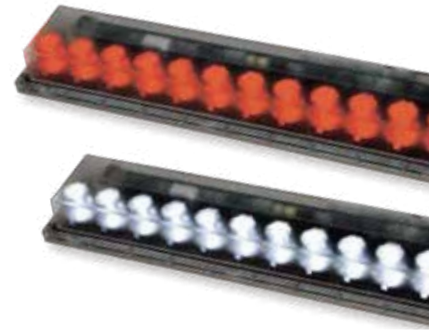


# Bar Light LDLB Series



- Long-distance irradiation
- Switchable between overdrive lighting and constant lighting
- Built-in Controller
- Collective control of daisy-chain Lighting Units
- External light intensity control and ON/OFF control
- Waterproof model available



## Application Examples

- Automotive: Checking for deposits of adhesive on door panels
- Packaging: Checking for cardboard inside beverage packages
- Traceability: Reading barcodes on a moving conveyor to verify products
- Shipping: Reading barcodes on pallets of bottles to verify the load count



Inspection for the existence of engine parts

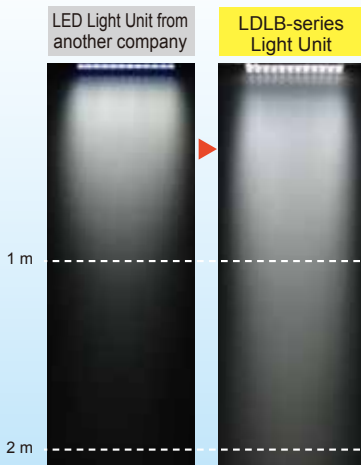
# Bright Bar Lights with Overdrive Li



500 mm

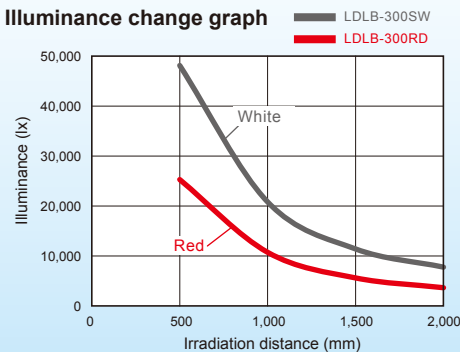
## Features

### ▶ Long-distance irradiation



\* Comparison with light intensity of 100% in constant lighting mode

Illuminance change graph



\* Actual measured values at the center of the irradiated area by distance with a 100% light intensity. (This data is for reference only and does not guarantee product quality.)

### ▶ Overdrive lighting

Just one Lighting Unit provides both **constant lighting** and **overdrive lighting**.



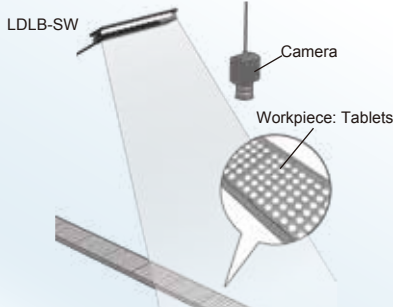
Approx. three times output

\* Operating time of the overdrive lighting depends on the light intensity. Refer to the Instruction Guide for details.

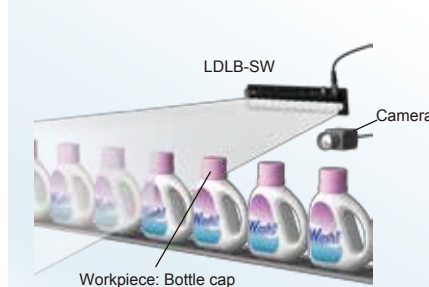
Select either a sinking (NPN) or sourcing (PNP) input for the control signals to matches your environment.

