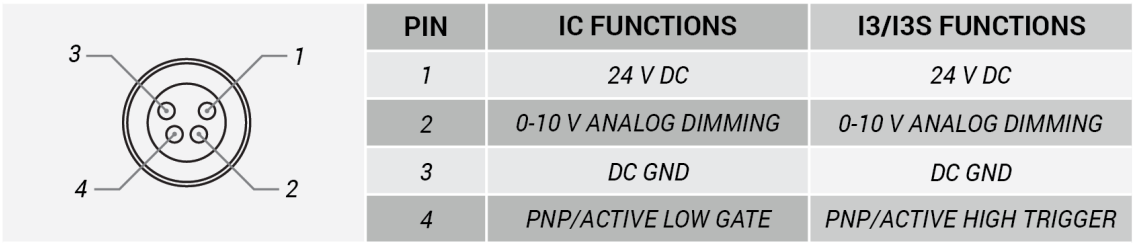
M12 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Control Specs

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)
For use with: **DCS Series Controllers**	*For use with:* **Pulsar 320 Strobe Controller.**	Continous in-line controller *Powered with:* **24V power supply**	Combination strobe/continous in-line controller *Powered with:* **24V power supply**	Default-OFF strobe/continous in-line controller *Powered with:* **24V power supply**

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty.
No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

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 ET or send an email to orders@advancedillumination.com.

Company Information

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Phone: 802.767.3830
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Email: info@advancedillumination.com
Web: advancedillumination.com

SL1236

Large Aimed Spot Light

Product Highlights

- The SL1236 is characterized as a Large Aimed Spot Light.
- Precisely aimed LEDs provide a level of lighting control not found in traditional illuminators.
- A range of standoffs and fields of view may be specified at the time of order.

General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	625, 660	0.18A	0.09A Max
	880	0.18A	0.07A Max
	395, 470, 520, WHI, RGB	0.12A	0.11A Max
Normal Operating Temperature	0 - 60°C		
Weight	90.7g (3.2oz)		
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 880 Group 1 (Low-Risk) Applicable Wavelengths: 470, 520, 625, 660, WHI, RGB Group 2 (Moderate-Risk) Applicable Wavelengths: 395		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 Hours		

Part Number Key

Model	–	Peak Wavelength	Stand Off (mm)	Illuminated Field of View (mm)	Connector/ Control	Light Conditioning Option	–	Alternative Connector
SL1236	–	XXX	XXX	XX	X	X	–	XXX
SL1236		395 (UV) 470 (blue) 520 (green) 625 (red orange) 660 (red) 880 (IR) WHI (white) RGB (all colors)[2]	See chart to compute stand off	XS S M L XL	C1 C5 IC I3 I3S 24	D (Diffuser) P[3] (Polarizer)		M8[1] M12[1]

EX:
SL1236-395100SC5D
SL1236-625150XL13P-M8

[1] Available with IC, I3, I3S, and 24 V options only
[2] Available in C1 and 24 V options only
[3] Not available with UV option; 470 (blue) will reduce the life of the polarizer

See website product page for in-stock product numbers.

Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

Change Notice

PCN No: 166

Date Issued: May 5, 2023
Notice Type: Product Change
Product Type: 660nm Wavelength on traditional 5mm Lights Discontinuation

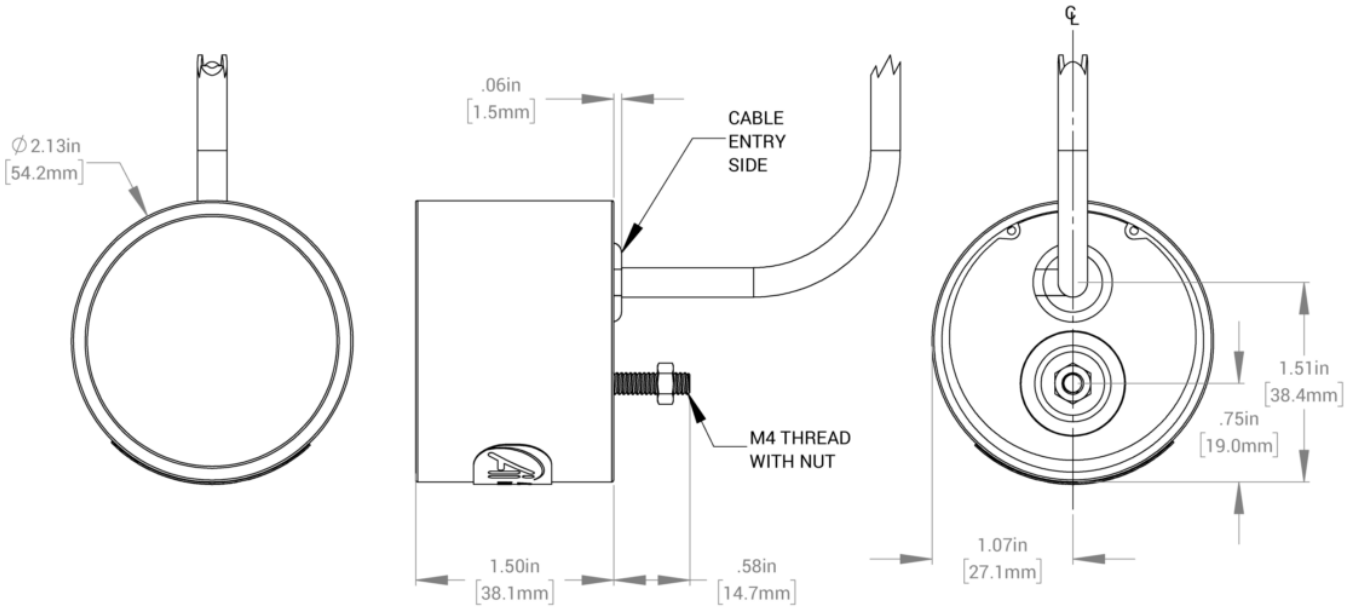
Change Notification Summary

Advanced illumination (Ai) will be ending the manufacture of the 660nm color option on our classic aimed lights due to the LEDs being discontinued from the manufacturer. We expect to have six months of inventory to fulfill orders, after that we suggest purchasing the same light but with the 625nm wavelength.

Please contact your Ai Sales Representative if you have any questions.

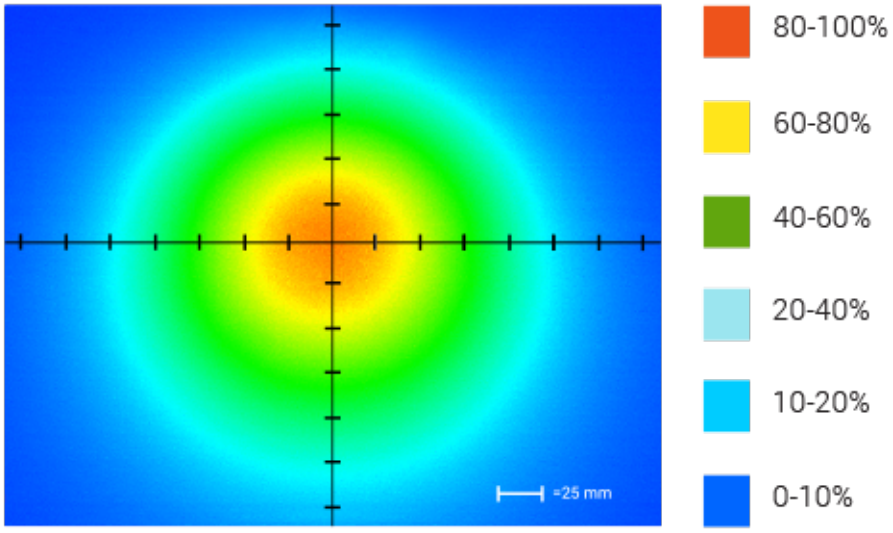
PCN 166

Mechanical Specs



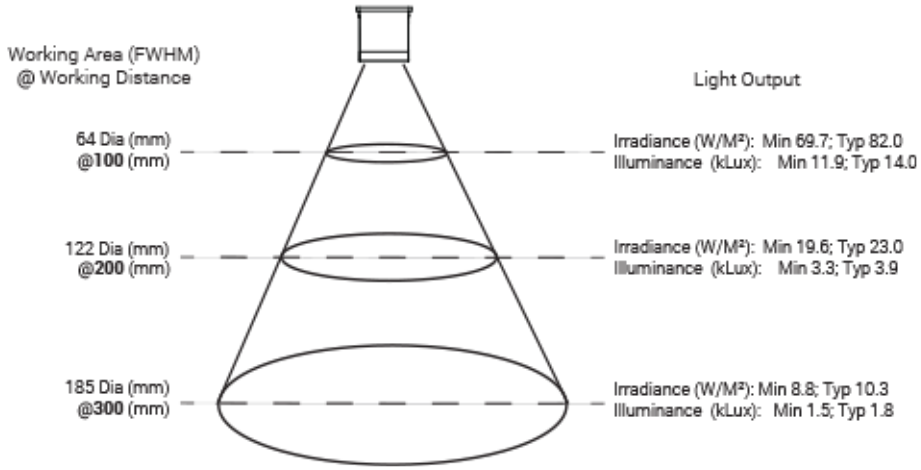
Optical Specs

Intensity Distribution



Optical measurement taken using SL1236-625200LIC

Area of Illuminance & Intensity



[FIELD OF VIEW CHART]

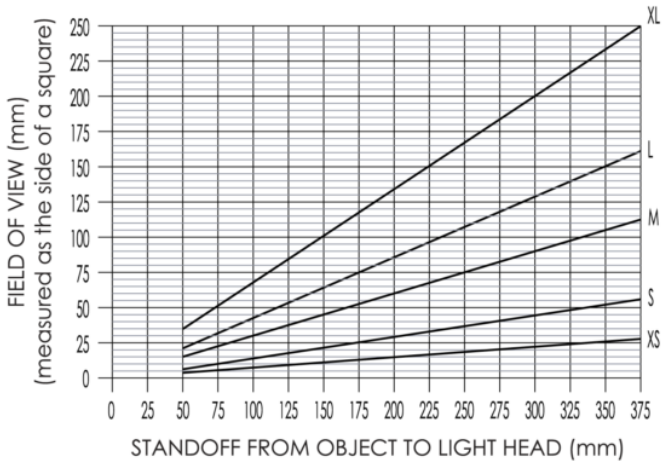
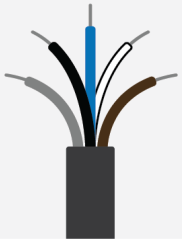


Figure 1

Identify desired FOV and standoff, then specify nearest illuminated area size

Electrical Specs

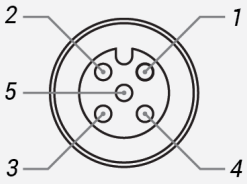
Standard Flying Lead Functions for 24V, IC, I3 and I3S Control Options



COLOR	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC	24 V DC
WHITE	N/A	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND	DC GND
BLACK	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

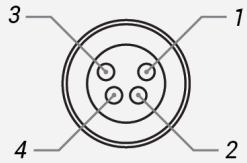
M12 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options



PIN	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	N/A	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND	DC GND
4	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options



PIN	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	N/A	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND	DC GND
4	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

*The functions listed above are only applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Control Specs

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	24
For use with: **DCS Series Controllers**	*For use with:* **Pulsar 320 Strobe Controller.**	Continous in-line controller *Powered with:* **24V power supply**	Combination strobe/continous in-line controller *Powered with:* **24V power supply**	Default-OFF strobe/continous in-line controller *Powered with:* **24V power supply**	Flying/tinned leads *Powered with:* **24V power supply**

Warranty Information

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No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

Electromagnetic Compatibility

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Web: advancedillumination.com

SL147

2x2 Spot Light

Product Highlights

- Our SL147 2x2 spot light is ideal for long working distances and comes available in a variety of wavelengths.

General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	365, 375, 385, 395, 405	N/A	0.24 A Max
	455, 470, 505, 530, WHI	N/A	0.32 A Max
	590, 625, 660, 730	N/A	0.31 A Max
	850	N/A	0.34 A Max
	940	N/A	0.22 A Max
Normal Operating Temperature	0 - 60°C		
Weight	104.9g (3.7oz)		
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 850, 940 Group 1 (Low-Risk) Applicable Wavelengths: 455, 470, 505, 530, 590, 625, 660, 730, WHI Group 2 (Moderate-Risk) Applicable Wavelengths: 365, 375, 385, 395, 405		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP65 Sealed, IP50 Unsealed		

Lumen Maintenance	L70 = 50,000 Hours

Part Number Key

Model	Lens Type	-	Peak Wavelength	Connector/ Control	Washdown Option	Light Conditioning Option	-	Alternative Connector
SL147	X	-	XXX	XX	X	X	-	XXX
SL147	N (Narrow)		365 (UV)[3]	C1	W	D (Diffuser)		M8[1]
	M (Medium)		375 (UV)[3]	C5		P[2] (Polarizer)		M12[1]
	W (Wide)		385 (UV)[3]	IC				
			395 (UV)[3]	I3				
			405 (violet)	I3S				
			455 (royal blue)					
			470 (blue)					
			505 (cyan)					
			530 (green)					
			590 (amber)					
			625 (red orange)					
			660 (red)					
			730 (IR)					
			850 (IR)					
			940 (IR)					
			WHI (white)					

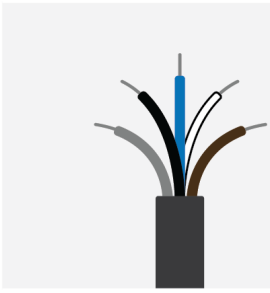
Example Part Number:
SL147M-530C1WD
SL147W-590I3D-M12

Beam Angle (FWHM):
Narrow = 8°
Medium = 21°
Wide = 29°

[1] Available with IC, I3, and I3S options only
[2] 470 (blue) will reduce life of the polarizer
[3] Available with medium (M) lens option only; not available with polarizer

Electrical Specs

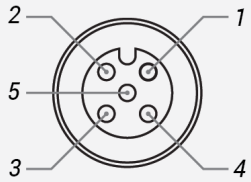
Standard Flying Lead Functions for IC, I3 and I3S Control Options



COLOR	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC
WHITE	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND
BLACK	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

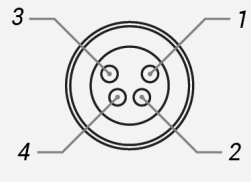
M12 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Change Notice

PCN No: 144

Date Issued: February 22, 2018

Notice Type: Product Change

Product Type: Washdown Lights

Change Notification Summary Advanced illumination (Ai) is improving the way we manufacture Washdown lights which will change their outward appearance. We will be replacing the black cordstock with clear flowable silicon.

This change will provide a more durable finish and will effect the following lights: AL116, AL126, AL143, AL179, AL295, BL128, QM116, QM126, LL174 and SL147.

Please contact your Ai Sales Representative if you have any questions.

Washdown Lights Flowable Silicon

PCN No: 127

Date Issued: May 20, 2016

Notice Type: Product Revision Change

Product Type: SL147

Change Notification Summary

In an effort to improve our products, Advanced illumination (Ai) will update the LEDs used in the SL147 design. This change will result in a brighter, more uniform light at the same price*. Customers may still buy the current revision of this model until August 12th of 2016. After that time, orders for these products will be converted to their respective SL147 Revison A models.

This LED change will result in additional wavelengths being available: 365nm, 375nm, 385nm, 395nm, 405nm, 455nm, 505nm, 660nm, 730nm and 940nm. Additionally the white LED color temperture will be changing from 6100K to 5500K.

*Pricing for IR wavelengths (730nm, 850nm & 940nm) will be reduced to the same price as visible wavelengths. UV wavelengths (365nm, 375nm, 385nm & 395nm) are new additions to the product and will based at $590 list for C1/C5 connectors.

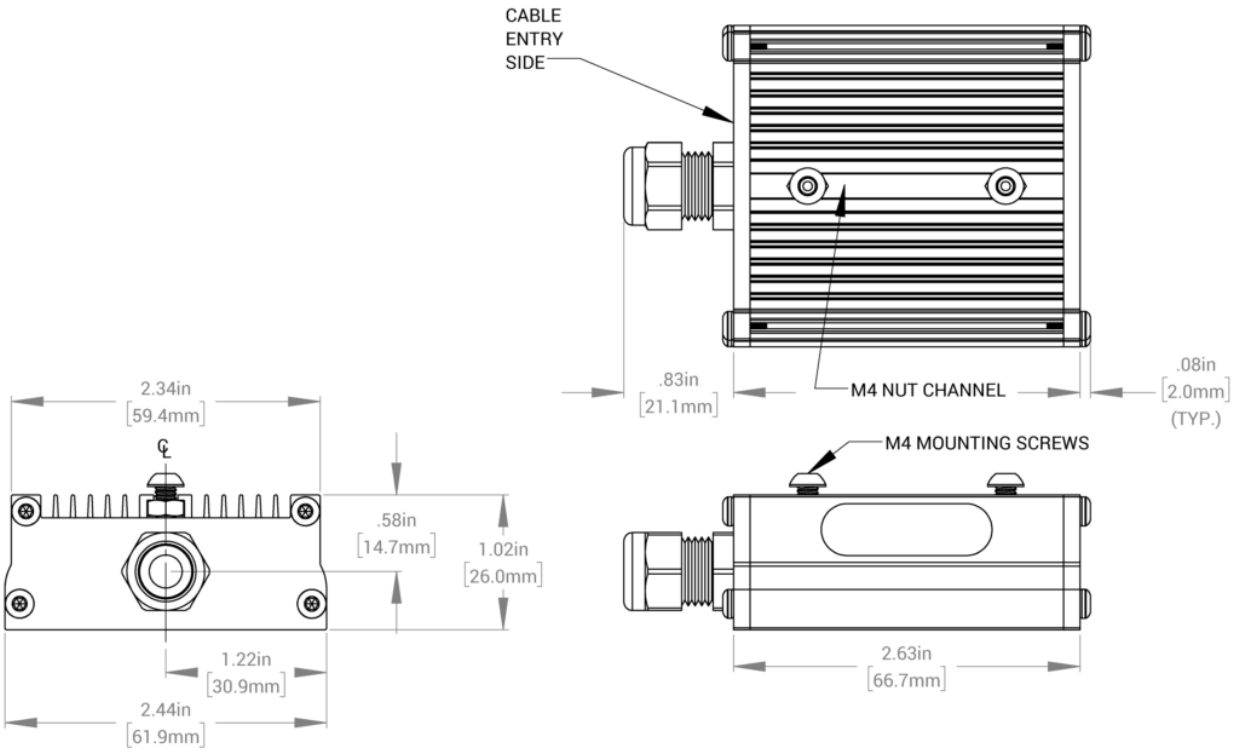
Orders for customized (dash numbers) versions of SL147 will be honored until December 8th of 2016. Ai will be actively working with customers for those products to simplify the transition.

Please contact your Ai Sales Representative if you have any question.

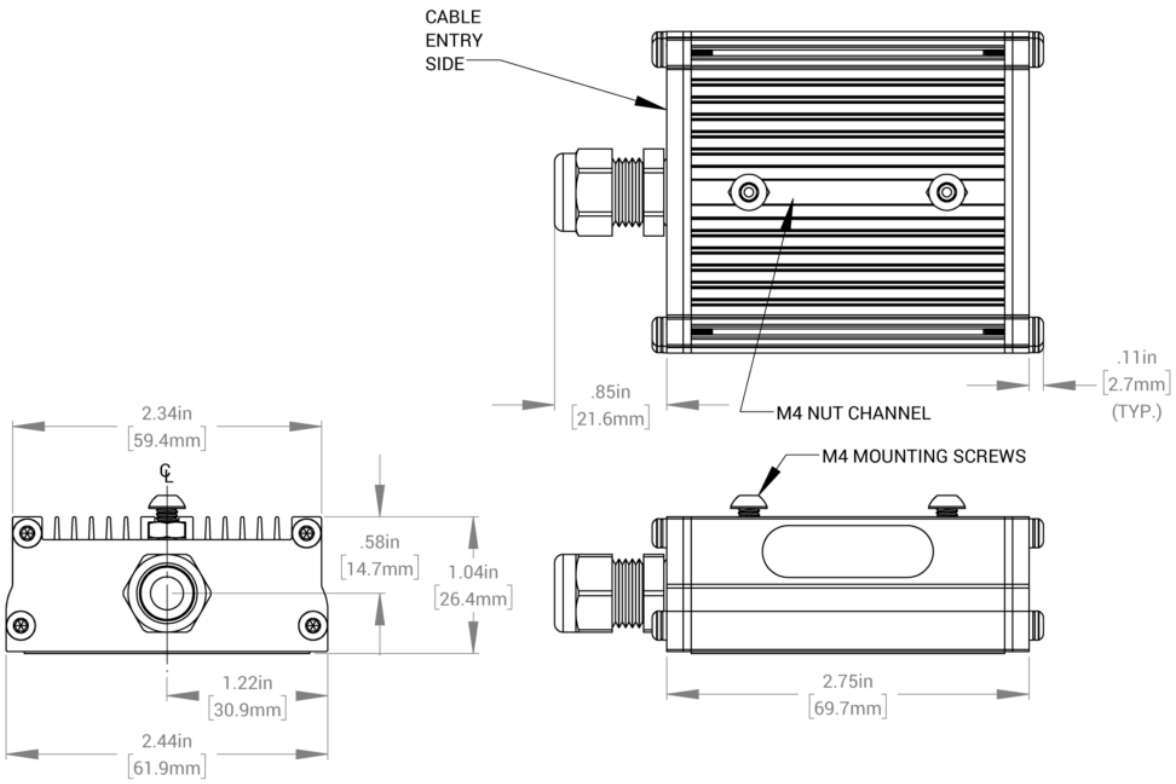
PCN 127 SL147

Mechanical Specs

[NONSEALED]

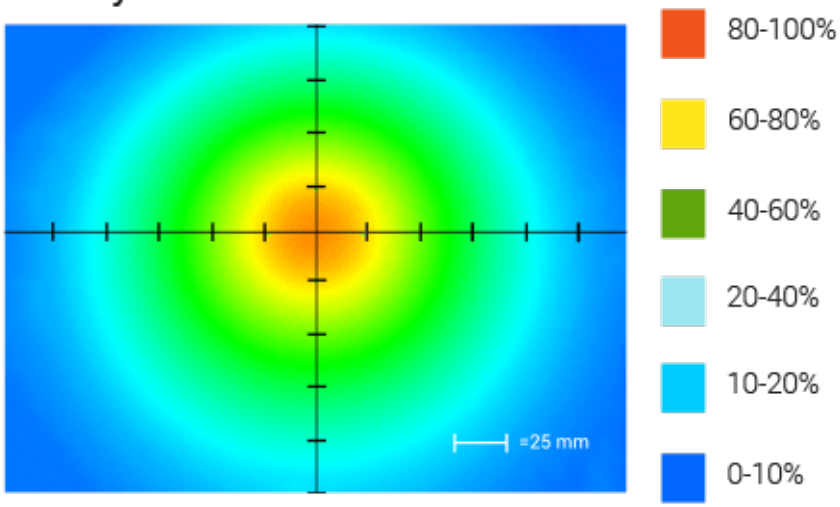


[SEALED]


CABLE
ENTRY
SIDE
.85in
[21.6mm]
M4 NUT CHANNEL
.11in
[2.7mm]
(TYP.)
M4 MOUNTING SCREWS
2.34in
[59.4mm]
.58in
[14.7mm]
1.04in
[26.4mm]
1.22in
[30.9mm]
2.44in
[61.9mm]
2.75in
[69.7mm]

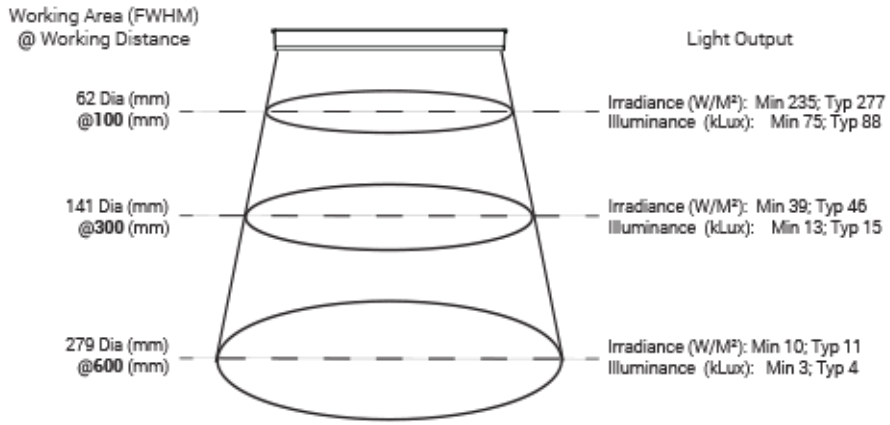
Optical Specs

Intensity Distribution



Optical measurement taken using SL147-WHIIC Rev. A @ 300 mm

Area of Illuminance & Intensity



Control Specs

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)
For use with: **DCS Series Controllers**	*For use with:* **Pulsar 320 Strobe Controller.**	Continous in-line controller *Powered with:* **24V power supply**	Combination strobe/continous in-line controller *Powered with:* **24V power supply**	Default-OFF strobe/continous in-line controller *Powered with:* **24V power supply**

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty.
No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

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 ET or send an email to orders@advancedillumination.com.

