

Waterproof Ring Lights HLDR-IP Series

Waterproof Light Unit for the Routine Cleaning of Manufacturing Lines
in the Food and Pharmaceutical Industries

Waterproof
IP67

High output
Condensing irradiation

**Red
White
UV**
Lineup

Applications | Adhesive application inspection
Printing inspection
Defect inspection
External inspection etc.

Waterproof Ring Lights HLDR-IP series

Features

- IP67 Compliance
- Uses an M12 connector
- Safe to Use when Washing Lines
- Ensures brightness with condensing irradiation
- Lineup includes red, white and UV (365 nm)



● IP67 Compliance

Waterproof and dustproof structure for use in harsh environments!

Optimal waterproof Light Unit for sites where the cleaning of manufacturing lines is essential, such as for food and pharmaceuticals.

Eliminates the need to worry about exposing Light Unit to water when cleaning.



● Safe to Use when Washing Manufacturing Lines

● When washing manufacturing lines



● For manufacturing lines that use water



Condensing Irradiation for Brightness

HLDR-IP series features condensed, waterproof ring lights that ensures brightness with a condensing lens.

Condensing irradiation image



LWD
0 mm
* Bottom of housing as reference

Recommended range

± 10 mm centered on 126.5 mm

116.5 mm

126.5 mm

136.5 mm

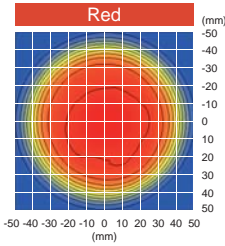


Condensing range

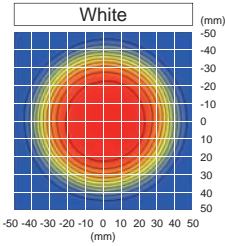
- Red** Approximately $\phi 40$ mm
- White** Approximately $\phi 35$ mm
- UV** Approximately $\phi 40$ mm

LWD=116.5 mm

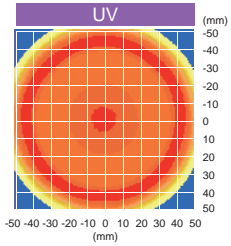
Brightness
Approximately 59,000 lx



Brightness
Approximately 138,000 lx



Brightness
20.4 mW/cm²



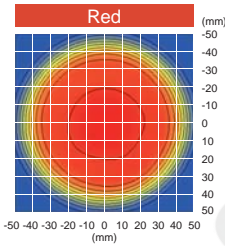
Output level (%)
100
0

* The values for red and white are measured values. (These values are not guaranteed.)

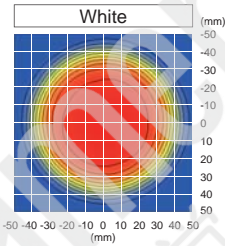
* Values are simulated for UV. (These values are not guaranteed.)

LWD=126.5 mm

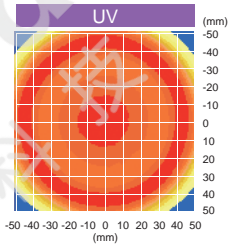
Brightness
Approximately 53,000 lx



Brightness
Approximately 124,000 lx



Brightness
18.6 mW/cm²



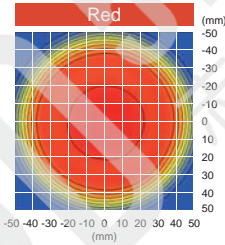
Output level (%)
100
0

* The values for red and white are measured values. (These values are not guaranteed.)

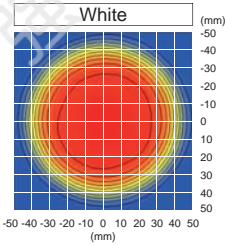
* Values are simulated for UV. (These values are not guaranteed.)

LWD=136.5 mm

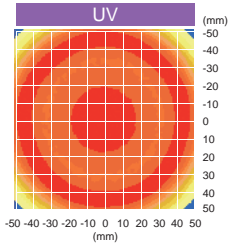
Brightness
Approximately 47,000 lx



Brightness
Approximately 113,000 lx



Brightness
16.8 mW/cm²



Output level (%)
100
0

* The values for red and white are measured values. (These values are not guaranteed.)