## Applications

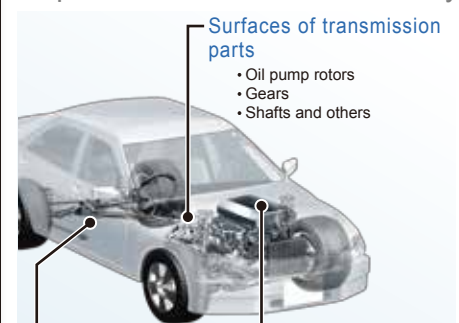
Inspections in pharmaceutical industry  
Presence of tablets



Inspections in packaging industry  
Bottle cap appearance and tightening



Inspections in automotive industry



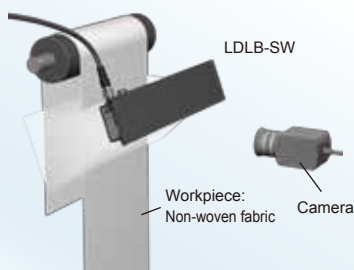
Presence of engine parts

- Mounting screws for head covers
- Oil caps
- Oil filters and others

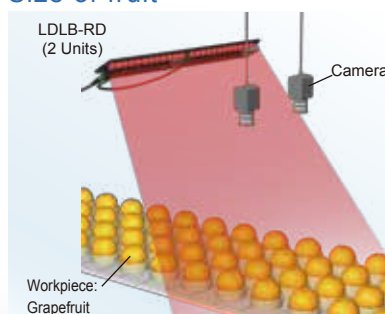
Positions of holes on door parts

- Mounting holes for door locks
- Mounting holes for door knobs
- Mounting holes for side mirrors and others

Inspections in textile industry  
Foreign matter and blots on and breaks in non-woven fabric



Inspections in foodstuff industry  
Size of fruit



\* The illustrations above are conceptual images.

# ighting to Handle Large Workpieces

1,000 mm

2,000 mm

Conceptual illustration

## ▶ Daisy-chain connections

You can daisy-chain up to three Light Units with a high degree of layout freedom.



## ▶ IP67-level waterproofing

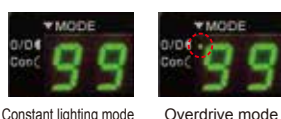
A **waterproof model** is available that is ideal for production lines that are regularly cleaned.



LDLB-IP series

## ▶ Built-in Controller

You can easily operate the Light Unit from the control panel.



Constant lighting mode

Overdrive mode

### Mode switching



Hold down two buttons to change the operating mode between constant lighting and overdrive lighting.

### Light intensity setting

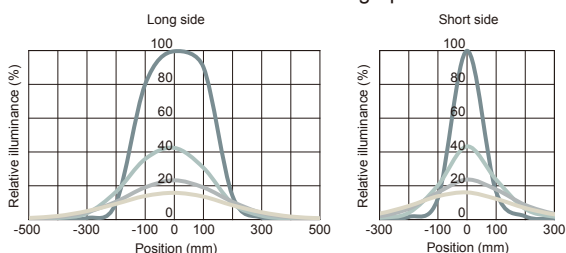


+: Increases the light intensity.  
-: decreases the light intensity.  
You can set the light intensity to any of 100 levels.

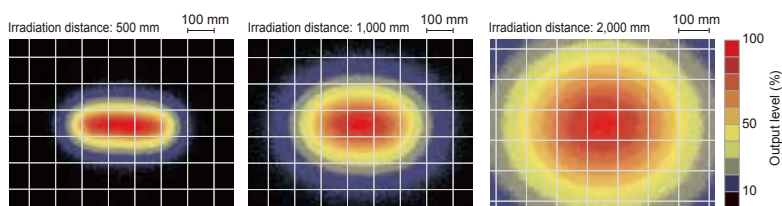
## Data

### LDLB-300SW (White)

#### Relative illuminance graph



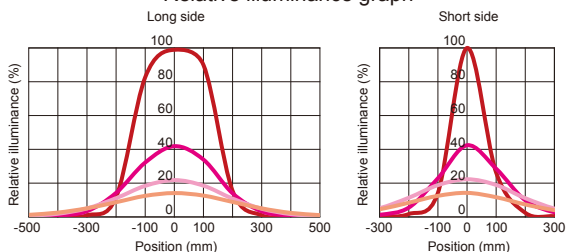
#### Uniformity graph (Relative irradiance)



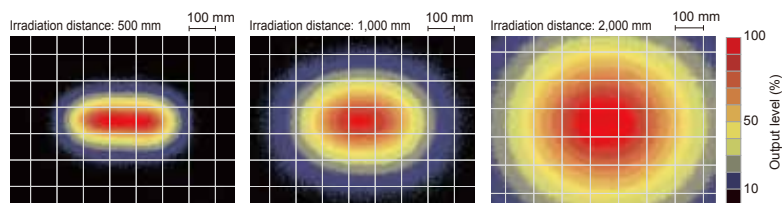
\* This data is for reference only and does not guarantee product quality.

