

Product Highlights

- Part of the MicroBrite™ family of high performance, compact machine vision lights.
- Produces an intensity level of 41kLux (working distance of 180mm).
- Available in several sizes including 50mm, 100mm, 160mm and 200mm.



General Specifications

| | Part Number | Color | 24V Current | All Other Controls |
|------------------------------|---|------------------------------|-------------|--------------------|
| Electrical Specifications | RL208X-050 | 365, 375, 385, 395, 405 | 0.12 A | 0.32 A Max |
| | RL208X-050 | 625, 660 | 0.12 A | 0.28 A Max |
| | RL208X-050 | 455, 470, 505, 530, 590, WHI | 0.14 A | 0.47 A Max |
| | RL208X-050 | 730, 850, 940 | 0.12 A | 0.22 A Max |
| | RL208X-100 | 365, 375, 385, 395, 405 | 0.24 A | 0.58 A Max |
| | RL208X-100 | 625, 660 | 0.23 A | 0.57 A Max |
| | RL208X-100 | 455, 470, 505, 530, 590, WHI | 0.27 A | 0.79 A Max |
| | RL208X-100 | 730, 850, 940 | 0.24 A | 0.43 A Max |
| | RL208X-160 | 365, 375, 385, 395, 405 | 0.24 A | 0.62 A Max |
| | RL208X-160 | 625, 660 | 0.23 A | 0.66 A Max |
| | RL208X-160 | 455, 470, 505, 530, 590, WHI | 0.27 A | 0.98 A Max |
| | RL208X-160 | 730, 850, 940 | 0.24 A | 0.54 A Max |
| | RL208X-200 | 365, 375, 385, 395, 405 | 0.36 A | 0.87 A Max |
| | RL208X-200 | 625, 660 | 0.36 A | 0.66 A Max |
| | RL208X-200 | 455, 470, 505, 530, 590, WHI | 0.40 A | 0.98 A Max |
| RL208X-200 | 730, 850, 940 | 0.36 A | 0.54 A Max | |
| Normal Operating Temperature | 0 - 60°C | | | |
| Weight | Varies by size | | | |
| Standard Cable Information | 2 m long -0/+150 mm (80" -0/+6") - 105°C rated PVC jacket, foil shield with drain. | | | |
| Photobiological Risk Factor | <p>Exempt Applicable Wavelengths; 850, 940</p> <p>Group 1 (Low Risk) Applicable Wavelengths: 455, 470, 505, 530, 590, 625, 660, 730, WHI</p> <p>Group 2 (Moderate Risk) Applicable Wavelengths: 365, 375, 385, 395, 405</p> | | | |
| Compliance | CE, RoHS, IEC 62471 | | | |

| | |
|-----------|------|
| IP Rating | IP50 |
|-----------|------|

Lumen Maintenance L70 = 50,000 Hours

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

Part Number Key

| Model | Lens Type | — | Inner Diameter (mm) | Peak Wavelength | Connector/Control | — | Alternative Connector | |
|---|--------------------------|---|---------------------|-----------------|-------------------|--|-----------------------|--|
| RL208 | X | - | XXX | XXX | XX | - | XXX | |
| RL208 | M (Medium) | | 050 | 365 (UV) | C1 | | M8 ¹ | |
| | | | 100 | 375 (UV) | C5 | | M12 ¹ | |
| | W ³ (Wide) | | | 160 | 385 (UV) | IC | | |
| | | | | 200 | 395 (UV) | I3 | | |
| | | | | | 405 (violet) | I3S | | |
| | | | | | 455 (royal blue) | 24 ² | | |
| | | | | | 470 (blue) | | | |
| | | | | | 505 (cyan) | | | |
| | | | | | 530 (green) | | | |
| | | | | | 590 (amber) | | | |
| | | | | | 625 (red orange) | | | |
| | | | | | 660 (red) | | | |
| | | 730 (IR) | | | | | | |
| | | 850 (IR) | | | | | | |
| | 940 (IR) | | | | | | | |
| | WHI (white) | | | | | | | |
| EX: RL208M-050WHIC1 RL208W-200625IC-M12 | | ¹ Available with IC, I3, and I3S 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. ³ Not available with UV options | | | | Beam Angle (FWHM): Medium = 21° Wide = 32° | | |

See website product page for in-stock product numbers.