Company Information

Advanced Illumination
440 State Garage Road, Rochester, VT 05767
Phone: 802.767.3830
Fax: 802.767.2636
Email: info@advancedillumination.com
Web: advancedillumination.com

SL162

Spot/Coaxial Light

Product Highlights

- Designed to replace fiber optic light sources in coaxial/ lensing applications
- Compact light head provides efficient thermal management to promote long LED life
- Optional couplers available for use with Dolan-Jenner, Fostec, and Moritex fiber bundles - see the CP112 page in accessories
- User selectable light intensity on 24v version
- Available in a wide range of wavelengths

General Specifications

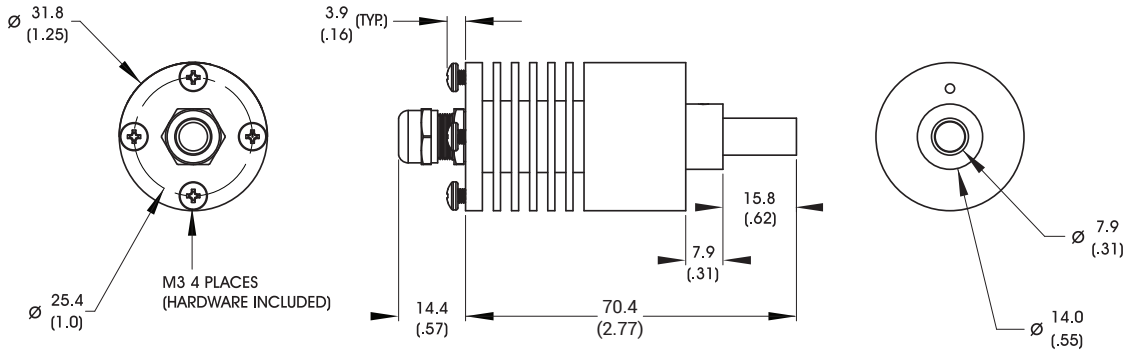
	Color	24v Current	All Other Controls
Electrical Specifications	WHI	0.09 A[1]	0.23 A Max
	405, 455, 470, 505, 530, 590, 625, 660	0.16 A[1]	0.25 A Max
	365, 375, 385, 395	0.06 A[1]	0.08 A Max
	730, 850, 940	0.14 A[1]	0.10 A Max
Normal Operating Temperature	0 - 60°C		
Weight (g)	85.1 g (3.0 oz)		
Standard Cable Information	Up to 2 meters (80") long - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor IEC 62471	**Exempt Applicable Wavelengths:** 850, 940 **Group 1 (Low-Risk) Applicable Wavelengths:** 455, 470, 505, 530, 590, 625, 660, 730, WHI **Group 2 (Moderate Risk) Applicable Wavelengths:** 365, 375, 385, 395, 405		
Compliance	CE RoHS IEC 62471		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 hours		

[1] The "24V" model of this light has an internal driver which regulates the output current. The driver includes a 0-10VDC control for analog dimming along with the standard 24V input power leads.

Do not connect the 24V model to anything other than a voltage-mode DC power supply. Attempting to connect the 24V version to any 3rd party driver, controller, or current source may cause damage to the light or internal driver.

See the wiring and specification for more information.

Mechanical Specifications



DIMENSIONS ARE IN MILLIMETERS (INCHES)

Part Number Key

Model	—	Spectral Wavelength	Connector/ Control	—	Alternative Connector
SL162	—	XXX	XX	—	XXX
SL162		(UV) 365 (UV) 375 (UV) 385 (UV) 395 (violet) 405 (royal blue) 455 (blue) 470 (cyan) 505 (green) 530 (amber) 590 (red orange) 625 (red) 660 (IR) 730 (IR) 850 (IR) 940 (white) WHI	C1 C5 IC I3 I3S 24		M12[1]

Ex: SL162-WHIC1
SL162-WHII3-M12

[1] Available with IC, I3, I3S and 24v options only

Stock Product: *shipped within 3 days*
SL162-WHI24

Build to Order: *shipped within two weeks*

Connector | Control Options

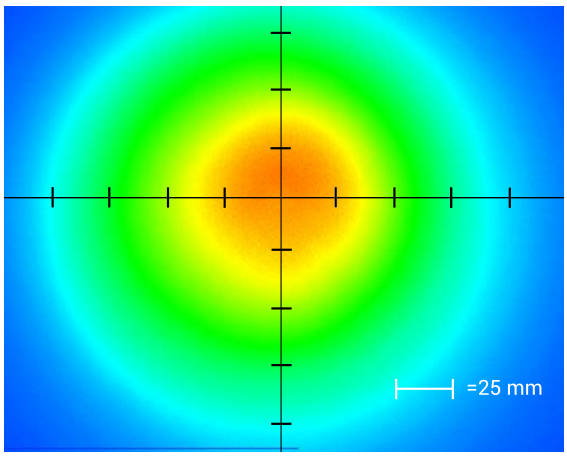
C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	24
For use with: DCS Series Controllers	*For use with:* Pulsar 320 Strobe Controller.	Continous in-line controller *Powered with:* 24V power supply	Combination strobe/continous in-line controller *Powered with:* 24V power supply	Default-OFF strobe/continous in-line controller *Powered with:* 24V power supply	Flying/tinned leads *Powered with:* 24V power supply

Released 7/27/2016
Updated 12/9/2016
Updated 5/31/2017 DCN 2272

Product Revision "A"

Optical Performance

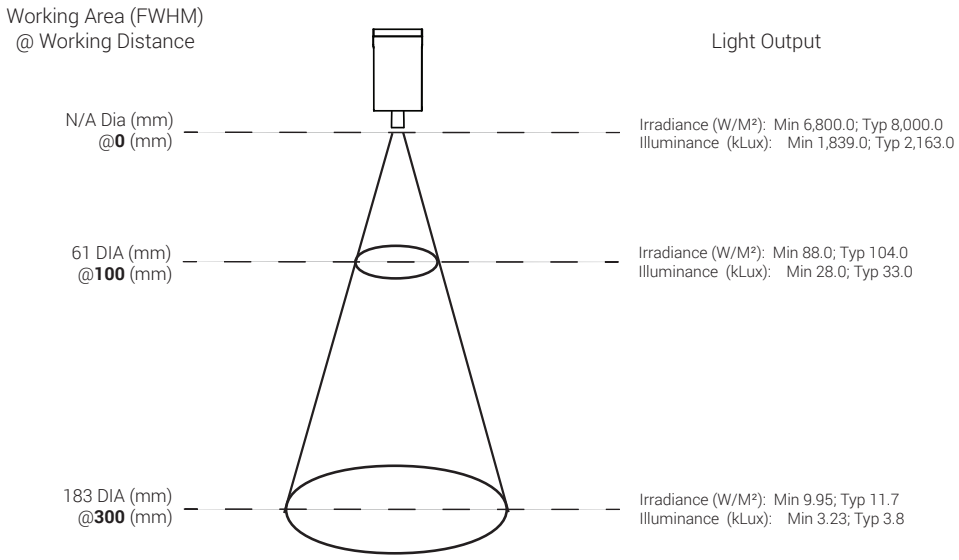
Intensity Distribution



80-100%
60-80%
40-60%
20-40%
10-20%
0-10%

Optical measurement taken using SL162-WHIIC Rev. A @300mm

Area of Illuminance & Intensity



Operation and Wiring

ICS 2 (IC)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	0-10 VDC Analog Control	White
3	GND	Blue
4	GLO	Black
5	N/A	Gray

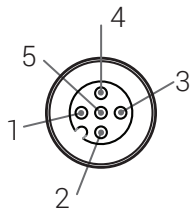
ICS 3 (I3 and I3S)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	Reserved	White
3	GND	Blue
4	PNP/Active High Trigger	Black
5	0-10 VDC Analog Control	Gray

24 Volt

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	N/A	White
3	-24 VDC	Blue
4	N/A	Black
5	N/A	Gray

Optional M12 Pinout



male
5-position

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.

Company Information

Advanced Illumination

440 State Garage Road, Rochester VT. 05767

Phone: 802.767.3830

Fax: 802.767.3831

Email: info@advancedillumination.com

Web: advancedillumination.com

SL164

Compact High Intensity Spot Light
Product Datasheet

ADVANCED ILLUMINATION by Exaktera

M3 Mounting Points
Engineered with four opposing rear M3 mounting points for secure positioning

Embedded Controller Option
Embedded controller "24" version suitable for tight space and/or robotics applications - no external or inline controller needed

Multiple Lens Options
Lens options include narrow, medium, and wide to cover a variety of light pattern size and working distances

High Power LEDs
Lens options include narrow, medium, and wide to cover a variety of light pattern size and working distances

SL164 Series Description

The SL164 spot light is designed to fit into smaller spaces at medium working distances, while still providing high intensity light on target. Multiple lens focus options are available, including narrow, medium and wide fan angles.

This light's application flexibility is further enhanced by the addition of a "24" model that includes an embedded controller. This feature also makes the SL164 suitable for robotics applications where space and mounting options are restrictive, and allows for easier cable runs.

16 wavelength choices from 365nm UV to 940nm NIR, make this light a versatile, yet relatively inexpensive choice for many off-axis lighting applications.

- **High Intensity**
- **Diffusion Available**
- **16 Available Wavelengths**
- **Multiple Control Options**
- **1-2 Week BTO Lead Times**

General Information

General Specifications

Category	Specification			Detail	
Optical	Available Wavelengths			White, 365 nm, 375 nm, 385 nm, 395 nm, 405 nm, 455 nm, 470 nm, 505 nm, 530 nm, 590 nm, 625 nm, 660 nm, 730 nm, 850 nm, 940 nm	
	Available Lensing			Narrow (19°), Medium (30°), Wide (42°)	
	Available Light Conditioning			Diffuser	
Electrical	Power Consumption Info			See Power Requirements on Page 8	
	Cable Info			80” -0/+6” Long (2 m -0/+150 mm), 105 °C Rated, Foil Shield w/ Drain	
Mechanical	Sizing Info	Standard	Diameter	1.25”(31.8mm)	See Page 7 for More Details
			Length	2.41”(61.1mm)	
	Weight Info (Standard)			~ 0.18 lbs (~81 g) per Unit	
	Mounting Info			M3 Mounting Holes	
	Material Info			Anodized Aluminum Housing, Polycarbonite Window, Nickel Plated Brass Strain Relief, PVC Cable Jacket, Steel Black Oxide Fasteners	
Thermal	Operating Case Temperatures			25 °C to 60 °C	
	Operating Ambient Temperatures			0 °C to 35 °C	
Certification	Compliance			CE, RoHS, IEC 62471	
	IP Rating			IP64	
	Lumen Maintenance - White Only			L70 (50,000 Hours)	

General Information - Continued

Part Number Key

Model	Lens Type	-	Peak Wavelength	Connector/ Control	Light Conditioning Options	-	Alternative Connector
SL164	X	-	XXX	XX	X	-	XXX
SL164	N (Narrow)		365 (UV)[2]	C1	D (Diffuser)		M12[1]
	M (Medium)		375 (UV)[2]	C5			M8[1]
	W (Wide)		385 (UV)[2]	IC			
			395 (UV)[2]	I3			
			405 (violet)	I3S			
			455 (royal blue)	24			
			470 (blue)				
			505 (cyan)				
			530 (green)				
			590 (amber)				
			625 (red orange)				
			660 (red)				
			730 (IR)				
			850 (IR)				
			940 (IR)				
			WHI (white)				
more info on page			5	8			10

Example Part Numbers:
SL164-WHIC1D
SL164M-505I3-M12

[1]Available with 24, IC, I3, and I3S options only
[2]Available with narrow (N) lens option only; not available with diffuser

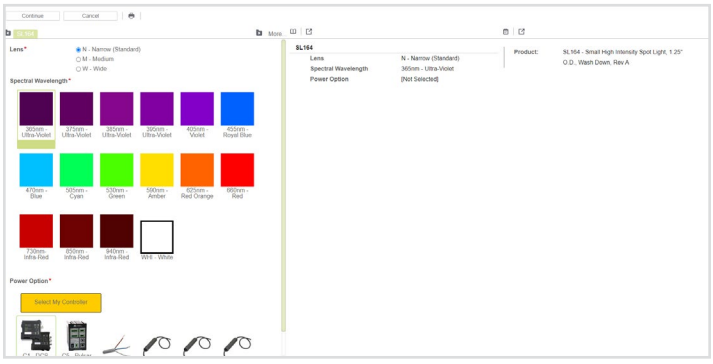
In Stock

SL164-WHI24

Lead Times

Stock products ship within three days.
Build-to-Order custom products ship within one to two weeks.

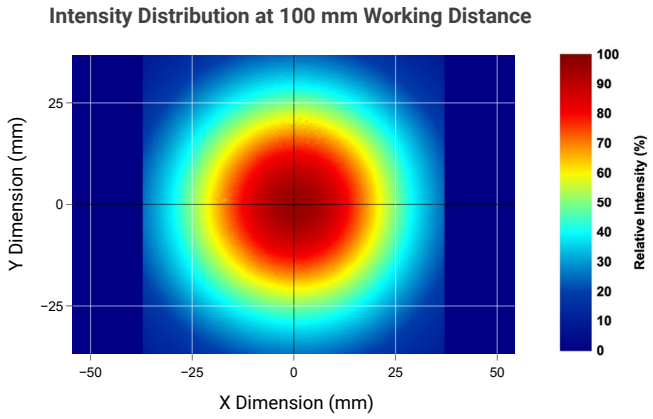
Configurator



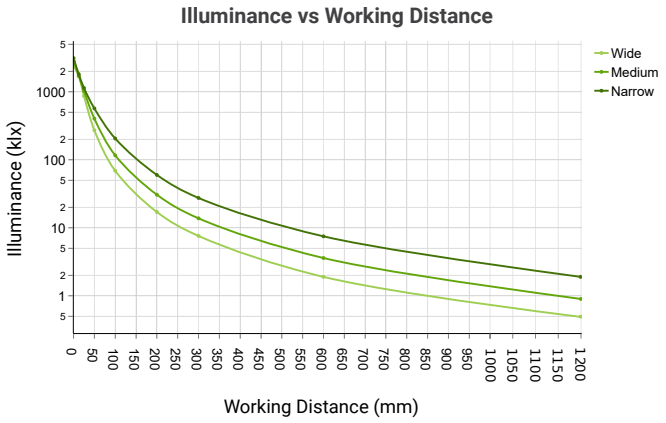
Need a build-to-order custom lighting solution in 2 weeks or less? Advanced Illumination's online configurator helps you tailor our SL164 Compact High Intensity Spot Light to your specific needs. For a guided configuration, visit our online configurator.

Optical Information

Intensity Characteristics

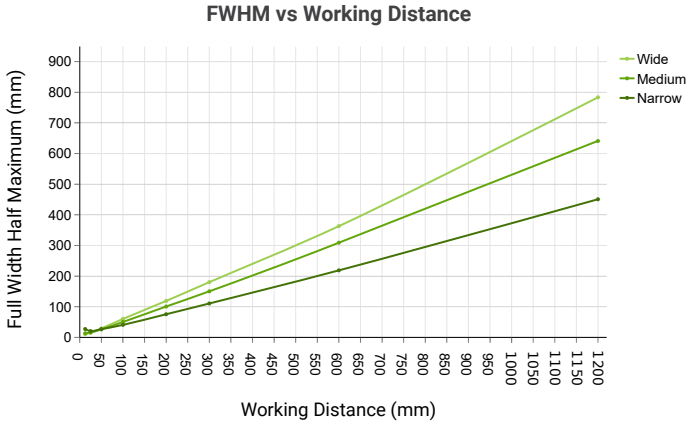


Intensity distribution sample image was taken with a white SL164 unit with medium lensing.



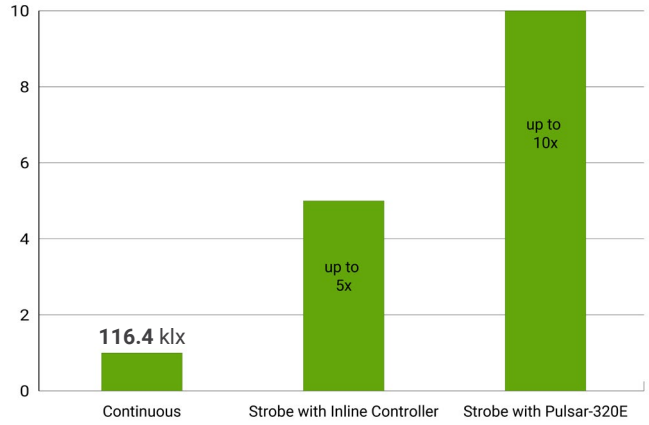
Illuminance data was collected using white SL164 units.

FWHM vs Working Distance



FWHM data was collected using white SL164 units.

Continuous vs Strobe Intensity

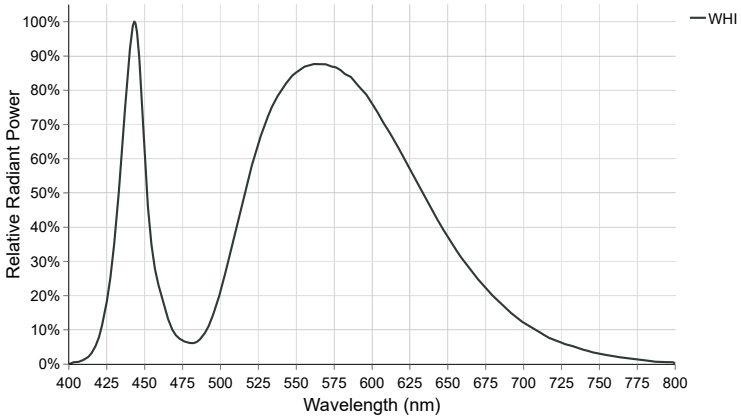


Under continuous operation, a white SL164 unit with medium lensing will output an **illuminance of 116.4 klx** and an **irradiance of 384 W/m²** at a 100 mm working distance. For applications that require higher output, the SL164 Series has been engineered to be overdrive strobe capable. When configured with AI's strobe enabled Inline Controller (I3, and I3s), the SL164 is capable of outputting up-to 5X continuous levels. When configured with a C5 connector, compatible with AI's Pulsar 320E, a **SL164 can be strobed up-to 10X continuous intensity levels.**

Disclaimer: The measurements provided above are for approximations only and may vary depending on the method of measurement and the specific configuration being measured.

Optical Information - Continued

White Spectral Profile

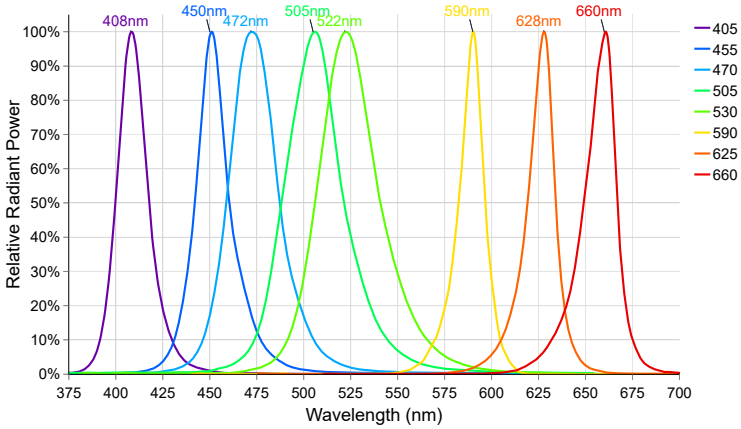


White LED illumination is the most commonly used machine vision lighting configuration. It is often the default choice when specific features of interest do not require color-based highlighting. However, white LEDs can vary in color temperature, which can impact machine vision systems, specifically when matching white light sources.

The SL164 Series white LEDs have a relatively cool color correlated temperature (CCT) of **6500 K.**

For a more detailed look at the white spectral data, download the csv file of the raw spectral values and refer to our Product Spectra Distribution Charts PDF.

Visible Spectral Profiles

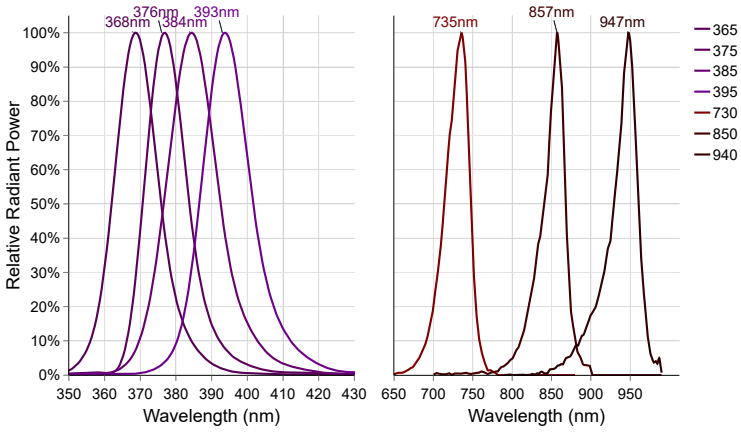


Visible color illumination consists of using wavelengths between 400-700 nm to either create or eliminate contrast on an inspection subject based on differences in a features color hue. When referring to a color wheel, simply remember the following: like colors reflect and brighten surfaces; conversely, opposing colors absorb and darken surfaces.

The SL164 Series is available in **405 nm, 455 nm, 470 nm, 505 nm, 530 nm, 590 nm, 625nm, and 660 nm** configurations.

For a more detailed look at the visible color spectral data, download the csv file of the raw spectral values and refer to our Product Spectra Distribution Charts PDF.

Non-Visible Spectral Profiles



Near-infrared (NIR) imaging is a machine vision technique using longer wavelengths of 700-1000 nm to penetrate specific materials that are otherwise opaque to under the visible spectrum. When paired with a NIR camera, a NIR light can be ideal for applications such as fill level inspection, circuit board inspection, food safety inspection, and medical imaging.

The SL164 Series is available in **365 nm, 375 nm, 385 nm, 395 nm, 730 nm, 850 nm, and 940 nm** configurations.

For a more detailed look at the NIR spectral data, download the csv file of the raw spectral values and refer to our Product Spectra Distribution Charts PDF.

Disclaimer: The measurements provided above are for approximations only and may vary depending on the method of measurement and the specific configuration being measured.

Optical Information - Continued

Photobiological Risk Factors

Group	Description	Affected Wavelengths (nm)
Exempt	No Photobiological Hazard	730, 850, 940
Group 1	No Photobiological hazard under normal behavioral limitations	455, 470, 505, 530, 590, 625, 660, WHI
Group 2	Does not pose a hazard due to aversion response to bright light or thermal discomfort	365, 375, 385, 395, 405

Advanced Illumination's lighting products have been tested and classified to IEC standards by accredited testing services. For more information on photobiological risk factors, please view the following PDF: https://www.advancedillumination.com/wp-content/uploads/2019/04/IEC-040119.pdf

Cleaning Guidelines

To clean our light's optics, it is best to only clean when necessary. Dusting is always the first step in cleaning your optics. Wiping a dusty optic is like cleaning it with sandpaper. So always dust with a canned air duster or compressed and filtered air before wiping any optic. If the dusted optic has no visible stains after you dust it, then remember: "If it's not dirty, don't clean it." Avoid wiping optics when possible.

If dusting did not clean the lens or the lens has stains, use only de-ionized water and mild dish soap with a low lint cloth designed for optics to avoid damage to the optic by any harsh chemicals.

Polarizers, beam splitters and collimated films should never be wiped with any type of cloth or solvent, only use the air dusting method to clean these types of optics.

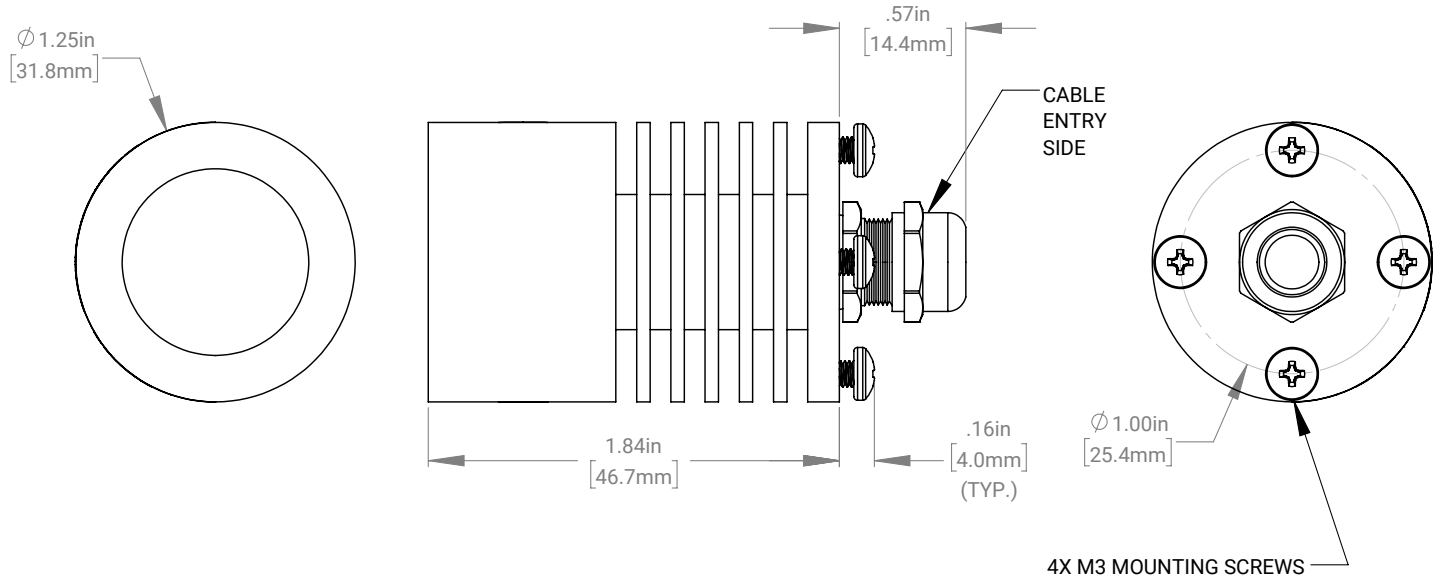
The aluminum housing can be wiped down when dusting is not a sufficient means to thoroughly clean.

Disclaimer: The measurements provided above are for approximations only and may vary depending on the method of measurement and the specific configuration being measured.

Mechanical Information

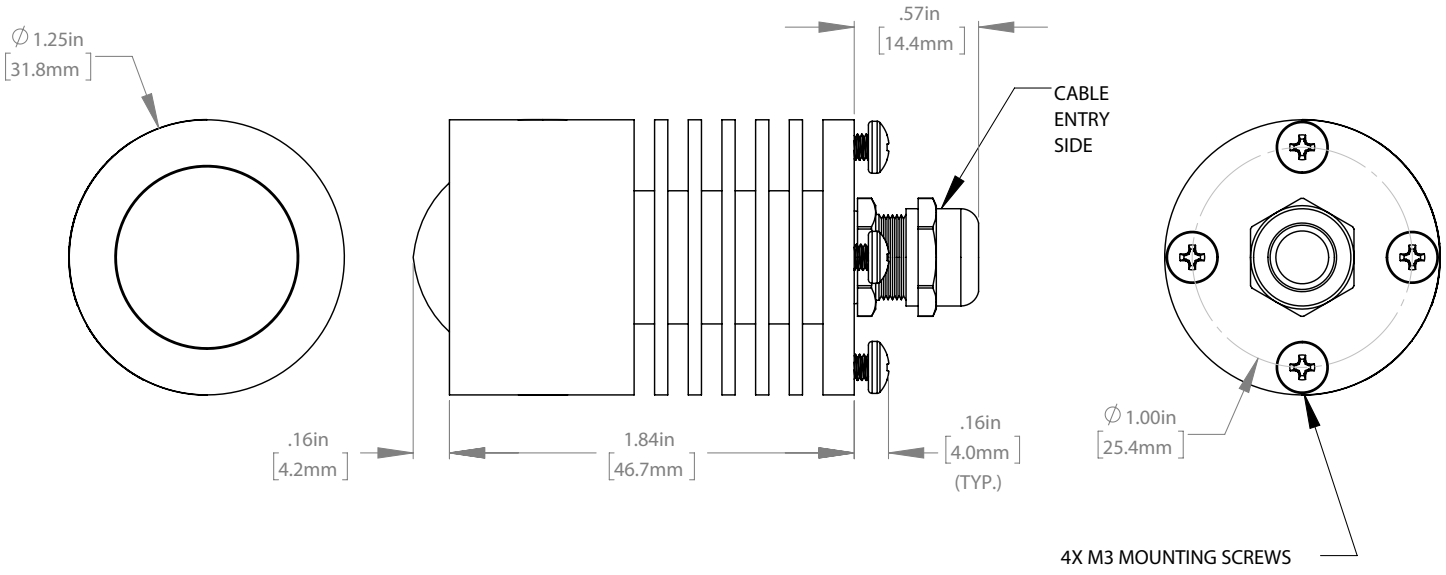
Installation Drawings

Visible and IR Models



For full installation drawings and complete CAD models of this configuration, please visit the downloads section of the product webpage.

