

# Ultraviolet Lights

## UV2 series

Refer to our website for product details.

CCS UV2

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Use a search engine.

### UV Lights that use high output UV-LEDs



#### Applications

Inspection for detecting seal material through fluorescent excitation, reading invisible code, inspections using differences in spectral reflectivity, and inspections using differences in scattering rates, etc.

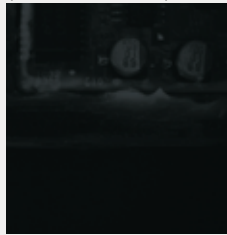
#### For fluorescent observation and observation using scattering rates

Using high output UV-LEDs, we significantly increased output compared to conventional products.

#### Comparison of imaging with conventional product



Conventional product (LDR2-90UV365)



The conventional product lacks output and fluorescent observation is difficult.

Imaging example	Adhesive application inspection
Workpiece	Circuit board

LDR2-100UV2-365-W

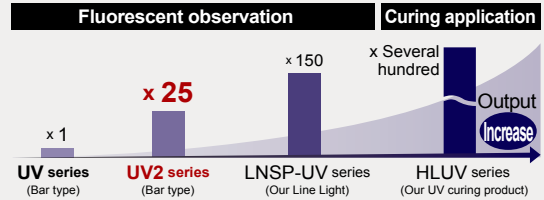


The increased output of the high output UV Light allows for fluorescent observation.

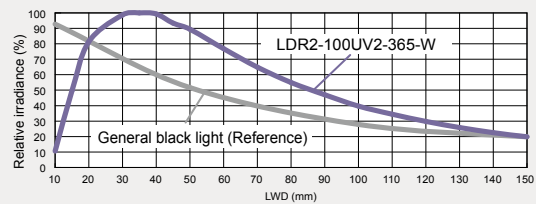
#### Using high output UV-LEDs

The high output UV illumination allows for stable fluorescent observation. Ring, bar, and spot formats are available.

#### Image comparing output of UV Lights by application



#### Comparison of output between a high output UV Light and a black light



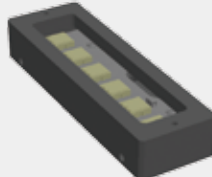
\* The data included is for reference only and does not guarantee the quality of this product.

#### Custom orders

Please contact your CCS sales representative.

E.g.: Different shape

Format/material Created a format to match the needs



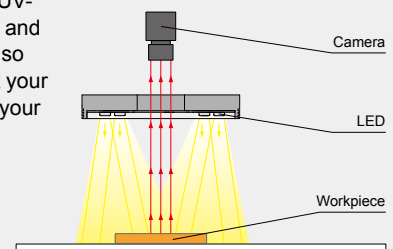
#### Customizable items

- External/internal diameter
  - Wavelength/color
  - Increase output
  - Cable length
  - Illuminating angle
  - Format/material
  - Connector format
  - Installation/mounting
- Etc.

#### Example configuration

Ring Lights that use high output UV-LEDs. Bar types and spot types are also available. Select your format to match your needs.

#### LDR2-100UV2-365-W

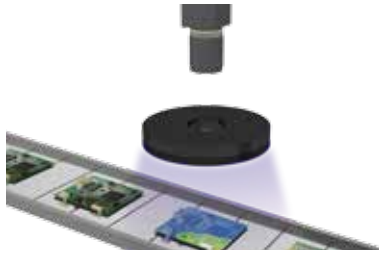


We have various materials.

- PDF Drawings
- DXF Drawings
- 3D CAD
- Instruction Guides
- Product Filers
- Imaging Samples
- Data Sheets
- Examples of Custom Ordered Products

Download here. <http://www.ccs-grp.com/dl/>

## Imaging example : Imaging of the application of coating material on a circuit board



Description	Visual inspection
Workpiece	Circuit board
Before the proposal	LED Ultraviolet Light
After the proposal	LDR2-100UV2-365-W
Result	Fluorescent excitation via ultraviolet lighting

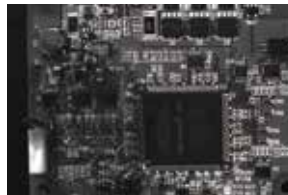
### Workpiece image



Circuit board

\* This workpiece was processed by CCS for sample imaging.

### General fluorescent lamp



With a general fluorescent lamp, fluorescent observation is difficult.