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

Control Specs

| 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. | 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 |

Change Notice

PCN No: 132

Date Issued: June 24, 2016

Notice Type: Product Revision Change

Product Type: RL208

Change Notification Summary

In an effort to improve our products, Advanced illumination (Ai) will update the LEDs used in the RL208 design. This change will result in a brighter, more uniform light at the same price*. Customers may still buy the current revision of this model until July 22th of 2016. After that time, orders for these products will be converted to their respective RL208 Revision A models.

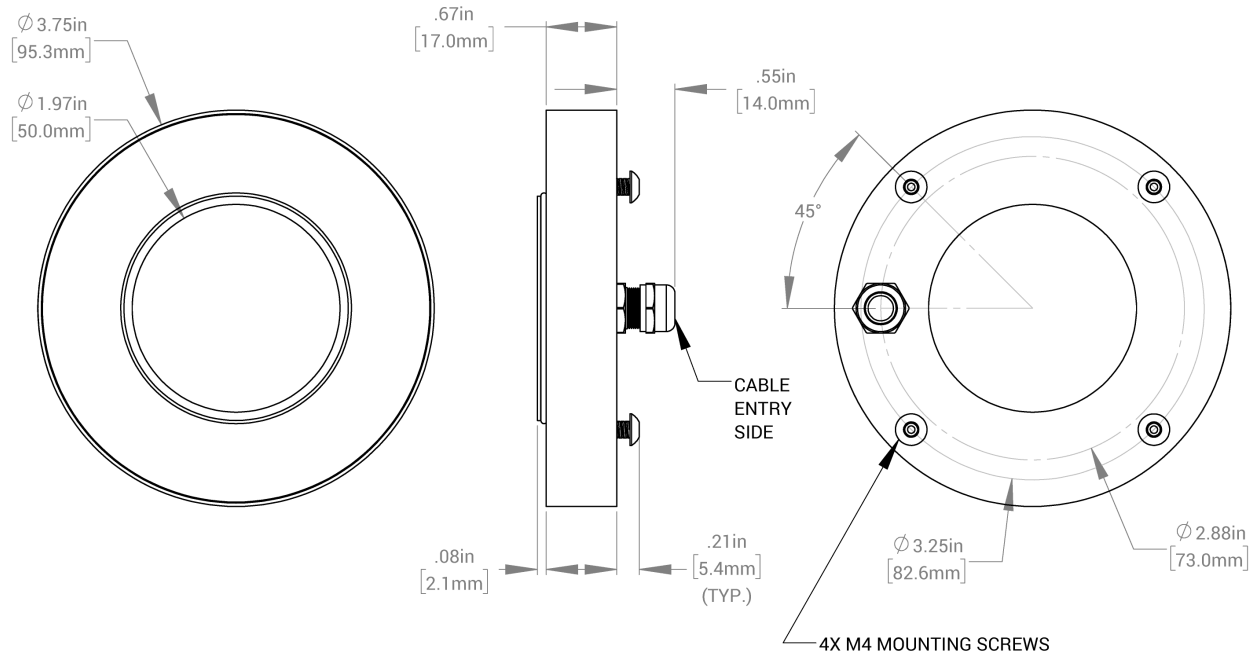
This LED change will result in additional wavelengths being available: 365nm, 375nm, 385nm, 395nm, 405nm, 470nm, 505nm, 590nm, 660nm, 730nm, 850nm and 940nm. Additionally the white LED color temperture will be changing from 6100K to 5500K.

*UV wavelengths (365nm, 375nm, 385nm, 395nm & 405nm) will be sold a higher list price, which will be released at the time of product introduction.

