



# Ultraviolet Lights / Ultraviolet Line Lights

## UV Series / LNSP-UV-FN Series

### Spark-prevention structure achieves enhanced safety and reliability

Use of an original UV light LED with a peak wavelength of 365nm and a directional pattern of  $\pm 20^\circ$ .

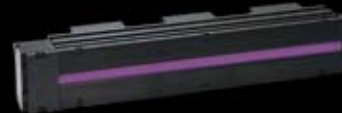


### High-output Line Lights

#### LNSP-UV-FN Series



Wide Model with a broad illumination width for wide-range illumination.



Narrow Model with a narrow illumination width for convergent radiation.

Refer to page 55 for more details.

### Original Ultraviolet LEDs

\*This information does not apply to the LNSP-UV-FN Series.

CCS's proprietary LED package with anti-spark protection



While an LED usually has two leads, CCS's original ultraviolet LED is provided with an additional lead. This unique structure has achieved a spark prevention effect.

### LNSP-UV-FN Series of High-output Line Lights

There are two types of Lights in this Series: Wide Models with a wide illumination width for illuminating a wide area and Narrow Models for convergent radiation. These high-output Line Lights for ultraviolet radiation are perfect for energized workpieces.

Wide Model  
LNSP-UV365-FNNR

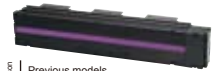


Output Comparison

Previous models (LDL-74x27UV365)  
LNSP-UV365-FNNR **Approx. 40x higher**

\*The brightness depends on the spectral sensitivity.

Narrow Model  
LNSP-UV365-FN



Output Comparison

Previous models (LDL-74x27UV365)  
LNSP-UV365-FN **Approx. 150x higher**

\*The brightness depends on the spectral sensitivity.

Image of Contact Lenses



Packed Contact Lenses

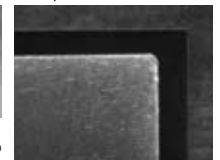


The presence of packaged contact lenses can be detected. Some types of contact lenses absorb ultraviolet lightwaves, which produces high-contrast images of the packed contact lenses.

Imaging Alignment of Transparent Film



Transparent Board on Bottom with Film on Top

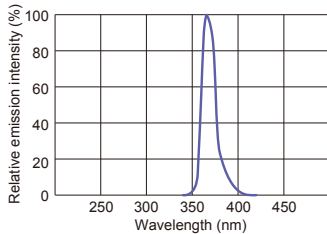


The alignment of transparent film on a transparent board can be checked. Only the transparent film disperses the light, so the edges can be picked up in a high-contrast image of the transparent film.

### Wavelength of 365 nm and LED light spread of $\pm 20^\circ$

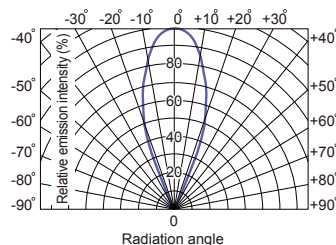
\*This information does not apply to the LNSP-UV-FN Series.

Distribution of emission spectrum of UV light LED



The original UV light LED is available with a peak wavelength of 365nm and a directional pattern of  $\pm 20^\circ$ . The use of a single wavelength as a characteristic of the LED gives a more precise image of the characteristics of a workpiece compared with the use of conventional black lights, and allows for stable shooting over an extended period of time. A wide product lineup offers optimum lighting solutions best suited to a variety of inspection objects, inspection environments and optical systems.

Directional pattern of UV light LED



### Option filter

Ultraviolet transmission filter



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

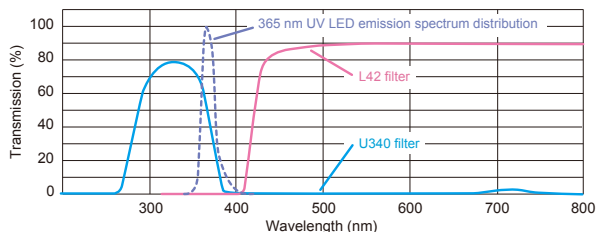
Ultraviolet cutting filter



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 characteristic vs. UV LED emission spectrum distribution



Direct Number : A direct number is a 7-digit number assigned to a CCS product. You can easily access the web page providing information on any desired product by simply entering the direct number in the space provided on the CCS website pages for machine vision. (Refer to the back cover of this brochure.)

