

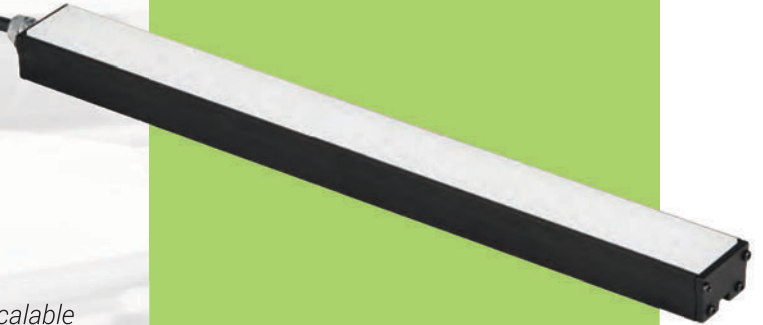


Vision Light Tech

creating optical solutions

BL313 Medium Intensity Linear Backlight

This Linear Backlight delivers intense, diffuse illumination in a scalable design. The BL313 features 17x higher output intensity than the existing BL193, and it is available with varying power options for strobed or continuous operation. Ideal for line scan backlighting applications and object silhouetting.



INTENSE, DIFFUSE LIGHTING

The BL313 delivers medium-intensity illumination, emitting 226 kLux with a diffuse window - ideal for even light dispersion.



SCALABLE DESIGN

Pre-engineered scalability enables users to customize the BL313 emitting length in 2" increments, from 2" to 20".



MULTIPLE WAVELENGTHS

The Medium Intensity Linear Backlight is available in eight peak wavelengths, including visible monochromatics, infrared, and white, allowing for greater customization.



AVAILABLE WASHDOWN OPTION

The BL313 is available with a washdown option to protect the light from low pressure water jets for difficult environments.

APPLICATION-SPECIFIC CHALLENGES

Object Backlight Silhouetting at High Speeds

Some objects moving continuously on a conveyor can require high-resolution images to identify edge defects or to measure component size.

Area Scan Applications with Close Working Distances

Slow to medium-speed area scan applications such as code or label reading on a conveyor line can require more focused, yet not harsh lighting, while also requiring close working distances in tight working constraints, such as a tunnel.

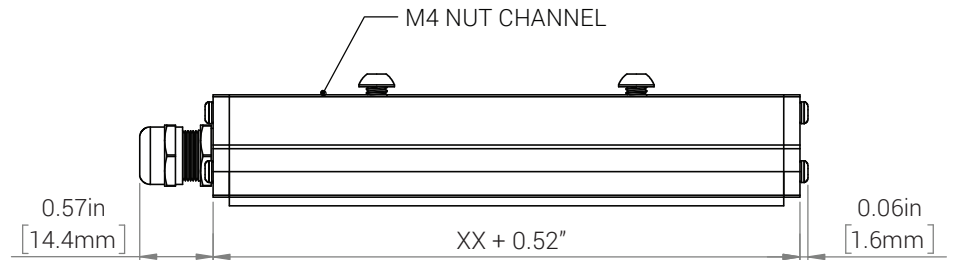
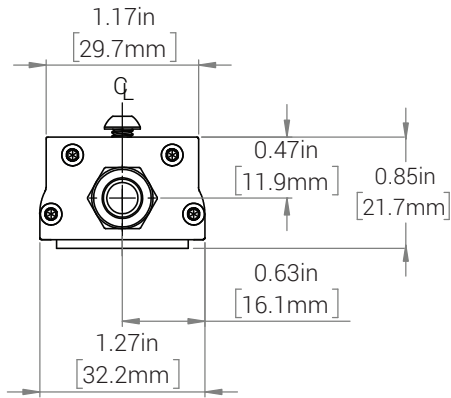
BL313 SOLUTIONS

When deployed in a line scan backlighting application, the BL313 provides **uniform, diffuse lighting** necessary to identify contours and edges of *moving* objects.

The BL313 provides **226 kLux** with a highly diffuse window and a thinner profile, allowing *closer working conditions* with adequate illumination for challenging area scan applications.

