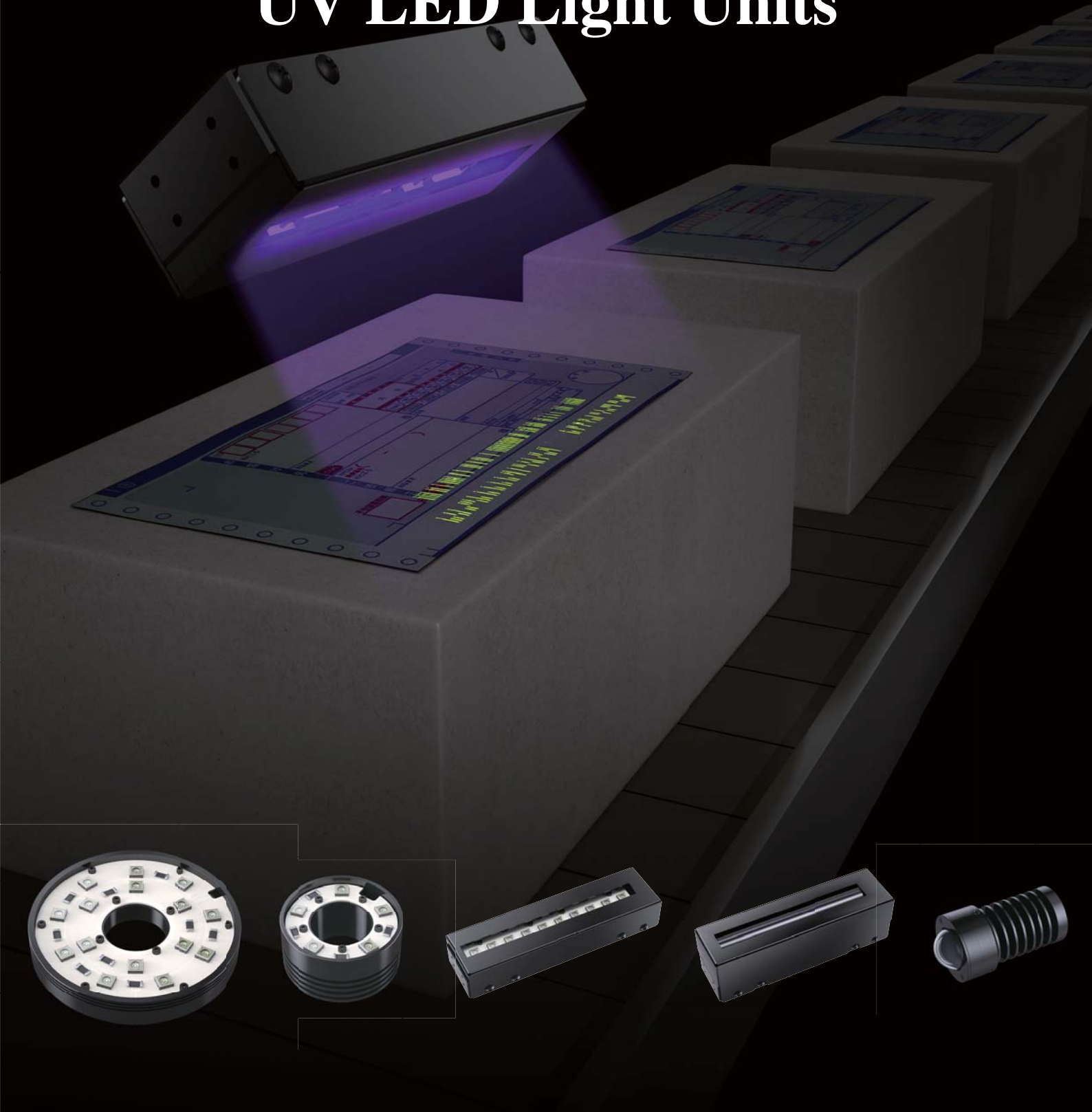


# UV2 Series of High-output UV LED Light Units

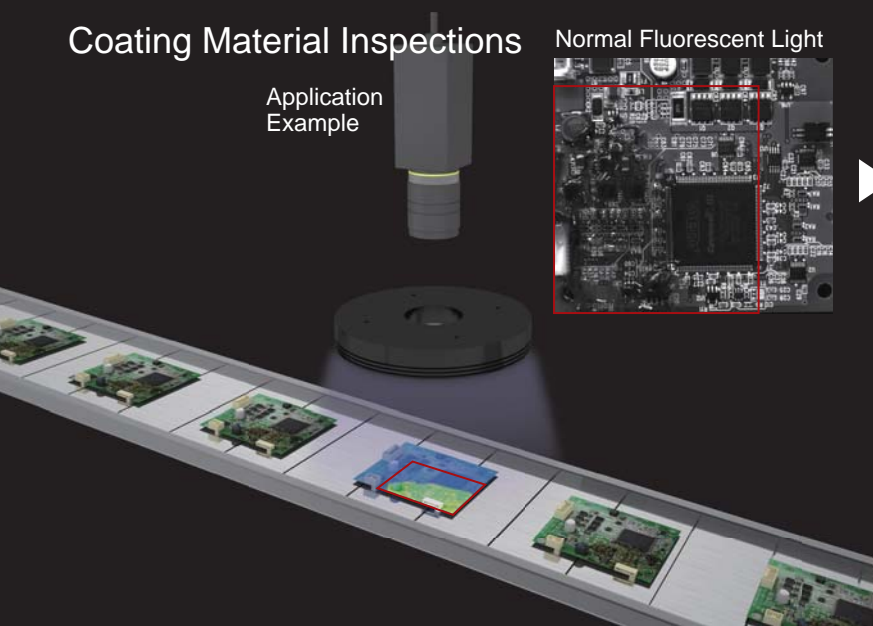


# High-output UV LED Light Units

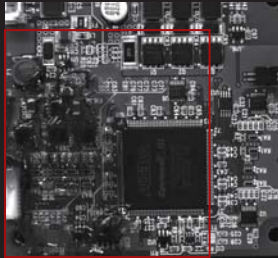
UV2 SERIES

## Coating Material Inspections

Application Example



## Normal Fluorescent Light



## High-output UV Light Units



Only the coating material on the board is captured.

## High-output UV Irradiation

### Image Comparison with Previous Models

#### Adhesive Coating Inspection



Workpiece: Circuit Boards

### Previous UV Light Unit (LDR2-90UV365)



Insufficient output from the previous model makes fluorescent observation difficult.