## Product Lineup Table

Series	Direct Number	Model Name	Color	Power Consumption	Option	Dimension
LDR2	1002639	LDR2-32UV365	●	24V / 0.4W	—	1
	1002640	LDR2-42UV365	●	24V / 0.8W	—	
	1002641	LDR2-50UV365	●	24V / 1.2W	—	
	1002605	LDR2-70UV365	●	24V / 3.1W	—	2
	1002642	LDR2-90UV365	●	24V / 3.8W	—	
	1002638	LDR2-90-30UV365	●	24V / 6.1W	—	1
	1002643	LDR2-120UV365	●	24V / 9.5W	—	
SQR	1002649	SQR-56UV365	●	24V / 1.6W	—	4
LDR2-LA	1002606	LDR2-74UV365-LA	●	24V / 1.9W	—	5
	1002637	LDR2-100UV365-LA	●	24V / 4.6W	—	
	1002634	LDR2-132UV365-LA	●	24V / 6.9W	—	6
	1002636	LDR2-170UV365-LA	●	24V / 9.9W	—	
	1002635	LDR2-208UV365-LA	●	24V / 12W	—	
LDR-LA-1	1002630	LDR-75UV365-LA-1	●	24V / 1.6W	—	7
	1002629	LDR-96UV365-LA-1	●	24V / 2.3W	—	8
	1002632	LDR-146UV365-LA-1	●	24V / 3.1W	—	

Series	Direct Number	Model Name	Color	Power Consumption	Option	Dimension
LDR-LA-1	1002633	LDR-176UV365-LA-1	●	24V / 3.8W	—	8
	1002631	LDR-206UV365-LA-1	●	24V / 4.6W	—	
LDL	1002648	LDL-34×8UV365	●	24V / 0.4W	—	9
	1002604	LDL-42×15UV365	●	24V / 0.8W	—	10
	1002603	LDL-74×27UV365	●	24V / 3.1W	—	11
	1002602	LDL-82×15UV365	●	24V / 1.6W	—	12
	1002647	LDL-130×15UV365	●	24V / 2.3W	—	
	1002628	LDL-180×16UV365	●	24V / 3.8W	—	
	LDQ	1002644	LDQ-60-25UV365	●	24V / 1.6W	—
1002645		LDQ-78UV365	●	24V / 1.6W	—	14
1002608		LDQ-100UV365	●	24V / 3.1W	—	15
1002607		LDQ-150UV365	●	24V / 6.1W	—	16
1002646		LDQ-200UV365	●	24V / 9.1W	—	17
LN		1002650	LN-200UV365	●	24V / 1.9W	—
LSP	1002651	LSP-41UV365	●	24V / 1.2W	—	19
	1700	LNSP-△△△UV365-FNNR	●	—	—	20
LNSP-UV-FN		LNSP-△△△UV365-FN	●	—	—	21

\* "△△△" is the light-emitting surface length between 100 and 300 mm in 100-mm increments. \*Refer to page 56 for specifications.

## Dimension Diagrams (Unit: mm)

**1.**

Model Name	A	B	C	D
LDR2-32UV365	Ø32	Ø10	16	P.C.D.20
LDR2-42UV365	Ø42	Ø18	18	P.C.D.28
LDR2-50UV365	Ø50	Ø28	16	P.C.D.40
LDR2-90UV365	Ø90	Ø50	20	P.C.D.70
LDR2-90-30UV365	Ø90	Ø30	20	P.C.D.70

**2.**

4-M3 depth 5  
P.C.D.50

**3.**

4-M3 depth 5  
P.C.D.90

**4.**

4-M3 depth 4

**5.**

4-M3 depth 5  
P.C.D.60

**6.**

Model Name	A	B	C	D
LDR2-100UV365-LA	Ø100	Ø70	22	P.C.D.84
LDR2-132UV365-LA	Ø132	Ø96	22	P.C.D.116
LDR2-170UV365-LA	Ø170	Ø134	22	P.C.D.154
LDR2-208UV365-LA	Ø208	Ø174	22	P.C.D.186

**7.**

4-M3 depth 4

**8.**

Model Name	A	B	C
LDR-96UV365-LA-1	Ø96	Ø80	Ø60
LDR-146UV365-LA-1	Ø146	Ø130	Ø110
LDR-176UV365-LA-1	Ø176	Ø160	Ø140
LDR-206UV365-LA-1	Ø206	Ø190	Ø170

**9.**

2-M2 depth 5

**10.**

2-M2 depth 5

**11.**

2-M3 depth 4

**12.**

Model Name	A	B	C	D	E
LDL-82X15UV365	92	82	17	20	15
LDL-130X15UV365	140	130	17	21	15
LDL-180X16UV365	191.4	181.4	18	21	16

**13.**

4-M2.6 depth 3

**14.**

4-M3

**15.**

4-M4

**16.**

4-M4

**17.**

8-M4 depth 4

**18.**

4-M2 depth 4  
2-M3 (Fixing screw)  
2X2-M3 depth 7

**19.**

2-M4 fixing screw

**20.**

A + 36.3: Full length  
A: 100 to 300 (Radiating surface)

**21.**

A + 39: Full length  
A: 100 to 300 (Radiating surface)