MECHANICAL INFORMATION

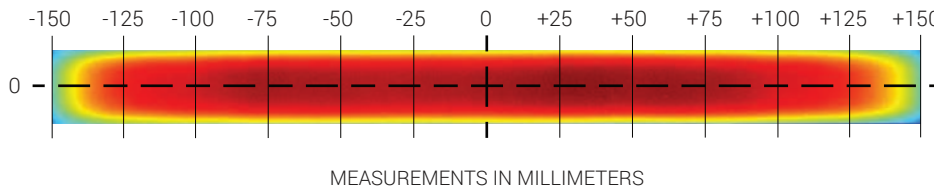
NON-SEALED



Available in 2" increments from 2" to 20"
Contact sales for additional sizes.

OPTICAL PERFORMANCE

INTENSITY DISTRIBUTION



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

INTENSITY LEVELS

100% - 80%	226 - 181 klx 690 - 552 W/m ²
80% - 60%	181 - 136 klx 552 - 414 W/m ²
60% - 40%	136 - 90 klx 414 - 276 W/m ²
40% - 20%	90 - 45 klx 276 - 138 W/m ²
20% - 10%	45 - 23 klx 138 - 69 W/m ²
10% - 0%	23 - 0 klx 69 - 0 W/m ²

SPECULAR SURFACES WITH WORKING CONSTRAINTS

Diffuse lighting is necessary to minimize hot spot reflection on specular surfaces, but some spatial requirements don't allow for standard diffuse lighting.

Due to its narrow profile, the BL313 Medium Intensity Linear Backlight can provide intense, diffuse illumination where working constraints may not permit for standard diffuse lighting.



BL313 Series

Medium Intensity Linear Backlight

Product Highlights

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



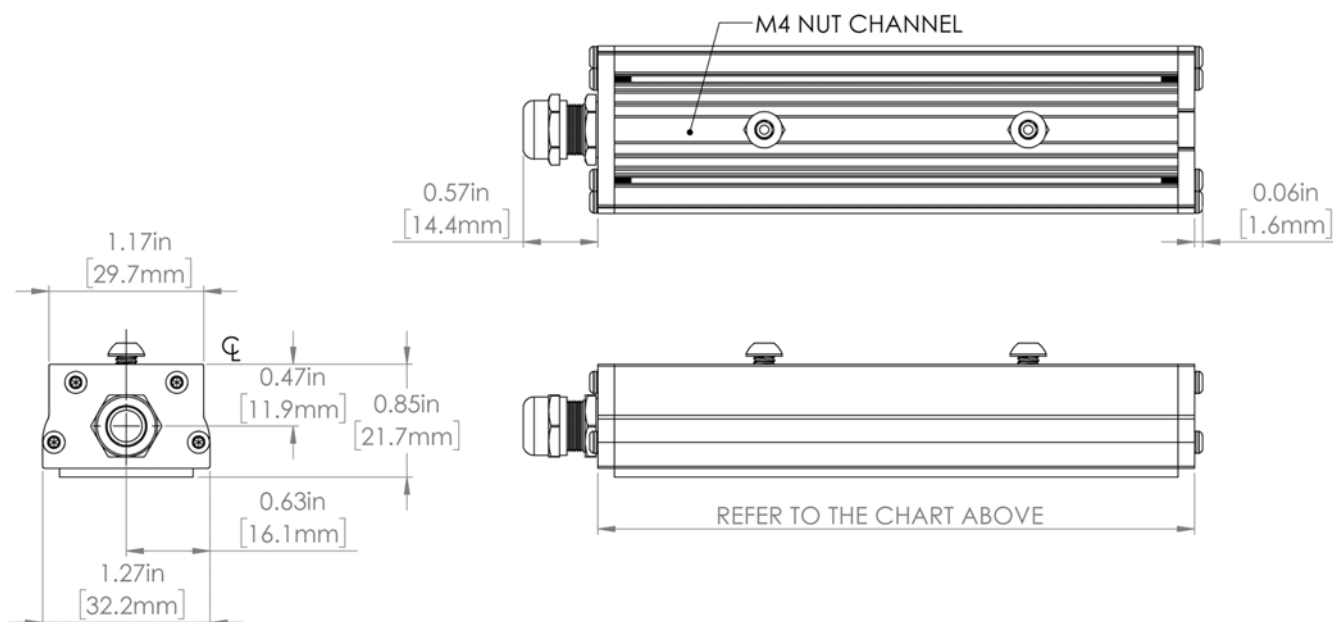
General Specifications

Electrical Specifications	Color	24V Current	All Other Controls
	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 meters long -0/+150mm (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, 530, 590, 625, 660, 730, WHI		
Compliance	CE, RoHS, IEC 62471		
IP Rating	P65 Sealed, IP50 Unsealed		
Lumen Maintenance	L70 = 50,000 Hours		