UV Models



Applicable to UV configured lights only

For full installation drawings and complete CAD models of this configuration, please visit the downloads section of the product webpage.

Electrical Information

Power Requirements

Current Required for Power Supply Sizing

Wavelengths (nm)	Configured w/ Voltage Drive (24)	Configured w/ Standard Controller (C1, C5, IC, I3, I3S)
365, 375, 385, 395	0.060A	0.080A
405, 455, 470, 505, 530, 590, 625, 660	0.160A	0.250A
730, 850	0.140A	0.100A
940	0.140A	0.150A
WHI	0.090A	0.230A

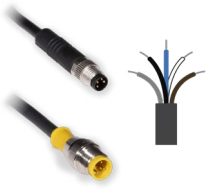
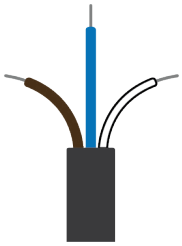
Note: All Advanced Illumination lights and controllers are nominally powered by 24V DC unless otherwise noted. Strobe overdriving with controller based models may require more current and voltage overhead. The values above do not include background current draw from the controller (~100 mA total).

Control Options

Controller Image	Controller Details	Connector Image
	**DCS Single Output Controller - Compatible with C1 Configurations** *PN: DCS-100E* The DCS-100E is a compact, din-rail mounted general-purpose external controller with one C1 output connector, wired with three channels. Capable of providing single channel control or multi-channel control for RGB compatible lights. **Output Power:** 90 W Max Continuous, 540 W Max Pulsed (Overdrive Strobe) **Output Current:** 4.5A Max Continuous, 15 A Max Pulsed **I/Os:** 3 External Trigger Inputs **Interface:** 10/100 Ethernet with Software and browser-based GUIs. SDKs are also available. For more information about our DCS-100E, please visit the controller product page.	
	**DCS Triple Output Controller - Compatible with C1 Configurations** *PN: DCS-103E* The DCS-103E is a din-rail mounted general-purpose multi-light controller with three C1 output connectors. Capable of driving three lights in sync or asynchronously. **Output Power:** 30 W Max Continuous / Output, 180 W Max Pulsed / Output **Output Current:** 1.5A Max Continuous / Output, 5 A Max Pulsed / Output **I/Os:** 3 External Trigger Inputs **Interface:** 10/100 Ethernet with Software and browser-based GUIs. SDKs are also available. For more information about our DCS-103E, please visit the controller product page.	
	**Pulsar 320E High Current Controller - Compatible with C5 Configuration** *PN: Pulsar 320E* The Pulsar 320E is a high-power, dual output, pulse-only controller geared for overdriving driving lights at very short flash durations with very high current. **Output Power:** 2500 W Max Pulsed / Output **Output Current:** 50 A Max Pulsed / Output I**/Os:** 2 External Trigger Inputs **Interface:** 10/100 Ethernet with Software GUI. SDKs are also available. For more information about our Pulsar 320E, please visit the controller product page.	

Electrical Information - Continued

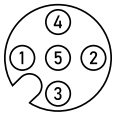
Control Options - Continued

Controller Image	Controller Details	Connector Image
	**Inline Controller - Continuous Only - IC Configurations** *PN: N/A* The IC is an inline, cable-mounted continuous-only controller configured/wired directly for the ordered light head. **Output Power:** 25 W Max Continuous **Output Current:** 1.25 A Max Continuous **I/O:** 1 0-10 V Analog Dimming Input **Interface:** Direct Cable (flying leads or optional connector) For more information about our IC Controller please visit the controller product page.	
	**Inline Controller - Strobe and Continuous - I3 & I3S Configurations** *PN: N/A* The I3 and I3S are inline, cable-mounted continuous and pulse (overdrive strobe) capable controllers configured/wired directly for the ordered light head. When operated in pulsed mode, the I3 is a default-on device on power up, whereas the I3S is default-off, requiring a trigger to illuminate. **Output Power:** 25 W Max Continuous, 125 W Max Pulsed **Output Current:** 1.25 A Max Continuous, 8 A Max Pulsed (Load Dependent) **I/Os:** 1 Gated Trigger Signal, 1 0-10 V Analog Dimming Input **Interface:** Direct Cable (flying leads or optional connector) For more information about our I3/I3S Controller, please visit the controller product page.	
	**24V Driver - Continuous Only - 24 Configurations** *PN: N/A* 24V option allows lights to operate continuous output with 24V connection and no additional controllers. **Modes:** Continuous, can be wired to some 3rd party controllers or external relays for gated operation **Interface:** Direct cable (flying leads or connector options)	

Electrical Information - Continued

Inline Control Option Wiring Information

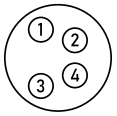
Standard Flying Lead and Optional M12 Connector Pinout Functions

Pin (M12)	Wire Color	24V Functions	IC Functions	I3/I3S Functions	M12 Pinout
1	BROWN	24V DC	24V DC	24V DC	
2	WHITE	N/A	0-10V Analog Control	Reserved	
3	BLUE	DC GND	DC GND	DC GND	
4	BLACK	N/A	Gate Low	PNP/Active High Trigger	
5	GRAY	N/A	N/A	0-10V Analog Control	

5-Position Male Connector

The functions above are only applicable when ordering an 24, IC, I3, or I3s power configuration with our without an M12 connector. For more wiring information pertaining to strobing and dimming functionality, please download the controller manuals and datasheets.

Optional M8 Connector Pinout Functions

Pin (8)	Wire Color	24V Functions	IC Functions	I3/I3S Functions	M8 Pinout
1	BROWN	24V DC	24V DC	24V DC	
2	WHITE	N/A	0-10V Analog Control	Reserved	
3	BLUE	DC GND	DC GND	DC GND	
4	BLACK	N/A	Gate Low	Active High Trigger	

4-Position Male Connector

The functions above are only applicable when ordering an 24, IC, I3, or I3s power configuration with our without an M8 connector. For more wiring information pertaining to strobing and dimming functionality, please download the controller manuals and datasheets.

Accessories

Category	Accessory Image	Accessory Detail
Power Supply		**24 Volt DC Power Supply** *PN: PS24-TL* This convenient power source is a universal AC input switching power supply with a regulated output DC current. The power supply comes with an LED Power Indicator, tinned leads marked Positive (+) and Negative (-) and 2 WAGO connectors for simplified assembly. For more information about our 24 Volt DC Power Supply, please visit this webpage.
Dimmer		**Manual Dimming Accessory for the IC, I3 and I3s** *PN: DCS-MP* The DCS-MP is a 30-position potentiometer, detented for precision level control and provides repeatable dimming with cable inline controllers. Features include DIN-rail mountable, a flip up cover to prevent accidental adjustments, spring clamp wiring terminal for flying leads or an M12 connector for use with the IC or I3/I3S Inline Controllers. For more information about our Manual Dimming Accessory please visit this webpage.
Dimmer		**Manual Dimming Accessory for the IC** *PN: MP-ICS* The MP-ICS is a dimmer which is designed for use on lights with the IC Inline Controller. This unit provides for 0 – 100% intensity control. It is NOT COMPATIBLE with LLI37, BLI38, LLI67, and BLI68 "IC" Lights or lights built with the "24v controller" option. For more information about our Manual Dimming Accessory, please visit this webpage.

Accessories - Continued

Category	Accessory Image	Accessory Detail
Extension Cable		**DCS-100E/103E Extension Cable, Single Light Power Cable - C1 Configuration** *PN: LC-XX-S* This extension cable was designed for applications requiring power cables longer than the standard 2 meters provided with Ai lights. This single light cable features a single male and single female 7 pin locking connector (C1) and can be purchased in 3 - 15-meter lengths. For more information about our DCS-100E/103E Extension Cable, Single Output, please visit this webpage.
Extension Cable		**DCS-100E/103E Extension Cable, Dual Light Power Cable - C1 Configuration** *PN: LC-XX-Y* This extension cable was designed for applications requiring two identical lights to be powered through a single controller. These Y cables feature a single male and dual female 7 pin locking connectors (C1) and can be purchased in 3 - 15-meter lengths. See attached spec sheet for compatible light configuration. For more information about our DCS-100E/103E Extension Cable, Split Output, please visit this webpage.
Extension Cable		**Pulsar 320E Extension Cable - C5 Configuration** *PN: LC-XX-S-C5* This extension cable was designed for applications requiring power cables longer than the standard 2 meters provided with Ai lights. This single light cable features a single male and single female Pulsar 320 connector (C5) and can be purchased in 3 - 15 meter lengths. For more information about our Pulsar 320E Extension Cable, please visit this webpage.
Adaptor Cable		**Cognex Gen2 Inline Controller Adaptor Cable** *PN: AD-I3-CGX2* This cable adaptor is for connecting I3/I3S configured lights with Cognex Gen2 Cameras, and comes with a male to female M12 connectors. For more information about our Cognex Gen2 Inline Controller Adaptor Cable, please visit this webpage.
Filters		**Camera Lens Band Pass FIlters** *PN: BPXXX-YYY* Eliminating all but a narrow band of light (+/- 40nm) centered on the specified wavelength, band pass filters are used to enhance colors, or to stop unwanted ambient light from reaching the camera. Filtering can replace existing shrouds, simplifying the physical set up of an inspection site. Ai offers 635nm and 660nm band pass filters to fit several different lens sizes. For more information about our Camera Lens Band Pass FIlters, please visit this webpage.

Additional Information

Warranty

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty. No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

Compliancy

Our lighting products are designed and tested to meet CE, RoHS, and IEC standards. As a global ISO 9001 certified company, we understand the importance of compliance and perform accelerated testing on every product before shipment. For more information on our compliance standards, please see our compliancy documentation here: https://www.advancedillumination.com/services/compliance-statements/

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 ET or send an email to orders@advancedillumination.com.

Company Information

Advanced Illumination
440 State Garage Road, Rochester, VT 05767
Phone: +1 (802) 767 3830
Fax: +1 (802) 767 2636
Email: info@advancedillumination.com
Web: advancedillumination.com

SL191

Pattern Generating Light Source

Product Highlights

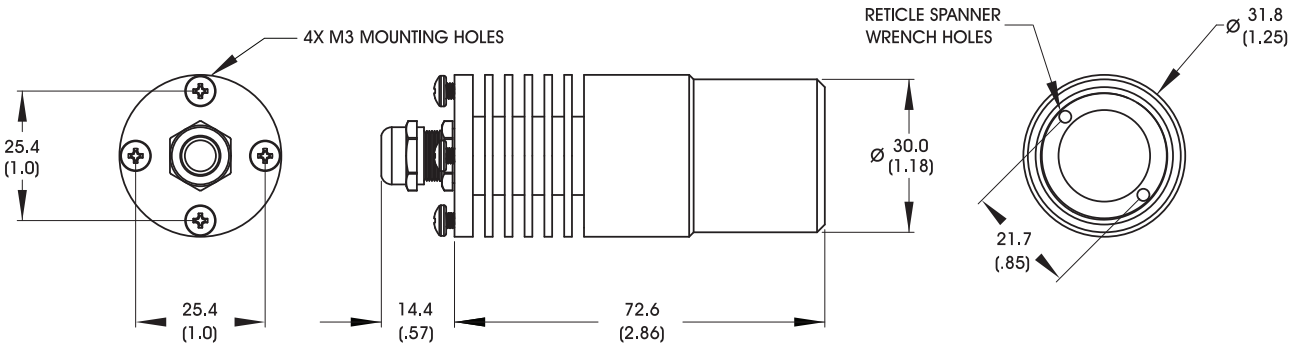
- Designed for applications requiring structured illumination
- Pattern generation is ideal for locating edges, offsets, and assessing topography
- Requires reticle and lens (sold separately)
  - For use with standard C Mount 2/3" lenses
  - Uses negatively patterned 21mm reticle
- A complete package includes the SL191, a preinstalled reticle of choice and final focusing lens (see SL191 Package)

General Specifications

Electrical Specifications	Color	24v Current	All Other Controls
	625	N/A	0.085A Max
	455, 530, WHI	N/A	0.13A Max
Normal Operating Temperature	0 - 60°C		
Weight (g)	113.4 g (4.0 oz)		
Standard Cable Information	Up to 2 meters (80") long - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor IEC 62471	**Group 1 (Low-Risk) Applicable Wavelengths:** 455, 530, 625, WHI		
Compliance	CE RoHS IEC 62471		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 hours		

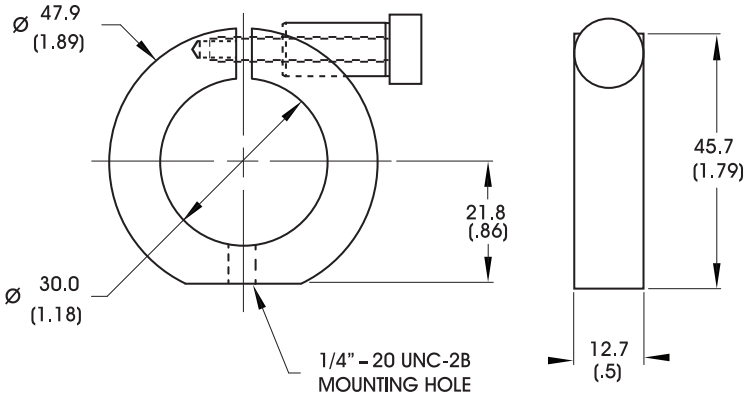
Released 7/15/2015
Updated 5/31/2017 DCN 2272

Mechanical Specifications



DIMENSIONS ARE IN MILLIMETERS (INCHES)

C-ring Mount (CM-30) Dimensional Information



DIMENSIONS ARE IN MILLIMETERS (INCHES)

Part Number Key

Model	—	Spectral Wavelength	Connector/ Control	—	Alternative Connector
SL191	—	XXX	XX	—	XXX
SL191		(blue) 455 (green) 530 (red) 625 (white) WHI	C1 C5 IC I3 I3S		M12[1]

Ex: SL191-WHIIC
SL191-625C1-M12

[1]Available with IC, I3 and I3S options only

Stock Product: *shipped within 3 days*
SL191-WHIIC
SL191-625IC

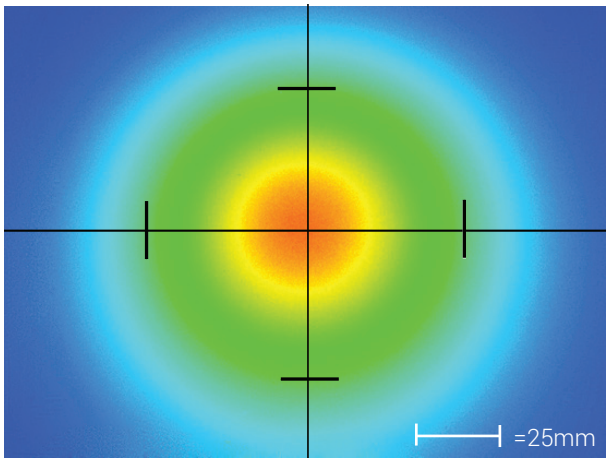
Build to Order: *shipped within 2 weeks*

Connector | Control Options

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)
For use with: DCS Series Controllers	*For use with:* Pulsar 320 Strobe Controller.	Continous in-line controller *Powered with:* 24V power supply	Combination strobe/continous in-line controller *Powered with:* 24V power supply	Default-OFF strobe/continous in-line controller *Powered with:* 24V power supply

Optical Performance

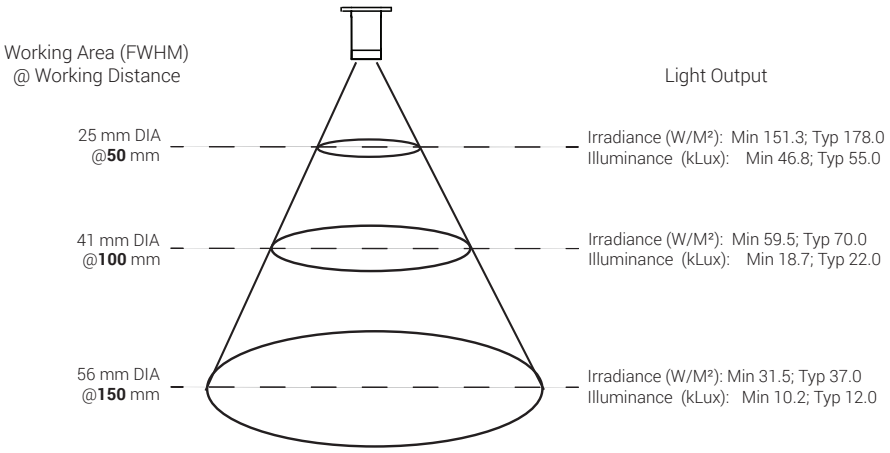
Intensity Distribution



Optical measurement taken using SL191-WHIIC @100mm; (no reticle or lens present)

Area of Illuminance & Intensity

(no reticle or lens present)



Operation and Wiring

ICS 2 (IC)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	0-10 VDC Analog Control	White
3	DCGND	Blue
4	GLO	Black

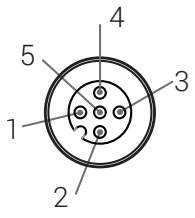
ICS 3 (I3 and I3S)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	Reserved	White
3	GND	Blue
4	PNP/Active High Trigger	Black
5	0-10 VDC Analog Control	Gray

24 Volt

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	0-10VDC analog control	White
3	DCGND	Blue
4	N/A	Black

Optional M12 Pinout



male
5-position

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.

Company Information

Advanced Illumination

440 State Garage Road, Rochester VT. 05767

Phone: 802.767.3830

Fax: 802.767.3831

Email: info@advancedillumination.com

Web: advancedillumination.com

SL223

MicroBrite™ Spot/Coaxial Light

Product Highlights

- The SL223 is characterized as a MicroBrite™ Spot/Coaxial Light and is designed primarily to replace fiber optic light sources in coaxial lensing applications.
- Optional couplers are available for use with Dolan-Jenner, Fostec, and Moritex fiber bundles.

General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	365, 375, 385, 395, 405	N/A	0.25 A Max
	625	N/A	0.45 A Max
	WHI, 455, 470, 505, 530, 590, 660	N/A	0.30 A Max
	730, 850, 940	N/A	0.70 A Max
Normal Operating Temperature	0 - 60°C		
Weight	13.6g (0.48oz)		
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 850, 940 Group 1 (Low-Risk) Applicable Wavelengths: 455, 470, 505, 530, 590, 625, 660, 730, WHI Group 2 (Moderate-Risk) Applicable Wavelengths: 365, 375, 385, 395, 405		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP65		

Lumen Maintenance	L70 = 50,000 Hours

Part Number Key

Model	Mounting Options	–	Peak Wavelength	Connector/ Control	–	Alternative Connector
SL223	X	–	XXX	XX	–	XXX
SL223	S (Standard) B (Barrel)		365 (UV) 375 (UV) 385 (UV) 395 (UV) 405 (violet) 455 (royal blue) 470 (blue) 505 (cyan) 530 (green) 590 (amber) 625 (red orange) 660 (red) 730 (IR) 850 (IR) 940 (IR) WHI (white)	C1 C5 IC I3 I3S		M8[1] M12[1]
EX: SL223B-530C1 SL223-WHII3-M12			[1] Available with IC, I3, and I3S options only			

See website product page for in-stock product numbers.

Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

Change Notice

PCN No: 157

Date Issued: June 28, 2021

Notice Type: Product Change

Product Type: SL223

Change Notification Summary

In an effort to improve our products, Advanced illumination (Ai) will be updating the PCB, housing and strain relief

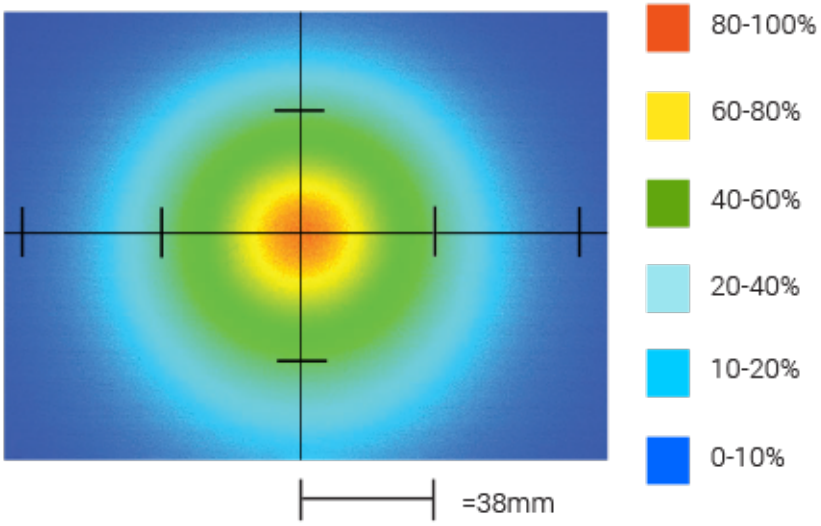
used in the SL223. This will result in a more robust and thermally efficient design; improving product longevity and durability. These changes will include an upgrade from stainless steel to a black anodized aluminum housing and the replacement of the rubber strain relief for a crimped brass cable entry sleeve. Adjustments to the PCB assembly will be made to improve thermal performance. Overall product dimensions will remain unchanged.

Please contact your Ai Sales Representative if you have any questions.

PCN 157 SL223

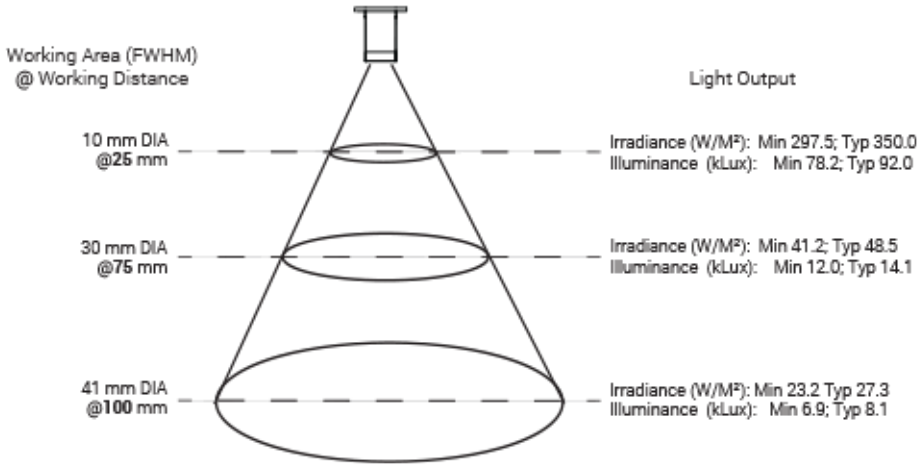
Optical Specs

Intensity Distribution



Optical measurement taken using SL223-WHIIC @ 75mm

Area of Illuminance & Intensity

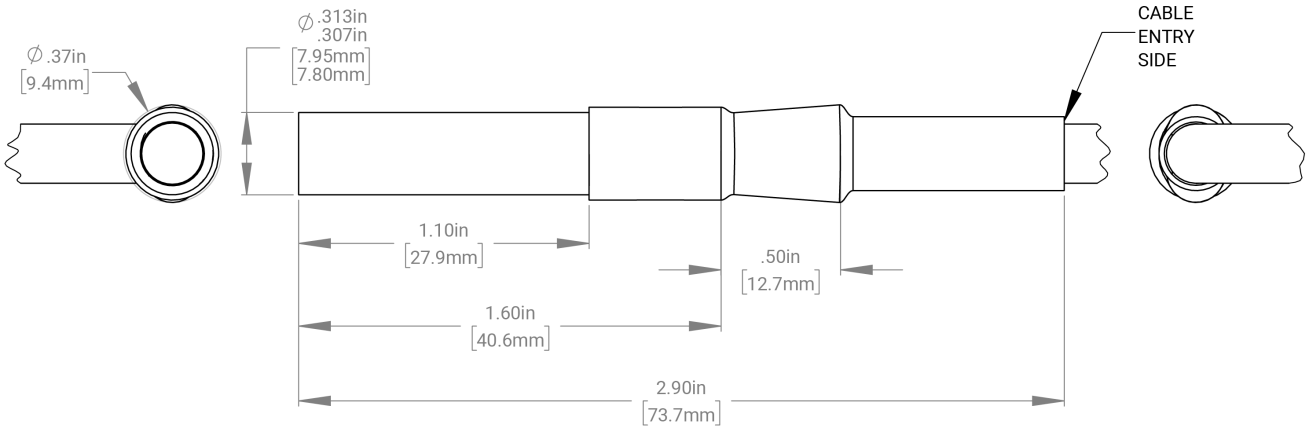


Control Specs

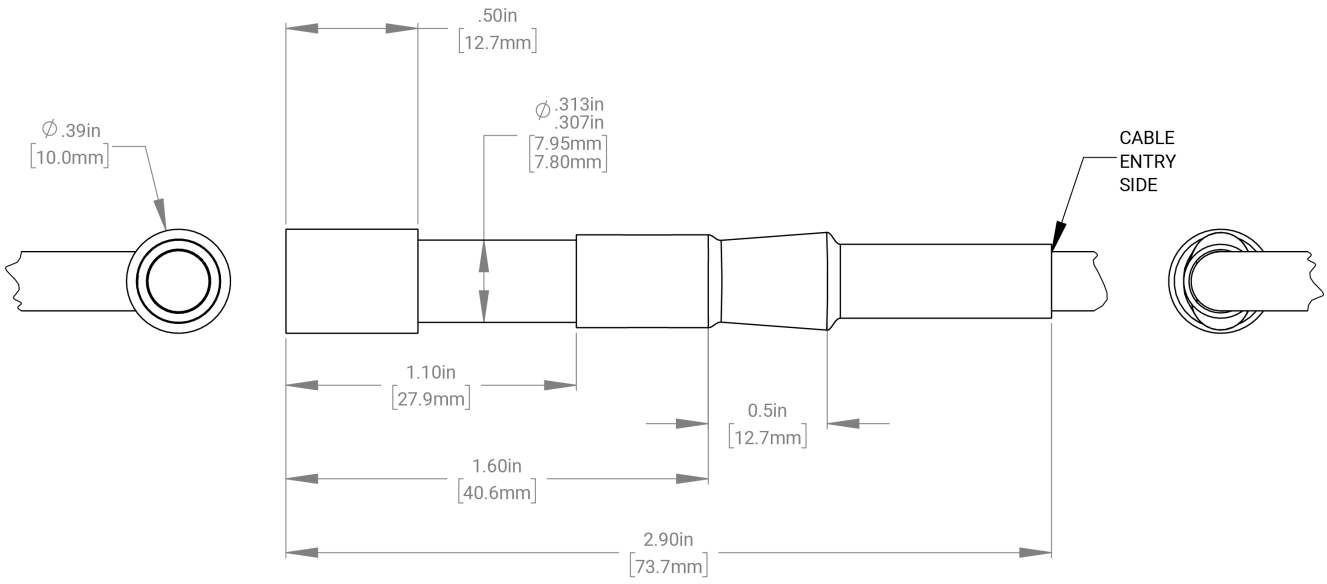
C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)
For use with: **DCS Series Controllers**	*For use with:* **Pulsar 320 Strobe Controller.**	Continous in-line controller *Powered with:* **24V power supply**	Combination strobe/continous in-line controller *Powered with:* **24V power supply**	Default-OFF strobe/continous in-line controller *Powered with:* **24V power supply**

Mechanical Specs

SL223 MODEL S

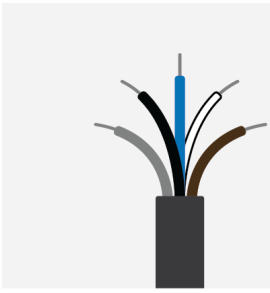


SL223 MODEL B



Electrical Specs

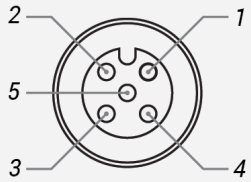
Standard Flying Lead Functions for IC, I3 and I3S Control Options



COLOR	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC
WHITE	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND
BLACK	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

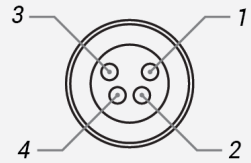
M12 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty.
No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

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 ET or send an email to orders@advancedillumination.com.