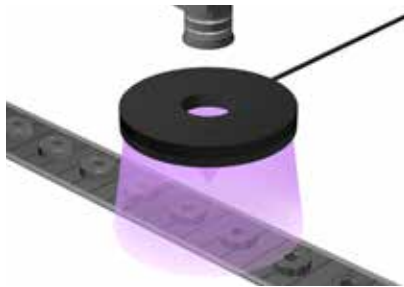
### LDR2-100UV2-365-W



With a high output UV Light, fluorescent observation is possible.

\* Use an optional filter for imaging with increased contrast.

## Imaging example : Imaging of grease application on a bearing



Description	Visual inspection
Workpiece	Bearing
Before the proposal	LED visible light lighting
After the proposal	LDR2-100UV2-365-W
Result	Fluorescent excitation via ultraviolet lighting

### Workpiece image



Bearing

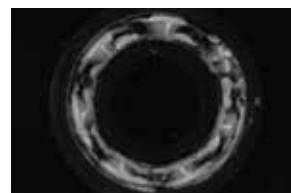
\* This workpiece was processed by CCS for sample imaging.

### LED visible light lighting



With white light, it is difficult to capture the application of the grease.

### LDR2-100UV2-365-W



With a high output UV Light, fluorescent observation is possible.

\* Use an optional filter for imaging with increased contrast.

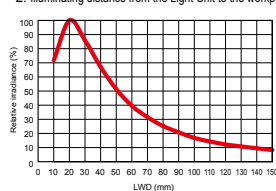
## Data: Relative irradiance graph/Uniformity graph (Representative example)

\* The graph included is for reference only and does not guarantee the quality of this product.

### LDR2-60UV2-365-W

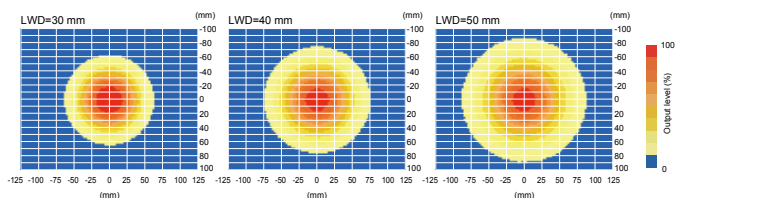
#### Relative irradiance graph<sup>\*1</sup> (LWD Characteristics)<sup>\*2</sup>

\*1: Irradiance on the optical axis  
\*2: Illuminating distance from the Light Unit to the workpiece



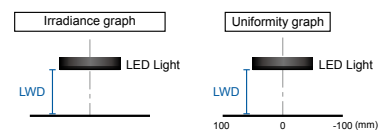
\* Simulation value  
(This does not guarantee product quality.)

#### Uniformity graph (Relative irradiance)



\* Simulation value  
(This does not guarantee product quality.)

#### Image of data measuring environment



# UV2 series



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CCS UV2

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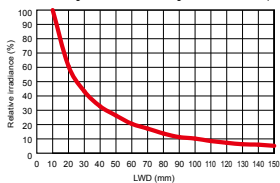
## Data: Relative irradiance graph/Uniformity graph (Representative example)

\* The graph included is for reference only and does not guarantee the quality of this product.

### LDL-205X12UV2-365

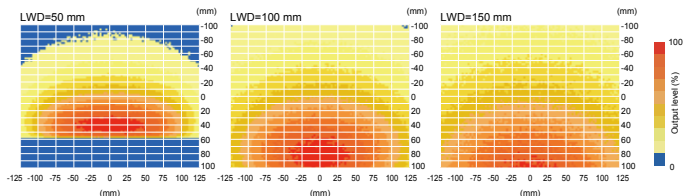
Relative irradiance graph<sup>\*1</sup>  
(LWD Characteristics)<sup>\*2</sup>

\*1: Irradiance on the optical axis  
\*2: Illuminating distance from the Light Unit to the workplace

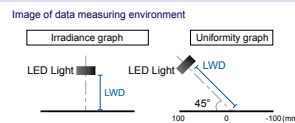


\* Simulation value (This does not guarantee product quality.)

Uniformity graph  
(Relative irradiance)



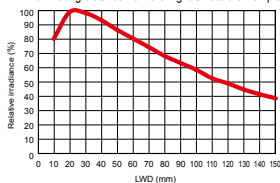
\* Simulation value (This does not guarantee product quality.)



