

### Product Highlights

- Our classic LL163 Line Lights are suitable for low intensity, low speed line scan applications.
- These line lights are well established and have proven reliability.



### General Specifications

	Color	24V Current	All Other Controls
Electrical Specifications	625, 660, 880	0.03A per 1.5"	0.014A Max per 1.5"
	395, 470, 620, WHI	0.02A per 1.5"	0.009A Max per 1.5"
Normal Operating Temperature	0 - 60°C		
Weight	Per 3" - 226.8g (8.0oz)		
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor	Exempt Applicable Wavelengths: 880 Group 1 (Low-Risk) Applicable Wavelengths: 470, 520, 625, 660, WHI Group 2 (Moderate-Risk) Applicable Wavelengths: 395		
Compliance	CE, RoHS, IEC 62471		
IP Rating	IP50		
Lumen Maintenance	L70 = 50,000 Hours		

## Part Number Key

Model	Model Extension	Lens Focus	Number of LEDs	—	Peak Wavelength	Connector/Control	—	Alternative Connector
LL	XXXX	X	XXX	—	XXX	XX	—	XXX
LL	163	A <sup>3</sup>	Refer to Emitting Length Chart <sup>2</sup>		395 (UV)	C1		M8 <sup>1</sup>
	2912	B <sup>3</sup>			470 (blue)	C5		M12 <sup>1</sup>
	3024	D <sup>3</sup>			520 (green)	IC		
	3148	E <sup>3</sup>			625 (red orange)	I3		
					660 (red)	I3S		
					880 (IR)	24		
					WHI (white)			
EX: LL163A030-WHIIC LL163B102-625IC-M12					<sup>1</sup> Available with IC, I3, I3S, and 24 V options only <sup>2</sup> Applicable only to LL163 <sup>3</sup> Refer to Mechanical Specs for lens focus descriptions			

See website product page for in-stock product numbers.

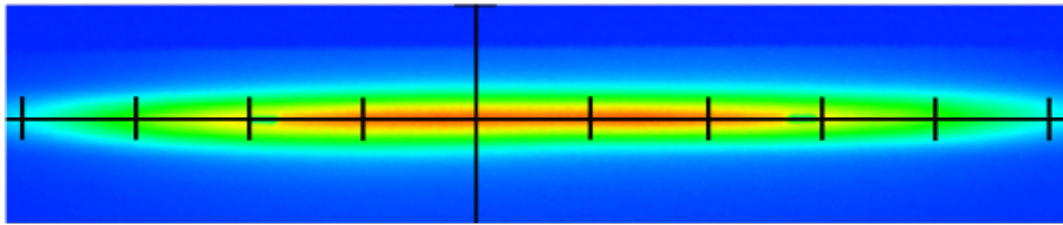
**Shipping:**

Stock Products: within three days

Build-to-Order Products: within one to three weeks

## Optical Specs

## Intensity Distribution



Optical measurement taken using LL16312-WHIC @ 25mm

| | = 12.5mm



## Line Width @ Working Distance

	Lens "A"	Lens "B"	Lens "D"	Lens "E"
Working Distance	25mm	50mm	75mm	125mm
Line Width	6mm	9.5mm	13mm	16mm

## Area of Illuminance &amp; Intensity

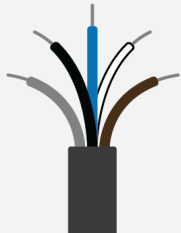
Working Area (FWHM)  
@ Working Distance81 X 6 (mm)  
@25 (mm)

Light Output

Irradiance (W/M²): Min 77.77 ; Typ 91.5  
Illuminance (kLux): Min 21.08 ; Typ 24.8

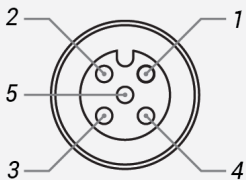
## Electrical Specs

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

	COLOR	24V FUNCTIONS	IC FUNCTIONS	I3/I3S 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

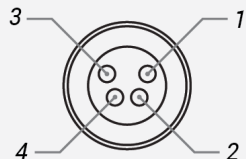
The functions listed above are applicable when this product is configured with built-in 24V, IC, I3, or I3S control, **without** the optional A-coded 5-position Male M12 or A-coded 4-position Male M8 connector.

## M12 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options

	PIN	24V FUNCTIONS	IC FUNCTIONS	I3/I3S FUNCTIONS
	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
	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	I3/I3S 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.