Company Information

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440 State Garage Road, Rochester, VT 05767
Phone: 802.767.3830
Fax: 802.767.2636
Email: info@advancedillumination.com
Web: advancedillumination.com

SL2420

Medium Aimed Spot Light

Product Highlights

- The SL2420 is characterized as a Medium Aimed Spot Light.
- Precisely aimed LEDs provide a level of lighting control not found in traditional illuminators.

General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	625, 660	0.12 A	0.05 A Max
	880	0.12 A	0.04 A Max
	395, 470, 520, WHI	0.08 A	0.06 A Max
Normal Operating Temperature	0 - 60°C		
Weight	90.7g (3.2oz)		
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 880 Group 1 (Low-Risk) Applicable Wavelengths: 470, 520, 625, 660, WHI Group 2 (Moderate-Risk) Applicable Wavelengths: 395		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 Hours		

Part Number Key

Model	–	Peak Wavelength	Stand Off (mm)	Illuminated Field of View (mm)	Connector/ Control	Light Conditioning Option	–	Alternative Connector
SL2420	–	XXX	XXX	XX	X	X	–	XXX
SL2420		395 (UV) 470 (blue) 520 (green) 625 (red orange) 660 (red) 880 (IR) WHI (white)	See chart to compute stand off	XS S M L XL	C1 C5 IC I3 I3S 24	D (Diffuser) P[2] (Polarizer)		M8[1] M12[1]

EX:
SL2420-395100XLC5D
SL2420-625150S13P-M12

[1] Available with IC, I3, I3S, and 24 V options only
[2] Not available with UV option; 470 (blue) will reduce the life of the polarizer

See website product page for in-stock product numbers.

Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

Change Notice

PCN No: 166

Date Issued: May 5, 2023
Notice Type: Product Change
Product Type: 660nm Wavelength on traditional 5mm Lights Discontinuation

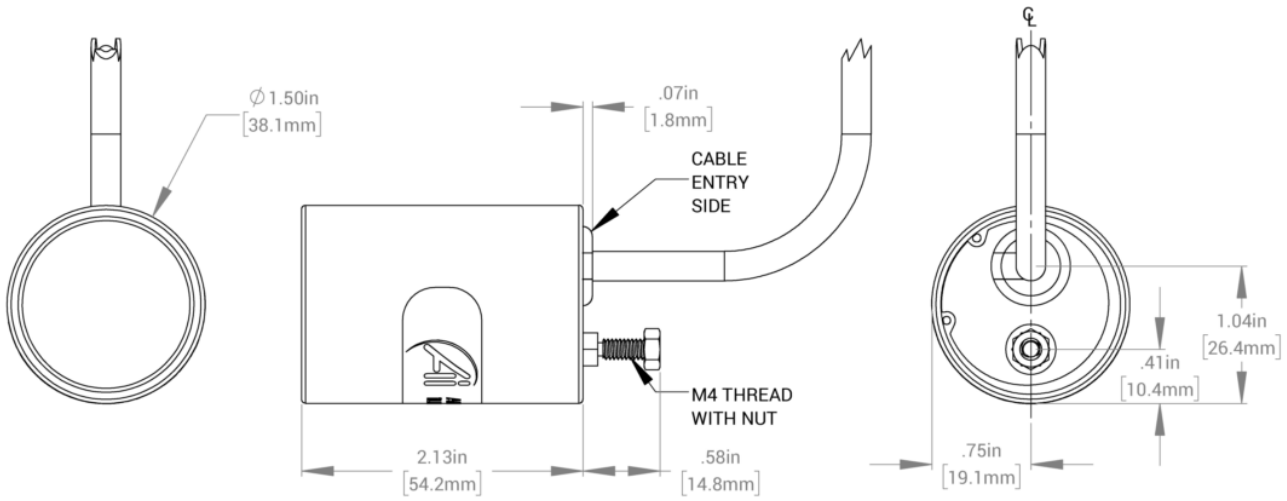
Change Notification Summary

Advanced illumination (Ai) will be ending the manufacture of the 660nm color option on our classic aimed lights due to the LEDs being discontinued from the manufacturer. We expect to have six months of inventory to fulfill orders, after that we suggest purchasing the same light but with the 625nm wavelength.

Please contact your Ai Sales Representative if you have any questions.

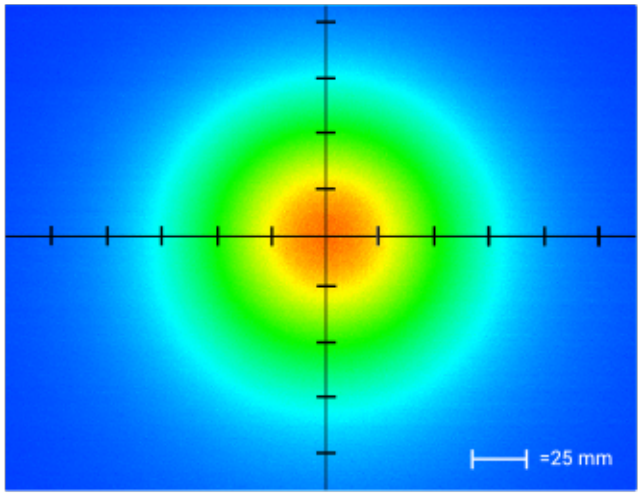
PCN 166

Mechanical Specs



Optical Specs

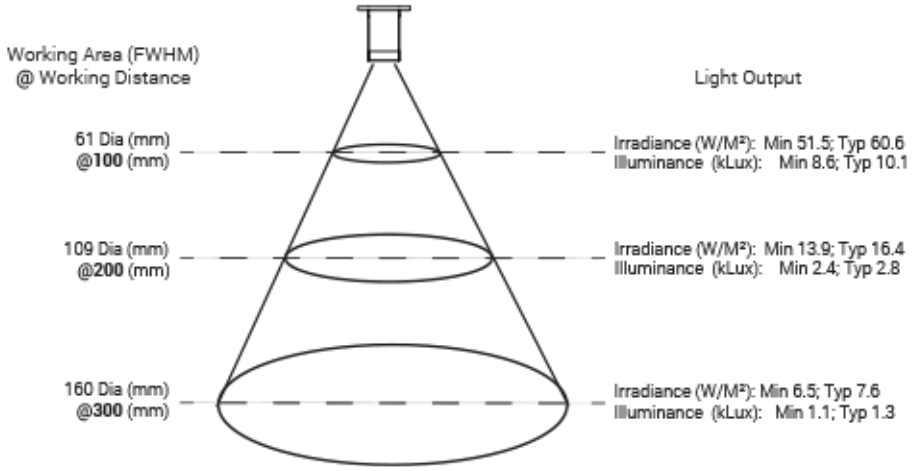
Intensity Distribution



80-100%
60-80%
40-60%
20-40%
10-20%
0-10%

Optical measurement taken using SL2420-625200LIC @ 200 mm

Area of Illuminance & Intensity



[FIELD OF VIEW CHART]

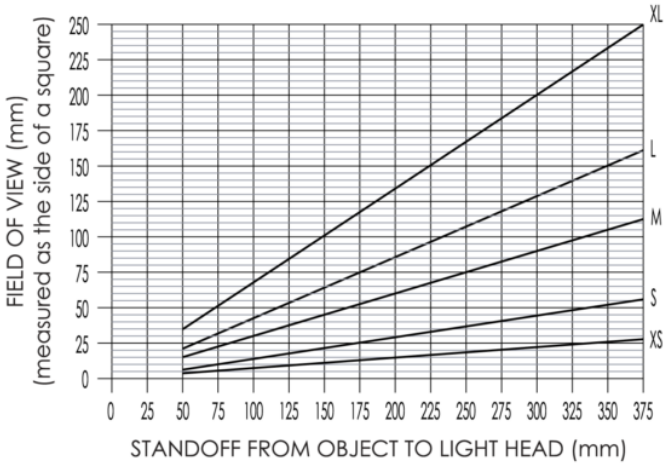
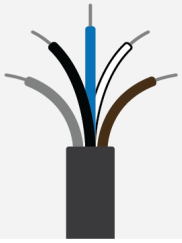


Figure 1

Identify desired FOV and standoff, then specify nearest illuminated area size

Electrical Specs

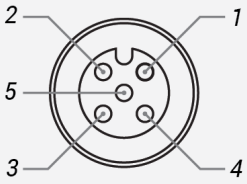
Standard Flying Lead Functions for 24V, IC, I3 and I3S Control Options



COLOR	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC	24 V DC
WHITE	N/A	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND	DC GND
BLACK	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

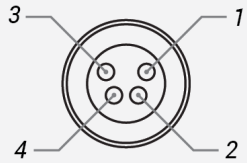
M12 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options



PIN	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	N/A	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND	DC GND
4	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options



PIN	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	N/A	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND	DC GND
4	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

*The functions listed above are only applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Control Specs

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	24
For use with: **DCS Series Controllers**	*For use with:* **Pulsar 320 Strobe Controller.**	Continous in-line controller *Powered with:* **24V power supply**	Combination strobe/continous in-line controller *Powered with:* **24V power supply**	Default-OFF strobe/continous in-line controller *Powered with:* **24V power supply**	Flying/tinned leads *Powered with:* **24V power supply**

Warranty Information

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Electromagnetic Compatibility

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Web: advancedillumination.com

SL243

MicroBrite™ Small Spot Light

Product Highlights

- The SL243 Spot Light provides an industry leading performance to size ratio while maintaining desirable thermal dissipation. Perfect for applications that require small footprint machine vision components.

General Specifications

	Color	24V Current	All Other Controls
Electrical Specifications	470, 505, 530, WHI	N/A	0.32 A Max
	590, 625, 660, 730	N/A	0.31 A Max
	850, 940	N/A	0.24 A Max
	365, 375, 385, 395, 405, 455	N/A	0.22 A Max
Normal Operating Temperature	0 - 60°C		

Weight	24g (0.85 oz)
Standard Cable Information	2 M long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shild with drain.
Photobiological Risk Factor	Exempt Applicable Wavelengths: 850, 940 Group 1 (Low Risk) Applicable Wavelengths: 455, 470, 505, 530, 590, 625, 660, 730, WHI Group 2 (Moderate Risk) Applicable Wavelengths: 365, 375, 385, 395, 405
Compliance	CE, RoHS, IEC 62471
IP Rating	TBD

Lumen Maintenance	L70 = 50,000 Hours

Part Number Key

Model	–	Peak Wavelength	Connector/ Control	Washdown Option	Light Conditioning Option	–	Alternative Connector
SL243	–	XXX	XX	X	X	–	XXX
SL243		365 (UV)[2] 375 (UV)[2] 385 (UV)[2] 395 (UV)[2] 405 (violet)[2] 455 (royal blue) 470 (blue) 505 (cyan) 530 (green) 590 (amber) 625 (red orange) 660 (red) 730 (IR) 850 (IR) 940 (IR) WHI (white)	C1 C5 Q4 IC I3 I3S	W	D (Diffuser)		M8[1] M12[1]

EX:
SL243-660I3D-M12
SL243-WHIC1

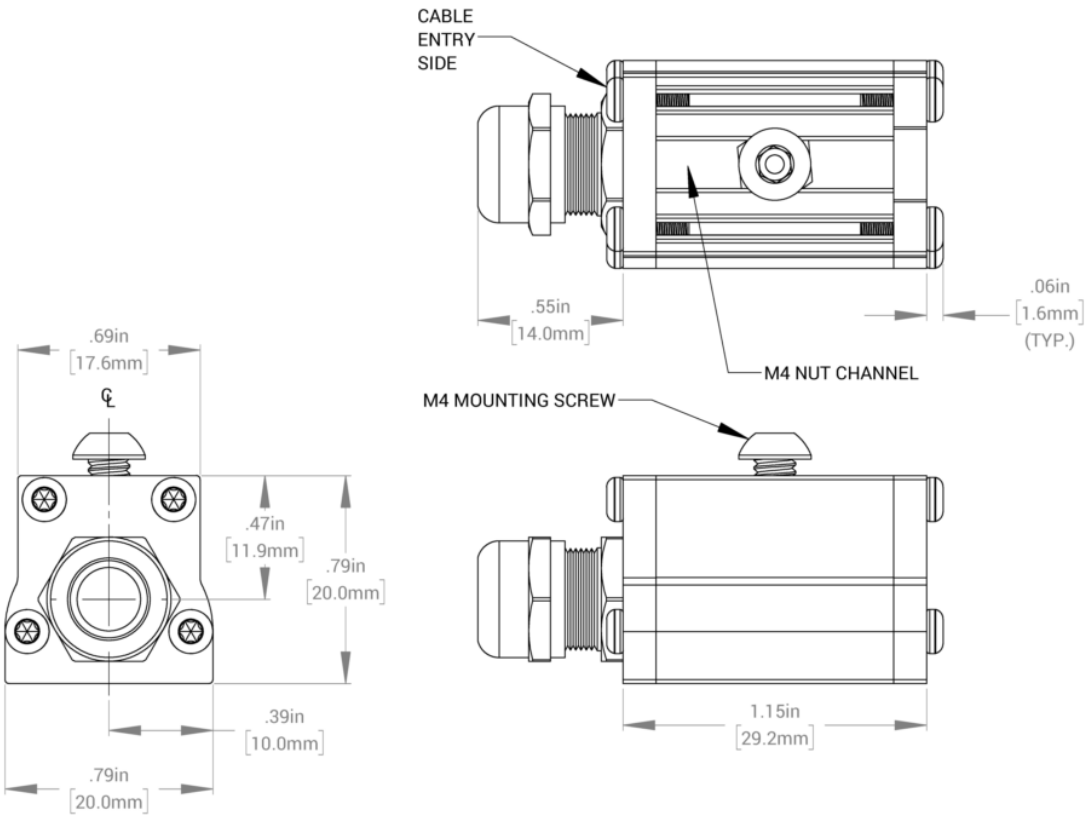
[1] Available with IC, I3, and I3S options only
[2] Not available with diffuser

See website product page for in-stock product numbers.

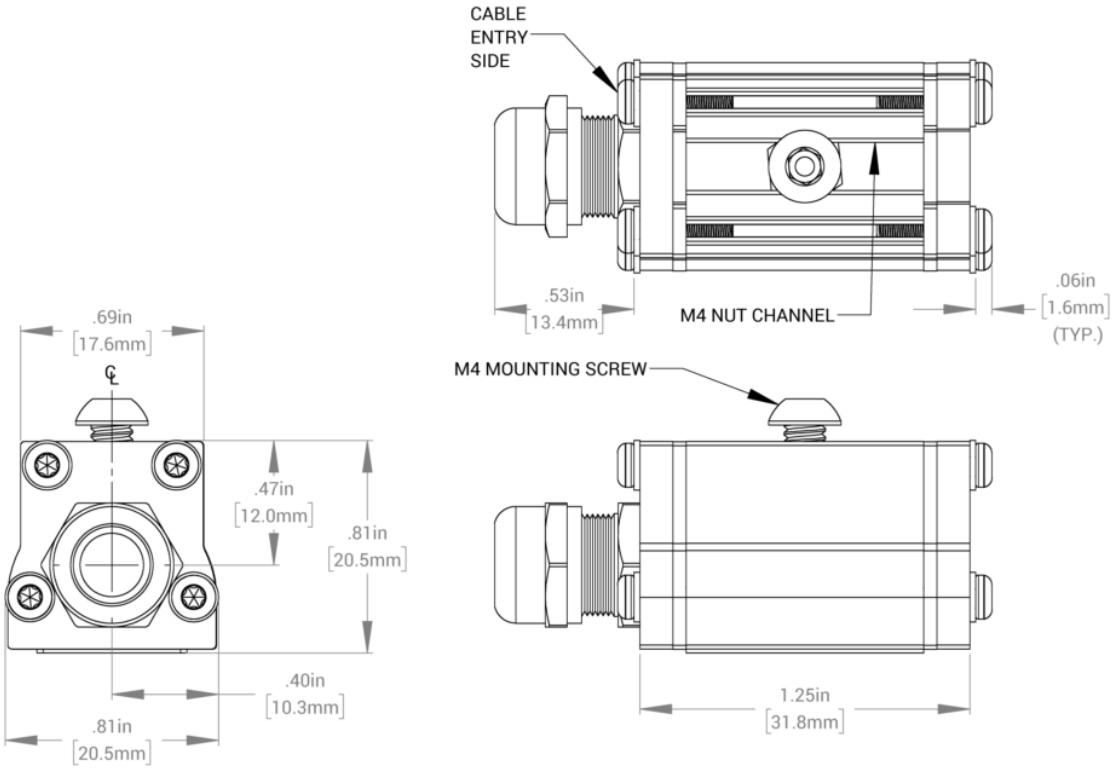
Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

Mechanical Specs

[NONSEALED]

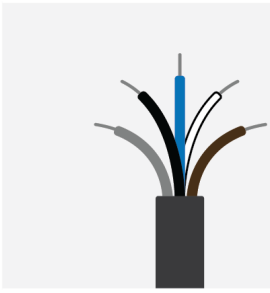


[SEALED]


CABLE
ENTRY
SIDE
.53in
[13.4mm]
M4 NUT CHANNEL
.06in
[1.6mm]
(TYP.)
M4 MOUNTING SCREW
.69in
[17.6mm]
.47in
[12.0mm]
.81in
[20.5mm]
.40in
[10.3mm]
.81in
[20.5mm]
1.25in
[31.8mm]

Electrical Specs

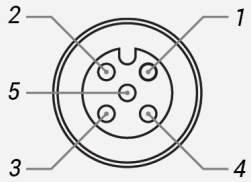
Standard Flying Lead Functions for IC, I3 and I3S Control Options



COLOR	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC
WHITE	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND
BLACK	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

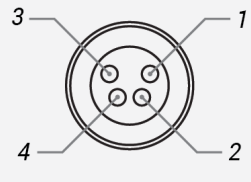
M12 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for IC, I3 and I3S Control Options



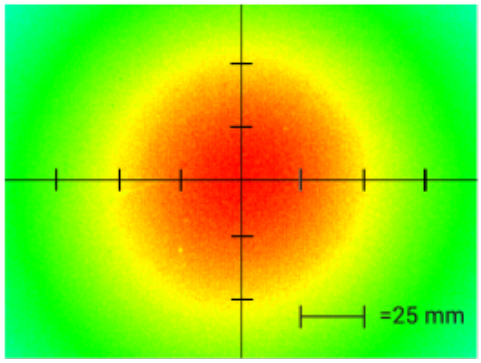
PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Optical Specs

Intensity Distribution

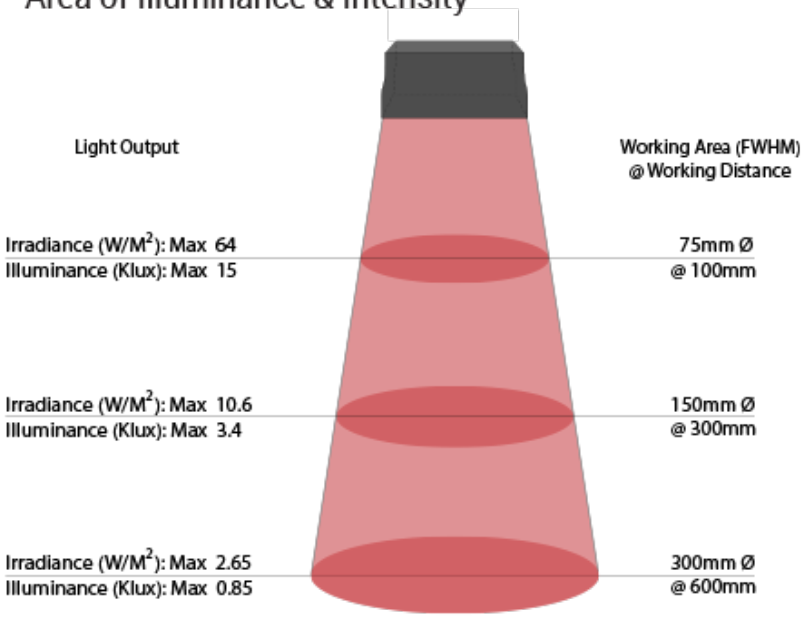


80-100% 60-40%

60-80% 40-20%

Optical measurement taken using SL243-WHII3 @ 300 mm

Area of Illuminance & Intensity



Control Specs

C1 CONNECTOR	C5 CONNECTOR	ICS 2 (IC)	ICS 3	ICS 3S (I3S)	24 VOLT
For use with: **DCS Series Controllers** Strobe/Continous Controllers	For use with: **Pulsar 320** High Power Strobe Only Controller	In-line Continous Controller Powered with: **24V Power Supply**	In-line Strobe/ Continous Controller Default On Powered with: **24V Power Supply**	In-line Strobe/ Continous Controller Default Off Powered with: **24V Power Supply**	Flying/Tinned Leads Powered with: **24V Power Supply**

Note: Selecting a Q4 connection will result in 4 spot lights wired to 1 connector, each spot light operating on a single channel.

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Web: advancedillumination.com

SL244

MicroBrite™ Spot Light

Product Highlights

- High-Intensity Illumination in a Compact Package
- Available in a broad range of wavelengths
- Washdown Version Available
- Convenient M4 T-Slot for Mounting

General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	470, 505, 530, WHI	N/A	0.19 A Max
	590, 625, 660, 730	N/A	0.18 A Max
	850, 940	N/A	0.14 A Max
	365, 375, 385, 395, 405, 455	N/A	0.13 A Max
Normal Operating Temperature	0 - 60°C		
Weight	42g (1.48 oz)		
Standard Cable Information	2 M long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 850, 940 Group 1 (Low Risk) Applicable Wavelengths: 455, 470, 505, 530, 590, 625, 660, 730, WHI Group 2 (Moderate Risk) Applicable Wavelengths: 365, 375, 385, 395, 405		
Compliance	CE, RoHS, IEC 62471		
IP Rating	TBD		
Lumen Maintenance	L70 = 50,000 Hours		

Part Number Key

Model	–	Peak Wavelength	Connector/ Control	Washdown Option	Light Conditioning Option	–	Alternative Connector
SL244	–	XXX	XX	X	X	–	XXX
SL244		365 (UV)[2] 375 (UV)[2] 385 (UV)[2] 395 (UV)[2] 405 (violet)[2] 455 (royal blue) 470 (blue) 505 (cyan) 530 (green) 590 (amber) 625 (red orange) 660 (red) 730 (IR) 850 (IR) 940 (IR) WHI (white)	C1 C5 Q4 IC I3 I3S	W	D (Diffuser)		M8[1] M12[1]

EX:
SL244-660I3D-M12
SL244-WHIC1

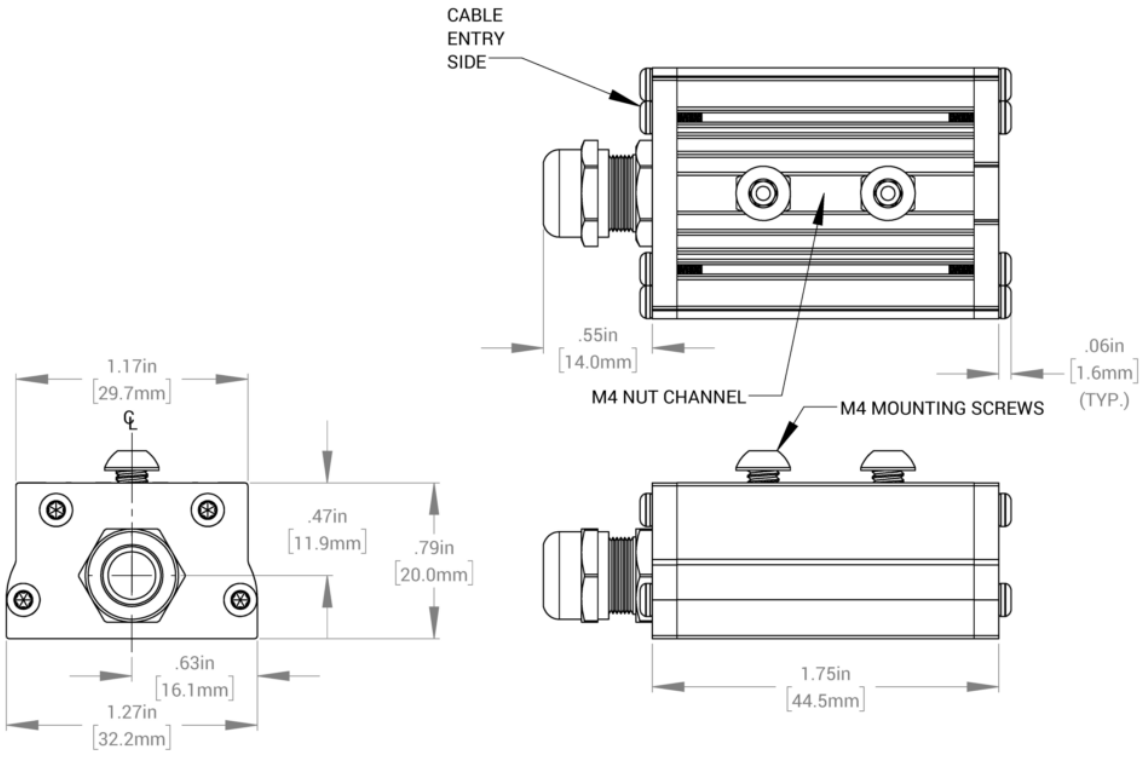
[1] Available with IC, I3, and I3S options only
[2] Not available with diffuser

See website product page for in-stock product numbers.