### LDLB-300RD (Red)

#### Relative illuminance graph



#### Uniformity graph (Relative irradiance)



\* This data is for reference only and does not guarantee product quality.

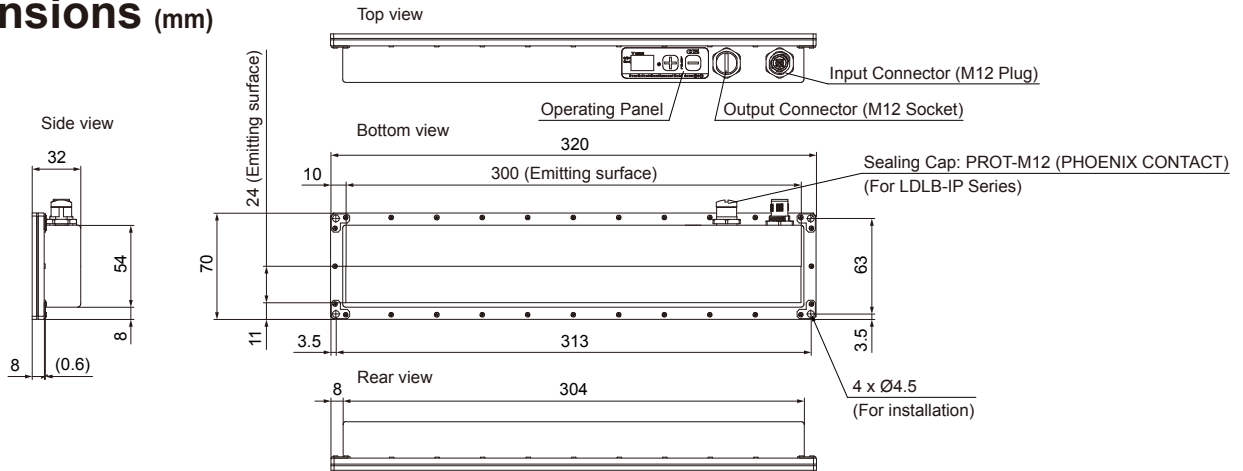
# Common specifications

|                               |   |              |                             |                 |                                      |  |   |
|-------------------------------|---|--------------|-----------------------------|-----------------|--------------------------------------|--|---|
| Series                        | LDLB series   |              | LDLB-IP series (waterproof) |                 | ON/OFF control                       | External signal input to turn ON the Light   | Both sinking (NPN) and sourcing (PNP) input are available. You can switch the logic for turning the light ON and OFF. |
| Model name                    | LDLB-300SW-N  | LDLB-300RD-N | LDLB-IP-300SW-N             | LDLB-IP-300RD-N |                                      |  |   |
| Protective structure          | -   |              | IP67 compliant (JIS C 0920) |                 | Weight                               | 500 g  |   |
| LED color                     | White   | Red          | White                       | Red             | Accessories                          | Instruction Guide x1   |   |
| Correlated color temp. (typ.) | 6,100 K   | -            | 6,100 K                     | -               | CE marking                           | Safety standard: Conforms to EN62471, EMS standard: Conforms to EN61000-6-2, EMI standard: Conforms to EN61000-6-4 |   |
| Peak wavelength               | -   | 630 nm       | -                           | 630 nm          | Environmental regulations            | RoHS compliant   |   |
| Power consumption (max.)      | 31 W  | 24 W         | 31 W                        | 24 W            | Case material                        | Aluminum alloy, Resin  |   |
| Input voltage (rating)        | 24 VDC  |              |                             |                 | Operating environment (indoors only) | Temperature: 0 to 40°C, Humidity: 20 to 85%RH (with no condensation)   |   |
| Input voltage (range)         | 22.8 to 26.4 VDC                                      |              |                             |                 | Storage Environment                  | Temperature: -20 to 60°C, Humidity: 20 to 85%RH (with no condensation)   |   |
| Input current (rating)        | Continuous mode: 1.3 A max., Overdrive mode: 6 A max. |              |                             |                 | Cooling method                       | Natural air cooling  |   |
| Input connector               | M12 (5 pins, plug)                                    |              |                             |                 | Light spectrum                       |  |   |
| Output connector              | M12 (5 pins, socket)                                  |              |                             |                 |                                      |  |   |
| Inrush current (max.)         | 6 A from a cold start                                 |              |                             |                 |                                      |  |   |
| Intensity control             | Manual: Set any of 100 steps via the setting switch.  |              |                             |                 |                                      |  |   |
|                               | External: Analog voltage(0 V to +10 V)                |              |                             |                 |                                      |  |   |

