

BL Series

Back-lit Backlights

Product Highlights

 The BL Series of Back-lit Backlights offer a low profile design with a planar, back-lit array of LEDs. Model numbers include the BL0202, BL0404 and BL0808.



General Specifications

Electrical Specifications	Color	24V Current	All Other Controls					
	470, 520, 660, 880, WHI	0.03A per sq. inch	0.018A Max per sq. inch					
Normal Operating Temperature	0 - 60°C							
Weight	8" x 8" unit - 1034.2g (36.48	8" x 8" unit - 1034.2g (36.48oz)						
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.							
	Exempt Applicable Wavelengths: 880							
Photobiological Risk Factor	Group 1 (Low-Risk) Applicable Wavelengths: 470, 520, 660, WHI							
Compliance	CE, RoHS, IEC 62471							
IP Rating	IP50							
Lumen Maintenance	L70 = 50,000 Hours							



Part Number Key

Model	Emitting Length (in)	Emitting Width (in)	-	Peak Wavelength	Connector/ Control	Light Conditioning Option	-	Alternative Connector
BL	XX	XX	-	XXX	XX	X	-	XXX
BL	01" increments	01" increments		475 (blue)	C1	P² (Polarizer)		M81
	from 01" to 46"	from 01" to 46"		520 (green)	C5			M121
				660 (red)	IC			
				880 (IR)	13			
				WHI (white)	138			
					24			
EX: BL0312-455C1P BL0608-660IC-M12			¹ Available with IC, I3, I3S, and 24 V options only ² Maximum size: 16" x 16"; 470 (blue) will reduce the life of the polarizer					
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Change Notice

PCN No: 165

Date Issued: March 18, 2022

Notice Type: Optical Component Update

Product Type: BL, CB and FX

Change Notification Summary

In an effort to improve our products, Advanced illumination (Ai) has upgraded the optical components on the BX, CX, and FX Series. This upgrade only applies to size configurations less than or equal to 8" in non-illuminated length, otherwise known as the power side of the unit. This change will result in a brightness increase of roughly 40% over the previous revision. Pricing for each unit will remain the same. This change has gone into effect on BX, CX, and FX lights



with serial numbers greater than 22060XXXX.

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

PCN 165

PCN No: 152

Date Issued: June 15, 2020

Notice Type: Product Revision Change

Product Type: BLXXYY, CBXXYY, FDXXYY, BL128, BL193, BL245

Change Notification Summary

In an effort to improve our products, Advanced illumination (Ai) will be updating the internal drivers and white LEDs used in the BLXXYY, CBXXYY, FDXXYY, BL128, BL193, and BL245. This change will result in white lights seeing a brightness increase of roughly 70% while maintaining equal pricing for small configurations and reduced pricing for large configurations. Excluding the BL128, 24V configured units will experience a current draw shift from 20mA to 30mA per sq. inch for 470nm, 520nm and white units while controller configured units will see a current draw shift from 15mA to 18mA per sq. inch for the same color configurations. Color temperatures will remain unchanged.

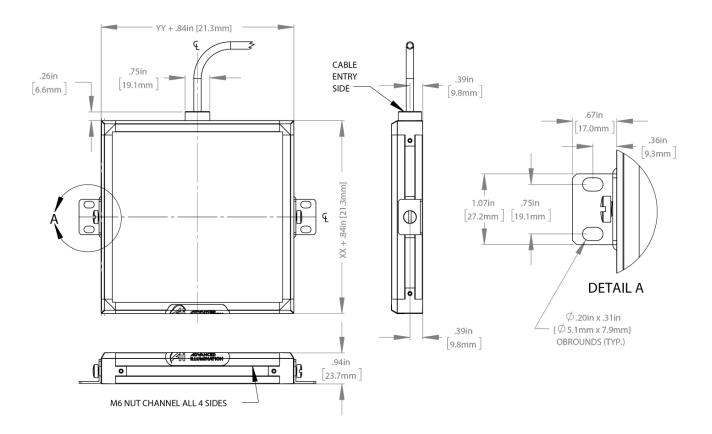
The LED upgrade and internal driver update for white color configurations will take place September 15th. The internal driver updates will occur November 9th for 470nm and January 7th for 520nm.

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

PCN 152



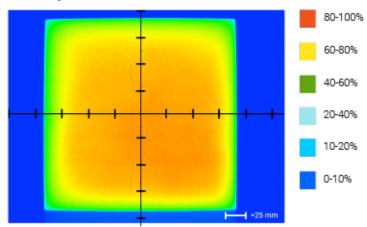
Mechanical Specs





Optical Specs

Intensity Distribution



Optical measurement taken using BL0808-66024

Area of Illuminance & Intensity





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

	COLOR	24V FUNCTIONS	IC FUNCTIONS	13/13S 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	13/13S FUNCTIONS
5	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
3——4	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

3—————————————————————————————————————	PIN	24V FUNCTIONS	IC FUNCTIONS	13/13S 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	C2 Connector	C5 Connector	IC	13	I3S	24
For use with: DCS Series Controllers	For use with: Legacy Controllers (Not recommended for new applications)	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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