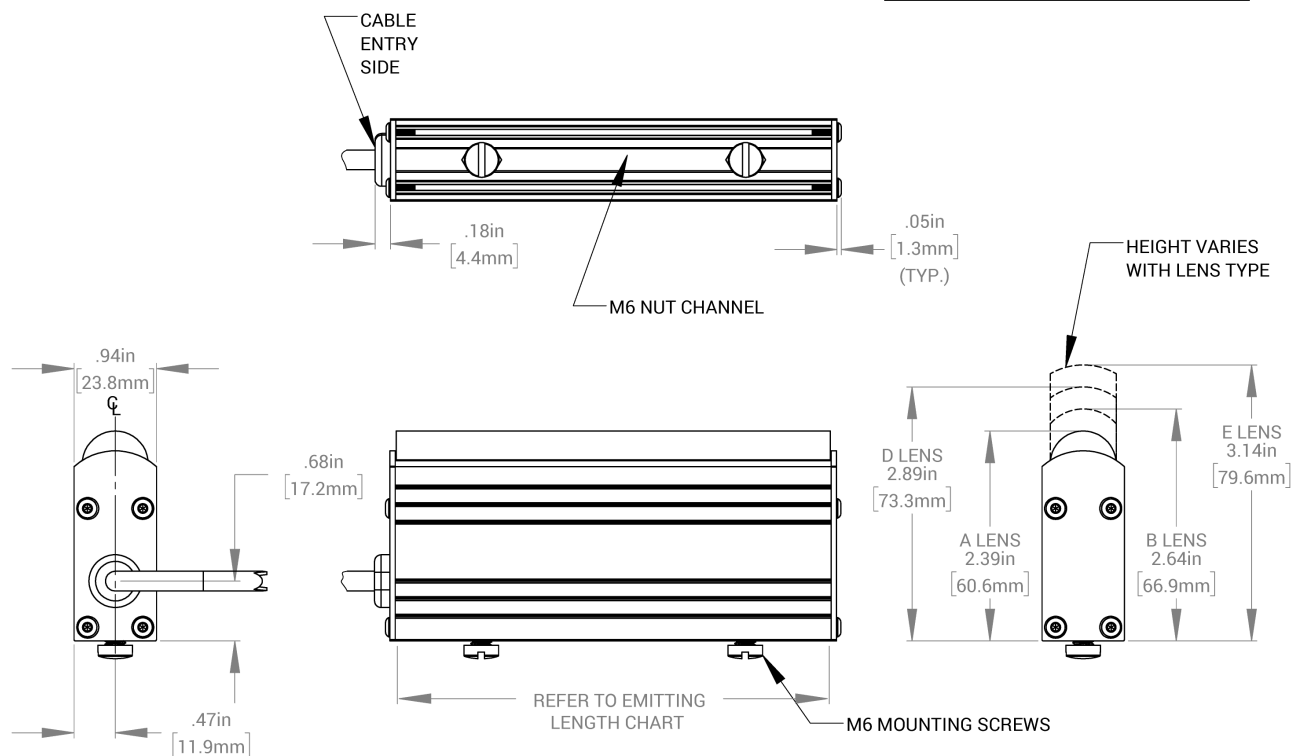
## Control Specs

C1 Connector	C5 Connector	ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	24
For use with: DCS Series Controllers	For use with: Pulsar 320 Strobe Controller.	Continuous in-line controller  Powered with: 24V power supply	Combination strobe/continuous in-line controller  Powered with: 24V power supply	Default-OFF strobe/continuous in-line controller  Powered with: 24V power supply	Flying/tinned leads  Powered with: 24V power supply

## Mechanical Specs

\*LL2912, LL3024, AND LL3148 HAVE  
LEGACY PART NUMBERS

SEE LL163 PART NUMBER CHART  
FOR SIZING OPTIONS



LL163 Emitting Length Chart

Emitting Length (in)	Part Number	Emitting Length (in)	Part Number	Emitting Length (in)	Part Number
2.25"	LL163X006	29.25"	LL163X114	56.25"	LL163X222
3.75"	LL2912X <sup>1</sup>	30.75"	LL163X120	57.75"	LL163X228
5.25"	LL163X018	32.25"	LL163X126	59.25"	LL163X234
6.75"	LL3024X <sup>1</sup>	33.75"	LL163X132	60.75"	LL163X240
8.25"	LL163X030	35.25"	LL163X138	62.25"	LL163X246
9.75"	LL163X036	36.75"	LL163X144	63.75"	LL163X252
11.25"	LL163X042	38.25"	LL163X150	65.25"	LL163X258
12.75"	LL3148X <sup>1</sup>	39.75"	LL163X156	66.75"	LL163X264
14.25"	LL163X054	41.25"	LL163X162	68.25"	LL163X270
15.75"	LL163X060	42.75"	LL163X168	69.75"	LL163X276
17.25"	LL163X066	44.25"	LL163X174	71.25"	LL163X282
18.75"	LL163X072	45.75"	LL163X180	72.75"	LL163X288
20.25"	LL163X078	47.25"	LL163X186	74.25"	LL163X294
21.75"	LL163X084	48.75"	LL163X192	75.75"	LL163X300
23.25"	LL163X090	50.25"	LL163X198	77.25"	LL163X306
24.75"	LL163X096	51.75"	LL163X204	78.75"	LL163X312
26.25"	LL163X102	53.25"	LL163X210	80.25"	LL163X318
27.75"	LL163X108	54.75"	LL163X216		

X refers to Lens Focus: A, B, D, E

<sup>1</sup> LL2912, LL3024, and LL3148 represent legacy part numbers

## 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](mailto:orders@advancedillumination.com).

## Company Information

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