LDR2-LA LDR-LA1

SQR

LFR

LKR

FPR

FPQ2

LDL2

TH

LFL

HPD2 HPD LDM2

LAV PDM LFX2

LFV3 LFV2/LFV MSU MFU

> UV2 UV

LV LSP

HFS/HFR HLV2-NR

> PFB2 PFBR

LNSP

CU-LNSP

LNSP-FN

LN/LN-HK

LND2 HLND LT

LNV Telecentric Lens

HLV2-3M- RGB-3W

LNSP-UV-FN

SQR-TP

HLDR-IP HPR2

# **Ultraviolet Lights UV2** series

Refer to our website for product details.

CCS UV2





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



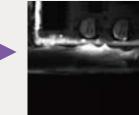
**Imaging** Adhesive application inspection Workpiece Circuit board

Conventional product (LDR2-90UV365)



The conventional product lacks output and fluorescent observation is difficult.

## LDR2-100UV2-365-W

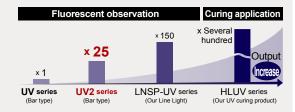


The increased output of the high output UV Light allows for fluorescent observation.

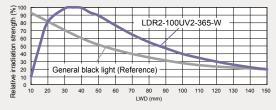
## Using high output UV-LEDs

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



#### Example configuration

LDR2-100UV2-365-W Ring Lights that use high output UV-LEDs. Bar types and Camera spot types are also available. Select your format to match your LED needs Workpiece

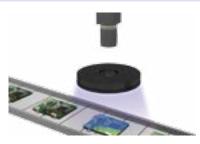
We have various materials.

Product Fliers

Data Sheets

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

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



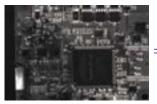
Description	Visual inspection
Workpiece	Circuit board
Before the proposal	LED Ultraviolet Light
After the proposal	LDR2-100UV2-365-W
Result	Fluorescent excitation via ultraviolet lighting

#### Workpiece image



Circuit board

General fluorescent lamp



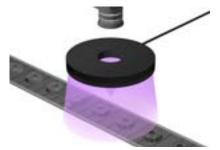
With a general fluorescent lamp, fluorescent observation is difficult.

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



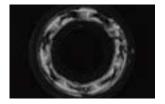
This image was altered at our company for display purposes.

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.

Image of data measuring environmer

Irradiation strength graph

Data: Relative irradiation strength graph/Uniformity graph (Representative example)

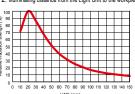
\* The graph included is for reference only and does not guarantee the quality of this product.

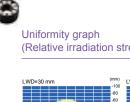
Uniformity graph

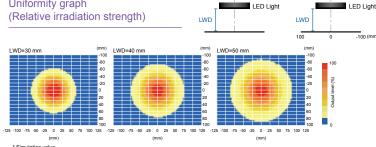
#### LDR2-60UV2-365-W

Relative irradiation strength graph (LWD Characteristics) \*2

\*1: Irradiation strength on the optical axis







Requests for Light Unit Selection Requests for Demo

Inquire on our website here. http://www.ccs-grp.com/contact/ LNSP

CU-LNSP LNSP-FN LN/LN-HK LND2 HLND LT LNV Telecentric Lens Macro Lens

<sup>\*</sup> This image was altered at our company for display purposes

## Data: Relative irradiation strength graph/Uniformity graph (Representative example)

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

Uniformity graph

LWD

Irradiation strength graph

LED Light LWD

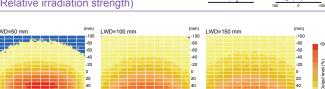
## LDL-205X12UV2-365 LED Light

Relative irradiation strength graph (LWD Characteristics)\*2

\*1: Irradiation strength on the optical axis
\*2: Illuminating distance from the Light Unit to the workpiec

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

Uniformity graph (Relative irradiation strength)



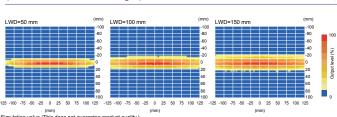
### LN-195UV2-365

Relative irradiation strength graph (LWD Characteristics)\*2

\*1: Irradiation strength on the optical axis

## (Convergent type)

Uniformity graph (Relative irradiation strength)



## 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



Blocks light with a wavelength of 420 nm or lower, transmits wavelength.