\* This data is for reference only and does not guarantee product quality.

# Dimensions (mm)

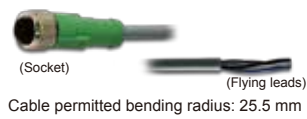
## LDLB series



# Options

## Input cable

This cable supplies power to the Light Unit and inputs signals for light intensity control or to turn the light ON and OFF.

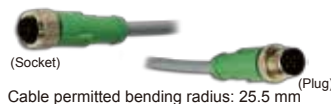


| Model  | FECB-1-M12-5F | FECB-2-M12-5F | FECB-3-M12-5F | FECB-5-M12-5F |
|--------|---------------|---------------|---------------|---------------|
| Length | 1 m           | 2 m           | 3 m           | 5 m           |
| Weight | 55 g max.     | 90 g max.     | 130 g max.    | 210 g max.    |

Cable permitted bending radius: 25.5 mm

## Link cable

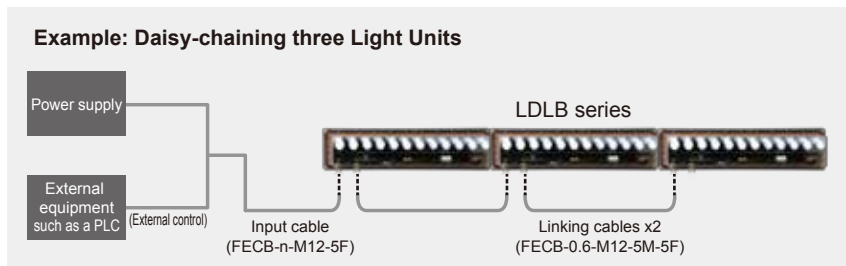
This cable is used to daisy-chain Light Units.



| Model  | FECB-0.6-M12-5M-5F |
|--------|--------------------|
| Length | 0.6 m              |
| Weight | 50 g max.          |

Cable permitted bending radius: 25.5 mm

# System configuration example



## Maximum length of optional cables

|                       | Number of Light Units connected in Constant Lighting Mode |  |       | Number of Light Units connected in Overdrive Mode |     |                 |
|-----------------------|---|--|-------|---|-----|-----------------|
|                       | 1   | 2  | 3     | 1   | 2   | 3               |
| Number of Light Units | 10 m  | 7 m  | 4.5 m | 3 m   | 1 m | Cannot be used. |
| Number of Light Units | 1   | The table gives the maximum length of the Input Cable.                       |       |   |     |                 |
|                       | 2 or 3  | The table gives the maximum total length of the Input Cable and Link Cables. |       |   |     |                 |

The wire diameter is AWG22 for the optional cables. If the maximum length given above is exceeded, shorten the Input Cable or contact CCS.

• "CCS", "LIGHTING SOLUTION", and "LDLB" are registered trademarks or trademarks of CCS Inc.

## CAUTION

- To ensure proper and safe use of the product, please read the Instruction Guide completely before using the product.
- The design and specifications of this product are subject to change without notification for product improvement.
- The workpiece imaging examples included in this pamphlet are intended to serve only as references to help you select a suitable Light Unit. Please verify the functionality and conditions required for your particular application before you make a final selection. The sample workpieces used in this pamphlet have been processed specifically for sample imaging. They are not intended to represent product quality and performance.



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