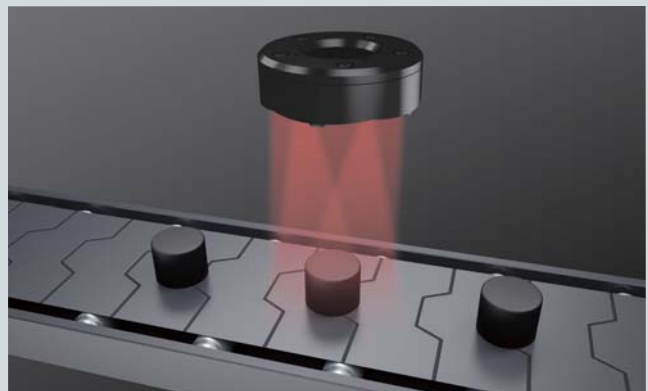
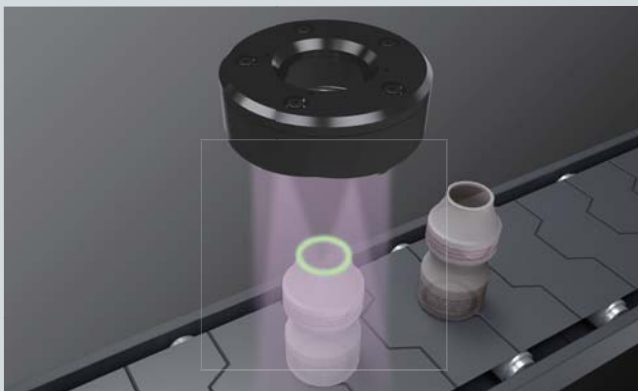
* Values are simulated for UV. (These values are not guaranteed.)

* Condensed near LWD=126.5 mm.
* If the recommended range (± 10 mm centered on 126.5 mm) is exceeded, uniformity is lost and imaging might be affected.
* LWD is the distance from the Light Unit to the workpiece.

* This data is provided for reference. It should not be considered a guarantee of product quality.

Applications

- Adhesive application inspection for food containers
- Defect inspection of metal parts



Specifications

● LED Light Unit

| Model | HLDR-IP67-100RD | HLDR-IP67-100SW | HLDR-IP67-100UV2-365 |
|---|---|-----------------|----------------------|
| Direct number | 1006968 | 1006969 | 1006961 |
| LED color | Red | White | UV |
| Input voltage (max.) | DC24 V | | |
| Power consumption (max.) | 18 W | | |
| Peak wavelength / Correlated color temperature (typ.) | 627 nm | 6,500 K | 365 nm |
| Connector | M12 (plug) | | |
| Polarity | 1: (24 V+), 2: Not connected, 3: GND (-), 4: Not connected | | |
| Cooling method | Natural cooling | | |
| Operating environment | Temperature: 0 to 40°C, Humidity: 20 to 95% RH (with no condensation) | | |
| Storage environment | Temperature: -20 to 60°C, Humidity: 20 to 85% RH (with no condensation) | | |
| CE Marking | Safety standard: EN62471 compliant | | |
| Environmental regulations | RoHS compliance | | |
| Protective structure | IP67 (JIS C 0920) | | |
| Case material | Body: Aluminum alloy (black anodized) Screws: SUS Washers: SUS, Elastomer (TPE) Connectors: PA resin Lens: Silicone | | |
| Weight (max.) | 420 g | | |
| Light spectrum | | | |

- * This data is provided for reference. It should not be considered a guarantee of product quality.
- * About direct numbers: You can easily access the target product information page simply by entering a 7-digit number in the direct number field on the CCS website (machine vision page).

● Dedicated cable

| Model | FCB-1-M12 | FCB-2-M12 | FCB-3-M12 | FCB-5-M12 |
|----------------|---|-----------|-----------|-----------|
| Direct number | 3000940 | 3000941 | 3000942 | 3000943 |
| Cable length | 1 m | 2 m | 3 m | 5 m |
| Weight (max.) | 70 g | 125 g | 180 g | 305 g |
| Connector | Light Unit side: M12 (socket), Control Unit side: SMR-03V-B (JST) | | | |
| Outer diameter | φ6 mm | | | |
| Case material | Light Unit side connector: Soft PBT Cable: PVC Control Unit side connector: Nylon | | | |

"IP67" indicates the level of protection against foreign material entering electrical instruments.