### High-output UV Light Unit(LDR2-100UV2-365-W)



The High-output UV Light Unit has sufficient output for fluorescent observation.

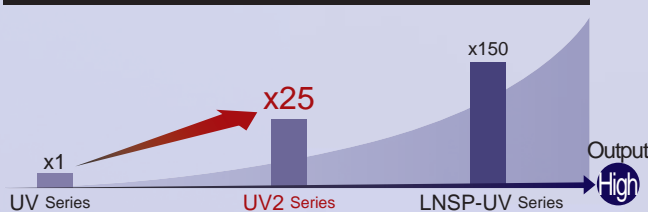
### A Wide Range of Applications

- Grease presence inspections
- Adhesive coating inspections
- ITO film inspections
- Flux presence inspections

And Many More

### Differences in Output by UV Light Unit

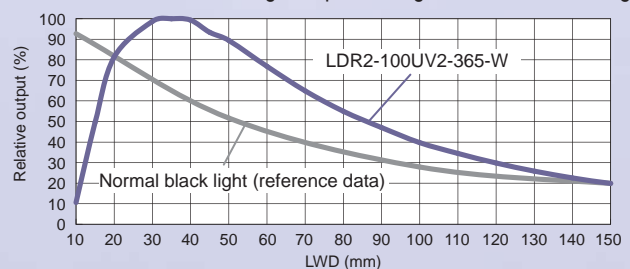
#### Fluorescent Observation



\* Comparison for Bar Lights/Irradiators.

\* The values given here are for reference only. Results for individual Lights may vary.

### LWD Characteristics for High-output UV Light Units and Black Lights



\* The values given here are for reference only. Results for individual Light Units may vary.