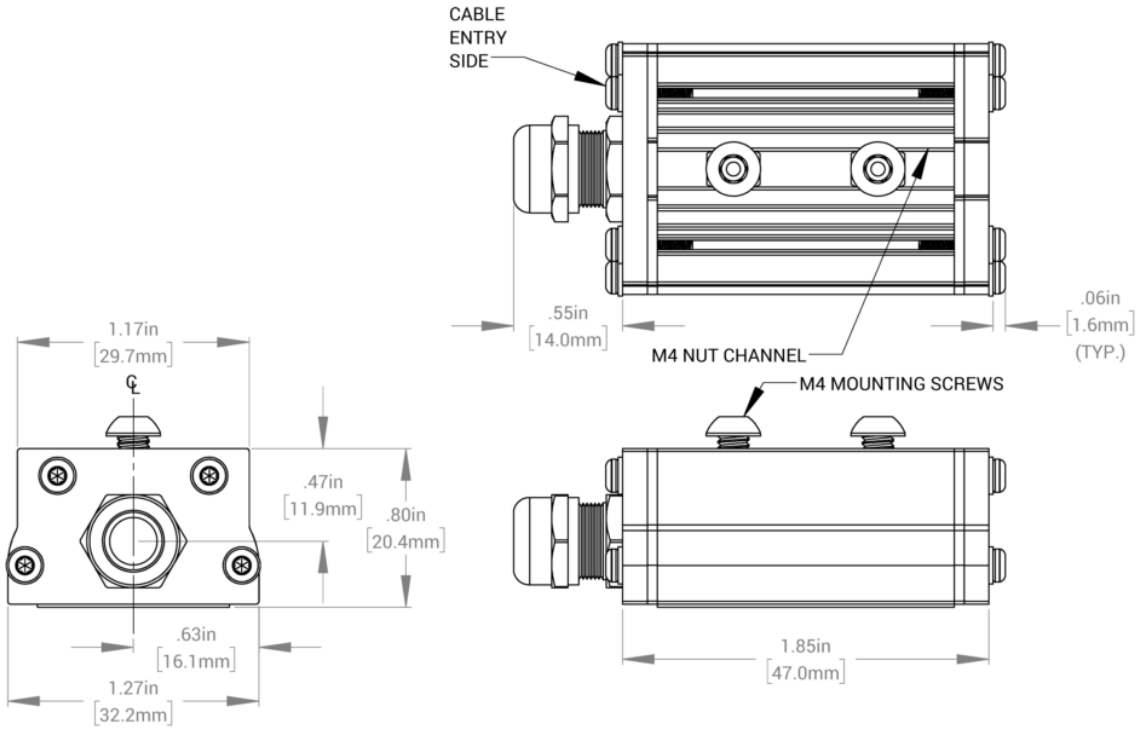
Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

Mechanical Specs

[NONSEALED]

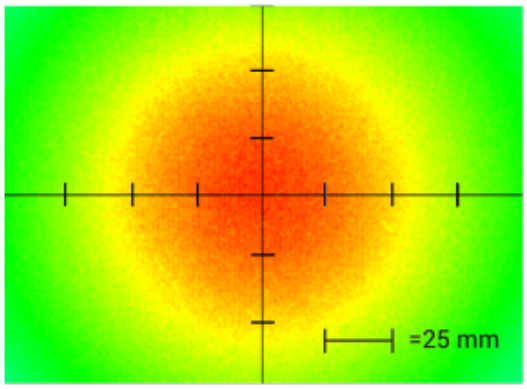


[SEALED]


CABLE
ENTRY
SIDE
.55in
[14.0mm]
M4 NUT CHANNEL
.06in
[1.6mm]
(TYP.)
M4 MOUNTING SCREWS
1.17in
[29.7mm]
.47in
[11.9mm]
.80in
[20.4mm]
.63in
[16.1mm]
1.27in
[32.2mm]
1.85in
[47.0mm]

Optical Specs

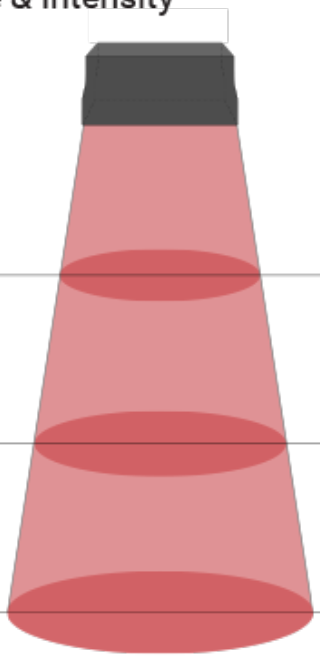
Intensity Distribution



80-100%
40-60%
60-80%
20-40%

Optical measurement taken using SL244-625I3 @ 300 mm

Area of Illuminance & Intensity



Light Output

Working Area (FWHM) @ Working Distance

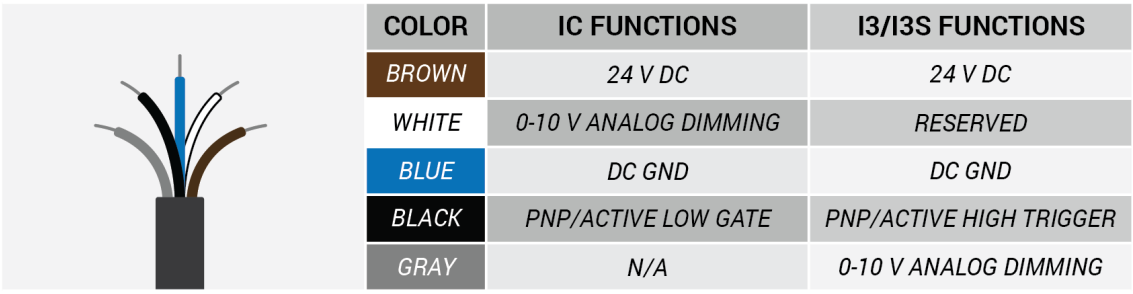
Irradiance (W/M^2): Max 150
Illuminance (Klux): Max 60
75mm Ø @ 100mm

Irradiance (W/M^2): Max 24.8
Illuminance (Klux): Max 7.7
175mm Ø @ 300mm

Irradiance (W/M^2): Max 5.9
Illuminance (Klux): Max 1.9
325mm Ø @ 600mm

Electrical Specs

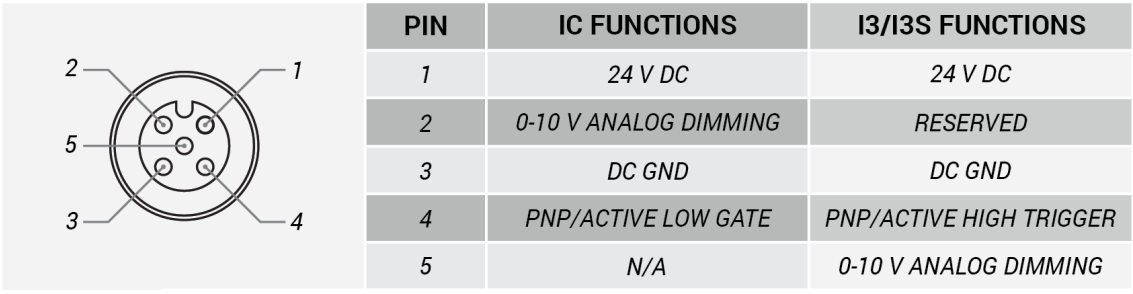
Standard Flying Lead Functions for IC, I3 and I3S Control Options



COLOR	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC
WHITE	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND
BLACK	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

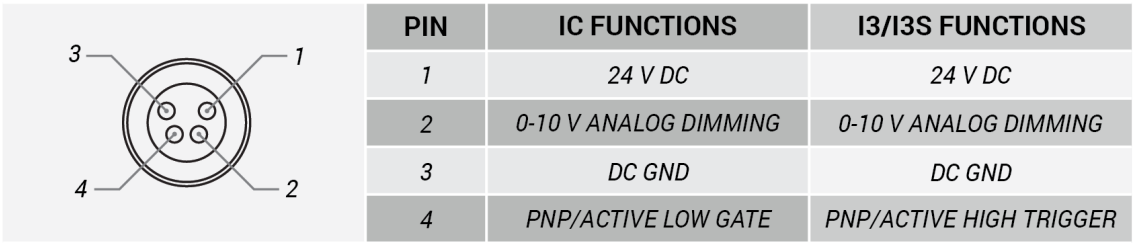
M12 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Control Specs

C1 CONNECTOR	C5 CONNECTOR	ICS 2 (IC)	ICS 3	ICS 3S (I3S)	24 VOLT
For use with: **DCS Series Controllers** Strobe/Continous Controllers	For use with: **Pulsar 320** High Power Strobe Only Controller	In-line Continous Controller Powered with: **24V Power Supply**	In-line Strobe/ Continous Controller Default On Powered with: **24V Power Supply**	In-line Strobe/ Continous Controller Default Off Powered with: **24V Power Supply**	Flying/Tinned Leads Powered with: **24V Power Supply**

Note: Selecting a Q4 connection will result in 4 spot lights wired to 1 connector, each spot light operating on a single channel.

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty.
No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

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 ET or send an email to orders@advancedillumination.com.

Company Information

Advanced Illumination
440 State Garage Road, Rochester, VT 05767
Phone: 802.767.3830
Fax: 802.767.2636
Email: info@advancedillumination.com
Web: advancedillumination.com

SL246

High Intensity Spot Light
Product Datasheet

ADVANCED ILLUMINATION by Exaktera

M4 Mounting Points
Designed with a side-mounted M4 nut channel and three rear M4 taps

High Power LEDs
Built with industrial grade LEDs capable of high output strobe and continuous operation, all while maintaining a long lifespan

Superior Long Working Distance Capability
The combination of high-power LEDs and an 8 degree fan angle composite lens produces a small projection at up to 3m working distance

SL246 Series Description

The SL246 ultra high intensity spot light is engineered to provide high-power on target from longer than typical vision working distances, up to 3m.

The SL246 differs from the UltraSeal SL316 in that it is not sealed for harsh or food zone environments and is designed for longer working distances.

The SL246 may also be differentiated from other, smaller spot lights primarily in the larger canister size and power on target potential.

- **High Intensity**
- **11 Available Wavelengths**
- **Multiple Control Options**
- **1-2 Week BTO Lead Times**

General Information

General Specifications

Category	Specification			Detail	
Optical	Available Wavelengths			White, 455 nm, 470 nm, 505 nm, 530 nm, 590 nm, 625 nm, 660 nm, 730 nm, 850 nm, 940 nm	
	Available Lensing			Narrow (14°), Medium (25°)	
	Available Light Conditioning			Homogenizer	
Electrical	Power Consumption Info			See Power Requirements on Page 8	
	Cable Info			80” -0/+6” Long (2 m -0/+150 mm), 105 °C Rated, Foil Shield w/ Drain	
Mechanical	Sizing Info	Standard	Diamter	3.19”(81.0mm)	See Page 7 for More Details
			Length	3.59”(91.1mm)	
	Weight Info (Standard)			~ 1.25 lb (~567 g) per Unit	
	Mounting Info			M4 Mounting Nut Channel	
	Material Info			Anodized Aluminum Housing, Acrylic Window, Nickel Plated Brass Strain Relief, PVC Cable Jacket, Steel Black Oxide Fasteners	
Thermal	Operating Case Temperatures			25 °C to 60 °C	
	Operating Ambient Temperatures			0 °C to 35 °C	
Certification	Compliance			CE, RoHS, IEC 62471	
	IP Rating			Not Rated	
	Lumen Maintenance - White Only			L70 (50,000 Hours)	

General Information - Continued

Part Number Key

Model	Lens	-	Peak Wavelength	Connector/Control	-	Alternative Connector	Light Conditioning Option
SL246	X	-	XXX	XX	-	XXX	X
SL246	N (Narrow)		455 (royal blue)	C1		M8[1]	(H) Homogenizer
	M (Medium)		470 (blue)	C5		M12[1]	
			505 (cyan)	IC			
			530 (green)	I3			
			590 (amber)	I3S			
			625 (red orange)	24			
			660 (red)				
			730 (IR)				
			850 (IR)				
			940 (IR)				
			WHI (white)				
more info on page			5	8		10	

Example Part Numbers:
SL246N-WHIC1
SL246N-660I3-M12
SL246M-WHI24H

[1] Available with 24, IC, I3, and I3S options only

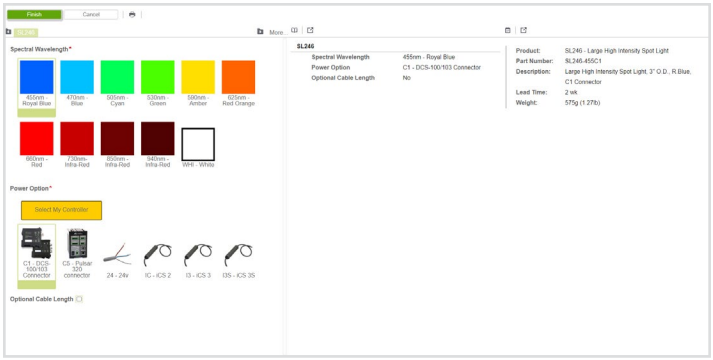
In Stock

SL246-WHIIC

Lead Times

Stock products ship within three days.
Build-to-Order custom products ship within one to two weeks.

Configurator

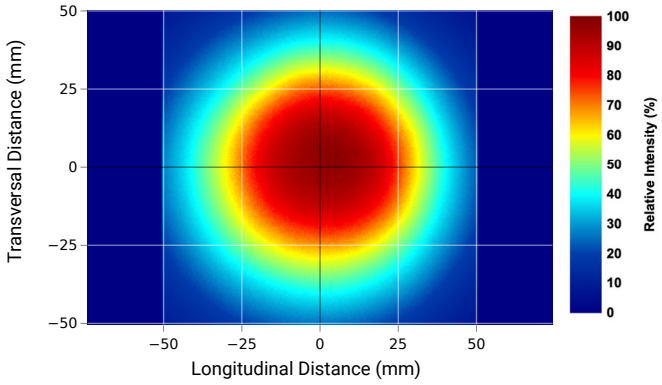


Need a build-to-order custom lighting solution in 2 weeks or less? Advanced Illumination's online configurator helps you tailor our SL246 High Intensity Spot Light to your specific needs. For a guided configuration, visit our online configurator.

Optical Information

Intensity Characteristics

Intensity Distribution Image at 300 mm Working Distance



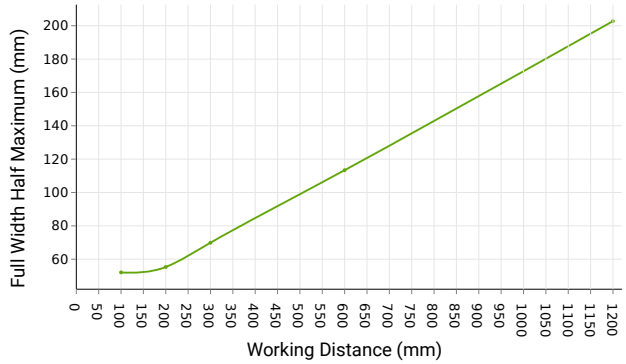
Intensity distribution sample image was taken with a white narrow lensed SL246 unit.

Illuminance vs Working Distance

Illuminance data was collected using a white narrow lensed SL246 unit.

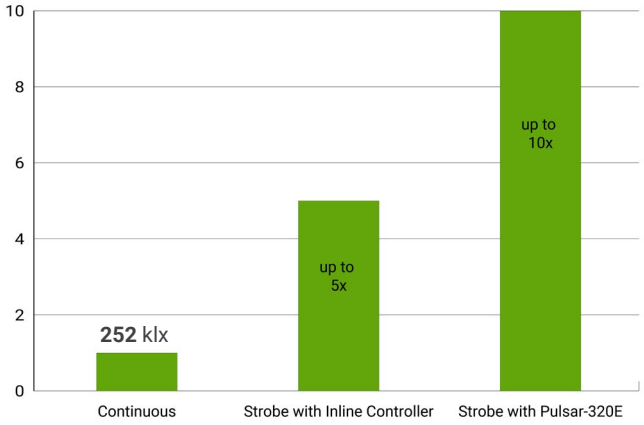
FWHM vs Working Distance

FWHM vs Working Distance



Full Width Half Maximum (FWHM) data collected using a narrow lensed white SL246 unit.

Continuous vs Strobe Intensity

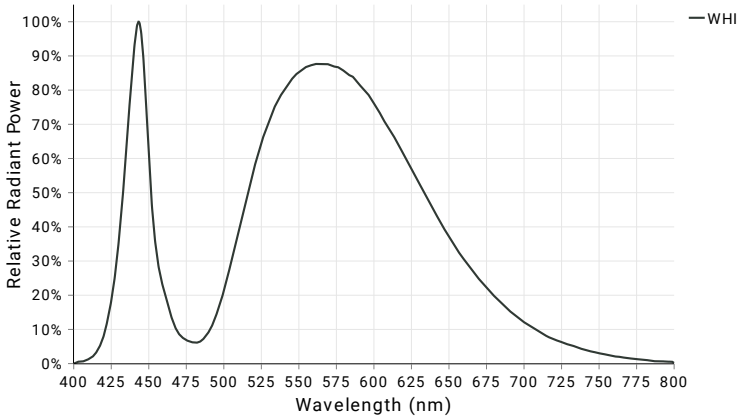


Under continuous operation, a white narrow lensed SL246 unit will output an **illuminance of 252 klx** and an **irradiance of 1370 W/m²** at a 300 mm working distance. For applications that require higher output, the SL246 Series has been engineered to be overdrive strobe capable. When configured with AI's strobe enabled Inline Controller (I3, and I3s), the SL246 is capable of outputting up-to 5X continuous levels. When configured with a C5 connector, compatible with AI's Pulsar 320E, a **SL246 can be strobed up-to 10X continuous intensity levels.**

Disclaimer: The measurements provided above are for approximations only and may vary depending on the method of measurement and the specific configuration being measured.

Optical Information - Continued

White Spectral Profile

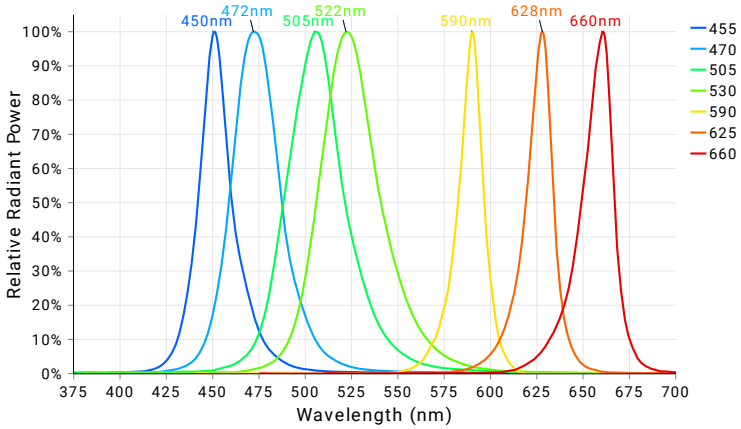


White LED illumination is the most commonly used machine vision lighting configuration. It is often the default choice when specific features of interest do not require color-based highlighting. However, white LEDs can vary in color temperature, which can impact machine vision systems, specifically when matching white light sources.

The SL246 Series white LEDs have a relatively neutral color correlated temperature (CCT) of **6500 K.**

For a more detailed look at the white spectral data, download the csv file of the raw spectral values and refer to our Product Spectra Distribution Charts PDF.

Visible Spectral Profiles

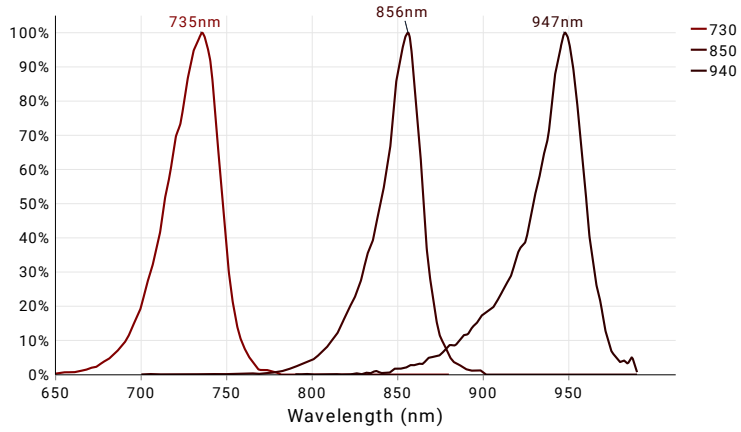


Visible color illumination consists of using wavelengths between 400-700 nm to either create or eliminate contrast on an inspection subject based on differences in a features color hue. When referring to a color wheel, simply remember the following: like colors reflect and brighten surfaces; conversely, opposing colors absorb and darken surfaces.

The SL246 Series is available in **455 nm, 470 nm, 505 nm, 530 nm, 590 nm, 625nm, and 660 nm** configurations.

For a more detailed look at the visible color spectral data, download the csv file of the raw spectral values and refer to our Product Spectra Distribution Charts PDF.

Non-Visible Spectral Profiles



Near-infrared (NIR) imaging is a machine vision technique using longer wavelengths of 700-1000 nm to penetrate specific materials that are otherwise opaque to under the visible spectrum. When paired with a NIR camera, a NIR light can be ideal for applications such as fill level inspection, circuit board inspection, food safety inspection, and medical imaging.

The SL244 Series is available in **730 nm, 850 nm, 940 nm** configurations.

For a more detailed look at the NIR spectral data, download the csv file of the raw spectral values and refer to our Product Spectra Distribution Charts PDF.

Disclaimer: The measurements provided above are for approximations only and may vary depending on the method of measurement and the specific configuration being measured.

Optical Information - Continued

Photobiological Risk Factors

Group	Description	Affected Wavelengths (nm)
Exempt	No Photobiological Hazard	730, 850, 940
Group 1	No Photobiological hazard under normal behavioral limitations	455, 470, 505, 530, 590, 625, 660, WHI
Group 2	Does not pose a hazard due to aversion response to bright light or thermal discomfort	N/A

Advanced Illumination's lighting products have been tested and classified to IEC standards by accredited testing services. For more information on photobiological risk factors, please view the following PDF: https://www.advancedillumination.com/wp-content/uploads/2019/04/IEC-040119.pdf

Cleaning Guidelines

To clean our light's optics, it is best to only clean when necessary. Dusting is always the first step in cleaning your optics. Wiping a dusty optic is like cleaning it with sandpaper. So always dust with a canned air duster or compressed and filtered air before wiping any optic. If the dusted optic has no visible stains after you dust it, then remember: "If it's not dirty, don't clean it." Avoid wiping optics when possible.

If dusting did not clean the lens or the lens has stains, use only de-ionized water and mild dish soap with a low lint cloth designed for optics to avoid damage to the optic by any harsh chemicals.

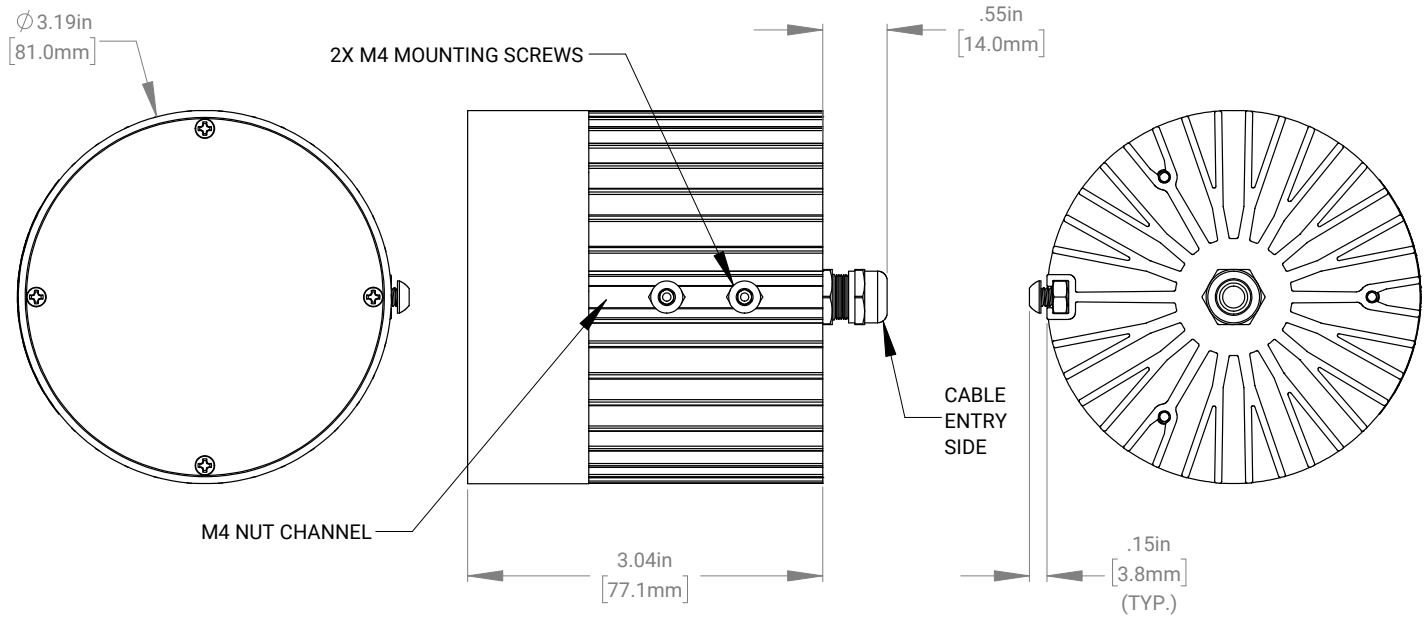
Polarizers, beam splitters and collimated films should never be wiped with any type of cloth or solvent, only use the air dusting method to clean these types of optics.