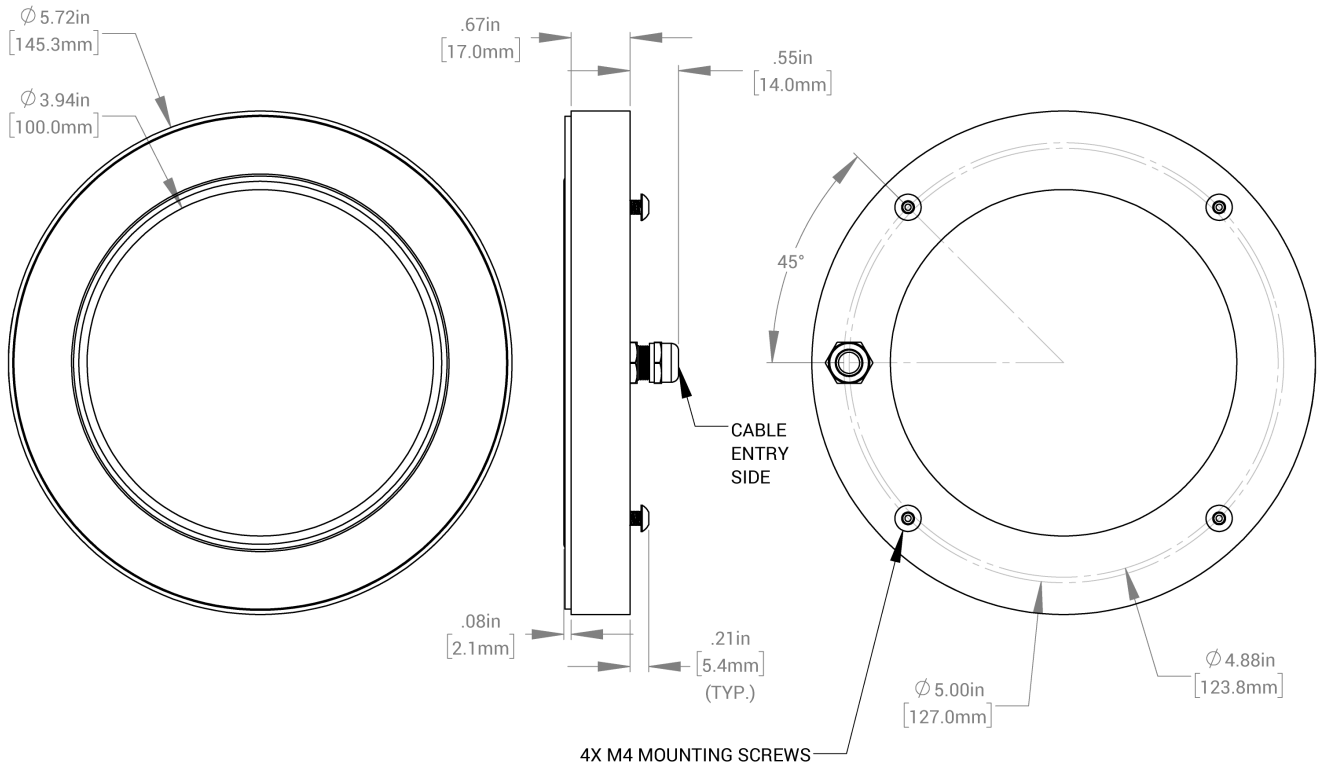
Please contact your Ai Sales Representative if you have any questions.

PCN 132 RL208

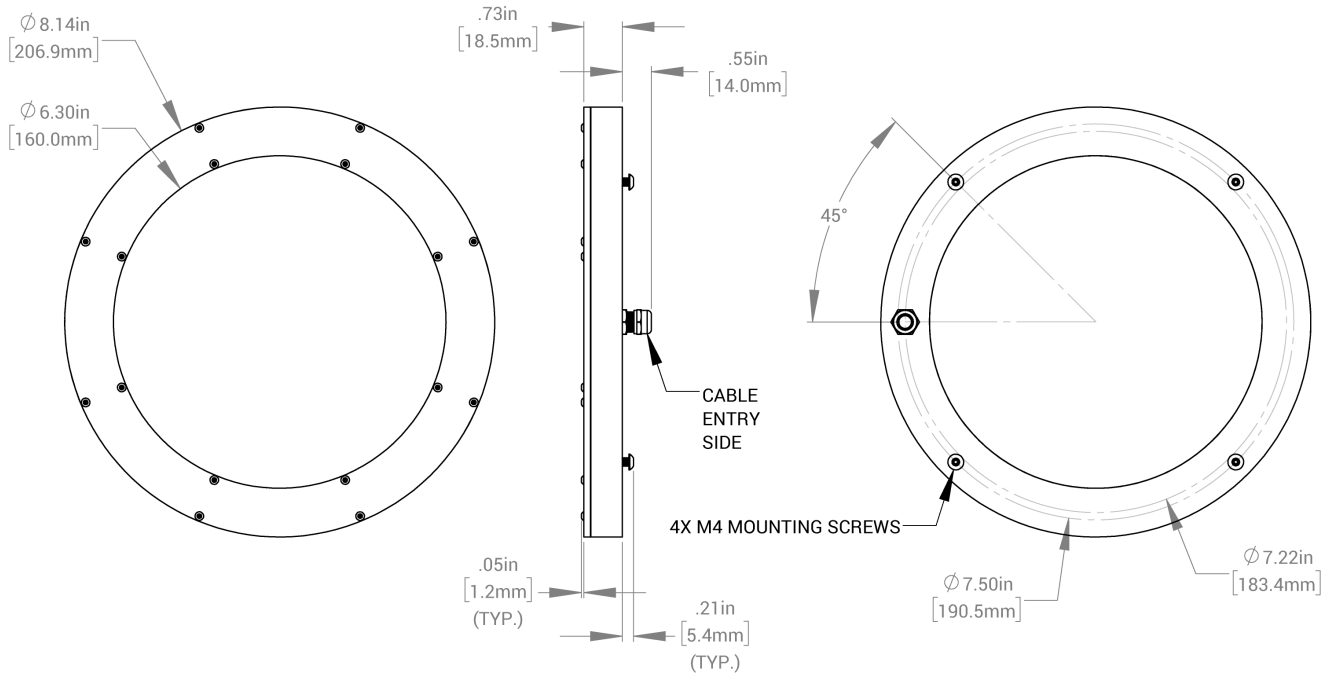
[RL208-050]



