DF198 Series

MicroBrite™ Diffuse Ring Light Series

Product Highlights

- Our MicroBrite™ DF198 Series provides diffuse illumination at a low angle to cast shadows used to identify surface defects, embossed text, etc.
- This ring light is more diffuse and less directional than the DF196.
- Can be used to produce a bright field effect when the outer diameter is smaller than the working distance.



General Specifications

	Part Number	Color	24V Current	All Other Controls
Electrical Specifications	DF198-050	625	N/A	0.13A Max
	DF198-050	455, 530, WHI	N/A	0.22A Max
	DF198-050	RGB	N/A	0.65A Max
	DF198-115	625	0.32A	0.32A Max
	DF198-115	455, 530, WHI	0.32A	0.54A Max
	DF198-115	RGB	N/A	0.95A Max
	DF198-180	625	0.64A	0.58A Max
	DF198-180	455, 530, WHI	0.64A	0.97A Max
	DF198-180	RGB	N/A	2.55A Max
	DF198-280	625	0.96A	0.58A Max
	DF198-280	455, 530, WHI	0.96A	0.97A Max
	DF198-280	RGB	N/A	3.60A Max
Normal Operating Temperature	0 - 60°C			

Weight	DF198-050: 61.7g (2.18oz) DF198-115: 128.8g (4.54oz) DF198-180: 227.7g (8.03oz) DF198-280: 358.3g (12.64oz)
Standard Cable Information	2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain.
Photobiological Risk Factor	Group 1 (Low-Risk) Applicable Wavelengths: 455, 530, 625, WHI, RGB
Compliance	CE, RoHS, IEC 62471
IP Rating	IP40
Lumen Maintenance	L70 = 50,000 Hours

Part Number Key

Model	–	Outer Diameter (mm)	Illuminated Field of View (mm)	Connector/ Control	–	Alternative Connector
DF198	–	XXX	XXX	XX	–	XXX
DF198		050	455 (royal blue)	C1		M8[1]
		115	530 (green)	C5		M12[1]
		180	625 (red)	Q1		
		280	WHI (white)	Q4		
			RGB (all colors)[3]	IC		
				I3		
				I3S		
				24[2]		

EX:
DF198-115WHII3
DF198-180625C1

[1] Available with IC, I3, I3S, and 24 V options only
[2] The 24 V version will have a lower output intensity by ~10-15% and operate at a temperature ~10-15% higher than other options; not available in 50 mm outer diameter
[3] Available with C1 connector only

See website product page for in-stock product numbers.

Shipping:
Stock Products: within three days
Build-to-Order Products: within one to three weeks

Change Notice

PCN No: 167

Date Issued: October 10, 2022
Notice Type: LED Change
Product Type: DF196-RGB and DF198-RGB Lights

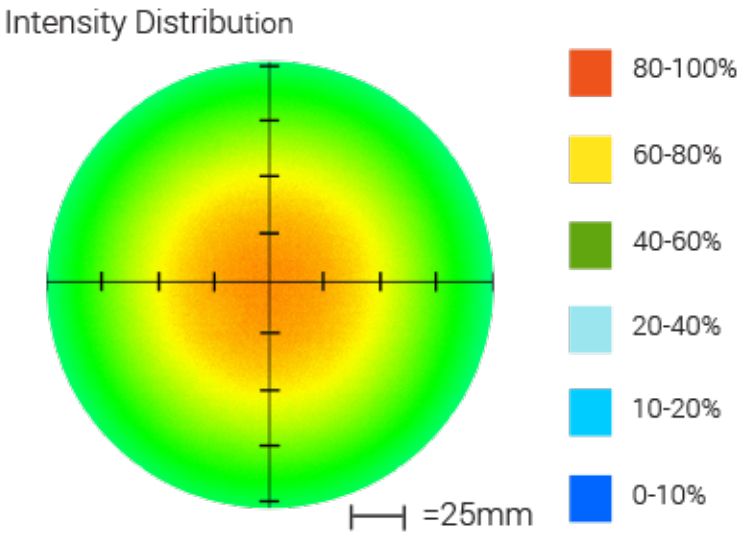
Change Notification Summary

Due to the discontinuation of the LEDs used in these products, Advanced illumination (Ai) needs to update the LED to a current model. This change will occur immeditally.

Please contact your Ai Sales Representative if you have any questions.

