LL230 Series

Ultra High Intensity Line Lights

Product Highlights

- This Ultra High Intensity Line Light series is built to handle to most extreme line scan lighting requirements.
- Provides an intensity level of 2,100 klx (working distance of 75 mm).
- Pre-engineered for expandability in 150 mm (6″) increments up to 2400 mm (94.5″).
- Available in multiple wavelengths.

General Specifications

Electrical Specifications	Color	Current Limits Based on Power Supply	All Other Controls
	625	Please see Electrical Specs	N/A
	455, 530, WHI	Please see Electrical Specs	N/A
Normal Operating Temperature	0 - 60°C		
Weight	300 mm model - 2082.0g (73.4 oz) (4.59 lbs)		
Standard Cable Information	No cable included. Please see page 5.		
Photobiological Risk Factor	Group 3 (High-Risk) Applicable Wavelengths: 455, 530, 625, WHI		
Compliance	CE, RoHS, IEC 62471		
IP Rating	Not Rated		
Lumen Maintenance	L70 = 50,000 Hours		

Part Number Key

Model	Lens Type	—	Lit Length	Spectral Wavelength	Connector/ Control	Optional Power Supply
LL230	X	—	XXXX	XXX	XX(X)	XXXXXX-X
LL230	D E F G		Increments of 150mm Max of 2400mm	(royal blue) 455 (green) 530 (red-orange) 625 (white) WHI	PT[1] M12[2]	CS4805-A CS4805-A-CN CS4805-M CS4805-M-CN

Ex: LL230D-0150625PT
LL230G-2250455M12
LL230E-0300WHIPT-CS4805-A

[1]PT = Push Terminal Connector; see wiring section for diagram

[2]M12 wiring ordering code requires optional 5-pin female to flying lead cable M12 cable: LC2-M12-5-FX (refer to wiring diagram P. 4)

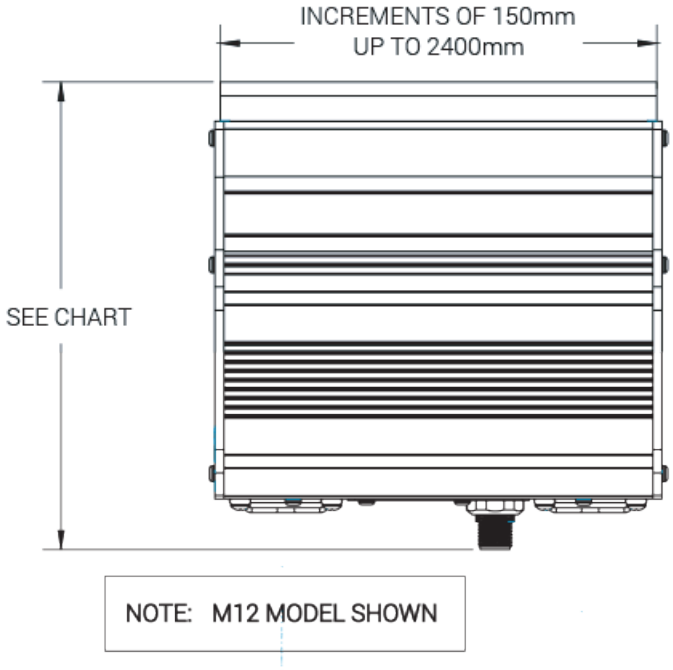
Stock Product: *shipped within 3 days*

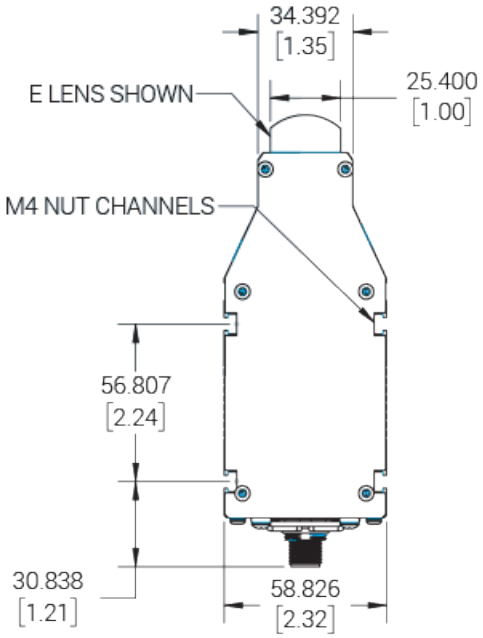
TBD

Build to Order: *shipped within two weeks,*
1650mm and above shipped within three weeks

Lens	Working Distance	Beam Width
D	50mm (2")	3.04mm (0.12")
E	75mm (3")	3.04mm (0.12")
F	150mm (6")	5.08mm (0.20")
G	300mm (12")	10.16mm (0.40")
	600mm (24")	17.78mm (0.70")
	900mm (36")	30.48mm (1.20")
	1200mm (48")	38.10mm (1.50")