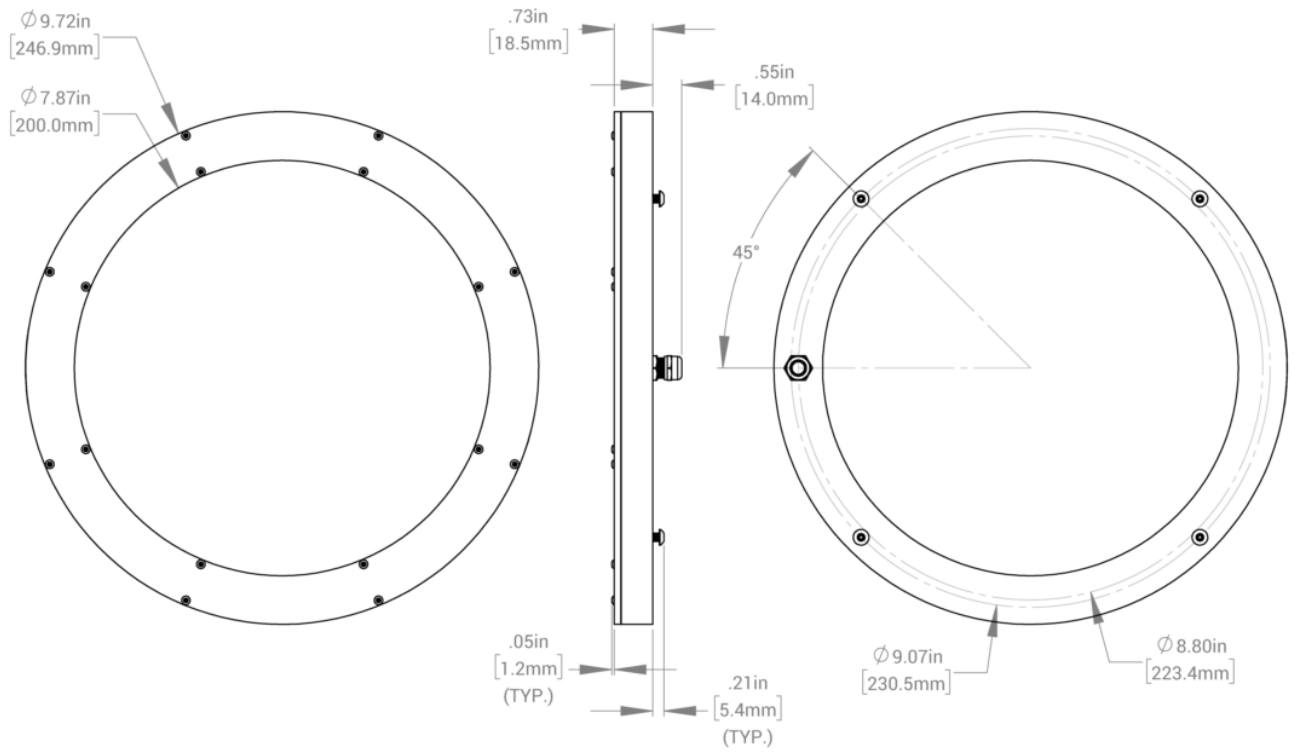
[RL208-100]



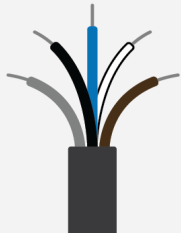
[RL208-160]



[RL208-200]

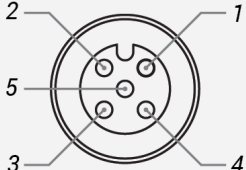


Standard Flying Lead Functions for 24V, IC, I3 and I3S Control Options

|  | 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.