# Products Lineup



OD: 100 mm  
LDR2-100UV2-365-W



OD: 60 mm  
LDR2-60UV2-365-W

## Ring Lights

Model	LDR2-60UV2-365-W	LDR2-100UV2-365-W
Direct number	1006799	1006800
Peak wavelength (typ.)	365 nm	
Input voltage (max.)	24 VDC	
Power consumption (max.)	7.6 W	23 W
Dimensions (mm)	OD: 60, ID: 30, H: 30	OD: 100, ID: 30, H: 15
Weight (max. g)	170	250
Applicable Control Units	PD3 Series, PD2 Series, PSB Series, and BB Series, CC-ST-1024 (LDR2-60UV2-365 only)	

\* These Light Units cannot be used with CCS Strobe Control Units with Overdrives.  
\* For details on the applicable Control Units, refer to the general catalog or the CCS website.

## Bar Lights

Model	LDL-71X12UV2-365	LDL-138X12UV2-365	LDL-205X12UV2-365
Direct number	1006801	1006803	1006805
Peak wavelength (typ.)	365 nm		
Input voltage (max.)	24 VDC		
Power consumption (max.)	7.6 W	16 W	23 W
Emitting surface dimensions (mm)	71x12	138x12	205x12
Weight (max. g)	300	500	700
Applicable Control Units	PD3 Series, PD2 Series, PSB Series, and BB Series, CC-ST-1024 (LDL-71X12UV2-365 only)		

\* These Light Units cannot be used with CCS Strobe Light Control Units with Overdrives.  
\* For details on the applicable Control Units, refer to the general catalog or the CCS website.

## Condensing Models

Model	LN-61UV2-365	LN-128UV2-365	LN-195UV2-365
Direct number	1006802	1006804	1006806
Peak wavelength (typ.)	365 nm		
Input voltage (max.)	24 VDC		
Power consumption (max.)	7.6 W	16 W	23 W
Emitting surface dimensions (mm)	61x16	128x16	195x16
Weight (max. g)	450	750	1050
Applicable Control Units	PD3 Series, PD2 Series, PSB Series, and BB Series, CC-ST-1024 (LN-61UV2-365 only)		

\* These Light Units cannot be used with CCS Strobe Light Control Units with Overdrives.  
\* For details on the applicable Control Units, refer to the general catalog or the CCS website.

## Spotlights

Model	HLV2-24UV2-365
Direct number	1006798
Peak wavelength (typ.)	365 nm
Input current (max.)	0.7 A
Power consumption (max.)	3.2 W
Dimensions (mm)	OD: 28 (lens), ID: 24 (mounting hole), H: 54
Weight (max. g)	50
Applicable Control Units	PJ Series, CC-PJ-0707, and PD3 Series (HLV2 Series-compatible models)

\* These Spotlights cannot be used with CCS Strobe Light Control Units with Overdrives.  
\* For details on the applicable Control Units, refer to the general catalog or the CCS website.



LDL Series  
Emitting surface  
71x12mm  
138x12mm  
205x12mm



Light-condensing Models  
LN Series  
Emitting surface  
61x16mm  
128x16mm  
195x16mm



HLV2-24UV2-365  
Emitting surface 18 mm

## Custom Products are Available

Dimensions

Shapes

Higher Output

Connectors

Wavelengths (385 nm)

Condensing Location

Strobe

Mounting Holes

And Much More

Contact your CCS representative for more details.



## Ring Lights

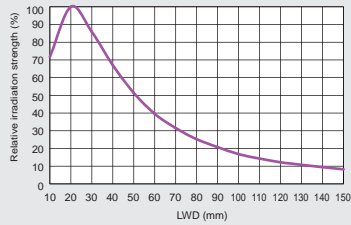
LDR2-60UV2-365-W

LDR2-100UV2-365-W

Model Used: LDR2-60UV2-365-W

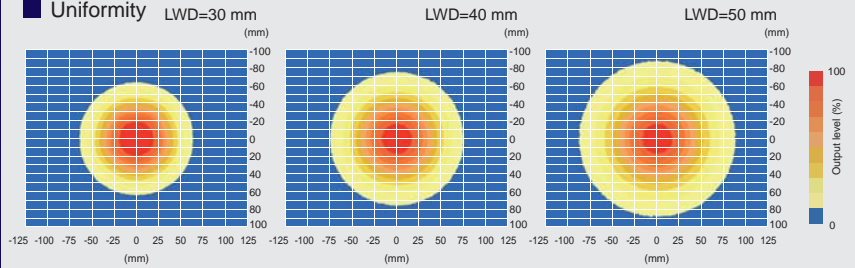
\* The values given here are for reference only. Results for individual Lights may vary.

