

### 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		

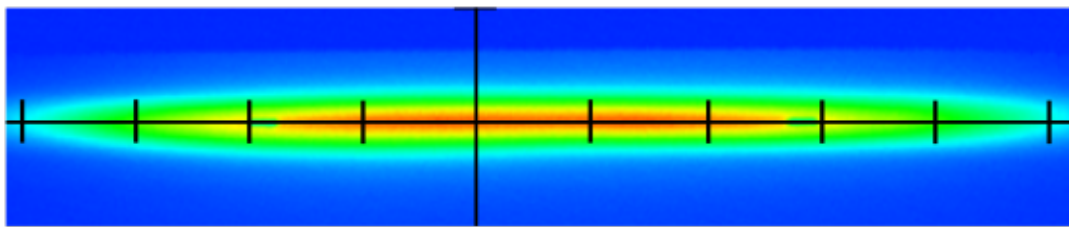
## Part Number Key

Model Type	Model Extension	Lens Type	# of LEDs <sup>2</sup>	—	Spectral Wavelength	Connector/Control	—	Alternative Connector
XX	XXXX	X	XXX	—	XXX	XX	—	XXX
LL	163	A	refer to chart		395 (UV)	C1		M12 <sup>1</sup>
	2912	B			470 (blue)	C5		
	3024	D			520 (green)	IC		
	3148	E			625 (red-orange)	I3		
					660 (red)	I3S		
					880 (infra-red)	24		
					WHI (white)			
Ex: LL163A030-WHIIC LL163B102-625IC-M12						<sup>1</sup> Available with IC, I3, I3S and 24v options only <sup>2</sup> Only applicable for LL163 and not LL2912, LL3024 or LL3148		

**Stock Product:** *shipped within 3 days*    **Build to Order:** *shipped in two weeks*  
 LL2912A-WHIC1

## 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 & Intensity

Working Area (FWHM)  
@ Working Distance

81 X 6 (mm)  
@25 (mm)



Light Output

Irradiance (W/M<sup>2</sup>): Min 77.77 ; Typ 91.5  
 Illuminance (kLux): Min 21.08 ; Typ 24.8

## 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

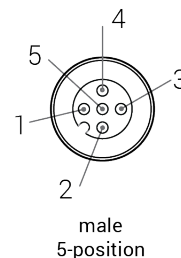
### ICS 3 (I3 and I3S)

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

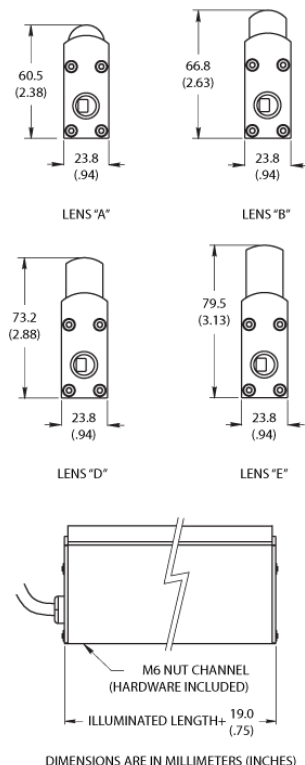
### Optional M12 Pinout



## Control Specs

C1 Connector	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.	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

## Mechanical Specs



### LL163 Part Number Chart

Length		Part Number	Length		Part Number	Length		Part Number
Illuminated	Unit		Illuminated	Unit		Illuminated	Unit	
2.25"	3"	LL163X006	29.25"	30"	LL163X114	56.25"	57"	LL163X222
3.75"	4.5"	LL2912X <sup>1</sup>	30.75"	31.5"	LL163X120	57.75"	58.5"	LL163X228
5.25"	6"	LL163X018	32.25"	33"	LL163X126	59.25"	60"	LL163X234
6.75"	7.5"	LL3024X <sup>1</sup>	33.75"	34.5"	LL163X132	60.75"	61.5"	LL163X240
8.25"	9"	LL163X030	35.25"	36"	LL163X138	62.25"	63"	LL163X246
9.75"	10.5"	LL163X036	36.75"	37.5"	LL163X144	63.75"	64.5"	LL163X252
11.25"	12"	LL163X042	38.25"	39"	LL163X150	65.25"	66"	LL163X258
12.75"	13.5"	LL3148X <sup>1</sup>	39.75"	40.5"	LL163X156	66.75"	67.5"	LL163X264
14.25"	15"	LL163X054	41.25"	42"	LL163X162	68.25"	69"	LL163X270
15.75"	16.5"	LL163X060	42.75"	43.5"	LL163X168	69.75"	70.5"	LL163X276
17.25"	18"	LL163X066	44.25"	45"	LL163X174	71.25"	72"	LL163X282
18.75"	19.5"	LL163X072	45.75"	46.5"	LL163X180	72.75"	73.5"	LL163X288
20.25"	21"	LL163X078	47.25"	48"	LL163X186	74.25"	75"	LL163X294
21.75"	22.5"	LL163X084	48.75"	49.5"	LL163X192	75.75"	76.5"	LL163X300
23.25"	24"	LL163X090	50.25"	51"	LL163X198	77.25"	78"	LL163X306
24.75"	25.5"	LL163X096	51.75"	52.5"	LL163X204	78.75"	79.5"	LL163X312
26.25"	27"	LL163X102	53.25"	54"	LL163X210	80.25"	81"	LL163X318
27.75"	28.5"	LL163X108	54.75"	55.5"	LL163X216			

<sup>1</sup>LL2912, LL3024 and LL3148 have 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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