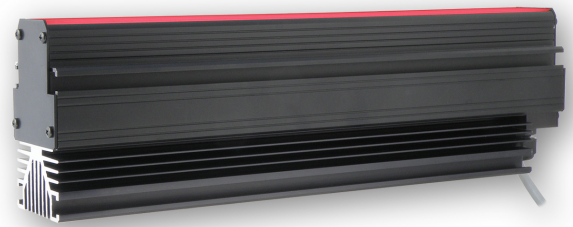# BL138 Series

High Intensity Linear Backlights

Product Highlights

- The BL138 Series delivers a high-intensity linear backlight solution for demanding machine vision applications. It excels in highspeed web material imaging with line scan cameras and serves as a powerful general-purpose bar light when highly diffuse front illumination is required.

- Equipped with ultra-high power industrial-grade LEDs, the BL138 Series can operate in both exceptionally bright strobe and continuous modes, depending on the control configuration. Its passive finned heatsink design optimizes thermal dissipation without active cooling fans. For applications exceeding 24 inches, optional uniformity balancing every six inches ensures consistent exposure across the entire active area.

General Specifications

General Specifications

Category	Specification			Detail	
	Specification			**Detail**	
Optical	Available Wavelengths			White, 455 nm, 530 nm, 625 nm, 850 nm, RGB	
	Available Lensing			No Lenses	
	Available Light Conditioning			None	
Electrical	Power Consumption Info			Refer to Datasheet for Details	
	Cable Info			80" -0/+6" Long (2 m -0/+150 mm), 105 °C Rated, Foil Shield w/ Drain	
Mechanical	Sizing Info	Standard	Length	3.26"(82.8mm) to 96.26"(2445.0mm)	Refer to Datasheet for Details
			Width	1.98"(50.2mm)	
			Height	3.73"(94.8mm)	
	Weight Info (Standard)			~ 1.70 lbs (~771 g) per 6" Unit Length	
	Mounting Info			M6 Mounting Nut Channel, Refer to Datasheet for Details	
	Material Info			Anodized Aluminum Housing, Acrylic Window, Nickel Plated Brass Strain Relief, PVC Cable Jacket, Steel Black Oxide and Zinc Plated Steel Fasteners, Optional Silicone Sealant	
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)	

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	IP Rating			IP50	
	Lumen Maintenance - White Only			L70 (50,000 Hours)	

Part Number Key

Model	Emitting Length (in)	-	Peak Wavelength	Connector/Control
BL138	XX	-	XXX	XXX
BL138	06" increments from 06" to 96"		455 (royal blue)	C1
	03" model also available		530 (green)	C5
			625 (red-orange)	IC[2]
			850 (IR)	24
			RGB (all colors)[1]	
			WHI (white)	

Example Part Numbers:
BL13806-455C1
BL13824-625IC

[1] 1 Not available in IC
[2] IC option not available with 03" model

General Specifications

Category	Specification		Detail	
Optical	Available Wavelengths		White, 455 nm, 530 nm, 625 nm, 850 nm, RGB	
	Available Lensing		No Lenses	
	Available Light Conditioning		None	
Electrical	Power Consumption Info		Refer to Datasheet for Details	
	Cable Info		80" -0/+6" Long (2 m -0/+150 mm), 105 °C Rated, Foil Shield w/ Drain	
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	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)	

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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