### LWD Characteristic



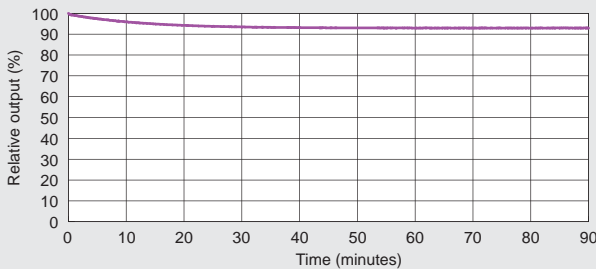
\* Simulation values. (These values are for reference only.)

### Uniformity



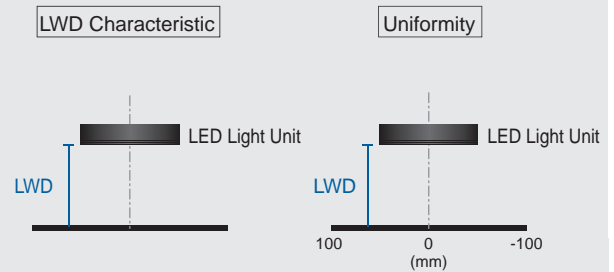
\* Simulation values. (These values are for reference only.)

### Output Changes Over Time



\* Actual measurement values. (These values are for reference only.)

### Visualization of LWD Characteristic and Uniformity Measurement



## Bar Lights

LDL-71X12UV2-365

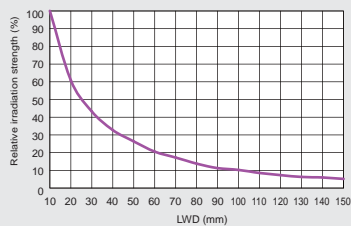
LDL-138X12UV2-365

LDL-205X12UV2-365

Model Used: LDL-205X12UV2-365

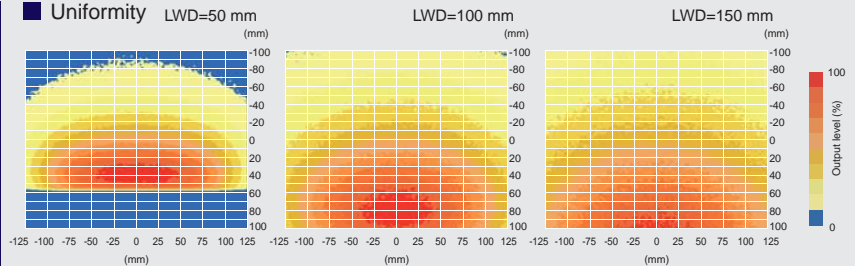
\* The values given here are for reference only. Results for individual Lights may vary.

### LWD Characteristic



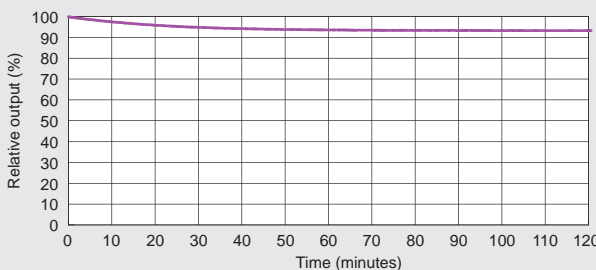
\* Simulation values. (These values are for reference only.)