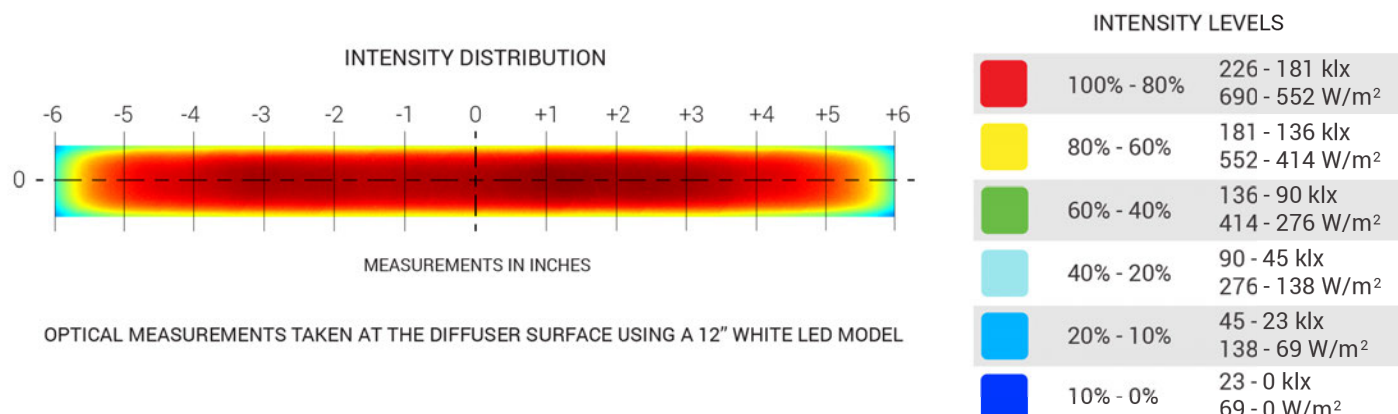
Part Number Key

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

Mechanical Specs



Optical Specs



Electrical Specs

ICS 2 (IC)

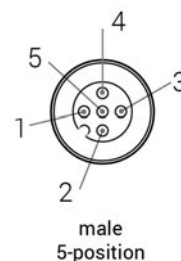
Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	0-10 VDC Analog Control	White
3	GND	Blue
4	GLO	Black
5	N/A	Gray

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

Control Specs

C1 CONNECTOR

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

C5 CONNECTOR

For use with:
Pulsar 320
High Power
Strobe Only
Controller

ICS 2 (IC)

In-line Continuous
Controller

Powered with:
24V Power Supply

ICS 3

In-line Strobe/
Continuous Controller
Default On

Powered with:
24V Power Supply

ICS 3S (I3S)

In-line Strobe/
Continuous Controller
Default Off

Powered with:
24V Power Supply

24 VOLT

Flying/Tinned
Leads

Powered with:
24V Power Supply

Warranty Information

Every 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 distributors. 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. We will inspect the unit, and if a defect is found will, at our option, repair or replace the product without charge. We disclaim 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, we will make an effort to replace with equivalent parts; for circumstances that do not allow for equivalent replacement, we reserve the right to repair or replace these products with an updated version. We 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 we 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.

Company Information



Vision Light Tech B.V.

Protonenlaan 22, 5405 NE UDEN, P.O. Box 345, 5400 AH UDEN, The Netherlands

Phone: +31 (0)413 26 00 67, Fax +31 (0)413 26 09 38, E-mail: inquiry@vlt.nl, Website: www.vlt.nl

Trade register No. 17150044, VAT No. NL8112.30.946.B01