

## LL232 Series MicroBrite<sup>™</sup> Line Lights

## Product Highlights

- Part of the MicroBrite<sup>™</sup> family of high performance, compact machine vision lights.
- This line light series utilizes a fresnel lens for a compact form factor.
- Provides an intensity level of 189kLux (working distance of 75mm)



## General Specifications

Electrical Specifications	Color	Color 24V Current			
	455, WHI	455, WHI 0.10A Per 50mm			
	660, 730	0.06A Per 50mm	0.13A Max Per 50mm		
	850, 940	0.10A Per 50mm	0.12A Max Per 50mm		
Normal Operating Temperature	0 - 60°C				
Weight	Varies by Size; LL232-150 unit is 86.2g (3.04oz)				
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) Applicable Wavelengths: 455, 660, 730, WHI				
Compliance	IP Rating				
Lumen Maintenance	L70 = 50,000 Hours				

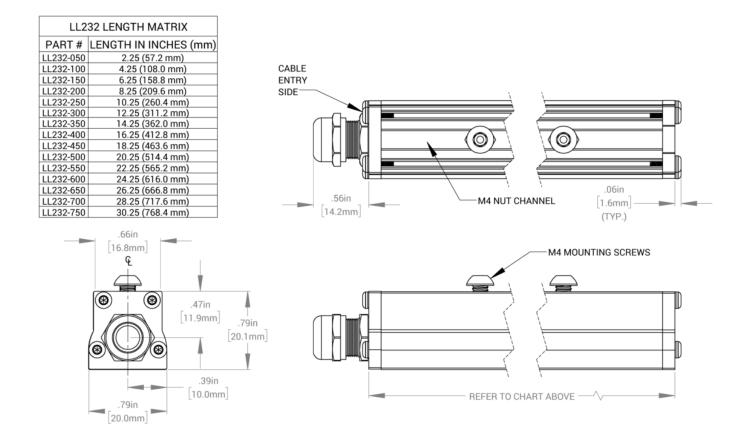
## Part Number Key

-	Emitting Length (mm)	Peak Wavelength	Connector/ Control	-	Alternative Connector
-	ХХХ	ххх	х	-	xxx
	050 mm increments	455 (royal blue)	C1		M81
	from 050 mm to 750 mm	660 (red)	C5		M121
		730 (IR)	Q4		
		850 (IR)	IC		
		940 (IR)	13		
		WHI (white)	135		
			24		
112		<sup>1</sup> Available with IC, I	3, I3S, and 24 V opti	ons only	
	-	<ul> <li>(mm)</li> <li>XXX</li> <li>O50 mm increments from 050 mm to 750 mm</li> </ul>	<ul> <li>(mm)</li> <li>Wavelength</li> <li>XXX</li> <li>050 mm increments from 050 mm to 750 mm</li> <li>750 mm</li> <li>750 mm</li> <li>750 mm</li> <li>940 (IR)</li> <li>940 (IR)</li> <li>WHI (white)</li> </ul>	-         (mm)         Wavelength         Control           -         XXX         XXX         X           050 mm increments from 050 mm to 750 mm         455 (royal blue) 660 (red)         C1           940 (IR)         IC           940 (IR)         I3           WHI (white)         I3S           24	-       (mm)       Wavelength       Control       -         -       XXX       XX       X       -         050 mm increments from 050 mm to 750 mm to 750 mm       455 (royal blue) 660 (red)       C1         940 (IR)       IC       940 (IR)       I3         WHI (white)       I3S       24         'Available with IC, I3, I3S, and 24 V options only       -

See website product page for in-stock product numbers.

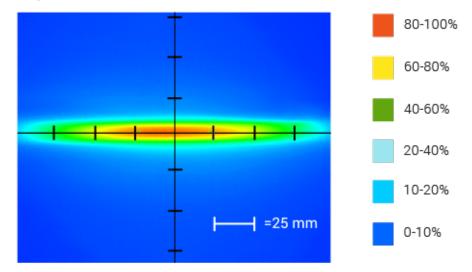
Shipping: Stock Products: within three days Build-to-Order Products: within one to three weeks

## Mechanical Specs



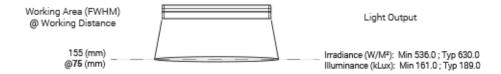
## Optical Specs

### Intensity Distribution



Optical measurement taken using LL232-150WHIIC @ 75mm

#### Area of Illuminance & Intensity



	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

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

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		<b>I3/I3S FUNCTIONS</b>	
21	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	
34	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	<b>I3/I3S FUNCTIONS</b>
3	1	24 V DC	24 V DC	24 V DC
4-2	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	IC	13	13S	24
For use with: DCS Series Controllers	For use with: Pulsar 320 Strobe Controller.	Continous in-line controller <i>Powered with:</i> 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. 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**

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