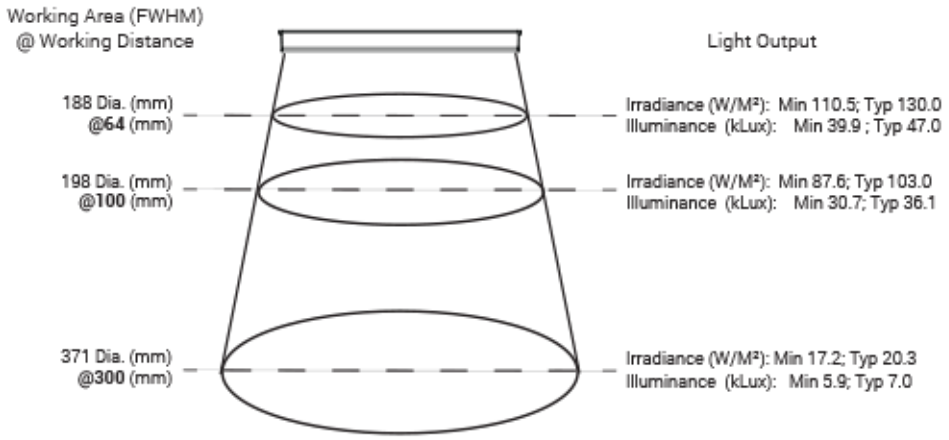
PCN167

Optical Specs



Optical measurement taken using DF198-180WHII3 @ 100mm

Area of Illuminance & Intensity for DF198-180WHII3

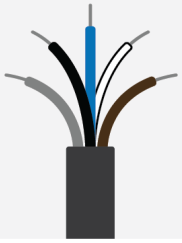


Area of Illuminance & Intensity for All DF198-WHI

Part Number	Working Distance (mm)	Irradiance (klux)	Illuminance (W/m2)	FWHM Diameter (mm)
DF198-050	12.7	703.0	223.0	33.0
	100	37.2	12.3	101.6
	300	4.2	1.5	340.4
DF198-115	50	94.2	32.7	116.8
	100	42.6	14.6	142.2
	300	5.9	2.1	317.5
DF198-180	64	130.0	47.0	188.0
	100	103.0	36.1	198.1
	300	20.3	7.0	370.8
DF198-280	100	62.5	22.7	315.0
	200	41.4	14.5	340.4
	300	23.8	8.2	403.9

Electrical Specs

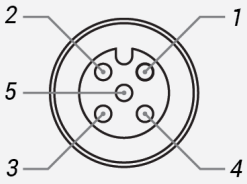
Standard Flying Lead Functions for 24V, IC, I3 and I3S Control Options



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.*

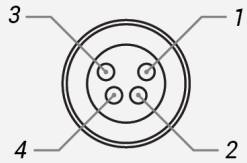
M12 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options



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.