The 1st numeral "6" indicates the following level of protection:

- No dust inside the instrument. (dustproof)

The 2nd numeral "7" indicates the following level of protection:

- No damage when submerged in water at the rated pressure for the rated time. (watertight type)
- Can be submerged in water to a depth of 1 m (for instruments with a height of less than 850 mm) for 30 minutes.

Control Unit compatibility

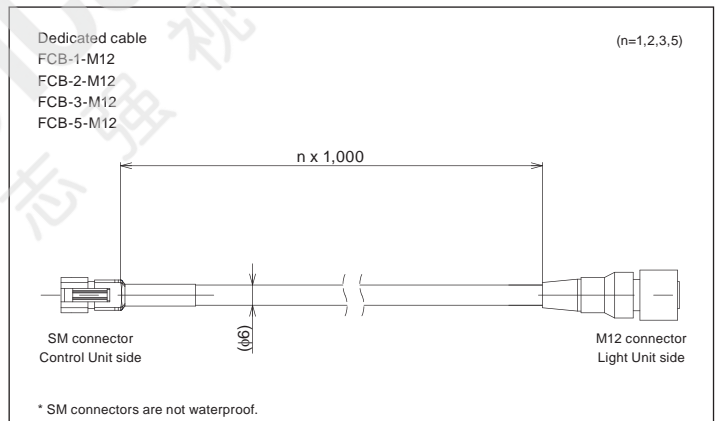
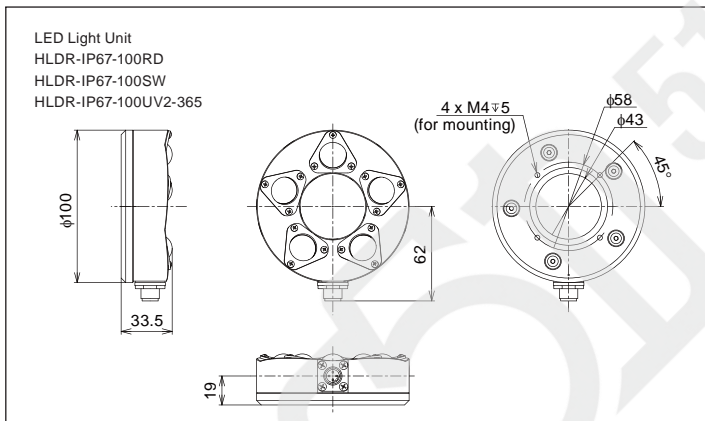
Please choose from the standard Control Units offered by CCS. See the relevant catalogs or our website for details.

Series name PD3 series, PD2 series, PSB series, BB series (excluding strobe types)



- * Cannot be used in combination with Strobe Control Units (PTU2-3024, BB-V24S30-M, BB-V24S30-S).
- ON/OFF control is possible via the strobe mode or ON/OFF mode of the PD3 series, and constant lighting Control Units (PD2 series, BB series, etc.).

Dimensions (mm)



● Cautionary information regarding waterproofing

CAUTION

- After cleaning manufacturing lines, be sure to wipe away any moisture remaining on the lens. Imaging can be affected by moisture on the lens.
- Use water to wash away any cleaning agent adhered to this product.
- Use water to wash away any oils or chemicals adhered to this product.
- The Control Unit connectors (SM connectors) on dedicated cables are not waterproof.

● Cautionary information regarding UV products

CAUTION

- Do not expose your eyes or skin to direct UV irradiation.
- When using UV Light Unit, be sure to wear UV blocking eyewear and avoid looking at irradiated parts (light-emitting parts).
- Do not turn on UV-LED irradiation parts (light-emitting parts) if they are facing someone's eyes.
- Wear long sleeves and gloves to protect your skin from UV irradiation.
- Carefully inform all persons in the area around this product of the dangers of UV-LED.



● "CCS", "LIGHTING SOLUTION", and "HLDR" are registered trademarks or trademarks of CCS Inc.

CAUTION

- To use this product safely and correctly, be sure to read the *Instruction Guide* before use. ● The design of this product is subject to change without notification.

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