

BL313 Series

Medium Intensity Linear Backlight

Product Highlights

- Pre-Engineered Scalability Enables
 Customized Emitting Lengths in 2"
 Increments to 20"
- Intense, Diffuse Lighting with 226 kLux at Emitting Surface
- Multiple Available Wavelengths, Including Visible Monochromatics, Infrared, and White
- Available Washdown Option for Difficult Environments



General Specifications

	Color	24V Current	All Other Controls	
Electrical Specifications	455, 470, 530, WHI	0.12A per 2"	0.16A per 2"	
	590, 625	0.06A per 2"	0.20A per 2"	
	850, 940	0.12A per 2"	0.20A per 2"	
Max Case Temperature	60°C @ 25°C Ambient			
Ambient Temperature Range	0-50°C			
Weight	.482 lbs for 12" model (BL31312)			
Standard Cable Information	2 M long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.			
	Exempt Applicable Wavelengths: 850, 940			
Photobiological Risk Factor	Group 1 (Low-Risk) Applicat	ole Wavelengths: 455, 470, 53	0, 590, 625, 660, 730, WHI	
Compliance	CE, RoHS, IEC 62471			
IP Rating	P65 Sealed, IP50 Unsealed			
Lumen Maintenance	L70 = 50,000 Hours			

Part Number Key

Model	Emitting Length	_	Peak Wavelength (nm)	Connector/ Control	Washdown Option	_	Alternative ¹ Connector
BL313	XX	_	XXX	XX	XXX	_	XXX
BL313	2" increments from 2" to 20"		455 (Blue) 470 (Blue) 530 (Green) 590 (Green) 625 (Red) 850 (IR) 940 (IR) WHI (white)	C1 C5 Q4 IC I3 I3S	W		M12 M8
Ex: BL31312- BL31308-	-530IC-M12 -WHIC1W			¹Ava	ilable with IC, I3,	I3S, and	24 options only

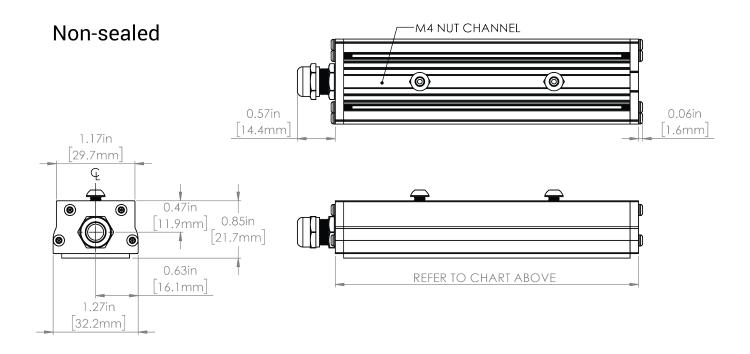
Mechanical Specs

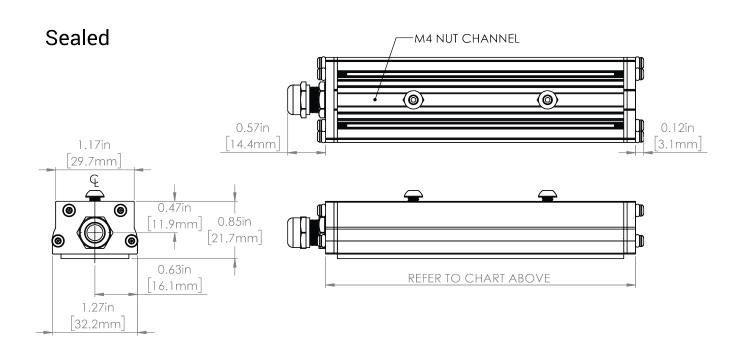
Non-sealed

Part #	Length in mm (inches)		
BL31302	64.0	(2.52)	
BL31304	114.8	(4.52)	
BL31306	165.6	(6.52)	
BL31308	216.4	(8.52)	
BL31310	267.2	(10.52)	
BL31312	318.0	(12.52)	
BL31314	368.8	(14.52)	
BL31316	419.6	(16.52)	
BL31318	470.4	(18.52)	
BL31320	521.2	(20.52)	

Sealed

Part #	Length in mm (inches)	
BL31302	66.6	(2.62)
BL31304	117.4	(4.62)
BL31306	168.2	(6.62)
BL31308	219.0	(8.62)
BL31310	269.8	(10.62)
BL31312	320.6	(12.62)
BL31314	371.4	(14.62)
BL31316	422.2	(16.62)
BL31318	473.0	(18.62)
BL31320	523.8	(20.62)





Optical Specs

INTENSITY DISTRIBUTION +100 +125 +150 +25 +50 +75 MEASUREMENTS IN MILLIMETERS

OPTICAL MEASUREMENTS TAKEN AT THE DIFFUSER SURFACE USING A 12" WHITE LED MODEL

INTENSITY LEVELS 226 - 181 klx 100% - 80% 690 - 552 W/m² 181 - 136 klx 80% - 60% 552 - 414 W/m² 136 - 90 klx 60% - 40% 414 - 276 W/m² 90 - 45 klx 40% - 20% 276 - 138 W/m² 45 - 23 klx 20% - 10% 138 - 69 W/m² 23 - 0 klx 10% - 0%

Electrical Specs

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)

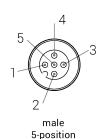
Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	GND	White
3	GND	Blue
4	PNP/Active High Trigger	Black
5	0-10 VDC Analog Control	Gray

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

69 - 0 W/m²



Control Specs

C1 CONNECTOR

For use with: **DCS Series Controllers** Strobe/Continous Controllers

C5 CONNECTOR

For use with: Pulsar 320 High Power Strobe Only Controller

ICS 2 (IC)

In-line Continous Controller

Powered with: 24V Power Supply

ICS 3

In-line Strobe/ Continous Controller Default On Powered with: 24V Power Supply

ICS 3S (I3S)

In-line Strobe/ Continous Controller Default Off Powered with: 24V Power Supply

24 VOLT

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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