### Uniformity



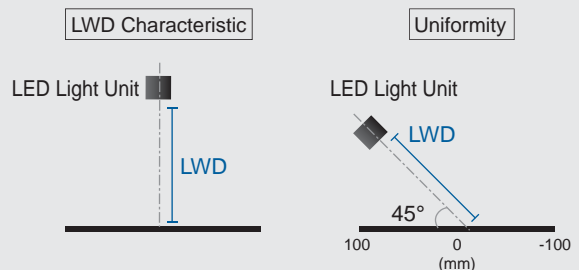
\* Simulation values. (These values are for reference only.)

### Output Changes Over Time



\* Actual measurement values. (These values are for reference only.)

### Visualization of LWD Characteristic and Uniformity Measurement

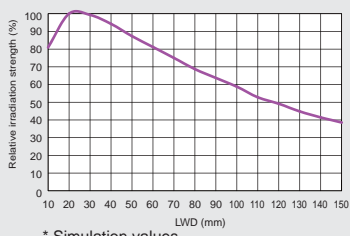




**Condensing Bar Lights**      LN-61UV2-365      LN-128UV2-365      LN-195UV2-365

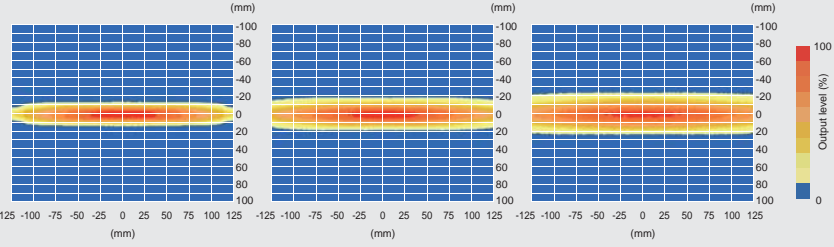
Model Used: LN-195UV2-365      \* The values given here are for reference only. Results for individual Lights may vary.

**LWD Characteristic**



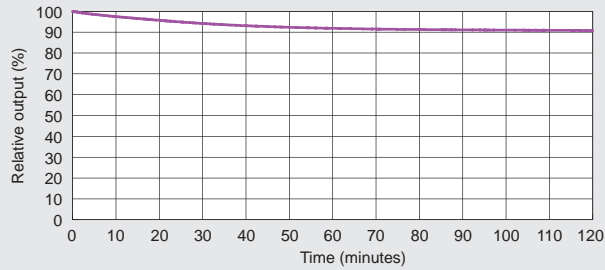
\* Simulation values. (These values are for reference only.)

**Uniformity**



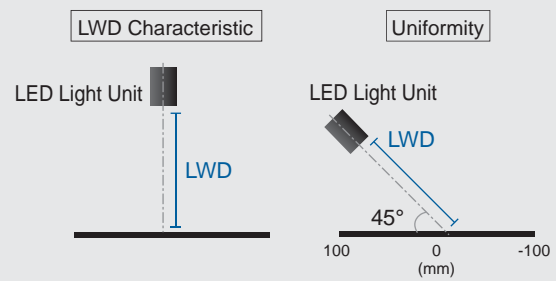
\* Simulation values. (These values are for reference only.)

**Output Changes Over Time**



\* Actual measurement values. (These values are for reference only.)

**Visualization of LWD Characteristic and Uniformity Measurement**



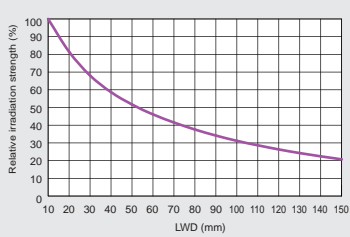
**Spotlights**



HLV2-24UV2-365

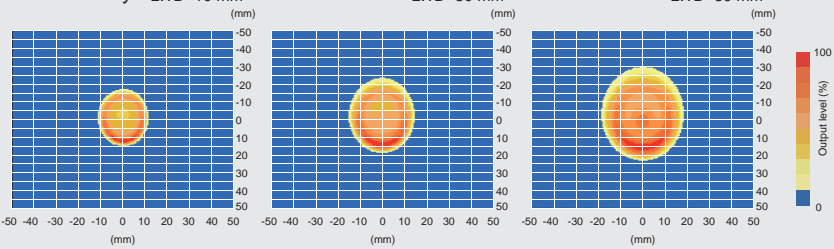
HLV2-24UV2-365      \* The values given here are for reference only. Results for individual Lights may vary.