Mechanical Specs





Measurements shown in mm [inches]

PUSH TERMINAL HEIGHT MATRIX

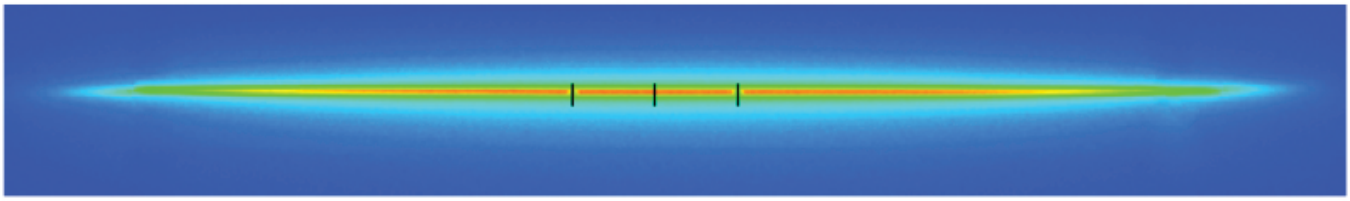
LENS TYPE	HEIGHT IN MM (INCHES)
D	143.94 [5.67]
F	162.99 [6.42]
E	150.30 [5.92]
G	141.48 [5.57]

M12 HEIGHT MATRIX

LENS TYPE	HEIGHT IN MM [INCHES]
D	156.89 [6.18]
F	175.94 [6.93]
E	163.25 [6.43]
G	154.43 [6.08]

Optical Specs

Intensity Distribution

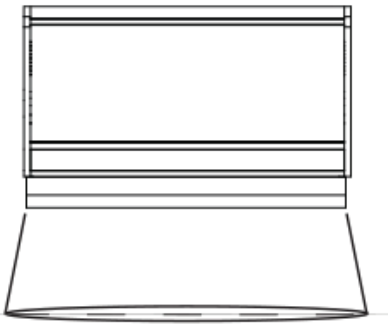


Optical measurement taken using LL230E0300-WHIPT@ 75mm

25mm

20-40% 10-20% 0-10% 40-60% 60-80% 80-100%

Area of Illuminance & Intensity



Working line (FWHM)
@ Working Distance

305 (mm)
@**75** (mm)

Light Output

Irradiance (W/M²): Min 6,290 ; Typ 7,400
Illuminance (Lux): Min 1,700,000; Typ 2,100,000

Electrical Specs

Required:

The LL230 requires an external constant current source controller outputting approximately 5A @ 48 volt DC per 150 mm light length increment.

Advanced illumination recommends the Meanwell HLG-240H-48x* Series.

WARNING:

Incorrect power supply will result in damaging voltage levels, product malfunction, and will void the warranty.

These controllers may be purchased from the Meanwell (www.meanwell.com) sales channel or directly from Ai in either of the following two fashions:

- As separate line items:

Ai Part Name	Meanwell Part Name	Data Sheet
CS4805-M	HLG-240H-48A	HLG-240H
CS4805-M-CN**	HLG-240H-48A	HLG-240H
CS4805-A	HLG-240H-48B	HLG-240H
CS4805-A-CN**	HLG-240H-48B	HLG-240H

- As an ordering code in the light p/n:

Ex: LL230E-0300625PT-CS4805-M

Notes:

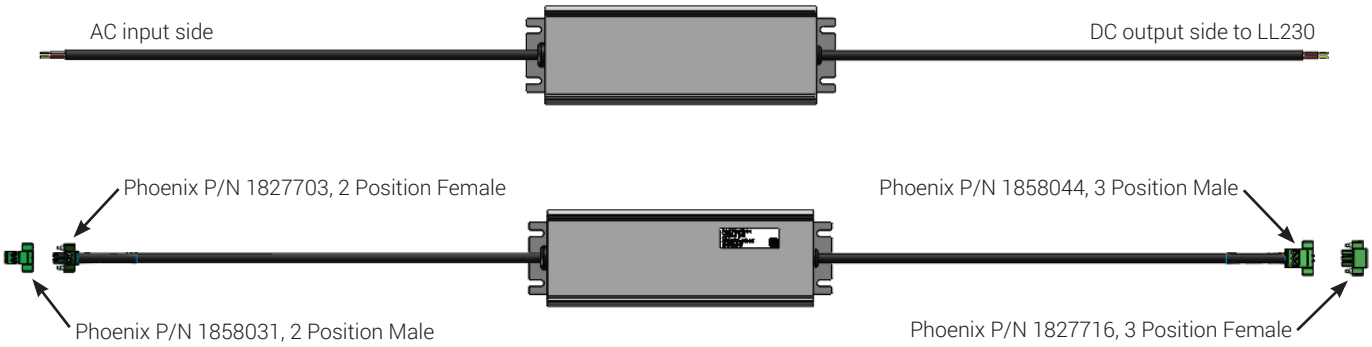
* - M (-A Meanwell p/n) has voltage & current adjust potentiometers on housing
- A (-B Meanwell p/n) cabling for connection to a 3rd party 0-10 volt analog device.

