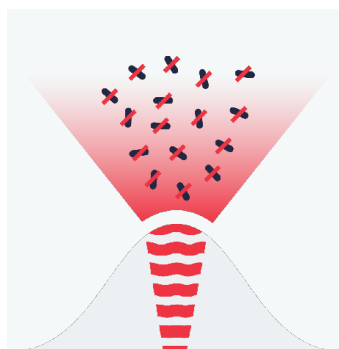




Klaran® LE For Surface Disinfection

Part: LE-17A-1V-S1



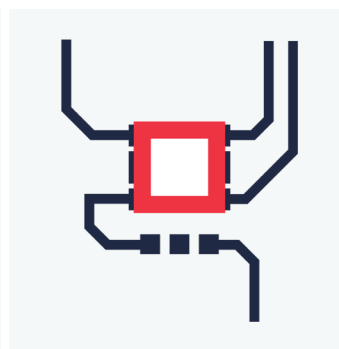
260 NM TO 270 NM: MOST EFFECTIVE FOR DISINFECTION

Klaran WD's 260 nm to 270 nm wavelength range for disinfection assures that products built with Klaran LEDs require less total UVC power to achieve product performance certification than UV LEDs with peak wavelengths greater than 270 nm or mercury lamps at 254 nm.



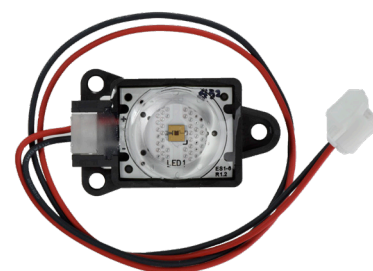
LONGER LIFE AND HIGHER RELIABILITY

On-demand Klaran UVC LEDs provide optimal useful lifetime, reduced energy consumption, and a replacement cycle that matches your business needs.



EASY INSTALLATION

The Klaran LE surface disinfection module is of compact design and requires no additional thermal management. The Module can be mounted and integrated into commercial and consumer appliances with standard low cost hardware.



Optical, Electrical, Physical Characteristics

| Item | Unit | Min | Typical | Max | Note |
|---|----------------------|------|---------|------|---|
| Front Irradiation ^{*1} | mW / cm ² | 0.60 | | 0.95 | Value at shipping inspection Test condition: ^(*) |
| Forward Voltage ^{*1} | V | 4.0 | | 6.5 | Value at shipping inspection |
| Temperature Dependency of Forward voltage | mV / °C | | -7 | | |
| Peak Wavelength | nm | 260 | | 270 | Refer to Klaran WD datasheet |
| Weight ^{*3} | g | | 11 | | |
| Mounting Torque | N*m | | | 0.6 | |

| Item | Specifications | Note |
|-------------------------|----------------|----------|
| IP Rating ^{*3} | IP54 | IEC60529 |

^{*1} After 5 second LED-ON

^{*2} In front of "LED Cap" at the distance of 38.5mm from the bottom of the unit

^{*3} Design value. Not inspected at mass production.

Absolute Maximum Ratings

| Item | Unit | Min | Max | Note |
|--------------------------|------|-----|-----|------|
| Forward Current | mA | 100 | 250 | |
| Reverse Voltage | V | | -5 | |
| LED Junction Temperature | °C | | 115 | |
| Storage Temperature | °C | -30 | 80 | |

Recommended Operating Conditions

| Item | Unit | Min | Max | Note |
|-----------------------|------|-----|-----|---|
| Forward Current | mA | 100 | 215 | Ta=25°C, Continuous current Refer to Fig. 1 |
| Operating Temperature | °C | -10 | 55 | |
| Operating Humidity | %RH | 0 | 95 | Non-condensing |
| Storage Humidity | %RH | 0 | 95 | Non-condensing |

Recommended Operating Current (continuous)

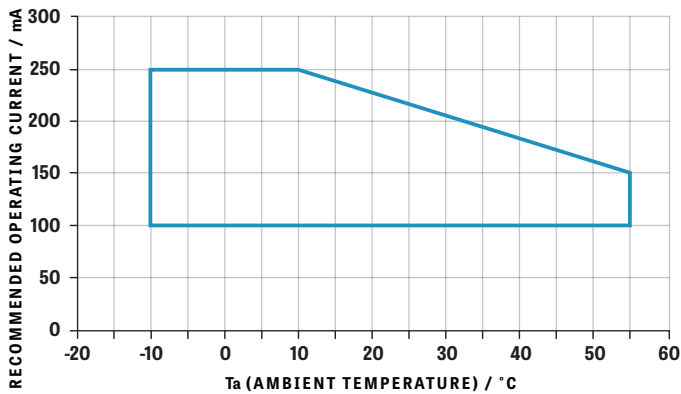


Figure 1

Irradiation by Operating Current (typical)