**LWD Characteristic**



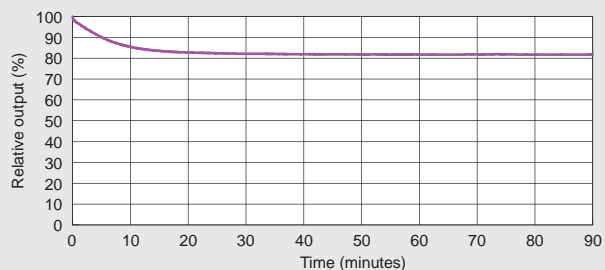
\* Simulation values. (These values are for reference only.)

**Uniformity**



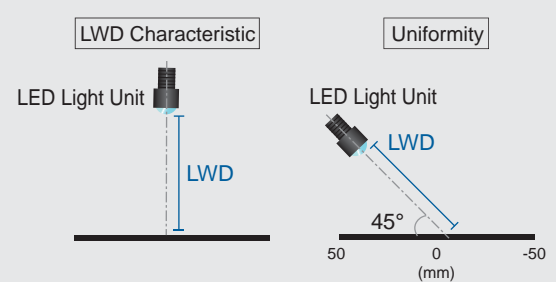
\* Simulation values. (These values are for reference only.)

**Output Changes Over Time**



\* Actual measurement values. (These values are for reference only.)

**Visualization of LWD Characteristic and Uniformity Measurement**



# APPLICATIONS

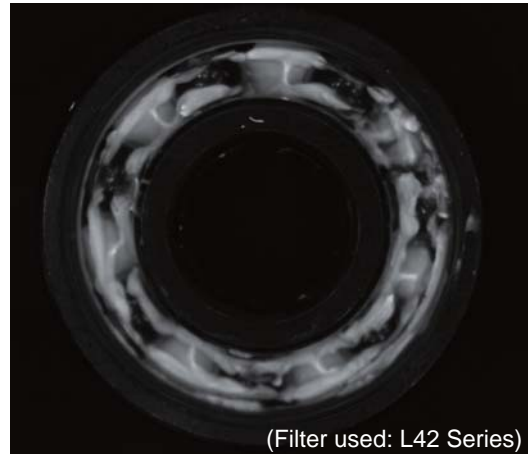
## ■ Imaging Grease Coating on Bearings

White Light Unit (LDR2-90SW2)



The White Light Unit cannot capture only the grease.

High-output UV Light Unit (LDR2-100UV2-365)



(Filter used: L42 Series)

With a High-output UV Light Unit, fluorescent light is dispersed only by the grease.

An optional Filter enables high-contrast imaging.

## ■ Imaging Bottle Labels

Workpiece Image



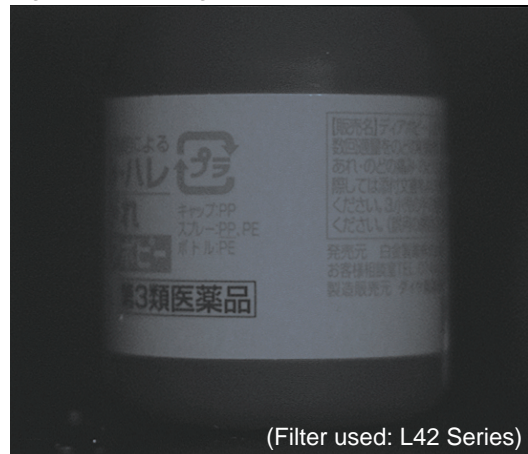
Bottle

Enlargement



The bottle and label are the same color, making it difficult to visually distinguish them.

High-output UV Light Unit (LN-128UV2-365)



(Filter used: L42 Series)

Fluorescent light is dispersed only by the label.

The bottle absorbs UV lightwaves, enabling high-contrast imaging.

## ■ Imaging Resin Parts (Spray Nozzles)

Workpiece Image



Spray Can

Under a Fluorescent Light



It is not possible to capture only the spray nozzle under a fluorescent light. Part of the can is also captured.

