

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 DF242 is perfect for imaging problems with medium sized field of view.
- A 35mm field of view is standard with optional field of view of 45mm and 70mm.
- Available in a range of wavelengths from UV to IR.

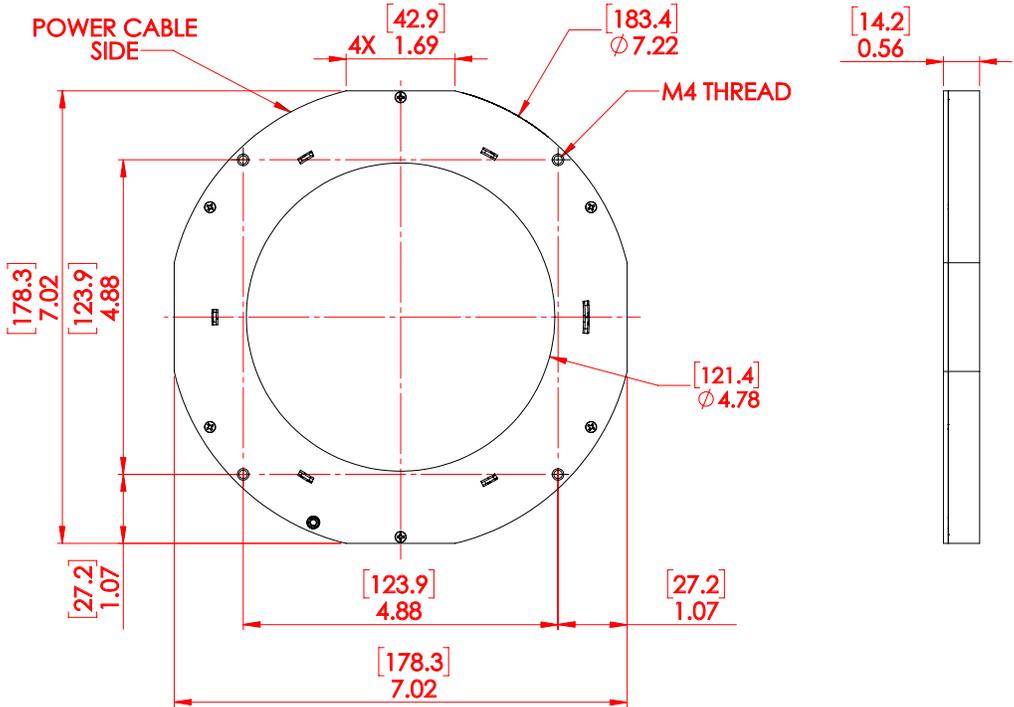


* Engineered to provide the same optical characteristics as our legacy RL1660.

General Specifications

| | Color | 24v Current | All Other Controls |
|--|--|-------------|--------------------|
| Electrical Specifications | 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) | 646g (22.78 oz) (1.424 lb) | | |
| 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 (Moderate Risk) Applicable Wavelengths: 395 | | |
| Compliance |  | | |
| IP Rating | Not Rated | | |
| Lumen Maintenance | L70 = 50,000 hours | | |

Mechanical Specifications



Part Number Key

| Model | — | Spectral Wavelength | Field of View | Connector/ Control | — | Alternative Connector |
|--|----------|-----------------------|---|--------------------|----------|-----------------------|
| DF242 | — | XXX | XX | XX | — | XXX |
| DF242 | | 395 (UV) ² | 35 | C1 | | M12 ¹ |
| | | 470 (blue) | 45 | C5 | | |
| | | 520 (green) | 70 | IC | | |
| | | 625 (red orange) | | I3 | | |
| | | 660 (red) | | I3S | | |
| | | 880 (IR) | | 24 | | |
| | | WHI (white) | | | | |
| Ex: DF242-39545I3-M12 DF242-52035C1 | | | ¹ Available with IC, I3, I3S and 24v options only ² Not available in IC and 24 options | | | |

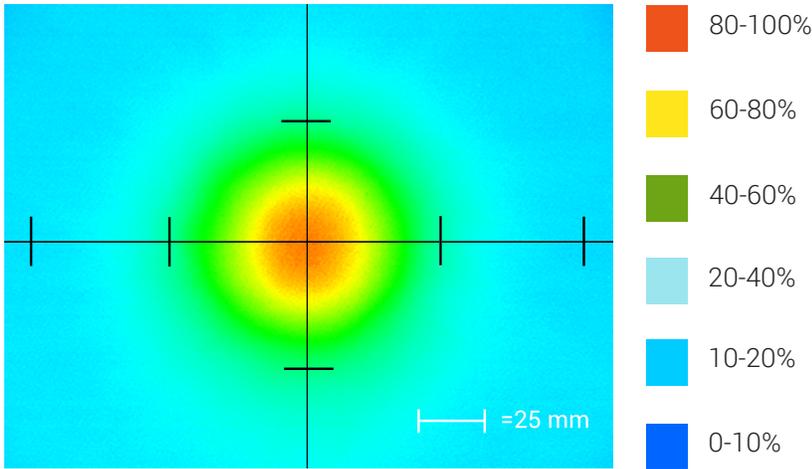
Stock Product: *shipped within 3 days* **Build to Order:** *shipped within 2 weeks*
None

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 |

Optical Performance

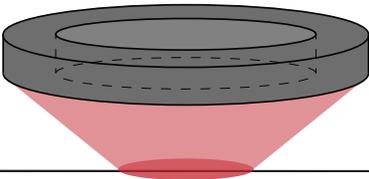
Intensity Distribution



Optical measurement taken using DF242-62535I3 @ 25 mm

Area of Illuminance & Intensity

Working Area (FWHM)
@ Working Distance



Light Output

30 Dia (mm)
@25 (mm)

Irradiance (W/M²): Typ 119
Illuminance (kLux): Typ 24

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 |

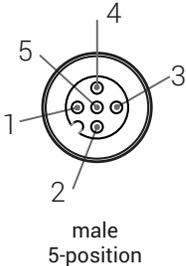
ICS 3 (I3 and I3S)

| 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



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.

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, EST or send an email to orders@advill.com.

Company Information

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