### LN-195UV2-365

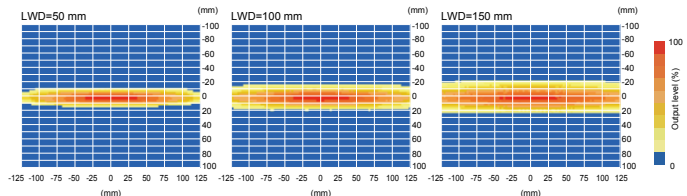
Relative irradiance graph<sup>\*1</sup>  
(LWD Characteristics)<sup>\*2</sup>

\*1: Irradiance on the optical axis  
\*2: Illuminating distance from the Light Unit to the workplace

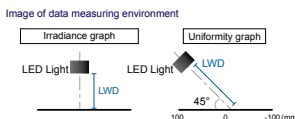


\* Simulation value (This does not guarantee product quality.)

Uniformity graph  
(Relative irradiance)



\* Simulation value (This does not guarantee product quality.)



## Cautionary information regarding UV products

- Do not expose your eyes or skin to direct UV irradiation.
- When using an UV illumination, be sure to wear UV blocking eye wear and avoid looking at irradiating parts (emitting parts).
- Do not turn on UV-LED irradiating parts (emitting parts) if they are facing someone's eyes.
- Wear long sleeves and gloves to protect your skin from UV irradiation.
- Thoroughly educate all those involved near the product about the dangers of UV LEDs.



(E.g.) UV blocking eye wear

## Options



Ultraviolet cutting filter  
L42 series

Model name	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

▶ P.215



Ultraviolet transmission filter  
U340 series

Model name	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

▶ P.215

## Lineup

Series	Model name	LED color	Power consumption	Peak wavelength	Options	Recommended Control Units	Weight
LDR2	LDR2-60UV2-365-W	Ultraviolet	24 V / 7.6 W	365 nm	Ultraviolet cutting filter Ultraviolet transmission filter	PD3    CC-ST-1024* PSB	170 g
	LDR2-100UV2-365-W		24 V / 23 W			* Can only use the 60 size.	250 g
LDL	LDL-71X12UV2-365	Ultraviolet	24 V / 7.6 W	365 nm	Ultraviolet cutting filter Ultraviolet transmission filter	PD3    CC-ST-1024* PSB	300 g
	LDL-138X12UV2-365		24 V / 16 W			500 g	
	LDL-205X12UV2-365		24 V / 23 W			* Can only use the 71 x 12 size.	700 g
LN	LN-61UV2-365	Ultraviolet	24 V / 7.6 W	365 nm	Ultraviolet cutting filter Ultraviolet transmission filter	PD3    CC-ST-1024* PSB	450 g
	LN-128UV2-365		24 V / 16 W			750 g	
	LN-195UV2-365		24 V / 23 W			* Can only use the 61 size.	1,050 g
HLV2	HLV2-24UV2-365	Ultraviolet	0.7 A / 3.2 W	365 nm	Ultraviolet cutting filter Ultraviolet transmission filter	PD3    PJ	50 g

LED Properties: Light Spectrum ▶ P.234

Extension Cables ▶ P.222

Control Unit Selection Guide ▶ P.181

Control Unit Page ▶ P.185

\* Please inquire if you would like to use in combination with a Strobe Control Unit (overdrive type).

We have various materials.

PDF Drawings

DXF Drawings

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Imaging Samples

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Examples of Custom Ordered Products

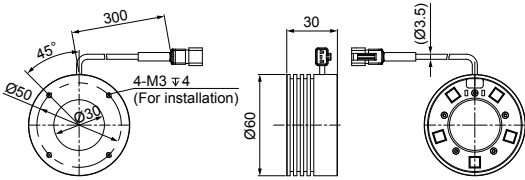
Download here.