High-output UV Light Unit (LDR2-100UV2-365)



(Filter used: L42 Series)

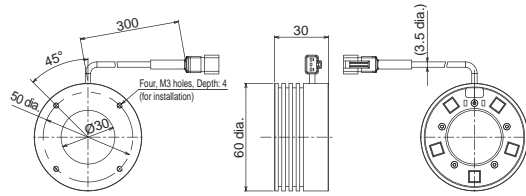
With a High-output UV Light Unit, fluorescent light is dispersed only by the spray nozzle. High-contrast imaging of the resin surface is achieved.

# DIMENSION DIAGRAMS

Dimension Diagrams (Unit: mm)

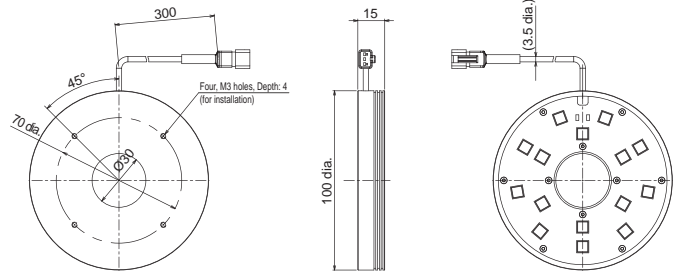
## Ring Lights

LDR2-60UV2-365



CE

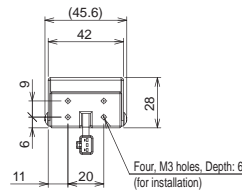
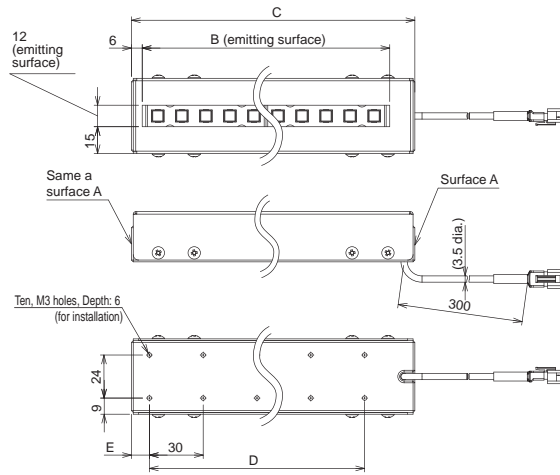
LDR2-100UV2-365



CE

## Bar Lights

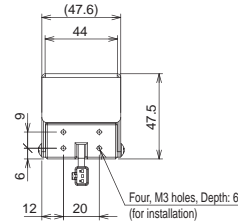
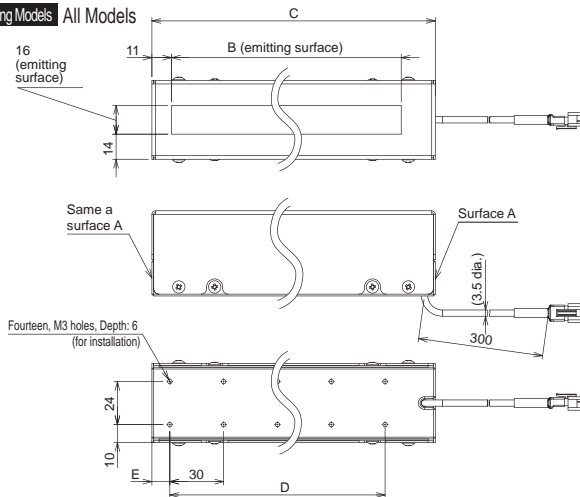
All Models



CE

Model	B (emitting surface)	C (overall length)	D	E
LDL-71X12UV2-365	71	91	P30x2=60	10
LDL-138X12UV2-365	138	158	P30x4=120	10
LDL-205X12UV2-365	205	225	P30x6=180	20