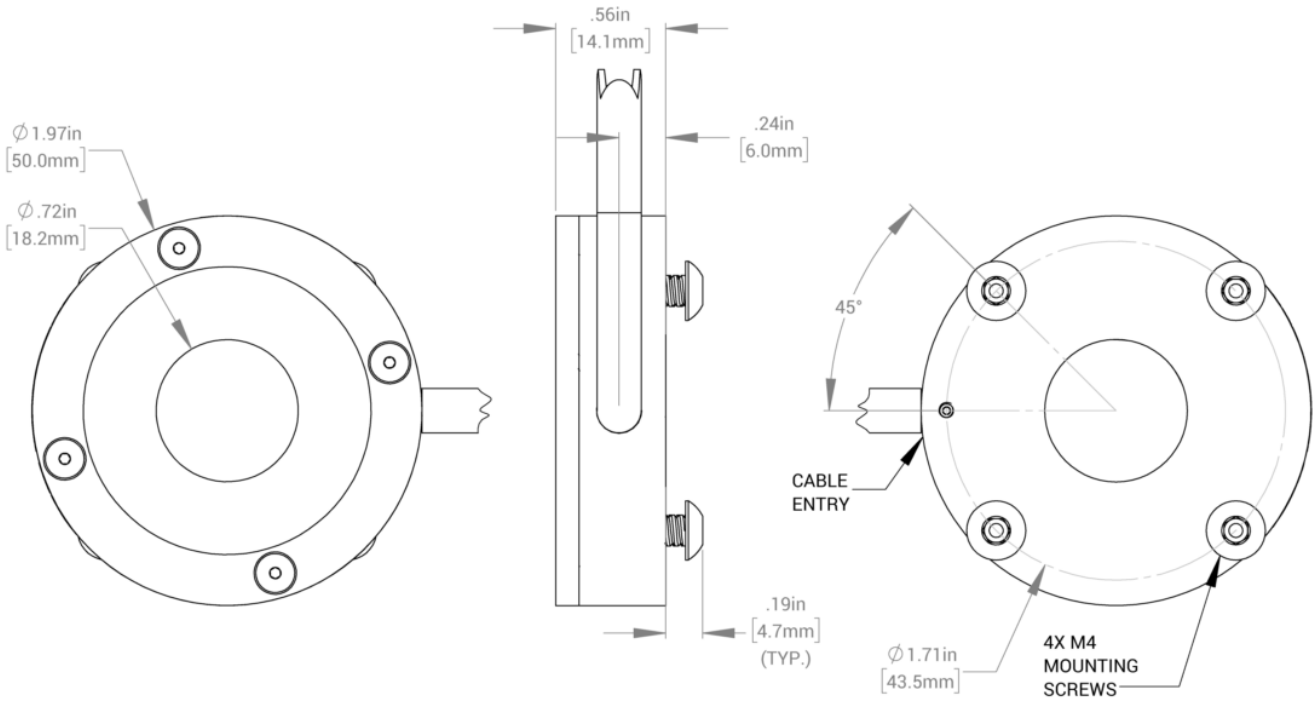
Control Specs

C1 CONNECTOR	C5 CONNECTOR	Q1 CONNECTOR	Q4 CONNECTOR
For use with: **DCS-100E & DCS-103E** Strobe/Continuous Controllers **Ordered Separately**	For use with: **Pulsar 320** High Power Strobe Only Controller **Ordered Separately**	For use with: **DCS-400E & DCS-800E** Sequenced Strobe/Continuous Controllers **Ordered Separately**	For use with **DCS-400E & DCS-800E** Sequenced Strobe/Continuous Controllers **Ordered Separately**

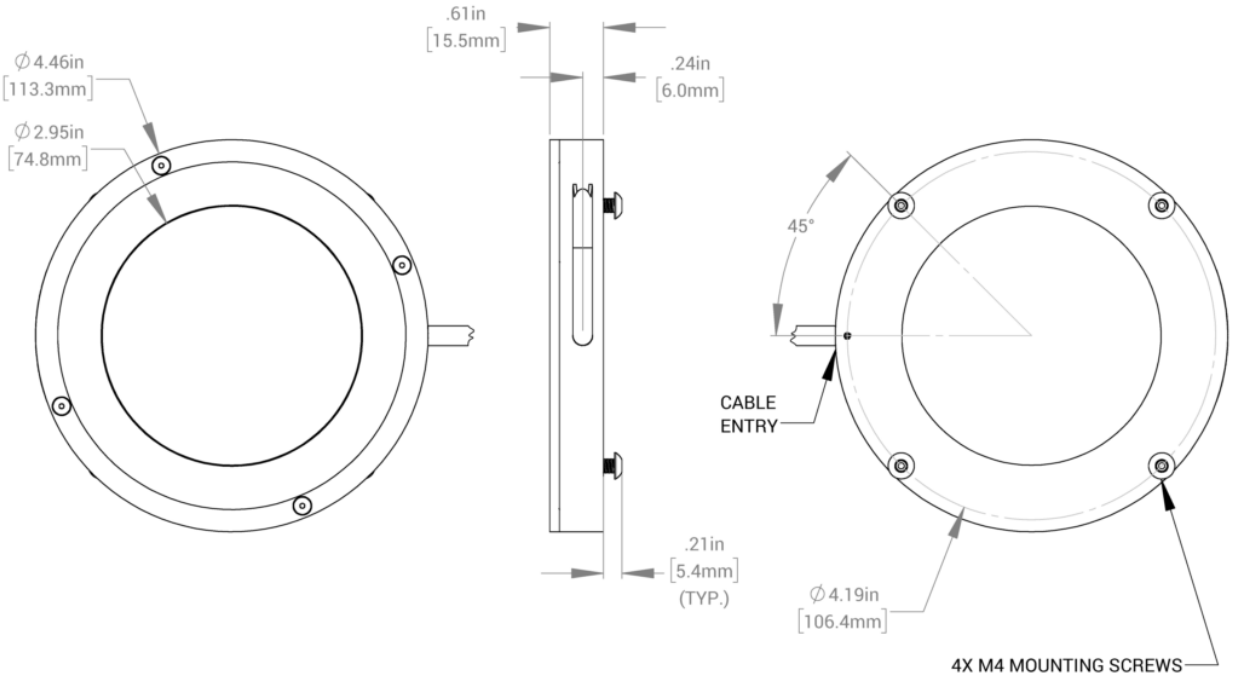
ICS 2 (IC)	ICS 3 (I3)	ICS 3S (I3S)	24 VOLT
In-line Continuous Controller Included **24V Power Supply Required** Flying/Tinned Leads	In-line Strobe/ Continuous Controller Included Default On **24V Power Supply Required** Flying/Tinned Leads	In-line Strobe/ Continuous Controller Included Default Off **24V Power Supply Required** Flying/Tinned Leads	Flying/Tinned Leads No Control Features Powered with: **24V Power Supply**