The aluminum housing can be wiped down when dusting is not a sufficient means to thoroughly clean.

Disclaimer: The measurements provided above are for approximations only and may vary depending on the method of measurement and the specific configuration being measured.

Mechanical Information

Installation Drawings



For full installation drawings and complete CAD models of this configuration, please visit the downloads section of the product webpage.

Electrical Information

Power Requirements

Current Required for Power Supply Sizing

Wavelengths (nm)	Configured w/ Voltage Drive (24)	Configured w/ Standard Controller (C1, C5, IC, I3, I3S)
455, 470	0.320A	0.370A
505, 530, WHI	0.320A	0.550A
590, 625, 660, 730	0.320A	0.510A
850, 940	0.320A	0.400A

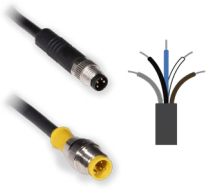
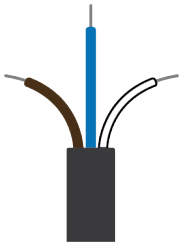
Note: All Advanced Illumination lights and controllers are nominally powered by 24V DC unless otherwise noted. Strobe overdriving with controller based models may require more current and voltage overhead. The values above do not include background current draw from the controller (~100 mA total).

Control Options

Controller Image	Controller Details	Connector Image
	**DCS Single Output Controller - Compatible with C1 Configurations** *PN: DCS-100E* The DCS-100E is a compact, din-rail mounted general-purpose external controller with one C1 output connector, wired with three channels. Capable of providing single channel control or multi-channel control for RGB compatible lights. **Output Power:** 90 W Max Continuous, 540 W Max Pulsed (Overdrive Strobe) **Output Current:** 4.5A Max Continuous, 15 A Max Pulsed **I/Os:** 3 External Trigger Inputs **Interface:** 10/100 Ethernet with Software and browser-based GUIs. SDKs are also available. For more information about our DCS-100E, please visit the controller product page.	
	**DCS Triple Output Controller - Compatible with C1 Configurations** *PN: DCS-103E* The DCS-103E is a din-rail mounted general-purpose multi-light controller with three C1 output connectors. Capable of driving three lights in sync or asynchronously. **Output Power:** 30 W Max Continuous / Output, 180 W Max Pulsed / Output **Output Current:** 1.5A Max Continuous / Output, 5 A Max Pulsed / Output **I/Os:** 3 External Trigger Inputs **Interface:** 10/100 Ethernet with Software and browser-based GUIs. SDKs are also available. For more information about our DCS-103E, please visit the controller product page.	
	**Pulsar 320E High Current Controller - Compatible with C5 Configuration** *PN: Pulsar 320E* The Pulsar 320E is a high-power, dual output, pulse-only controller geared for overdriving driving lights at very short flash durations with very high current. **Output Power:** 2500 W Max Pulsed / Output **Output Current:** 50 A Max Pulsed / Output I**/Os:** 2 External Trigger Inputs **Interface:** 10/100 Ethernet with Software GUI. SDKs are also available. For more information about our Pulsar 320E, please visit the controller product page.	

Electrical Information - Continued

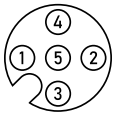
Control Options - Continued

Controller Image	Controller Details	Connector Image
	**Inline Controller - Continuous Only - IC Configurations** *PN: N/A* The IC is an inline, cable-mounted continuous-only controller configured/wired directly for the ordered light head. **Output Power:** 25 W Max Continuous **Output Current:** 1.25 A Max Continuous **I/O:** 1 0-10 V Analog Dimming Input **Interface:** Direct Cable (flying leads or optional connector) For more information about our IC Controller please visit the controller product page.	
	**Inline Controller - Strobe and Continuous - I3 & I3S Configurations** *PN: N/A* The I3 and I3S are inline, cable-mounted continuous and pulse (overdrive strobe) capable controllers configured/wired directly for the ordered light head. When operated in pulsed mode, the I3 is a default-on device on power up, whereas the I3S is default-off, requiring a trigger to illuminate. **Output Power:** 25 W Max Continuous, 125 W Max Pulsed **Output Current:** 1.25 A Max Continuous, 8 A Max Pulsed (Load Dependent) **I/Os:** 1 Gated Trigger Signal, 1 0-10 V Analog Dimming Input **Interface:** Direct Cable (flying leads or optional connector) For more information about our I3/I3S Controller, please visit the controller product page.	
	**24V Driver - Continuous Only - 24 Configurations** *PN: N/A* 24V option allows lights to operate continuous output with 24V connection and no additional controllers. **Modes:** Continuous, can be wired to some 3rd party controllers or external relays for gated operation **Interface:** Direct cable (flying leads or connector options)	

Electrical Information - Continued

Inline Control Option Wiring Information

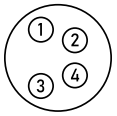
Standard Flying Lead and Optional M12 Connector Pinout Functions

Pin (M12)	Wire Color	24V Functions	IC Functions	I3/I3S Functions	M12 Pinout
1	BROWN	24V DC	24V DC	24V DC	
2	WHITE	N/A	0-10V Analog Control	Reserved	
3	BLUE	DC GND	DC GND	DC GND	
4	BLACK	N/A	Gate Low	PNP/Active High Trigger	
5	GRAY	N/A	N/A	0-10V Analog Control	

5-Position Male Connector

The functions above are only applicable when ordering an 24, IC, I3, or I3s power configuration with our without an M12 connector. For more wiring information pertaining to strobing and dimming functionality, please download the controller manuals and datasheets.

Optional M8 Connector Pinout Functions

Pin (8)	Wire Color	24V Functions	IC Functions	I3/I3S Functions	M8 Pinout
1	BROWN	24V DC	24V DC	24V DC	
2	WHITE	N/A	0-10V Analog Control	Reserved	
3	BLUE	DC GND	DC GND	DC GND	
4	BLACK	N/A	Gate Low	Active High Trigger	

4-Position Male Connector

The functions above are only applicable when ordering an 24, IC, I3, or I3s power configuration with our without an M8 connector. For more wiring information pertaining to strobing and dimming functionality, please download the controller manuals and datasheets.

Accessories

Category	Accessory Image	Accessory Detail
Power Supply		**24 Volt DC Power Supply** *PN: PS24-TL* This convenient power source is a universal AC input switching power supply with a regulated output DC current. The power supply comes with an LED Power Indicator, tinned leads marked Positive (+) and Negative (-) and 2 WAGO connectors for simplified assembly. For more information about our 24 Volt DC Power Supply, please visit this webpage.
Dimmer		**Manual Dimming Accessory for the IC, I3 and I3s** *PN: DCS-MP* The DCS-MP is a 30-position potentiometer, detented for precision level control and provides repeatable dimming with cable inline controllers. Features include DIN-rail mountable, a flip up cover to prevent accidental adjustments, spring clamp wiring terminal for flying leads or an M12 connector for use with the IC or I3/I3S Inline Controllers. For more information about our Manual Dimming Accessory please visit this webpage.
Dimmer		**Manual Dimming Accessory for the IC** *PN: MP-ICS* The MP-ICS is a dimmer which is designed for use on lights with the IC Inline Controller. This unit provides for 0 – 100% intensity control. It is NOT COMPATIBLE with LLI37, BLI38, LLI67, and BLI68 "IC" Lights or lights built with the "24v controller" option. For more information about our Manual Dimming Accessory, please visit this webpage.

Accessories - Continued

Category	Accessory Image	Accessory Detail
Extension Cable		**DCS-100E/103E Extension Cable, Single Light Power Cable - C1 Configuration** *PN: LC-XX-S* This extension cable was designed for applications requiring power cables longer than the standard 2 meters provided with Ai lights. This single light cable features a single male and single female 7 pin locking connector (C1) and can be purchased in 3 - 15-meter lengths. For more information about our DCS-100E/103E Extension Cable, Single Output, please visit this webpage.
Extension Cable		**DCS-100E/103E Extension Cable, Dual Light Power Cable - C1 Configuration** *PN: LC-XX-Y* This extension cable was designed for applications requiring two identical lights to be powered through a single controller. These Y cables feature a single male and dual female 7 pin locking connectors (C1) and can be purchased in 3 - 15-meter lengths. See attached spec sheet for compatible light configuration. For more information about our DCS-100E/103E Extension Cable, Split Output, please visit this webpage.
Extension Cable		**Pulsar 320E Extension Cable - C5 Configuration** *PN: LC-XX-S-C5* This extension cable was designed for applications requiring power cables longer than the standard 2 meters provided with Ai lights. This single light cable features a single male and single female Pulsar 320 connector (C5) and can be purchased in 3 - 15 meter lengths. For more information about our Pulsar 320E Extension Cable, please visit this webpage.
Adaptor Cable		**Cognex Gen2 Inline Controller Adaptor Cable** *PN: AD-I3-CGX2* This cable adaptor is for connecting I3/I3S configured lights with Cognex Gen2 Cameras, and comes with a male to female M12 connectors. For more information about our Cognex Gen2 Inline Controller Adaptor Cable, please visit this webpage.
Filters		**Camera Lens Band Pass FIlters** *PN: BPXXX-YYY* Eliminating all but a narrow band of light (+/- 40nm) centered on the specified wavelength, band pass filters are used to enhance colors, or to stop unwanted ambient light from reaching the camera. Filtering can replace existing shrouds, simplifying the physical set up of an inspection site. Ai offers 635nm and 660nm band pass filters to fit several different lens sizes. For more information about our Camera Lens Band Pass FIlters, please visit this webpage.

Additional Information

Warranty

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty. No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

Compliancy

Our lighting products are designed and tested to meet CE, RoHS, and IEC standards. As a global ISO 9001 certified company, we understand the importance of compliance and perform accelerated testing on every product before shipment. For more information on our compliance standards, please see our compliancy documentation here: https://www.advancedillumination.com/services/compliance-statements/

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 ET or send an email to orders@advancedillumination.com.

Company Information

Advanced Illumination
440 State Garage Road, Rochester, VT 05767
Phone: +1 (802) 767 3830
Fax: +1 (802) 767 2636
Email: info@advancedillumination.com
Web: advancedillumination.com

SL2507

Small Aimed Spot Light

Product Highlights

- The SL2507 is characterized as a Small Aimed Spot Light.
- Precisely aimed LEDs provide a level of lighting control not found in traditional illuminators.

General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	625, 660, 880	0.06 A	0.019 A Max
	395, 470, 520, WHI	0.05 A	0.013 A Max
Normal Operating Temperature	0 - 60°C		
Weight	27.2g (0.96oz)		
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 880 Group 1 (Low-Risk) Applicable Wavelengths: 470, 520, 625, 660, WHI Group 2 (Moderate-Risk) Applicable Wavelengths: 395		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 Hours		

Part Number Key

Model	–	Peak Wavelength	Stand Off (mm)	Illuminated Field of View (mm)	Connector/ Control	Light Conditioning Option	–	Alternative Connector
SL2507	–	XXX	XXX	XX	X	X	–	XXX
SL2507		395 (UV) 470 (blue) 520 (green) 625 (red orange) 660 (red) 880 (IR) WHI (white)	See chart to compute stand off	XS S M L	C1 C5 IC I3 I3S 24	D (Diffuser) P[2] (Polarizer)		M8[1] M12[1]

EX:
SL2507-395100LC5D
SL2507-625150S13P-M12

[1] Available with IC, I3, I3S, and 24 V options only
[2] Not available with UV option; 470 (blue) will reduce the life of the polarizer

See website product page for in-stock product numbers.

Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

Change Notice

PCN No: 166

Date Issued: May 5, 2023
Notice Type: Product Change
Product Type: 660nm Wavelength on traditional 5mm Lights Discontinuation

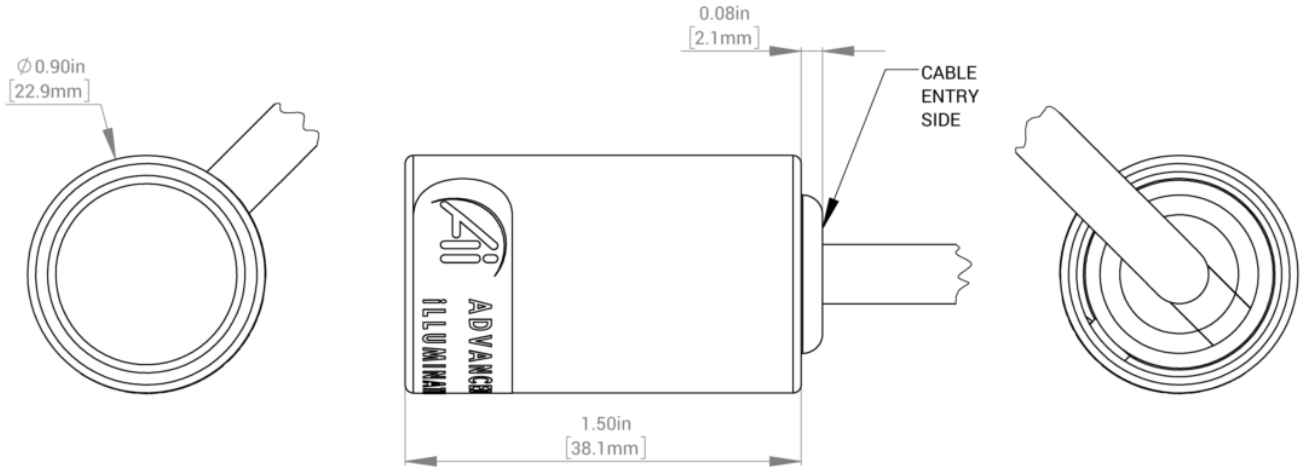
Change Notification Summary

Advanced illumination (Ai) will be ending the manufacture of the 660nm color option on our classic aimed lights due to the LEDs being discontinued from the manufacturer. We expect to have six months of inventory to fulfill orders, after that we suggest purchasing the same light but with the 625nm wavelength.

Please contact your Ai Sales Representative if you have any questions.

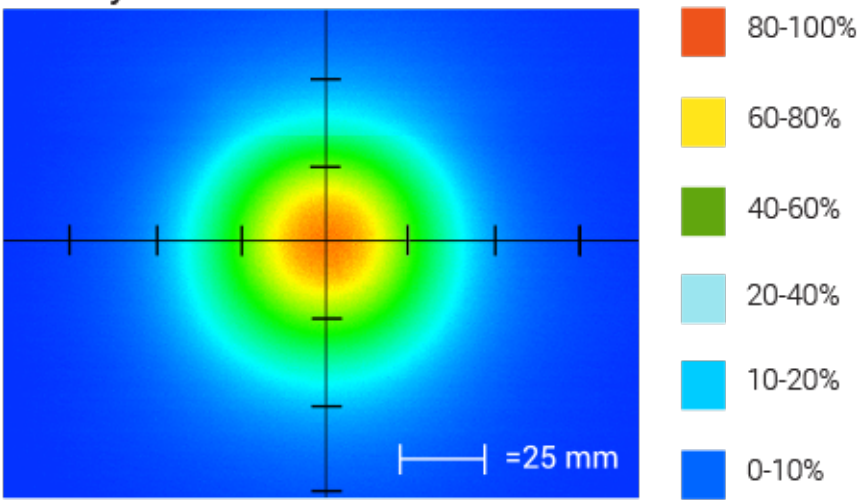
PCN 166

Mechanical Specs



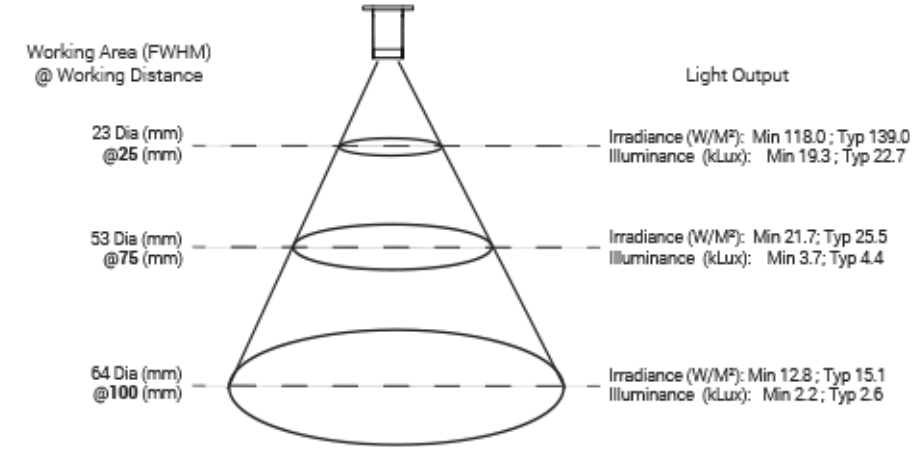
Optical Specs

Intensity Distribution



Optical measurement taken using SL2507-625075LIC @ 75 mm

Area of Illuminance & Intensity



[FIELD OF VIEW CHART]

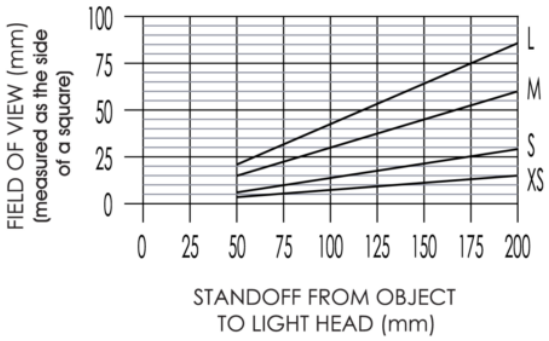
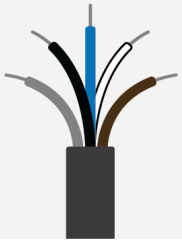


Figure 1

Identify desired FOV and standoff, then specify nearest illuminated area size

Electrical Specs

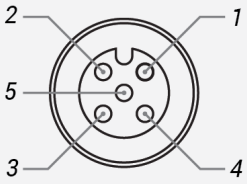
Standard Flying Lead Functions for 24V, IC, I3 and I3S Control Options



COLOR	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC	24 V DC
WHITE	N/A	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND	DC GND
BLACK	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

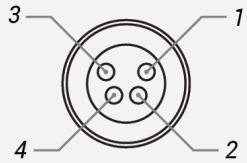
M12 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options



PIN	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	N/A	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND	DC GND
4	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options



PIN	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	N/A	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND	DC GND
4	N/A	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

*The functions listed above are only applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Control Specs

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	24
For use with: **DCS Series Controllers**	*For use with:* **Pulsar 320 Strobe Controller.**	Continous in-line controller *Powered with:* **24V power supply**	Combination strobe/continous in-line controller *Powered with:* **24V power supply**	Default-OFF strobe/continous in-line controller *Powered with:* **24V power supply**	Flying/tinned leads *Powered with:* **24V power supply**

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 FIVE YEARS from the original date of purchase. Should a defect develop during this period, customers may return the complete product, freight prepaid, to one of Ai's distributors or to the Ai factory. All product warranty returns require a Return Merchandise Authorization (RMA) number which is obtained from Customer Service. The RMA number must be clearly marked on the outside of the package. Ai will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. Ai disclaims liability for any implied warranties, including implied warranties of "merchantability" and "fitness for a specific purpose." For products under warranty that have since been discontinued, Ai will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, Ai reserves the right to repair or replace these products with an updated version. Ai cannot be held responsible for the unauthorized or inappropriate use of its products. Any unauthorized repair or modifications will result in a voided warranty.
No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

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.

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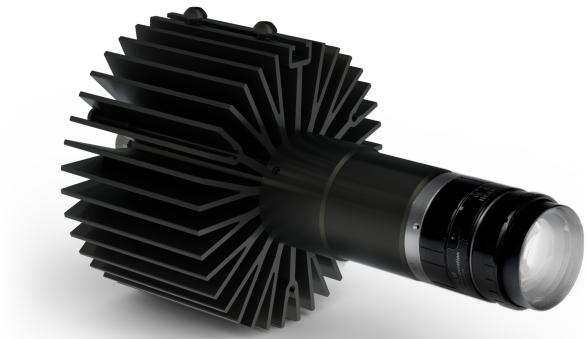
Web: advancedillumination.com

SL256

High Intensity Pattern Projecting Spot Light

Product Highlights

- A structured LED light projector featuring a large cluster of high-intensity LEDs in a focused, homogeneous Spot Light.
- With significantly higher output intensity, the SL256 is up to 9x brighter than the existing SL191 Pattern Projecting Spot Light and more than 3x brighter than the leading competitive structured light projector.



General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	455, 530, 625	N/A	.592A Max
	WHI	N/A	.794A Max
Max Case Temperature	60°C @ 25°C Ambient		
Ambient Temperature Range	0-50°C		
Weight	362.9 g (12.8 oz)		
Standard Cable Information	2 M long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Group 1 (Low-Risk) Applicable Wavelengths: 455, 530, 625, WHI		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP 50		
Lumen Maintenance	WHI: L70=60,000 hours 455, 530, 625: L70=100,000 hours		

Part Number Key

Model	–	Peak Wavelength	Connector/ Control	–	Reticle Option	–	Alternative Connector
SL256	–	XXX	XX	–	XXX	–	XXX
SL256		455 (blue) 530 (green) 625 (red) WHI (white)	C1 C5 IC I3 I3S		ROL[2] (Single Line) RCH[2] (Cross-Hair) RED[2] (Edge) RML[2] (Multiple Line) RGR[2] (Grid)		M8[1] M12[1]

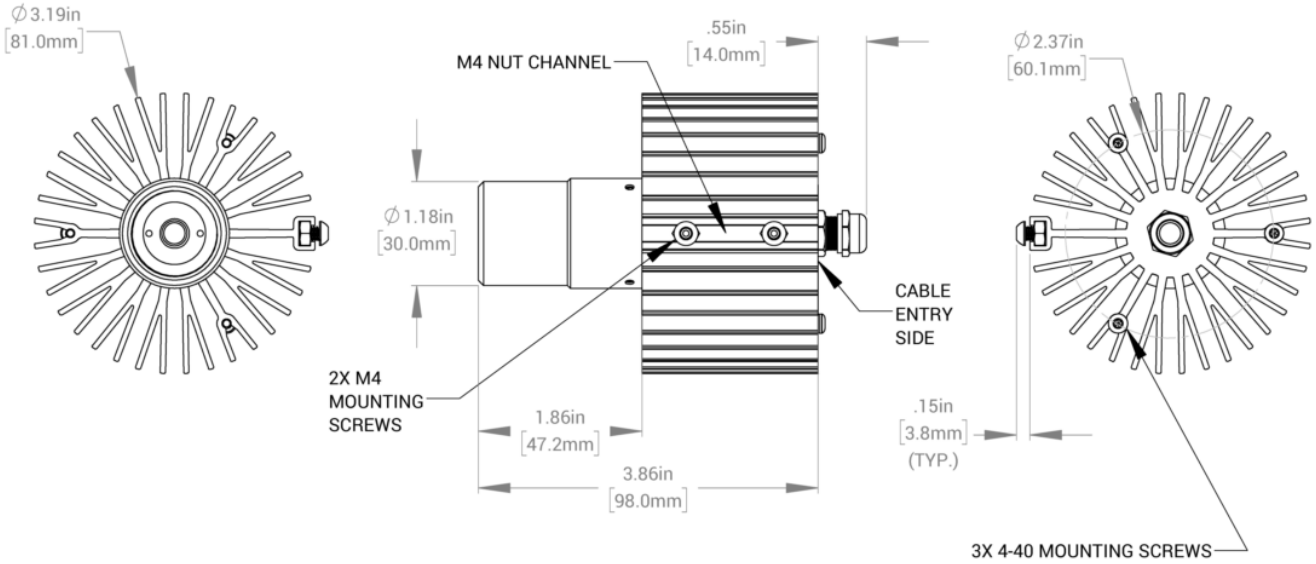
EX:
SL256-WHIIC-RED
SL256-625C1-ROL-M12

[1] Available with IC and I3 options only
[2] See Reticle Table for detailed information

See website product page for in-stock product numbers.

