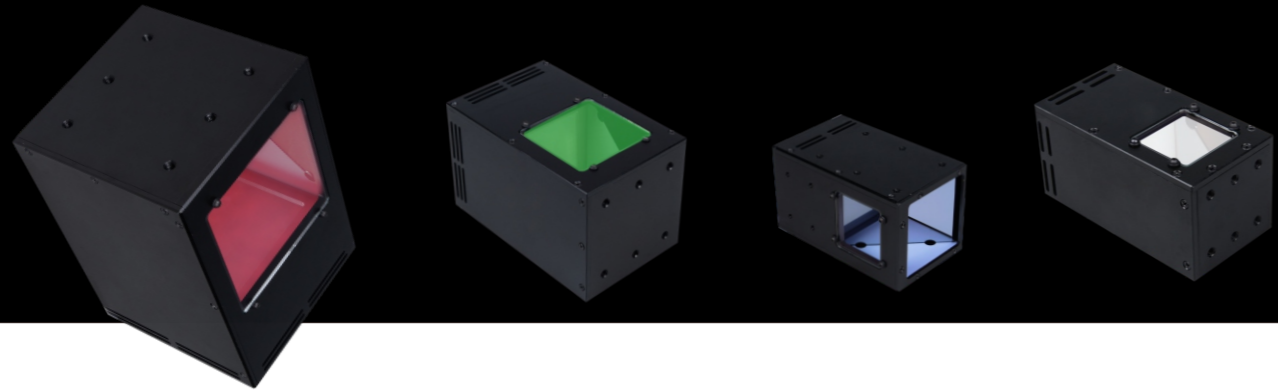


# Coaxial Light OPT-CO series

Show the uneven surface information, reduce the surface reflection  
Mainly used for the inspection of surface scratch, flaw, damage and so on

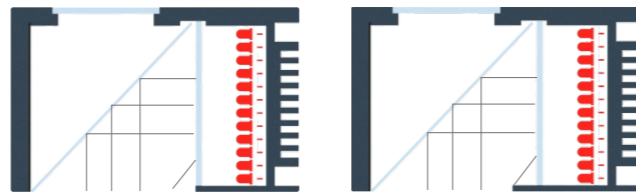
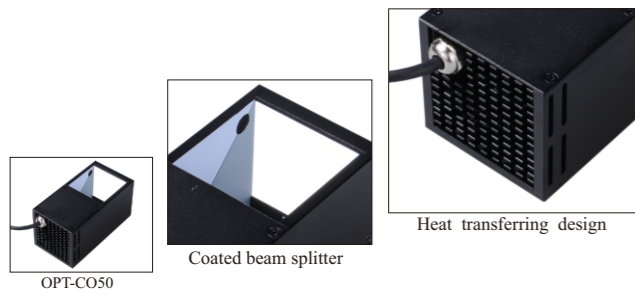


Special heat transferring design for a long service life time cycle and the stability

Special coated beam splitter to prevent the light loss

High density LED chips array, a big upgrading on the illumination brightness

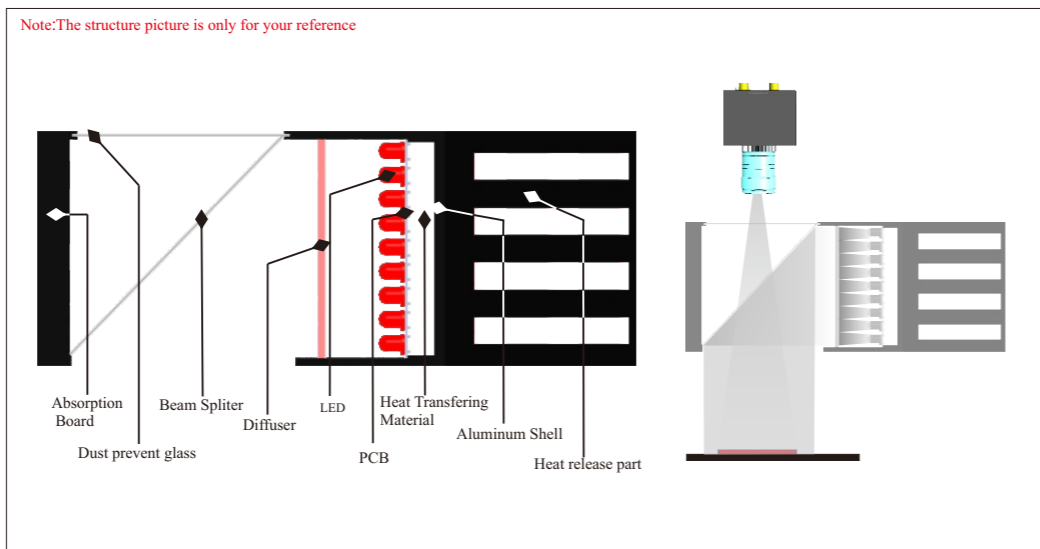
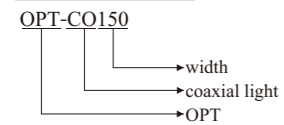
High image resolution and uniform illumination