** - CN variants include Ai supplied Phoenix connectors - see page 6 for details.

Current Source Options

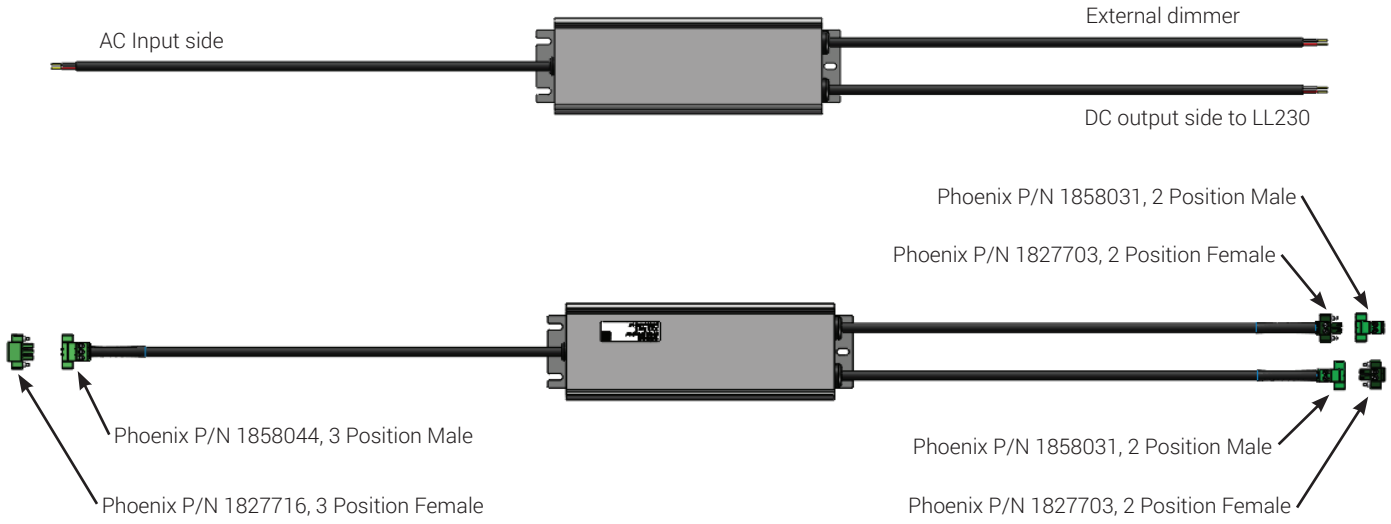
Manual Controlled, CS4805-M or CS4805-M-CN

Power supply comes with tinned leads, they will need to be cut back and left un-tinned. The CS4805-M or CS4805-M-CN power supply type has a potentiometer (a small screw to turn) to dim the output (no extra cable). 'CN' denotes added connectors.



Analog Controlled, CS4805-A or CS4805-A-CN

Power supply comes with tinned leads, they will need to be cut back and left un-tinned. The CS4805-A or CS4805-A-CN power supply type has an extra cable for dimming with external voltage. 'CN' denotes added connectors.



Current Source Options

M12 Cable Option Only (P/N: LC2-M12-5-FX, no connectors offered)

M12 Cable Option Notes:

1) The Ai cable or a user supplied standard 4-pin or 5-pin female to flying leads M12 cable may be used.

2) Wire the M12 cable with both brown and white flying leads to the Meanwell + 48 volt power lead wire to ensure proper power distribution. See diagram on P. 4 for M12 pin-outs and wire color assignments.

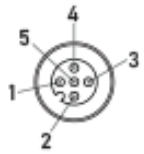
3) If using a user supplied female to male M12 cable, and pins 1 and 2 are not jumpered, each pin must be powered by +48 volts DC and 2.5A each.

Power and Wiring

Push Terminal Connector

Optional M12

Optional M12 Pinout



MALE
5-POSITION

M12

Pin (M12)	Function	Wire Color
1	+VDC	Brown
2	+VDC	White
3	DC GND	Blue
4	DC GND	Black
5	NC	Gray

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, please contact Ai Customer Service or your Ai distributor for a Return Merchandise Authorization (RMA), and return the complete product, freight prepaid, to Ai. If a defect is found, Ai will - at our discretion - repair or replace the product without charge. Ai claims no liability for any implied warranties, including “merchantability” and “fitness for a specific purpose.”

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@advill.com.

Company Information

Advanced illumination

440 State Garage Road, Rochester, VT 05767

Phone: 802.767.3830

Fax: 802.767.3831

Email: info@advancedillumination.com

Web: advancedillumination.com