Mechanical Specs

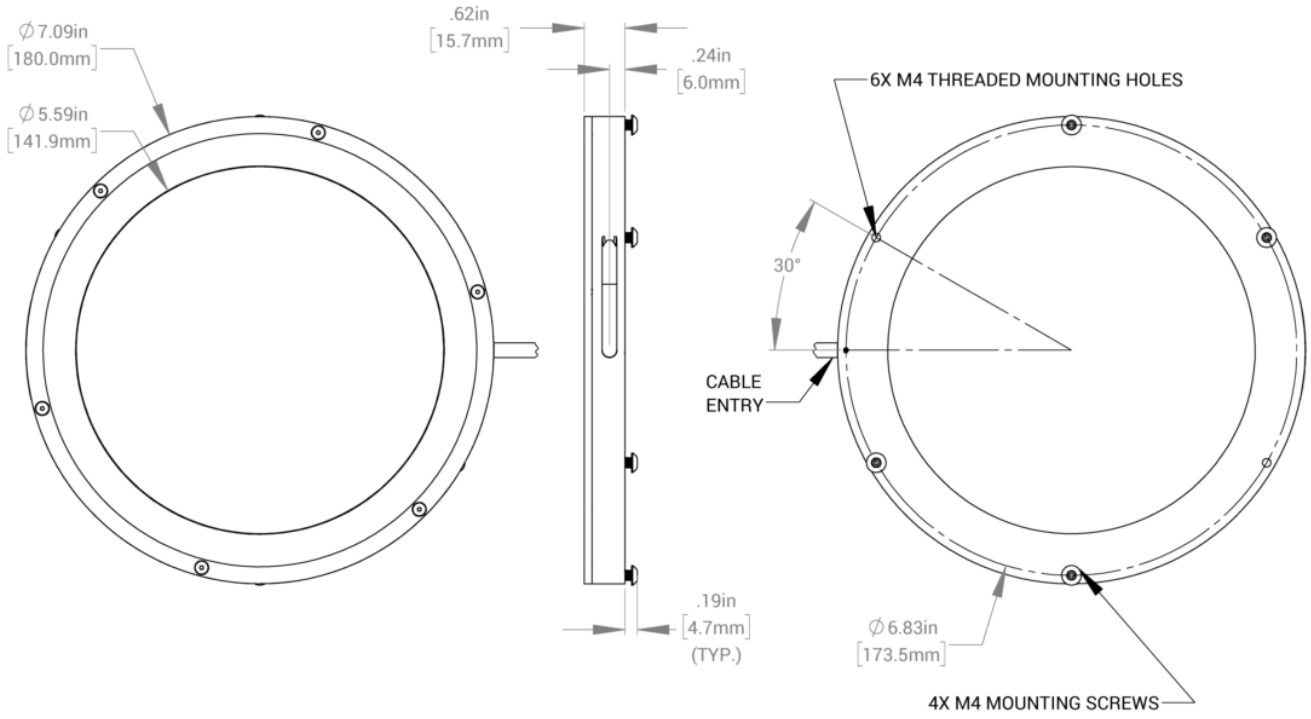
[DF198-050]