### Application Area

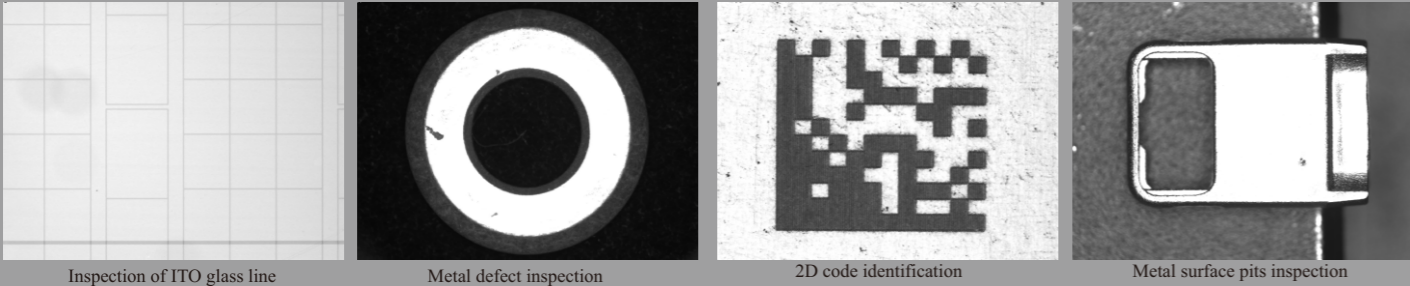
- ◆ The inspection of the scratches on the highly reflective surface
- ◆ Inspection of the breakage on the chip parts and silicon wafers
- ◆ The mark point position
- ◆ The identification of label on the package
- ◆ The identification of laser marking characteristics and 2D code

