

MicroBrite™ RL208 Series



High Performance Bright Field Ring Lights

Product Highlights

- Provides stable and even light source
- Used to evenly illuminate a variety of surfaces for color or defect detection
- Available in four sizes: 50, 100, 160, and 200mm
- Broad range of wavelengths available



General Specifications

Electrical Specifications	Part Number ¹	Color	24v Current	All Other Controls	
	RL208X-050	365, 375, 385, 395, 405	0.12 A	0.32 A Max	
		625, 660	0.12 A	0.28 A Max	
		WHI, 455, 470, 505, 530, 590	0.14 A	0.47 A Max	
		730, 850, 940	0.12 A	0.22 A Max	
	RL208X-100	365, 375, 385, 395, 405	0.24 A	0.58 A Max	
		625, 660	0.23 A	0.57 A Max	
		WHI, 455, 470, 505, 530, 590	0.27 A	0.79 A Max	
		730, 850, 940	0.24 A	0.43 A Max	
	RL208X-160	365, 375, 385, 395, 405	0.24 A	0.62 A Max	
		625, 660	0.23 A	0.79 A Max	
		WHI, 455, 470, 505, 530, 590	0.27 A	1.07 A Max	
		730, 850, 940	0.24 A	0.56 A Max	
	RL208X-200	365, 375, 385, 395, 405	0.36 A	0.85 A Max	
		625, 660	0.36 A	0.85 A Max	
		WHI, 455, 470, 505, 530, 590	0.40 A	1.20 A Max	
		730, 850, 940	0.36 A	0.87 A Max	
	Normal Operating Temperature	0 - 60°C			
	Weight (Kg)	Varies by size			
	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: 730, 850, 940 Group 1 (Low-Risk) Applicable Wavelengths: 505, 530, 590, 625, 660, WHI Group 2 (Moderate Risk) Applicable Wavelengths: 365, 375, 385, 395, 405, 455, 470				
Compliance	 				
IP Rating	IP50				
Lumen Maintenance	L70 = 50,000 hours				

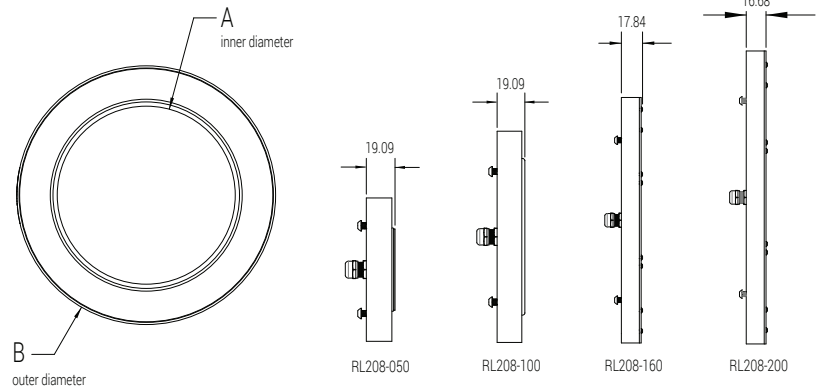
¹ "X" refers to lens option. See part number key for more information.

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Mechanical Specifications

Part Number ¹	A Measurement (mm)	B Measurement (mm)
RL208X-050	50.0	95.34
RL208X-100	100.0	145.34
RL208X-160	160.0	206.87
RL208X-200	200.0	246.87

¹ "X" refers to lens option. See part number key for more information.



Part Number Key

Model	Lens Option	—	Size in mm	Spectral Wavelength	Connector/Control	—	Alternative Connector
RL208	X	—	XXX	XXX	XX	—	XXX
RL208 (Rev. A)	M ³ (medium) W ³ (wide)		050 100 160 200	(UV) 365 (UV) 375 (UV) 385 (UV) 395 (UV) 405 (royal blue) 455 (blue) 470 (cyan) 505 (green) 530 (amber) 590 (red orange) 625 (red) 660 (infra-red) 730 (infra-red) 850 (infra-red) 940 (white) WHI	C1 C5 IC I3 I3S 24 ²		M12 ¹
Ex: RL208M-050WHIC1 RL208W-200625IC-M12			¹ Available with IC, I3 and I3S options only ² The 24v version will have a lower output intensity by ~10-15% and operate at a temp ~10-15% higher than other options ³ Beam angle (FWHM): M = 21° W = 32°				