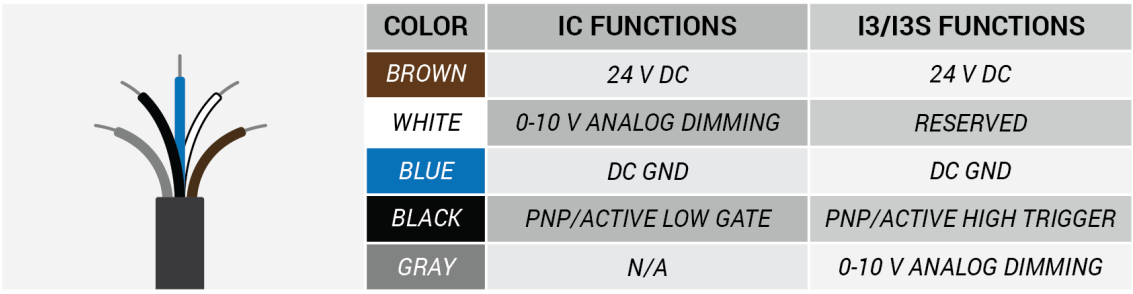
Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

Mechanical Specs



Electrical Specs

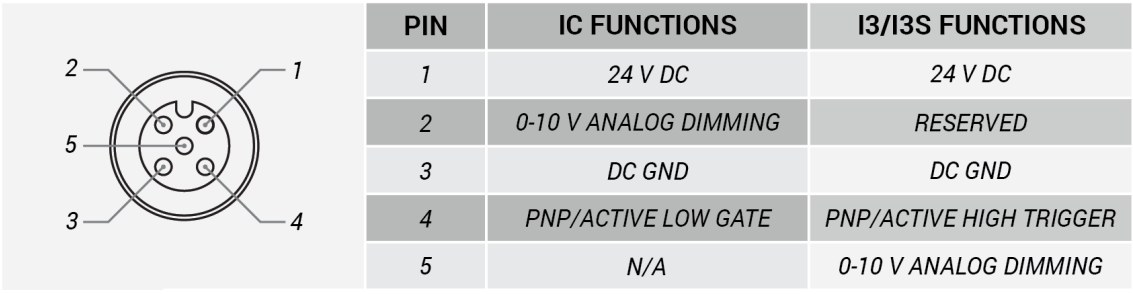
Standard Flying Lead Functions for IC, I3 and I3S Control Options



COLOR	IC FUNCTIONS	I3/I3S FUNCTIONS
BROWN	24 V DC	24 V DC
WHITE	0-10 V ANALOG DIMMING	RESERVED
BLUE	DC GND	DC GND
BLACK	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	0-10 V ANALOG DIMMING

*The functions listed above are applicable when this product is configured with built-in IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.*

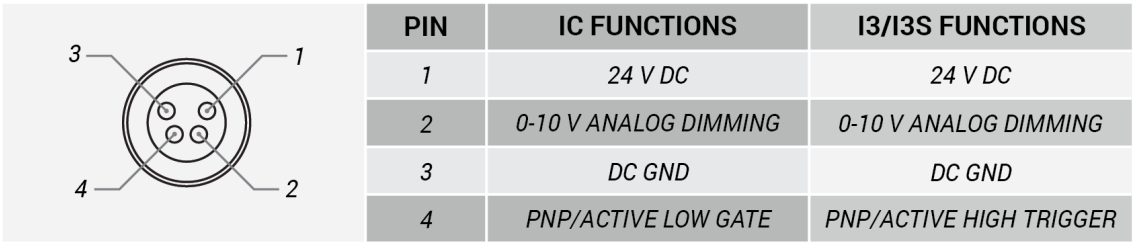
M12 Connector Pinout Functions for IC, I3 and I3S Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	RESERVED
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER
5	N/A	0-10 V ANALOG DIMMING

*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 5-position Male M12 connector.*

M8 Connector Pinout Functions for IC, I3 and I3S Control Options



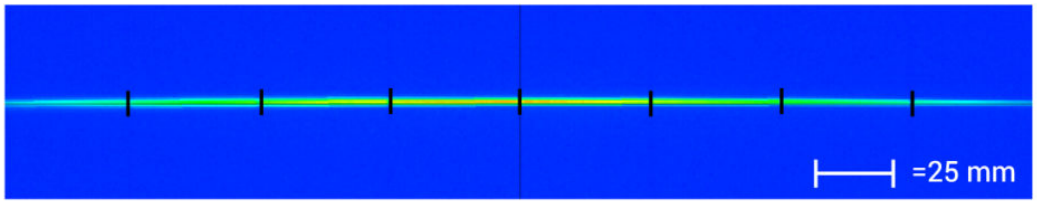
PIN	IC FUNCTIONS	I3/I3S FUNCTIONS
1	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER

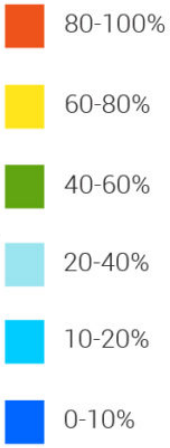
*The functions listed above are only applicable when this product is configured with built-in IC, I3, or I3S control, **with** an A-coded 4-position Male M8 connector.*

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Optical Specs

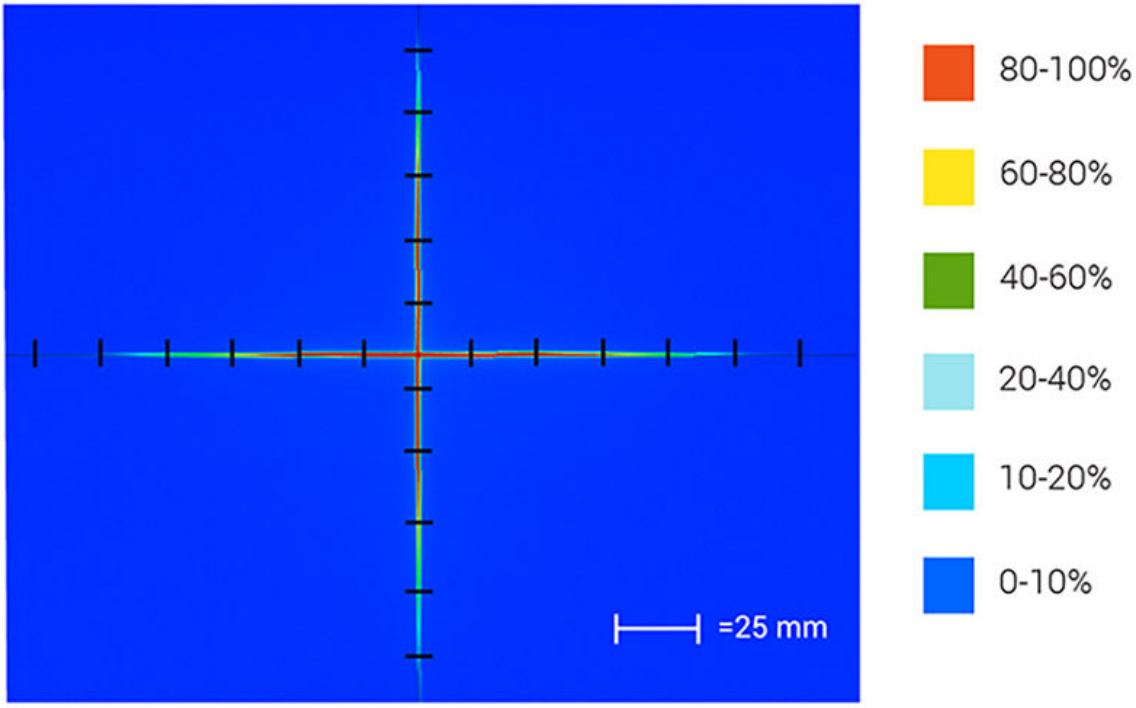
Intensity Distribution





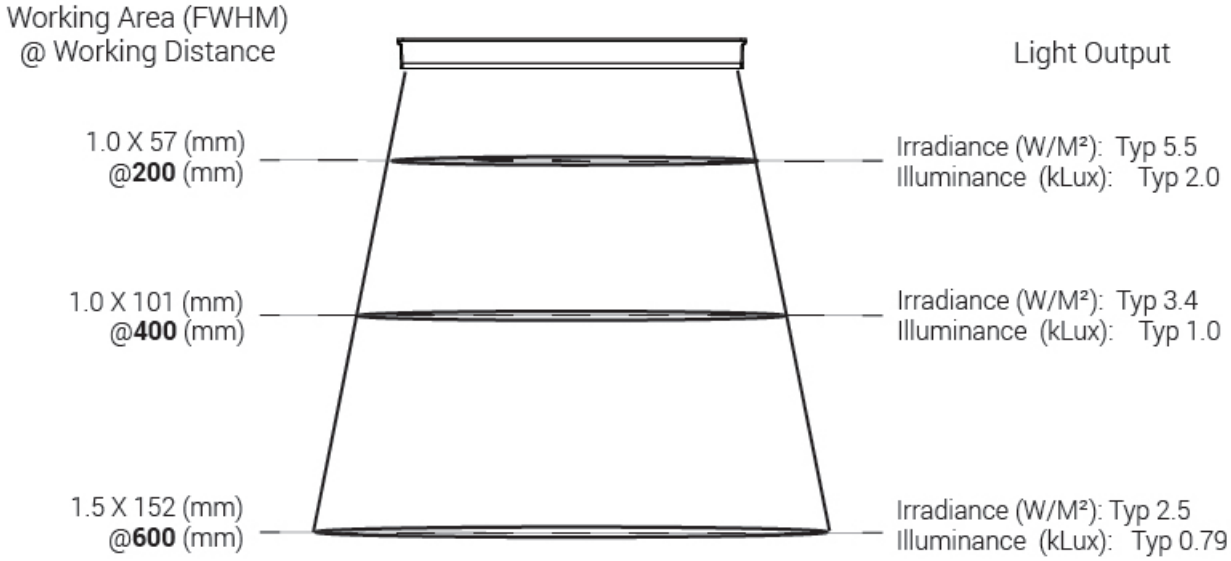
Optical measurement taken using SL256
with 25mm lens @ 600mm

Intensity Distribution



Optical measurement taken using SL256 RCH Cross Hair & 25mm lens @ 600mm

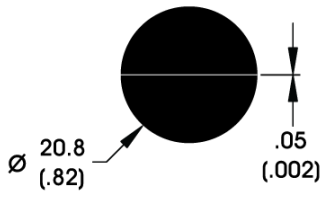
Optical Cone



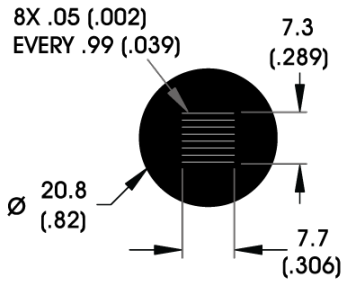
Control Specs

C1 CONNECTOR	C5 CONNECTOR	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)
For use with: DCS Series Controllers Strobe/Continous Controllers	For use with: Pulsar 320 High Power Strobe Only Controller	In-line Continous Controller Powered with: 24V Power Supply	In-line Strobe/ Continous Controller Default On Powered with: 24V Power Supply	In-line Strobe/ Continous Controller Default Off Powered with: 24V Power Supply

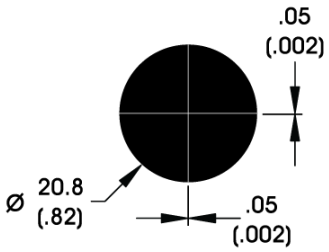
Reticle Specs



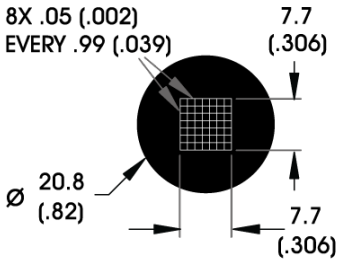
ROL
Single Line



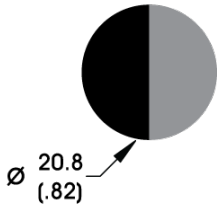
RML
Multiple Line



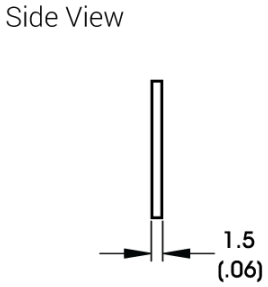
RCH
Cross-hair



RGR
Grid



RED
Edge



RKT
5 Reticle Kit - includes: ROL, RCH, RML, RED, and RGR

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No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

Electromagnetic Compatibility

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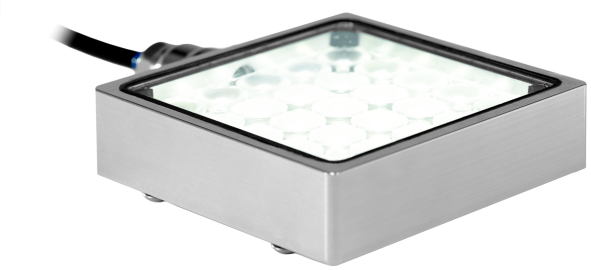
Fax: 802.767.2636
Email: info@advancedillumination.com
Web: advancedillumination.com

ADVANCED ILLUMINATION

UltraSeal Spot Light

Product Highlights

- Built for extreme environments, our IP69K certified lights are specifically engineered to withstand everything from prolonged liquid immersion to high-pressure steam cleaning and corrosive washdown solutions. The UltraSeal Washdown Lights are ideal for hygienic inspection environments, aseptic manufacturing, and food and beverage applications.
- The SL316 Spot Light offers general purpose, high-intensity illumination with the unique benefits of the UltraSeal Washdown Series.



***Patented**

General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	WHI, 455, 470, 505, 530	N/A	0.86 A Max
	590, 625, 660, 730, 850, 940	N/A	0.60 A Max
Normal Operating Temperature	0°C - 60°C		
Weight	290 g (10.2 oz)		
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 850, 940 Group 1 (Low-Risk) Applicable Wavelengths: 455, 470, 505, 530, 590, 625, 660, 730		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP69K Certified		
Lumen Maintenance	L70 - 50,000 Hours		
BTO Lead Time	2 Weeks		
In Stock SKU(s)	None		

Part Number Key

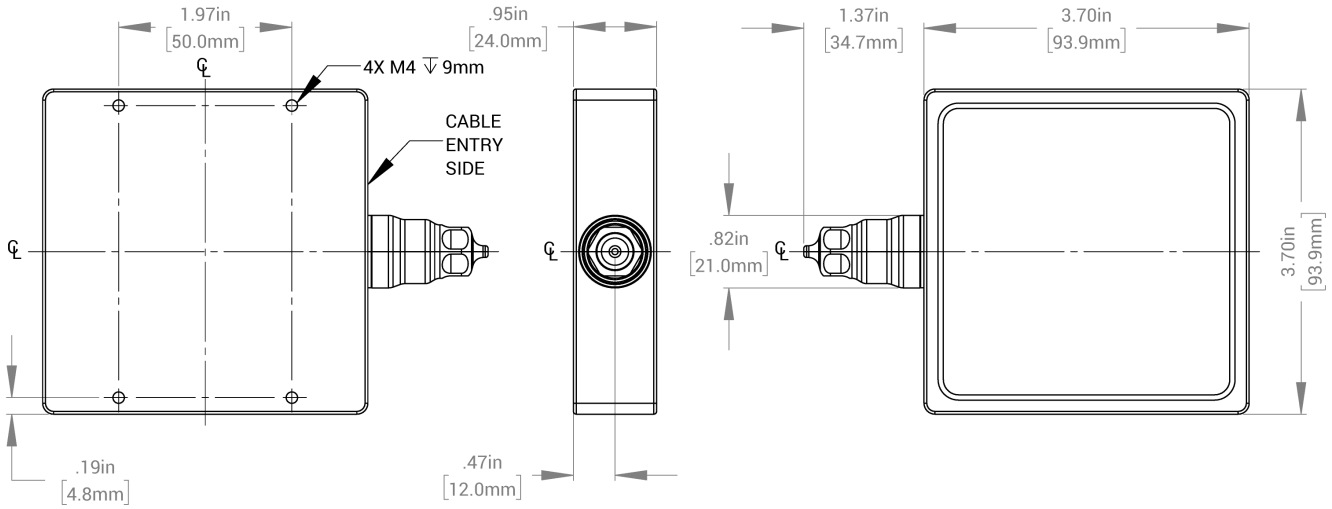
Model	Lens Type	-	Peak Wavelength	Connector/ Control	Light Conditioning Option	Housing Material	-	Alternative Connector
SL316	x	–	XXX	XX	X	XX	–	XXX
SL316	N (Narrow)		455 (royal blue)	C1	D[3] (Diffuser)	AL (Anodized Aluminum)		M12[1]
	M (Medium)		470 (blue)	C5		SS (Stainless Steel)		M8[1]
	W (Wide)		505 (cyan)	IC				
	X[2] (Ultrawide, Non-Lensed)		530 (green)	I3				
			590 (amber)	I3S				
			625 (red orange)					
			660 (red)					
			730 (IR)					
			850 (IR)					
			940 (IR)					
			WHI (white)					

Example Part Number:
SL316W-WHIC1
SL316N-625ICD

Beam Angle (FWHM):
Narrow = 13°
Medium = 26°
Wide = 31°
Ultrawide = 62°

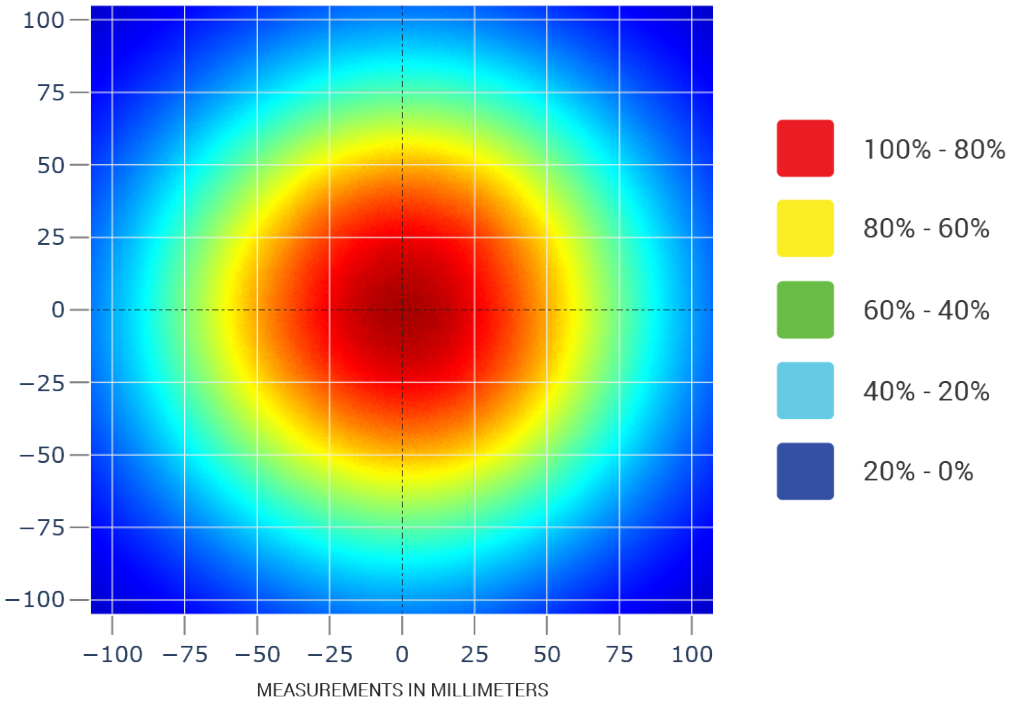
[1]Available with IC, I3, and I3S options only
[2]X (Ultrawide, Non-Lensed) comes preconfigured with a diffuser
[3]Note this is a light diffuser

Mechanical Specs



Optical Specs

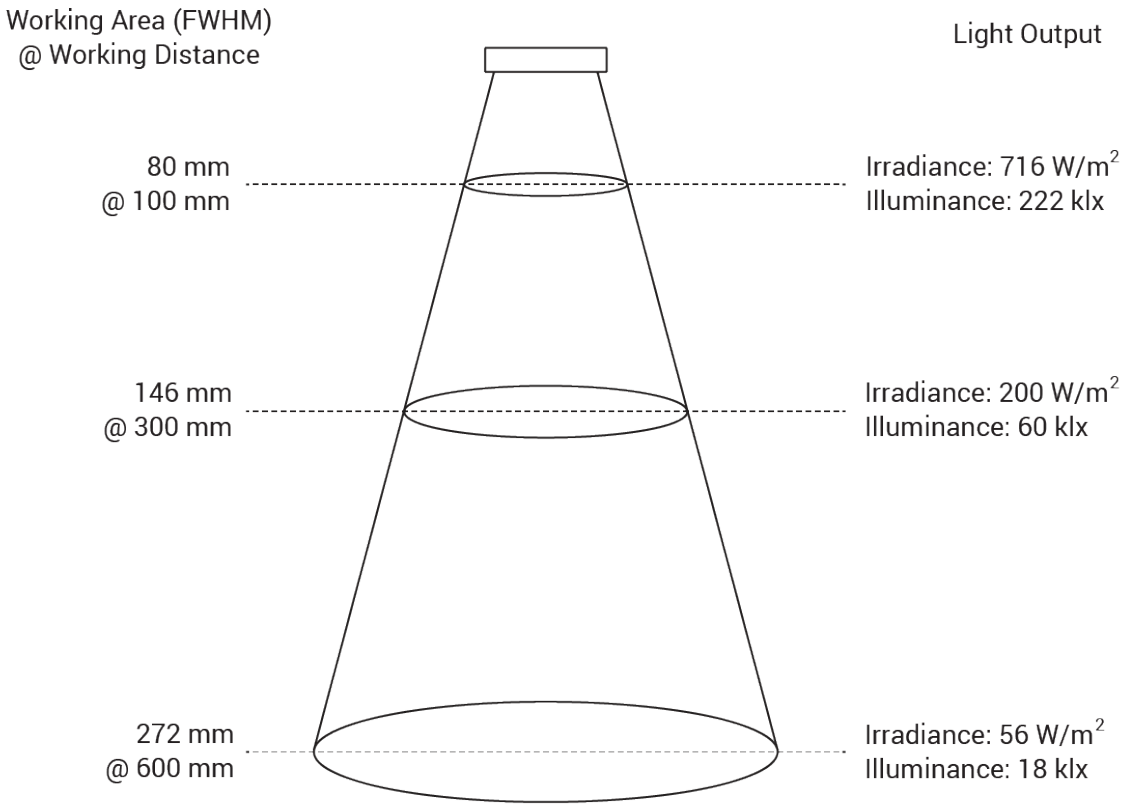
Intensity Distribution



Optical measurements taken using a SL316M-WHII3 @ 300 mm

Other configurations will provide different results

Optical Cone



Optical measurements taken using a SL316M-WHII3
For additional measurements, please refer to the charts below

Working Area vs Working Distance

Working Distance (mm)	FWHM (mm)						
	Narrow		Medium		Wide		Ultrawide
	Clear Window	Diffuser	Clear Window	Diffuser	Clear Window	Diffuser	Diffuser
100	74	78	80	84	83	88	152
300	93	125	146	162	184	188	387
600	133	267	272	304	334	343	719

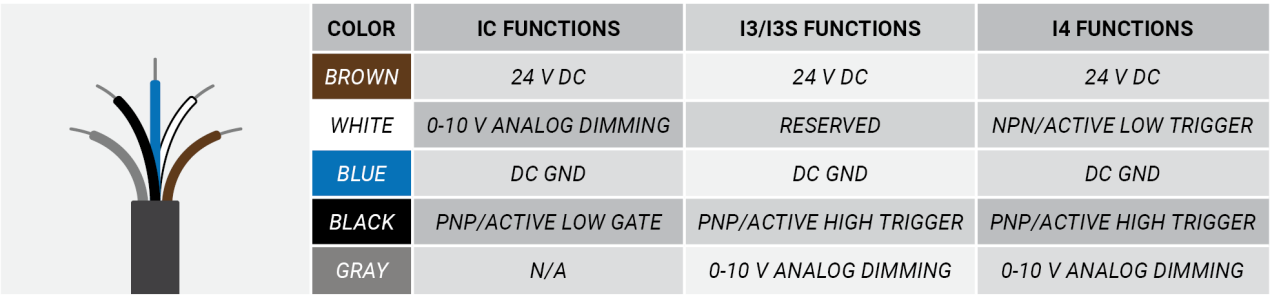
Light Output vs Working Distance

Working Distance (mm)	Irradiance (W/m^2) / Illuminance (klx)						
	Narrow		Medium		Wide		Ultrawide
	Clear Window	Diffuser	Clear Window	Diffuser	Clear Window	Diffuser	Diffuser
100	996 / 312	853 / 258	716 / 222	632 / 190	697 / 213	571 / 180	167 / 48
300	427 / 151	494 / 77	200 / 60	145 / 44	132 / 39	104 / 33	23 / 6.7
600	194 / 61	73 / 22	56 / 18	40 / 13	34 / 11	28 / 9.0	6.3 / 1.9

All chart values were measured using configurations of the SL316 with white LEDs
Other wavelength configurations will provide different results

Electrical Specs

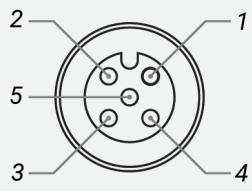
Standard Flying Lead Functions for IC, I3, I3S, and I4 Control Options



COLOR	IC FUNCTIONS	I3/I3S FUNCTIONS	I4 FUNCTIONS
BROWN	24 V DC	24 V DC	24 V DC
WHITE	0-10 V ANALOG DIMMING	RESERVED	NPN/ACTIVE LOW TRIGGER
BLUE	DC GND	DC GND	DC GND
BLACK	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER	PNP/ACTIVE HIGH TRIGGER
GRAY	N/A	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING

The functions listed above are applicable when this product is configured with built-in IC, I3, I3S, or I4 control, without the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.

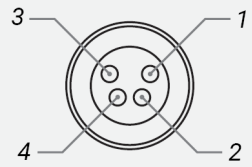
M12 Connector Pinout Functions for IC, I3, I3S, and I4 Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS	I4 FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	RESERVED	NPN/ACTIVE LOW TRIGGER
3	DC GND	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER	PNP/ACTIVE HIGH TRIGGER
5	N/A	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING

The functions listed above are only applicable when this product is configured with built-in IC, I3, I3S, or I4 control, with an A-coded 5-position Male M12 connector.

M8 Connector Pinout Functions for IC, I3, I3S, and I4 Control Options



PIN	IC FUNCTIONS	I3/I3S FUNCTIONS	I4 FUNCTIONS
1	24 V DC	24 V DC	24 V DC
2	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING	0-10 V ANALOG DIMMING
3	DC GND	DC GND	DC GND
4	PNP/ACTIVE LOW GATE	PNP/ACTIVE HIGH TRIGGER	PNP/ACTIVE HIGH TRIGGER

The functions listed above are only applicable when this product is configured with built-in IC, I3, I3S, or I4 control, with an A-coded 4-position Male M8 connector.

For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Control Specs

C1 CONNECTOR	C5 CONNECTOR	ICS 2 (IC)	ICS 3
For use with: **DCS Series Controllers** Strobe/Continuous Controllers	For use with: **Pulsar 320** High Power Strobe only Controller	In-line Continuous Controller Powered with: **24V Power Supply**	In-line Strobe/ Continuous Controller Default On Powered with: **24V Power Supply**

ICS 3S (I3S)	I4
In-line Strobe/ Continuous Controller Default Off Powered with: **24V Power Supply**	In-line Strobe/ Continuous Controller Powered with: **24V Power Supply**

Warranty Information

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No Liability for Consequential Damages: In no event shall Ai be liable for any consequential, special, incidental, or indirect damages of any kind arising from the sale or use of the products.

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 ET or send an email to orders@advancedillumination.com.