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.189

Transmits light with wavelength range of approx. 280 nm around 340 nm.

#### 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	

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## Lineup

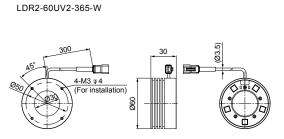
	•						
Series	Model name	LED color	Power consumption	Peak wavelength	Options	Recommended Control Units	Weight
LDR2	LDR2-60UV2-365-W	Ultraviolet	24 V / 7.6 W	365 nm	Ultraviolet cutting filter	PD3	170 g
LURZ	LDR2-100UV2-365-W	Ultraviolet 24 \	24 V / 23 W		Ultraviolet transmission filter	* Can only use the 60 size.	250 g
	LDL-71X12UV2-365	Ultraviolet	24 V / 7.6 W			PD3 CC-ST-1024*	300 g
LDL	LDL-138X12UV2-365		24 V / 16 W	365 nm	Ultraviolet cutting filter Ultraviolet transmission filter	PSB	500 g
	LDL-205X12UV2-365		24 V / 23 W				* Can only use the 71 x 12 size.
	LN-61UV2-365	Ultraviolet	24 V / 7.6 W 24 V / 16 W		Ultraviolet cutting filter Ultraviolet transmission filter	PD3 CC-ST-1024*	450 g
LN	LN-128UV2-365			365 nm		PSB	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 Propertie	es: Light Spectrum P.208	Extension	Cables ▶ P.196	Control Unit	: Selection Guide ▶ P.155	Control Unit Page ▶	P.159

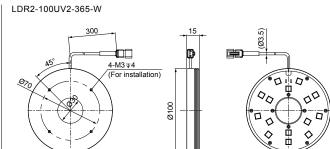
<sup>\*</sup> Please inquire if you would like to use in combination with a Strobe Control Unit (overdrive type).

**Examples of Custom** 

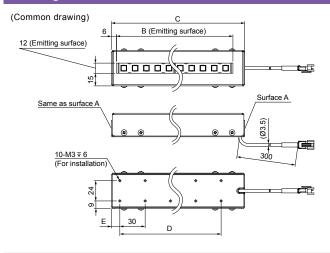
## Dimensions (mm)

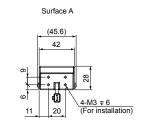
#### **Ring Lights**





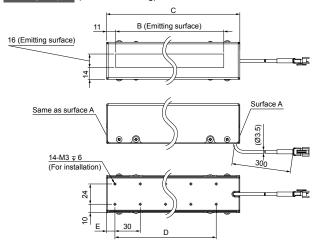
#### **Bar Lights**

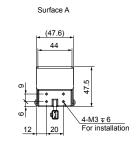




Model name	В	С	D	E
LDL-71X12UV2-365	71	91	P30x2=60	10
LDL-138X12UV2-365	138	158	P30x4=120	10
LDL-205X12UV2-365	205	225	P30x6=180	20

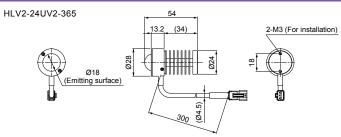
#### Convergent type (Common drawing)





Model name	В	С	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**



You can inquire using our website.

Requests for Light Unit Selection

Requests for Demo Products

Inquire on our website here. http://www.ccs-grp.com/contact/ LDR2 LDR2-LA

LDR-LA1

SQR SQR-TP HLDR-IP HPR2

LSP HFS/HFR HLV2-NR HLV2-3M- RGB-3W

PFB2 PFBR

LNSP

HLND LT LNV

Telecentric Lens

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