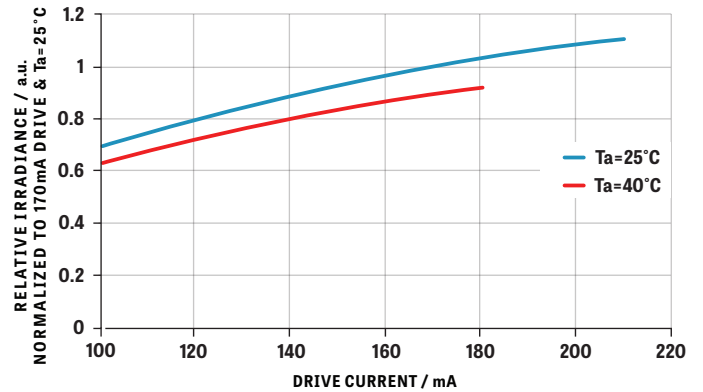


Figure 4

Irradiation Pattern (Typical)

LE-17A-1V-S1

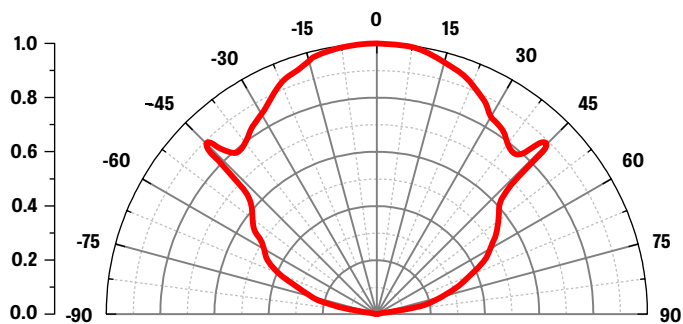


Figure 2

KLARAN WD LED

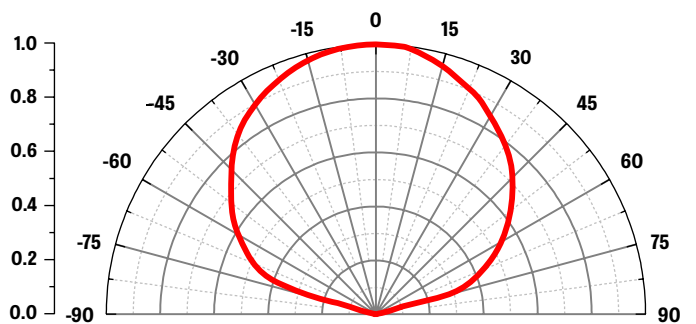


Figure 3

Mechanical Dimensions

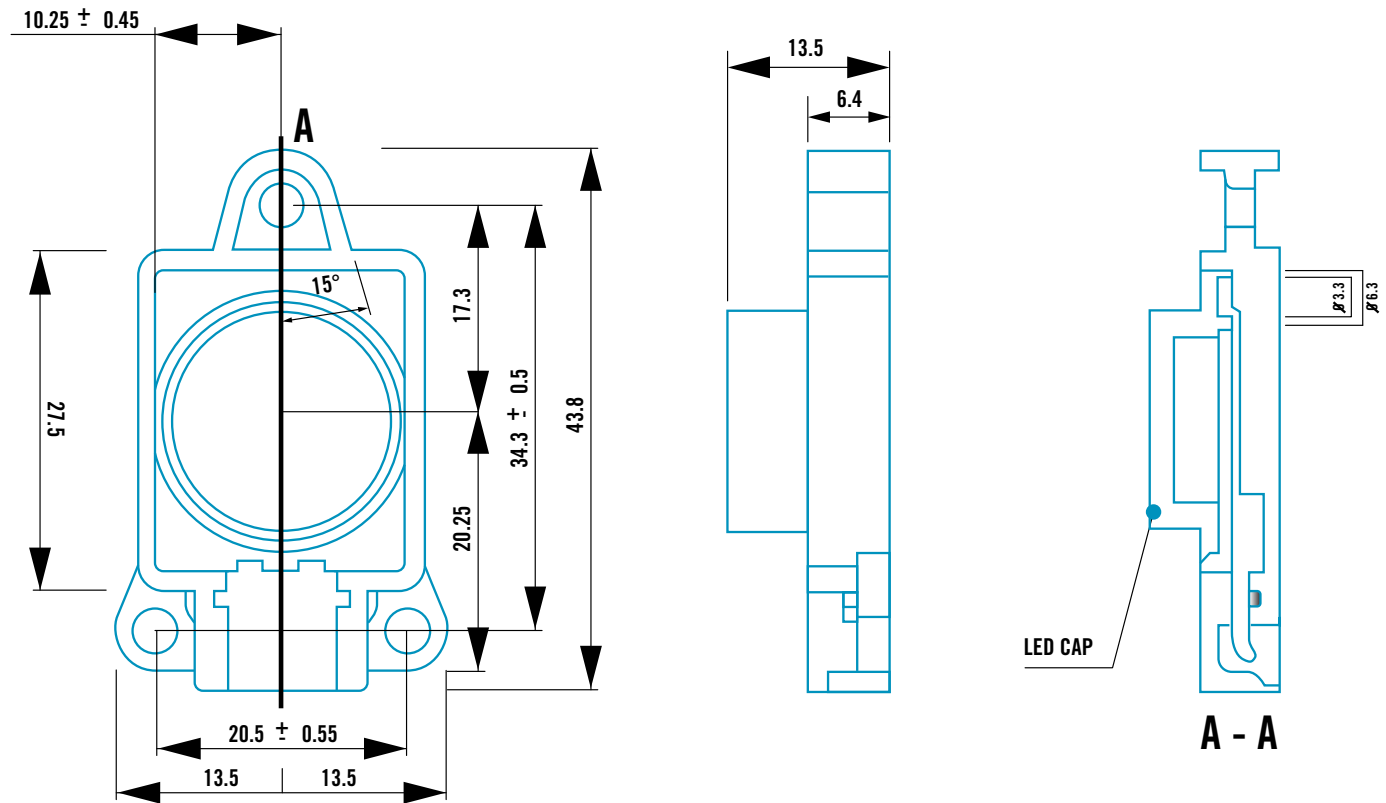


Figure 5

Wire Characteristics

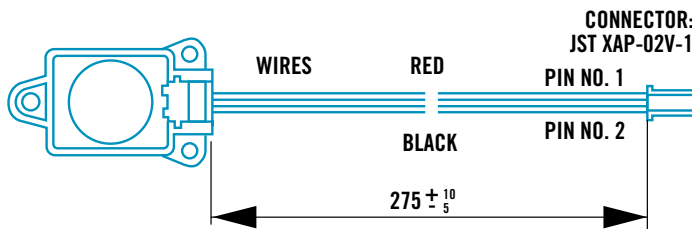


Figure 6

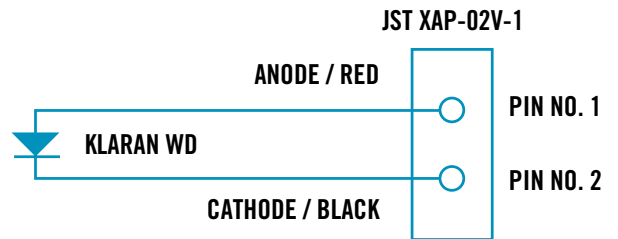


Figure 7

Caution

- Do not touch the module lens.
- Do not over torque the module when installing. ($\leq 0.6 \text{ N}^*\text{m}$)
- Do not apply excessive force to the wire.

Handling Precautions

- LEDs are ESD (electrostatic discharge) sensitive; static electricity and surge voltages seriously damage UV LEDs and can result in product failure
 - Ensure that tools, jigs and machines being used are properly grounded
 - LED mounting equipment should include protection against voltage surge
 - Use proper ESD protection, including grounded wrist straps, ESD footwear and clothes
- Do not use adhesives that outgas organic vapor
- Dropping the product may cause damage
- Verify the light engine with the product before use
- Do not apply mechanical force or excess vibration during handling or normal operation.
- Resale of the Product with provisions different from the statement and/or technical features set forth in this document shall immediately void any warranty.
- This document may not be reproduced or duplicated, in any form, in whole or in part, without prior written consent of Crystal IS.
- When disposing of this product, dispose of it properly in accordance with the disposal rules of each country or region.

Eye Safety Guidelines

During operation, the LED emits high intensity ultraviolet (UV) light, which is harmful to skin and eyes. UV light is hazardous to skin and may cause cancer. Avoid exposure to UV light when LED is operational. Precautions must be taken to avoid looking directly at the UV light without the use of UV light protective glasses. Do not look directly at the front of the LED or at the LED's lens when LED is operational.

Attach warning labels on products/systems that use UV LEDs.

Compliance

Please contact Crystal IS sales representative for details as to environmental matters such as the RoHS compatibility of the Product. Please use the Product in compliance with all applicable laws and regulations that regulate the inclusion or use of controlled substances, including without limitation, the EU RoHS Directive. Crystal IS assumes no liability for damages or losses occurring as a result of noncompliance with applicable laws and regulations.

DISCLAIMER

The specifications, characteristics, and technical data presented in this datasheet are subject to change without prior notice. It is recommended that the most updated specifications, characteristics, and technical data be used in your application.

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The Product is neither intended nor warranted for use in equipment or systems that require extraordinarily high levels of quality and/or reliability and/or a malfunction or failure of which may cause loss of human life.



WE INVITE YOU TO LEARN MORE ABOUT OUR UVC LEDs.

KLARAN[®]

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