Stock Product: *shipped next day*
RL208M-100WHIIC

Build to Order: *shipped in two weeks*

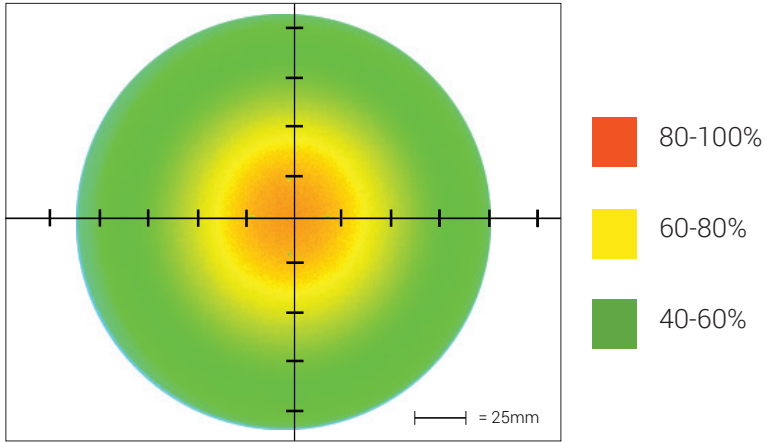
Connector | Control Options

C1 Connector	C5 Connector	IC	I3	I3S	24
For use with: DCS Series Controllers	For use with: Pulsar 320 Strobe Controller.	Continuous in-line controller Powered with: 24V power supply	Combination strobe/continuous in-line controller Powered with: 24V power supply	Default-OFF strobe/continuous in-line controller Powered with: 24V power supply	Flying/tinned leads Powered with: 24V power supply

MicroBrite™ RL208 Series

Optical Performance

Intensity Distribution



Optical measurement taken using RL208M-100WHIIC @ 300mm

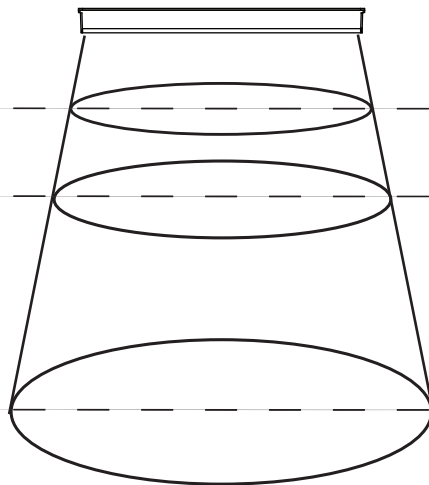
Area of Illuminance & Intensity

Working Area (FWHM)
@ Working Distance

188.9 (mm)
@ **178** (mm)

214.3 (mm)
@ **300** (mm)

388.1 (mm)
@ **600** (mm)



Light Output

Irradiance (W/M²): Min 107.1; Typ 126.0
Illuminance (kLux): Min 35.1; Typ 41.4

Irradiance (W/M²): Min 63.1; Typ 74.3
Illuminance (kLux): Min 20.6; Typ 24.3

Irradiance (W/M²): Min 21.3; Typ 25.1
Illuminance (kLux): Min 7.0; Typ 8.3

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Optical Performance

Area of Illuminance & Intensity for RL208M-WHI

Medium Lens

Part Number	Working Distance (mm)	Illuminance (klux)	Irradiance (W/m ²)	FWHM Diameter (mm)
RL208M-050	100	57.7	177.0	101.6
	300	15.7	47.7	177.8
	600	4.50	13.4	330.2
RL208M-100	178	41.4	126.0	188.9
	300	24.3	74.3	214.3
	600	8.30	25.1	388.1
RL208M-160	230	27.3	83.0	279.4
	300	22.0	67.0	292.1
	600	9.60	29.0	387.3
RL208-200 ¹	330	22.3	66.3	475.5
	450	17.5	52.0	515.1
	600	12.3	36.1	594.3

¹Values shown represent an estimated 30% increase to prior version.

Operation and Wiring

ICS 2 (Ic)

Pin (M12)	Function	Wire Color
1	+24 VDC	Brown
2	GHI	White
3	GND	Blue
4	GLO	Black
5	N/A	N/A

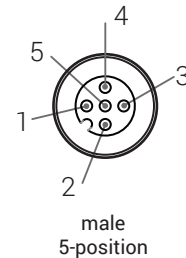
ICS 3 (I3 and I3S)

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	GND	Blue
4	N/A	Black

Optional M12 Pinout



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

Company Information

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