Company Information

Advanced Illumination
440 State Garage Road, Rochester, VT 05767
Phone: 802.767.3830
Fax: 802.767.2636
Email: info@advancedillumination.com
Web: advancedillumination.com

SL4301

Classic Low Power Spot/Coaxial Light

Product Highlights

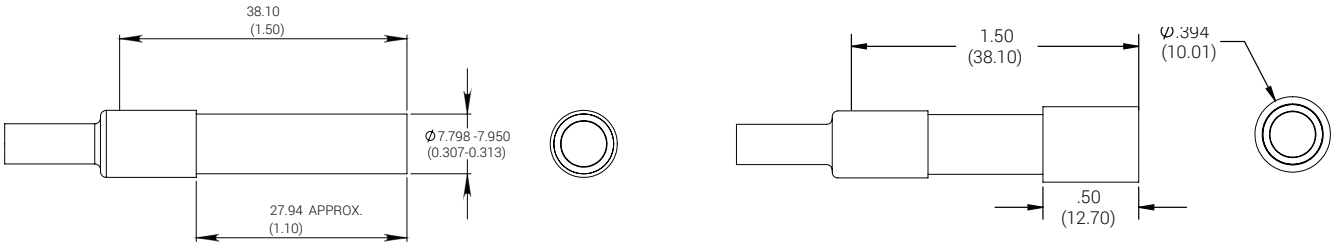
- Designed to replace fiber optics in coaxial lighting applications
- Standard or 5v versions available

General Specifications

Electrical Specifications	Color	5v Current	All Other Controls
	625, 660	0.03 A	0.002 A Max
	880	0.03 A	0.001A Max
	395, 470, 520, WHI	0.02 A	0.003 A Max
Normal Operating Temperature	0 - 60°C		
Weight (g)	13.6g (0.48 oz)		
Standard Cable Information	Up to 2 meters (80") long - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor IEC 62471	**Exempt Applicable Wavelengths:** 880 **Group 1 (Low-Risk) Applicable Wavelengths:** 470, 520, 625, 660, WHI **Group 2 (Medium-Risk) Applicable Wavelengths:** 395		
Compliance	CE RoHS IEC 62471		
IP Rating	IP65		
Lumen Maintenance	L70 = 50,000 hours		

Released 7/15/2015
Updated 5/31/2017 DCN 2272

Mechanical Specifications



Standard Mounting
(leave blank when ordering)

Mounting Option B

DIMENSIONS ARE IN MILLIMETERS (INCHES)

Part Number Key

Model	Optional Mounting	—	Spectral Wavelength	Connector/ Control	—	Alternative Connector
SL4301	X	—	XXX	XX	—	XXX
SL4301	B (leave blank for standard mounting)		(UV) 395 (blue) 470 (green) 520 (red orange) 625 (red) 660 (infra-red) 880 (white) WHI	C1 C5 IC [2,3] I3 [2] I3S [2] 5 [3]		M12 [1]

Ex: SL4301-470C5
SL4301B-625I3-M12

[1] Available with IC, I3, I3S and 5v options only
[2] Analog dimming with the IC, I3 or I3S option is not available for this product
[3] Not available with UV option

Stock Product: *shipped within 3 days*

None

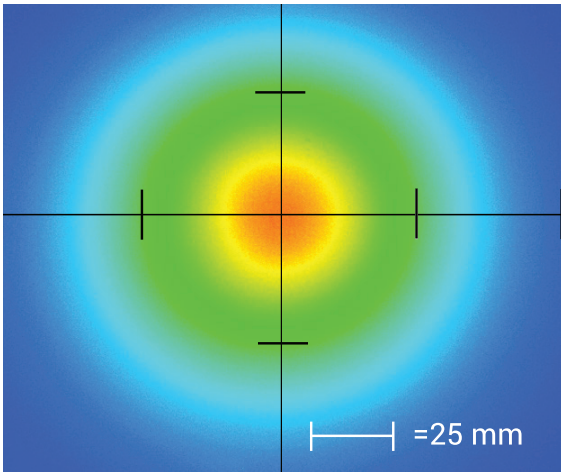
Build to Order: *shipped within 2 weeks*

Connector | Control Options

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	5
For use with: DCS Series Controllers	*For use with:* Pulsar 320 Strobe Controller.	Continous in-line controller *Powered with:* 24V power supply	Combination strobe/continous in-line controller *Powered with:* 24V power supply	Default-OFF strobe/continous in-line controller *Powered with:* 24V power supply	Flying/tinned leads *Powered with:* 5V power supply

Optical Performance

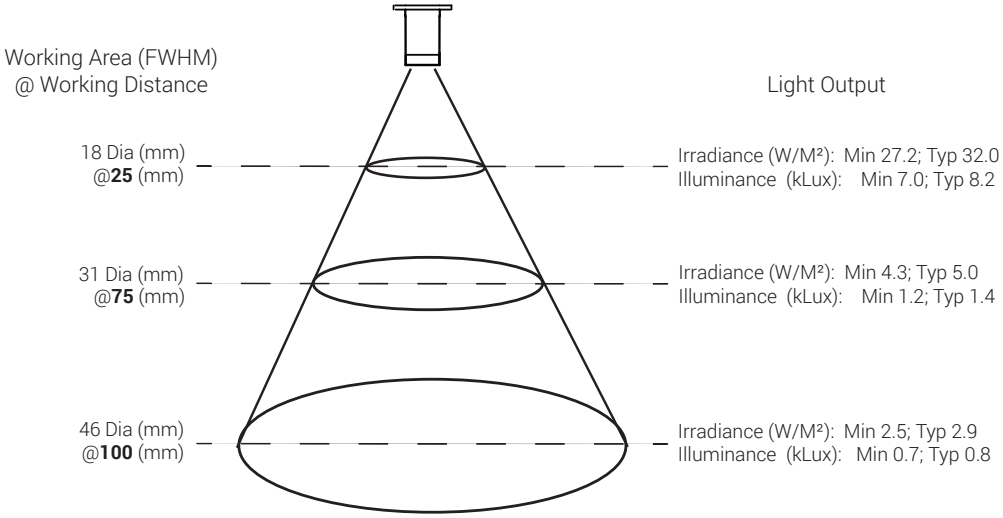
Intensity Distribution



80-100%
60-80%
40-60%
20-40%
10-20%
0-10%

Optical measurement taken using SL4301-WHIIC @75 mm

Area of Illuminance & Intensity



Operation and Wiring

ICS 2 (IC)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	0-10 VDC Analog Control	White
3	DCGND	Blue
4	GLO	Black

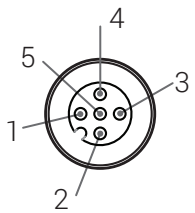
ICS 3 (I3 and I3S)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	Reserved	White
3	GND	Blue
4	PNP/Active High Trigger	Black
5	0-10 VDC Analog Control	Gray

5 Volt

Function	Wire Color
+5 VDC	Brown
-5 VDC	Blue

Optional M12 Pinout



male
5-position

Warranty Information

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Electromagnetic Compatibility

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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.

Company Information

Advanced Illumination

440 State Garage Road, Rochester VT. 05767

Phone: 802.767.3830

Fax: 802.767.3831

Email: info@advancedillumination.com

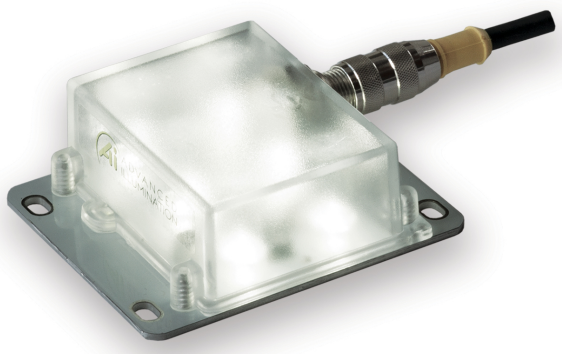
Web: advancedillumination.com

SL-S050075

EuroBrite™ Small Spot Light

Product Highlights

- This small EuroBrite™ spot light provides high-intensity illumination at a competitive price point.
- Refer to the full description for more detail.



General Specifications

Electrical Specifications	Color	Current	All Other Controls
	455, 470, 505, 530, 590, 625, 660, 730, 850, 940, WHI	~0.27 A	N/A
Input Voltage Range	24V nom. (min 22/max 28)		
Maximum Input Current	0.42A - 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	92.53g (3.27oz)		
Standard Cable Information	No cable included; see part number LC2-M12-5-FX or use standard coded 5-pin M12.		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 850, 940 Group 1 (Low-Risk) Applicable Wavelengths: 455, 470, 505, 530, 590, 625, 660, 730, WHI		

Compliance	CE, RoHS, IEC 62471
IP Rating	IP67
Lumen Maintenance	L70= 50,000 Hours

Part Number Key

Model	–	Mode	Emitting Width (Cable Side) (mm)	Emitting Length (Cable Side) (mm)	Lens Type	–	Peak Wavelength
SL	–	X	XX	XX	XXX	–	XXX
SL		S (Strobe)	050	075	M (Medium) W (Wide)		455 (royal blue) 470 (blue) 505 (cyan) 530 (green) 590 (amber) 625 (red orange) 660 (red) 730 (IR) 850 (IR) 940 (IR) WHI (white)

EX:
SL-S050075M-WHI
SL-S050075W-470

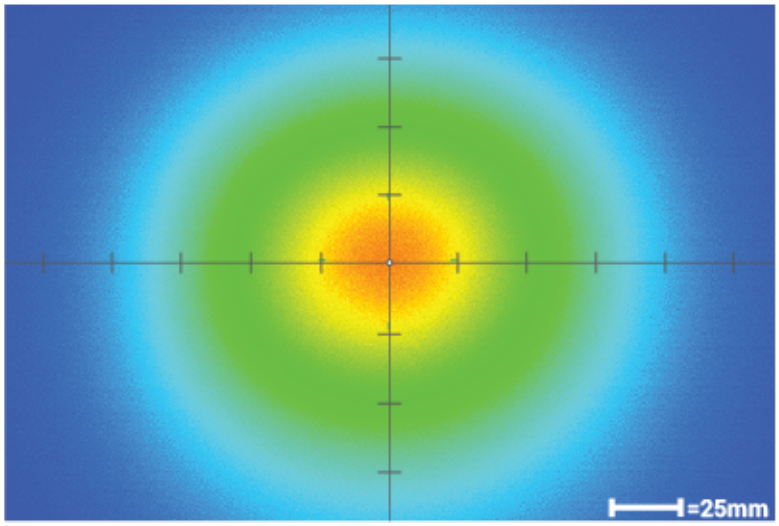
Beam Angle (FWHM):
Medium = 21°
Wide = 32°

See website product page for in-stock product numbers.

Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

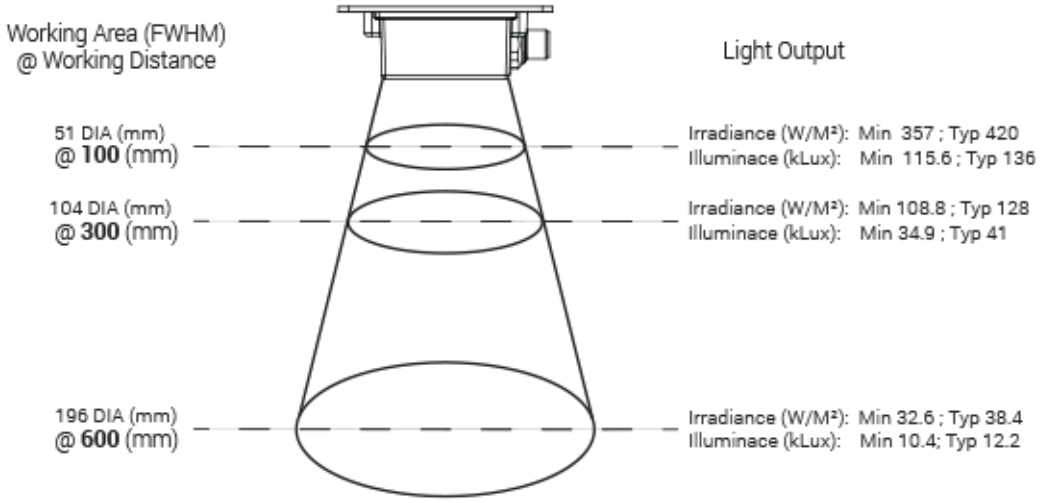
Optical Specs

Intensity Distribution



Optical measurement taken using SL-S050075M-WHI @ 300 mm

Area of Illuminance & Intensity



Electrical Specs

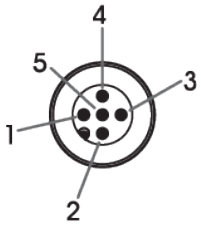
Modes of Operation

Continuous	Strobe	Thermal Foldback	Factory Reset
To enable output: Tie Trigger+ (black) HIGH to >0.5V. The light remains ON as long as Trigger+ is high Analog dimming is available during continuous mode operation: pin 5, gray	EuroBrite™ S-version uses Adaptive Overdrive™ to produce overdrive pulses while the Trigger+ is HIGH. Overdrive period occurs for all trigger pulses, but only during the first 5 mSec for those pulse widths longer than 5 mSec; light output can be increased by as much as 5x. Overdriving does not occur when pulses exceed 5 mSec. Analog dimming is available during strobe mode operation: pin 5, gray	To engage Thermal Foldback: Before turning the light on, tie pin 2 (white) to pin 3 (GND, blue). Onboard thermistor is sampled for 5 minutes. Light intensity will automaticaly adjust based on the case tempurature during the training period. 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	To engage Factory Reset: Before turning the light on, tie pin2 (white) to pin 3 (blue). For factory reset to occur, the light must be trained for thermal foldback first. Light will appear dim for 3-5 seconds then brightness will be set to factory default. After factory reset is complete disconnect white wire from blue wire for normal operation (before turning light back on). Tying pin 2 (white) to pin 3 (blue) will alternate between factory reset and thermal foldback modes.

Standard Wiring Information

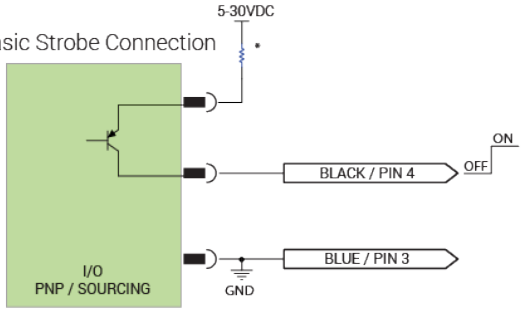
Pin	Function	Wire Color	Type
1	24VDC	Brown	Power
2	Thermal Foldback	White	Input
3	GND	Blue	Power
4	Trigger +	Black	Input
5	Analog	Gray	Input

Male 5-Position



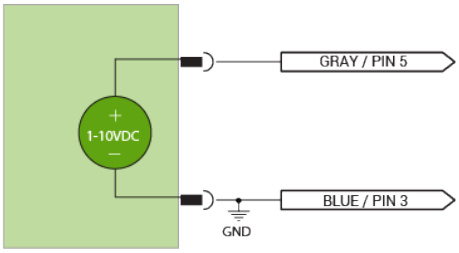
Wiring Diagrams

Basic Strobe Connection



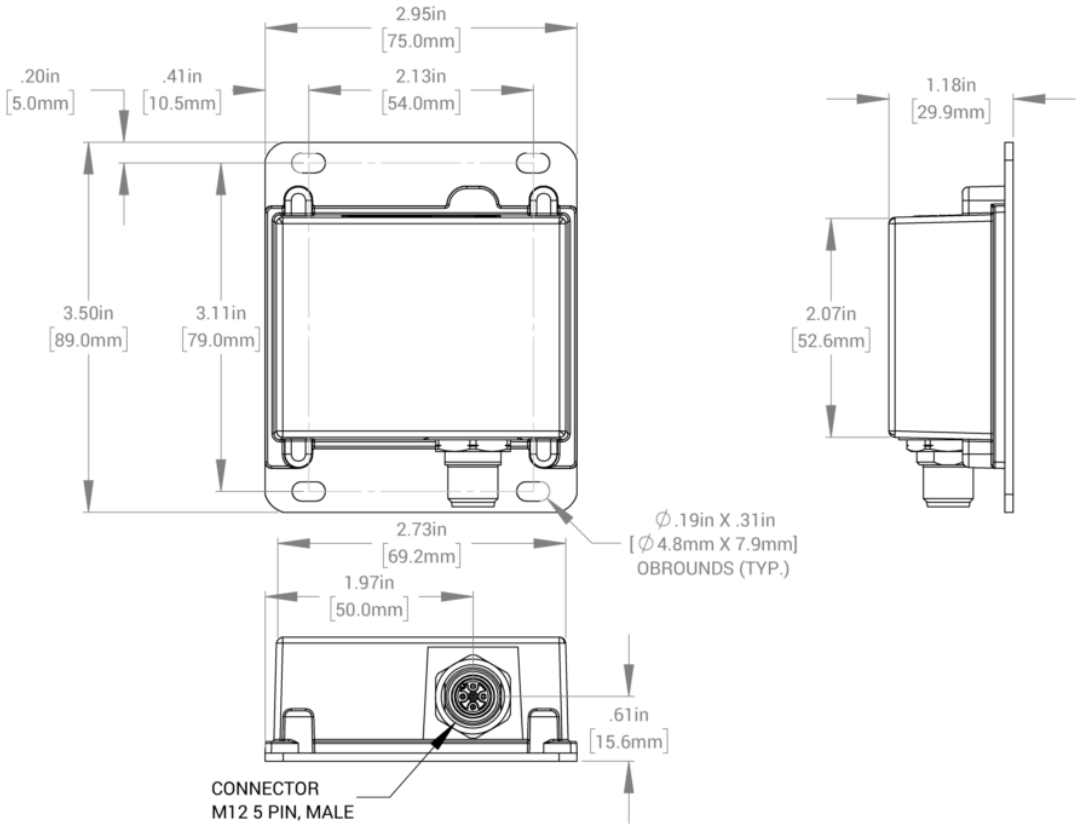
*External resistors may not be needed
Check documentation on I/O for recommendations and voltage limits

Analog Dimming



Analog dimming works in both strobe and continuous

Mechanical Specs



Warranty Information

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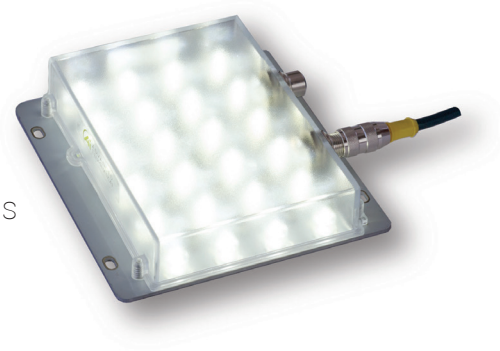
Web: advancedillumination.com

SL-S100150 EuroBrite™ Spot Light

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
- Daisy-chain up to 4 units with pass-through control



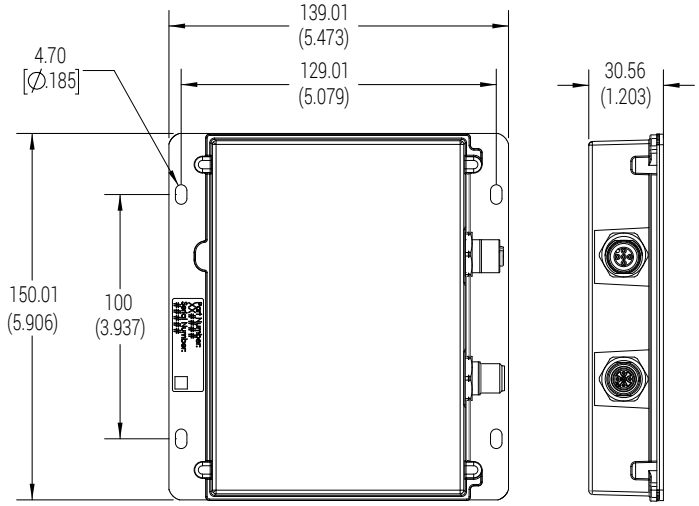
General Specifications

	Color	Current
Electrical Specifications Driver internal to light source inputs are tolerant to 30VDC	455, 470, 505, 530, 590 ,625, 660, 730, 850, 940, WHI	~0.8A 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.
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)	265.81g (9.38oz) (.586lb)	
Standard Cable Information	**No cable included;** see part number **LC2-M12-5-FX** and **LC.5-M12-5-FM** or use standard coded 5-pin M12.	
Photobiological Risk Factor IEC 62471	**Exempt** : 850, 940 **Group 1 (Low-Risk):** 455, 470, 505, 530, 590, 625, 660, 730, WHI	
Compliance	CE RoHS IEC 62471	
IP Rating	IP67	
Lumen Maintenance	L70 = 50,000 hours	

Released 6/5/2015
Updated 4/11/2017 DCN 2394
Updated 5/24/2017 DCN 2272

SL-S100150 EuroBrite™ Spot Light

Mechanical Specifications



DIMENSIONS ARE IN MILLIMETERS (INCHES)

Part Number Key

Model	—	Control	Model Indicator	Lens Option [1]	—	Spectral Wavelength
SL	—	X	XXXXXX	X	—	XXX
SL		S (strobe)	100150	M (medium spread) W (wide spread)		(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: SL-S100150M-WHI
SL-S100150W-470

[1] Beam angle (FWHM):
M (standard) = 21°
W = 32°

Stock Product: *shipped within 3 days*

SL-S100150M-470
SL-S100150M-625
SL-S100150M-WHI

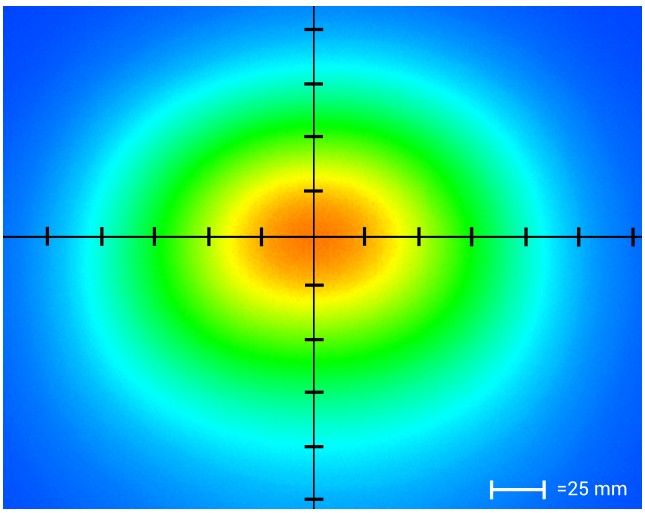
Build to Order: *shipped within 2 weeks*

Released 6/5/2015
Updated 4/11/2017 DCN 2394
Updated 5/24/2017 DCN 2272

SL-S100150 EuroBrite™ Spot Light

Optical Performance

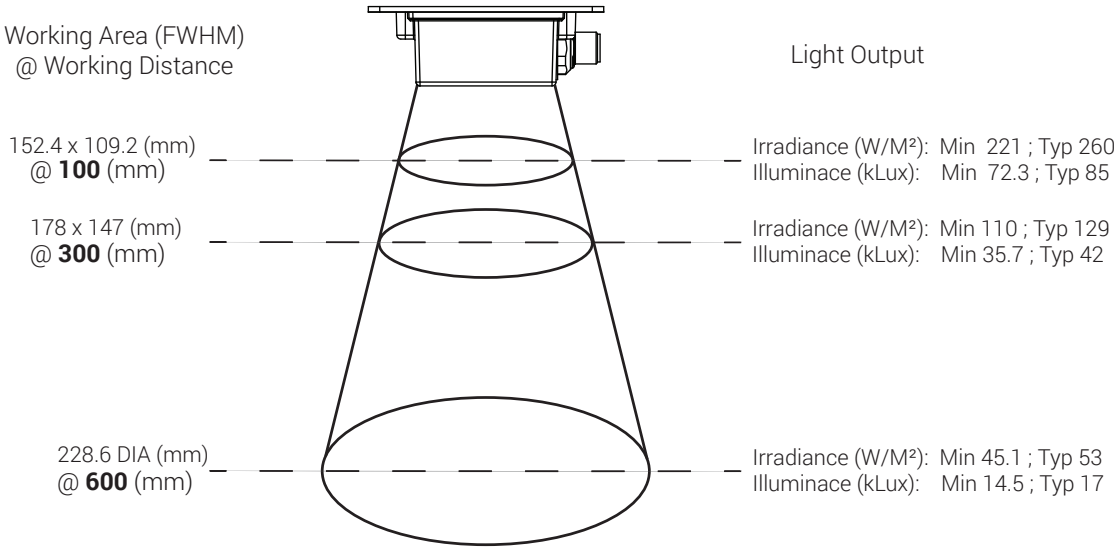
Intensity Distribution



80-100%
60-80%
40-60%
20-40%
10-20%
0-10%

Optical measurement taken using SL-S100150M-WHI @ 300 mm

Area of Illuminance & Intensity



Released 6/5/2015
Updated 4/11/2017 DCN 2394
Updated 5/24/2017 DCN 2272

Operation & Wiring

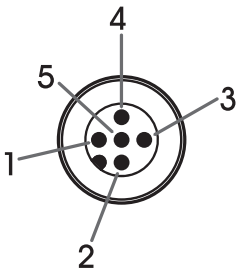
Modes of Operation

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

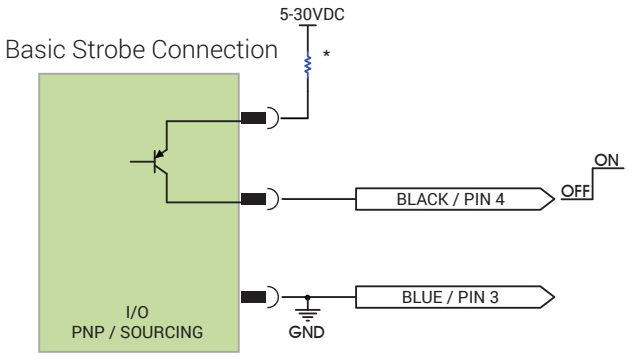
Standard Wiring Information

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

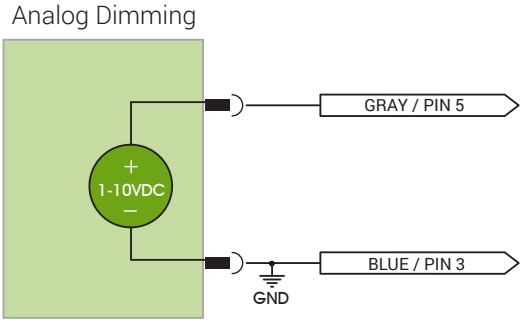
Male 5-Position



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

Released 6/5/2015
Updated 4/11/2017 DCN 2394
Updated 5/24/2017 DCN 2272

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.

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