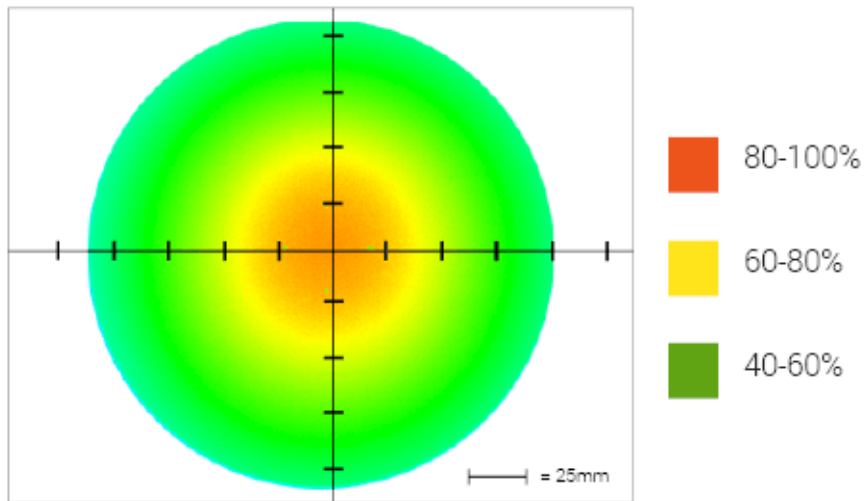
M8 Connector Pinout Functions for 24V, IC, I3 and I3S Control Options

|  | 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.

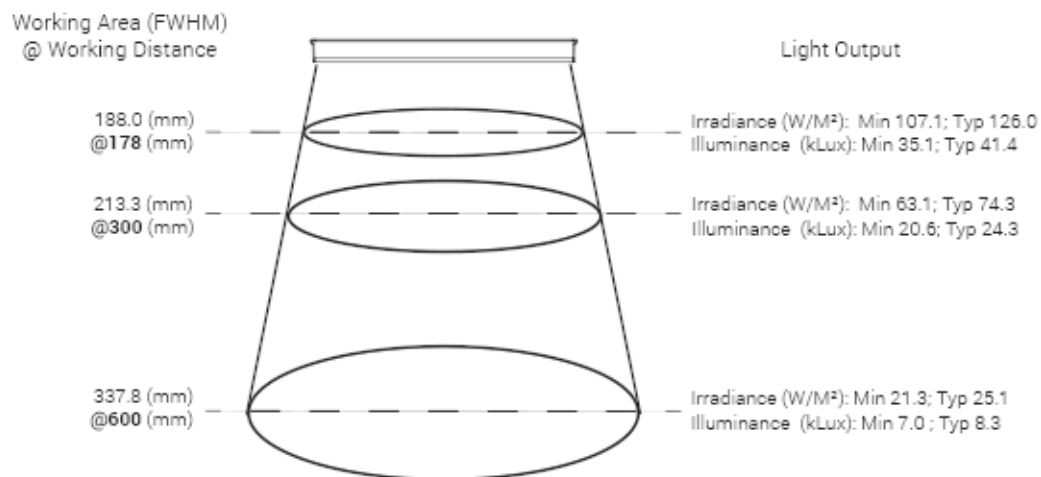
For details on operating configurations without built-in control (C1, C5, Q1, and Q4 control, when available), please refer to Advanced illumination's controller manuals.

Intensity Distribution



Optical measurement taken using RL208M-100WHIIC @ 300mm

Area of Illuminance & Intensity



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 | 188.0 |
| | 300 | 24.3 | 74.3 | 213.3 |
| | 600 | 8.30 | 25.1 | 337.8 |
| RL208M-160 | 230 | 22.0 | 70.0 | 279.4 |
| | 300 | 20.0 | 62.0 | 292.1 |
| | 600 | 9.0 | 27.0 | 395.0 |
| RL208M-200 ¹ | 300 | 15.0 | 46.0 | 342.9 |
| | 450 | 11.3 | 33.2 | 386.0 |
| | 600 | 8.0 | 23.0 | 431.8 |

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

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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