ADVANCED ILLUMINATION

DF241

Small Low Angle Dark Field Ring Light

Product Highlights

- Precisely aimed LEDs provide a very low angle of incidence, radial illumination pattern.
- A scratch on a sheet of glass is a good example of a defect that can be detected with a low-angle dark field illuminator.
- With a light intensity of 24kLux at a working distance of ½" (12.5mm), the DF241 is perfect for imaging problems limited to a small field of view.
- A 25mm field of view is standard with an optional field of view of 35mm.
- Available in a range of wavelengths from UV to IR.

* Engineered to provide the same optical characteristics as our legacy RL1360.

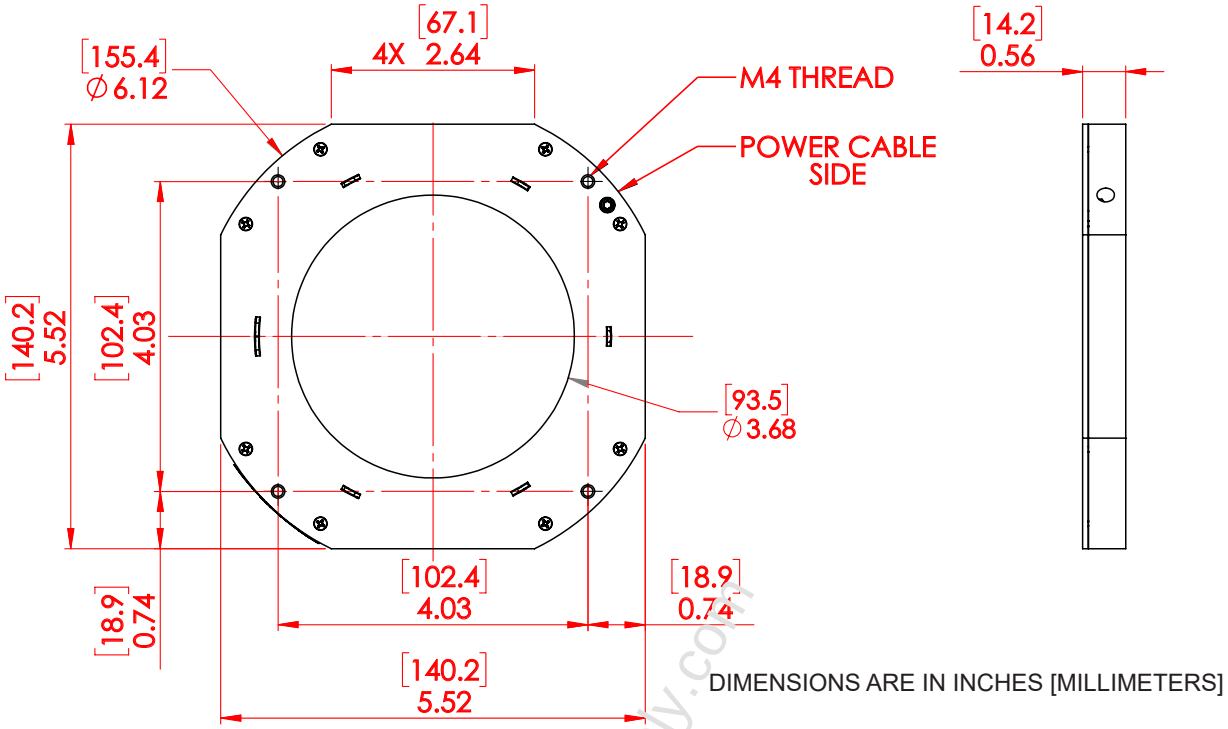
General Specifications

Electrical Specifications	Color	24v Current	All Other Controls
	625, 660, 880	0.36 A	0.27 A Max
	395, 470, 520, WHI	0.24 A	0.18 A Max
Normal Operating Temperature	0 - 60°C		
Weight (g)	1.28 lb (580.6g) (20.48 oz.)		
Standard Cable Information	Up to 2 meters (80") long - 105°C rated PVC jacket, foil shield with drain.		
Photobiological Risk Factor IEC 62471	**Exempt Applicable Wavelengths:** 880 **Group 1 (Low-Risk) Applicable Wavelengths:** 470, 520, 625, 660, WHI **Group 2 (Medium-Risk) Applicable Wavelengths:** 395		
Compliance	CE RoHS IEC 62471		
IP Rating	Not Rated		
Lumen Maintenance	L70 = 50,000 hours		

Released 1/28/2019

DF241

Mechanical Specifications



DIMENSIONS ARE IN INCHES [MILLIMETERS]

Part Number Key

Model	—	Spectral Wavelength	Field of View (mm)	Connector/ Control	—	Alternative Connector
DF241	—	XXX	XX	XX	—	XXX
DF241		(UV) 395 [2] (blue) 470 (green) 520 (red orange) 625 (red) 660 (infra-red) 880 (white) WHI	25 35	C1 C5 IC I3 I3S 24		M12 [1]

Ex: DF241-47035C5
DF241-62525I3-M12

[1] Available with IC, I3, I3S and 24 options only
[2] Not Available in IC and 24

Stock Product: *shipped within 3 days*
None

Build to Order: *shipped within 2 weeks*

Connector | Control Options

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

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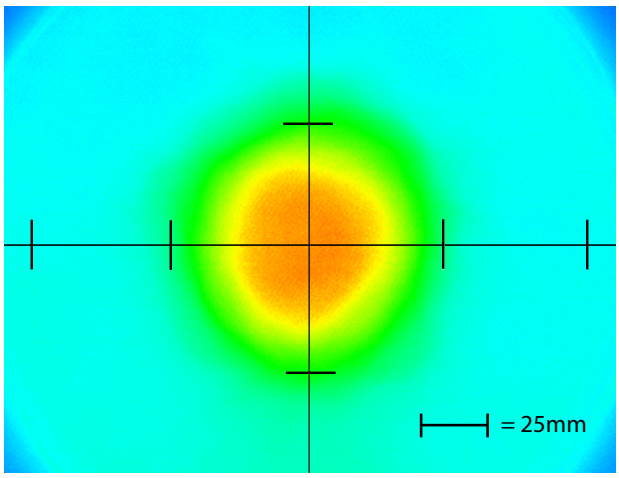
Optical Performance

Intensity Distribution

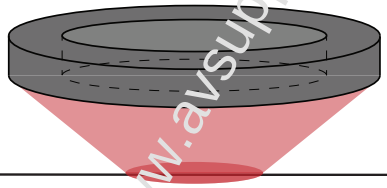


80-100%
60-80%
40-60%
20-40%
10-20%
0-10%

Optical measurement taken using DF241-62525I3 @ 12.5 mm

Area of Illuminance & Intensity

Working Area (FWHM)
@ Working Distance



Light Output

33 Dia (mm)
@**12.5** (mm)

Irradiance (W/M²): Typ 165
Illuminance (kLux): Typ 40

Operation and Wiring

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

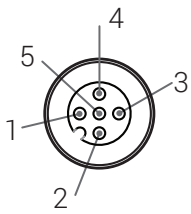
ICS 3 (I3 and I3S)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	Reserved	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



male
5-position

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 two 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.

Company Information

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