<http://www.ccs-grp.com/dl/>

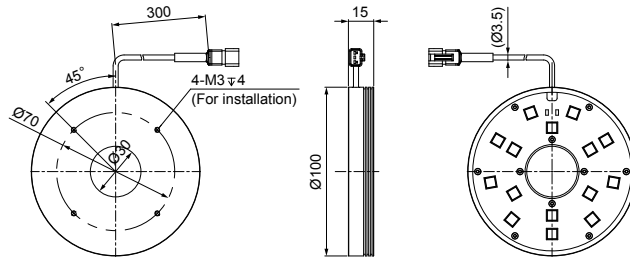
## Dimensions (mm)

### Ring Lights

LDR2-60UV2-365-W

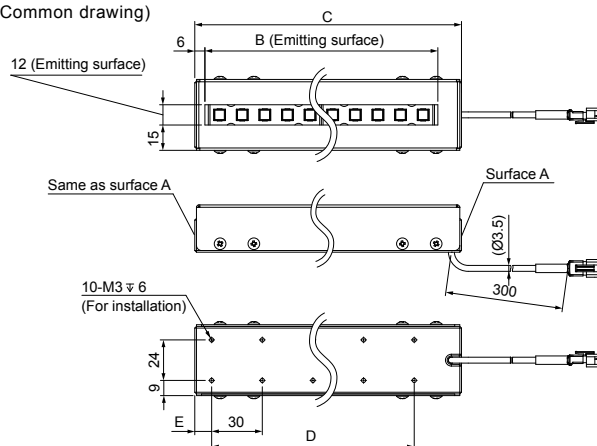


LDR2-100UV2-365-W

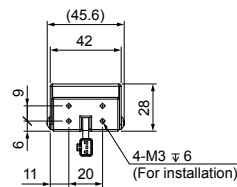


### Bar Lights

(Common drawing)

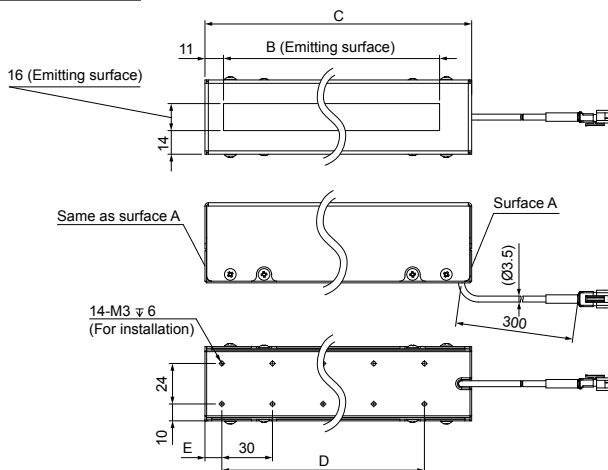


Surface A

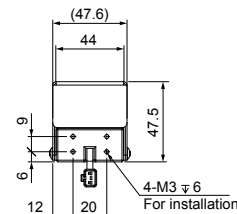


Model name	B	C	D	E
LDL-71X12UV2-365	71	91	P30x2=60	10
LDL-138X12UV2-365	138	158	P30x4=120	10
LDL-205X12UV2-365	205	225	P30x6=180	20

Convergent type (Common drawing)



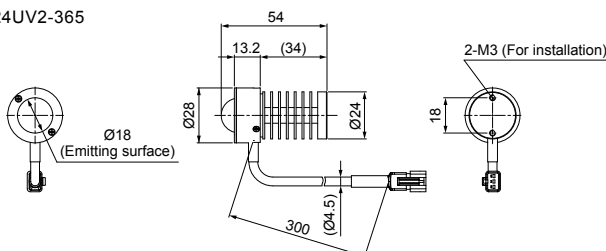
Surface A



Model name	B	C	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

### Spot Lights

HLV2-24UV2-365



You can change the connectors of the Light Unit cable (except for the HLV2-24UV2-365). Choose between M12 connectors and flying leads. Refer to P.125 for details.

Direct Lighting	LDR2 LDR2-LA LDR-LA1 SQR SQR-TP
Convergent Lighting	HLDR-IP
Diffused Lighting	HPR2 HPR LFR LKR FPR FPQ2
Direct Lighting	LDL2 LDLB HLDL2
Diffused Lighting	TH LFL HPD2 HPD LDM2 LAV PDM LFX2 LFV3 LFV2
Collimated Lighting	MSU MFU
Ultraviolet Lighting	UV2 UV LNSP-UV-FN
Infrared Lighting	IR2
Spot Lighting, Etc.	HLV2 LV LSP HFS/HFR HLV2-NR HLV2-3M-RGB-3W PFB2 PFBR
Convergent Lighting	LNSP CU-LNSP LNSP-FN LN/LN-HK
Diffused Lighting	LNSD LND2 HLND LT LN/HLDN
Oblique Angled Lighting	LNIS LNIS-FN
Lenses	Telecentric Lens Macro Lens