Light-condensing Models All Models

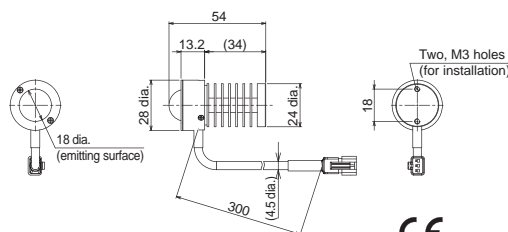


CE

Model	B (emitting surface)	C (overall length)	D	E
LN-61UV2-365	61	91	P30x2=60	10
LN-128UV2-365	128	158	P30x4=120	10
LN-195UV2-365	195	225	P30x6=180	20

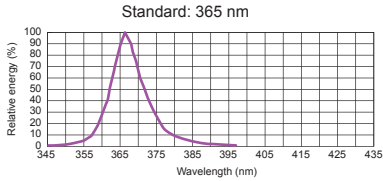
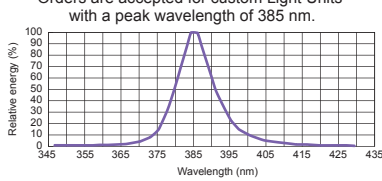
## Spotlights

HLV2-24UV2-365



CE

# Common Specifications

Input voltage	24 VDC (max.)	CE Marking	Conforms to safety standard EN 62471.
Operating environment	Temperature: 0 to 40°C, Humidity: 20% to 85% RH (with no condensation)	Environmental regulations	RoHS compliant
Storage environment	Temperature: -20 to 60°C, Humidity: 20% to 85% RH (with no condensation)	Cooling method	Natural air cooling
Spectral distribution	<p>Standard: 365 nm</p>  <p>Orders are accepted for custom Light Units with a peak wavelength of 385 nm.</p> 		

\* The values given here are for reference only. Results for individual Light Units may vary.

## Optional UV Products

Passes UV lightwaves and absorbs visible light.

### Ultraviolet Transmission Filters

**U340 Series**



Model	Size
U340-25	M25.5 P0.5
U340-27	M27.0 P0.5
U340-30	M30.5 P0.5
U340-40	M40.5 P0.5
U340-46	M46.0 P0.75

Cuts wavelength of 420 nm and lower and passes longer wavelengths.

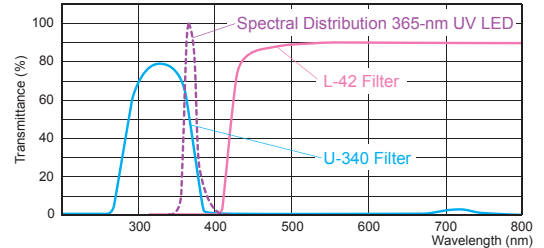
### Ultraviolet Cutting Filters

**L42 Series**



Model	Size
L42-25	M25.5 P0.5
L42-27	M27.0 P0.5
L42-30	M30.5 P0.5
L42-40	M40.5 P0.5
L42-46	M46.0 P0.75

## Filter Characteristics vs UV LED Spectral Distribution



## Application Example (Shrink Film)



Use a Filter that is suitable to the excitation wavelength. Consult your CCS representative.

Blocks ambient light out of blue wavelength range.

### Blue-light Filters

**V44 Series**



Blocks ambient light out of red wavelength range.

### Sharp Cut Filters

**R60 Series**



**R64 Series**



Other Filters

### Yellow-light Filters\*



And Many More

● Precautions for UV Products

\* A special order is required. For details, please consult your CCS representative.

## Caution

- Never look directly at or touch an ultraviolet light source.
- When the Light Unit is ON, always wear protective UV glasses and be sure not to let any ultraviolet light enter your eyes.
- Do not look at the radiating surface of the Light Unit directly while it is turned on. Also, do not turn it towards others.
- Wear long sleeves and gloves and do not expose your skin to the ultraviolet light during operation.
- Make sure that everyone in the vicinity of the Light Unit is aware of the dangers of ultraviolet light LEDs.



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## Caution

- Carefully read the User Manual before using the product to ensure correct operation.
- For product improvement, specifications and designs are subject to change without notice.
- Use the workpiece imaging examples provided in this pamphlet as reference material for the selection of Light Units. 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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