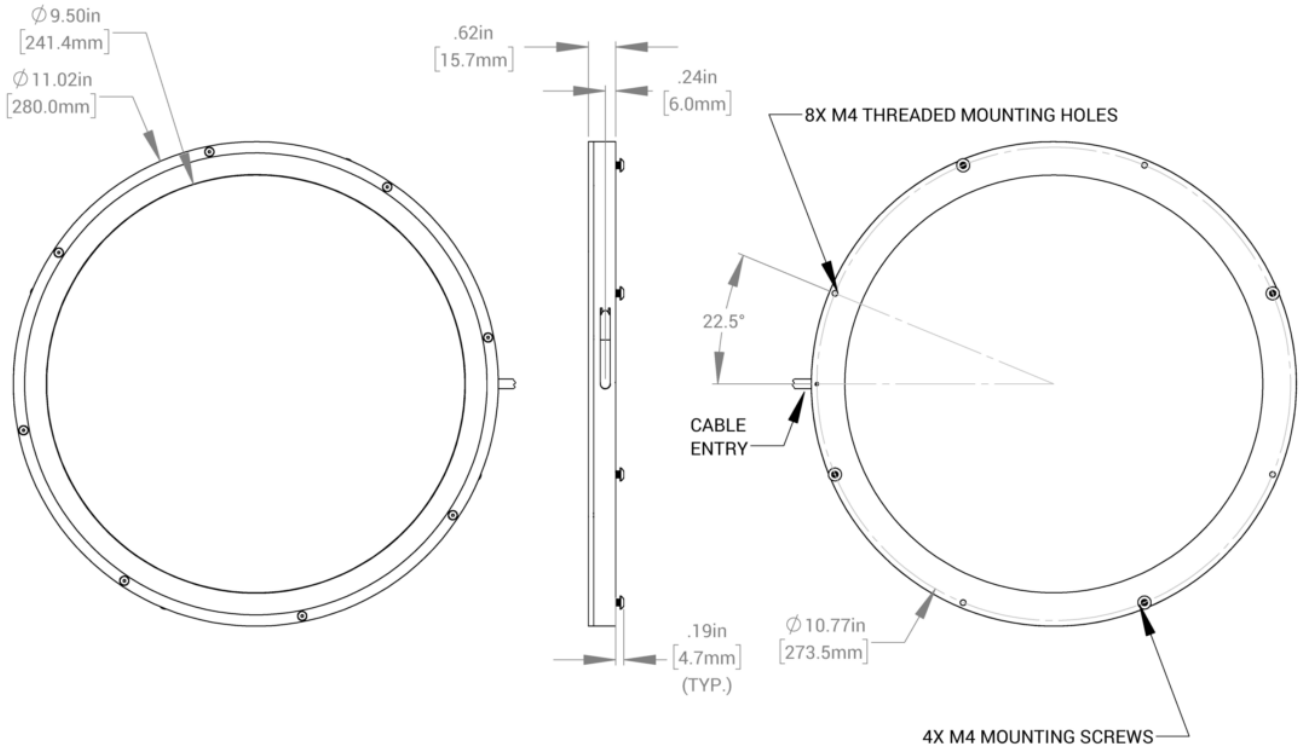
[DF198-115]


.61in
[15.5mm]
.24in
[6.0mm]
∅4.46in
[113.3mm]
∅2.95in
[74.8mm]
45°
CABLE
ENTRY
.21in
[5.4mm]
(TYP.)
∅4.19in
[106.4mm]
4X M4 MOUNTING SCREWS

[DF198-180]


∅7.09in
[180.0mm]
∅5.59in
[141.9mm]
.62in
[15.7mm]
.24in
[6.0mm]
.19in
[4.7mm]
(TYP.)
6X M4 THREADED MOUNTING HOLES
30°
CABLE
ENTRY
∅6.83in
[173.5mm]
4X M4 MOUNTING SCREWS

[DF198-280]


∅9.50in
[241.4mm]
∅11.02in
[280.0mm]
.62in
[15.7mm]
.24in
[6.0mm]
8X M4 THREADED MOUNTING HOLES
22.5°
CABLE
ENTRY
.19in
[4.7mm]
(TYP.)
∅10.77in
[273.5mm]
4X M4 MOUNTING SCREWS

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.

Company Information

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