### Selection Guide



Structure display and working way

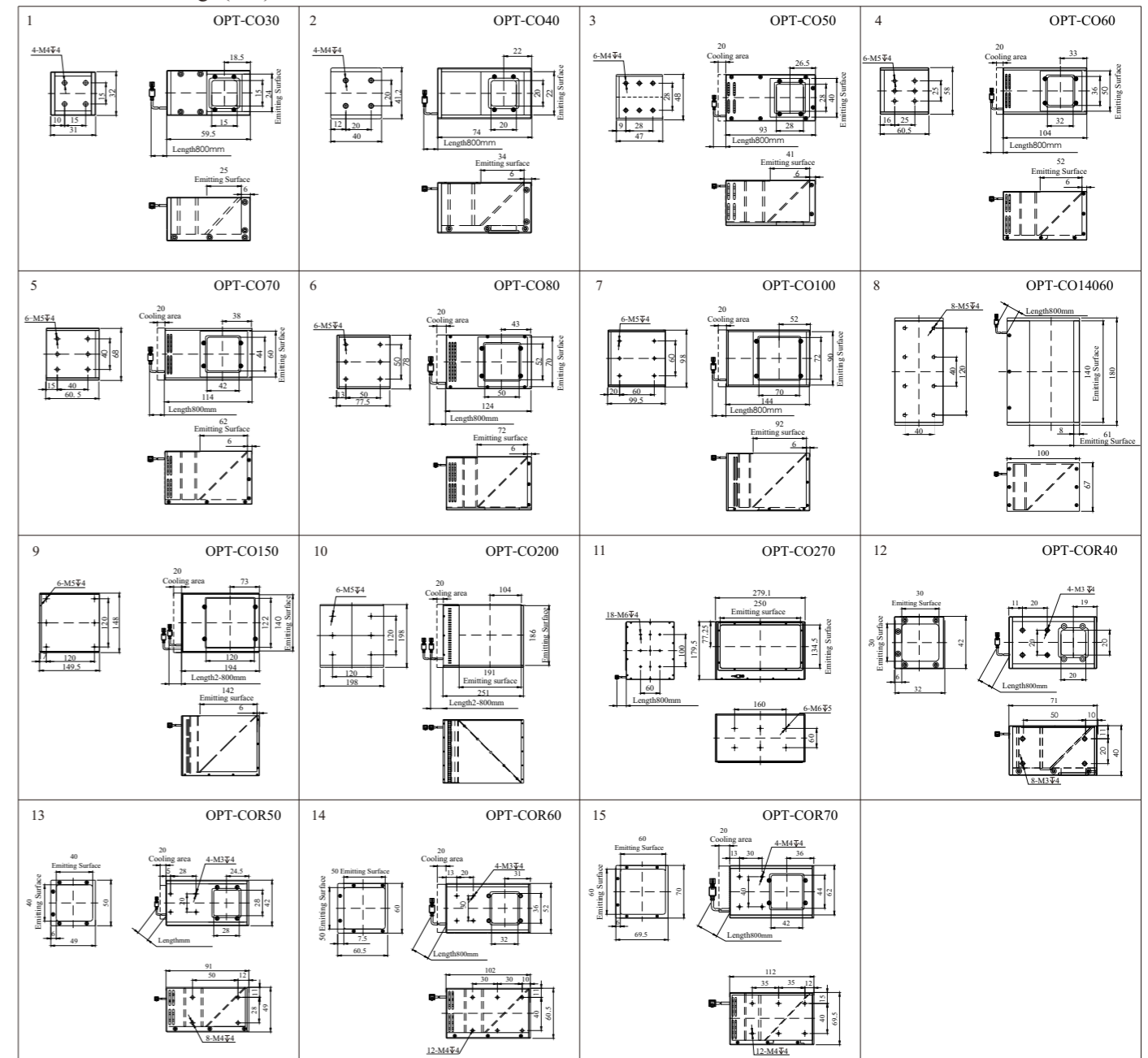
### Application example



### Model Table

Model	Output Power ●●●	Output Power ●	Color	Size
OPT-CO30	24V/1.6W	24V/0.6W	●●●●	1
OPT-CO40	24V/1.7W	24V/0.9W	●●●●	2
OPT-CO50	24V/5.0W	24V/2.8W	●●●●	3
OPT-CO60	24V/8.0W	24V/3.7W	●●●●	4
OPT-CO70	24V/11.9W	24V/6.4W	●●●●	5
OPT-CO80	24V/13.4W	24V/6.9W	●●●●	6
OPT-CO100	24V/17.5W	24V/11.3W	●●●●	7
OPT-CO14060	24V/12.5W	24V/6.1W	●●●●	8
OPT-CO150	24V/36.0W	24V/24.0W	●●●●	9
OPT-CO200	24V/57.6W	24V/48.0W	●●●●	10
OPT-CO270	24V/24.0W	24V/19.2W	●●●●	11
OPT-COR40	24V/2.0W	24V/1.2W	●●●●	12
OPT-COR50	24V/3.6W	24V/2.1W	●●●●	13
OPT-COR60	24V/5.8W	24V/3.1W	●●●●	14
OPT-COR70	24V/6.2W	24V/3.6W	●●●●	15

### Dimensional drawings (mm)



# Coaxial Line Light OPT-LSC series

The coaxial line light  
Especially for the inspection of printing with highly reflective surface



High intensity LEDs with high brightness, assuring the high-speed inspection

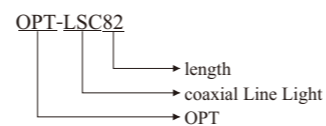
Ideally suitable for the consistent inspection line

Spectroscope design, preventing the light loss

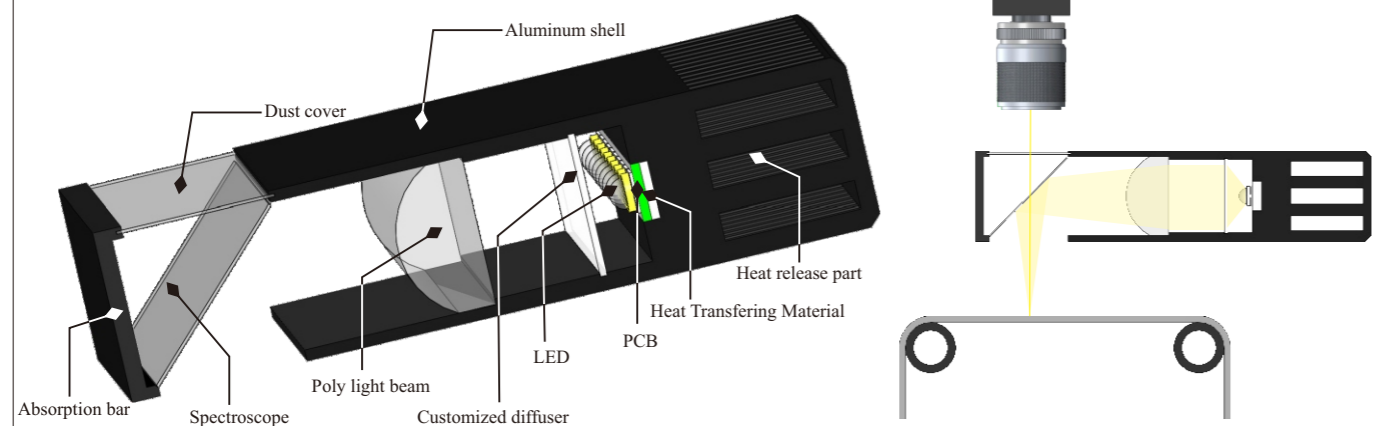
### Application Area

- ◆ Suitable for the line scan camera
- ◆ Inspection of the breakage on glasses, and the inertial impurity
- ◆ Inspection of high-speed printing quality

### Selection Guide



Note: The structure picture is only for your reference

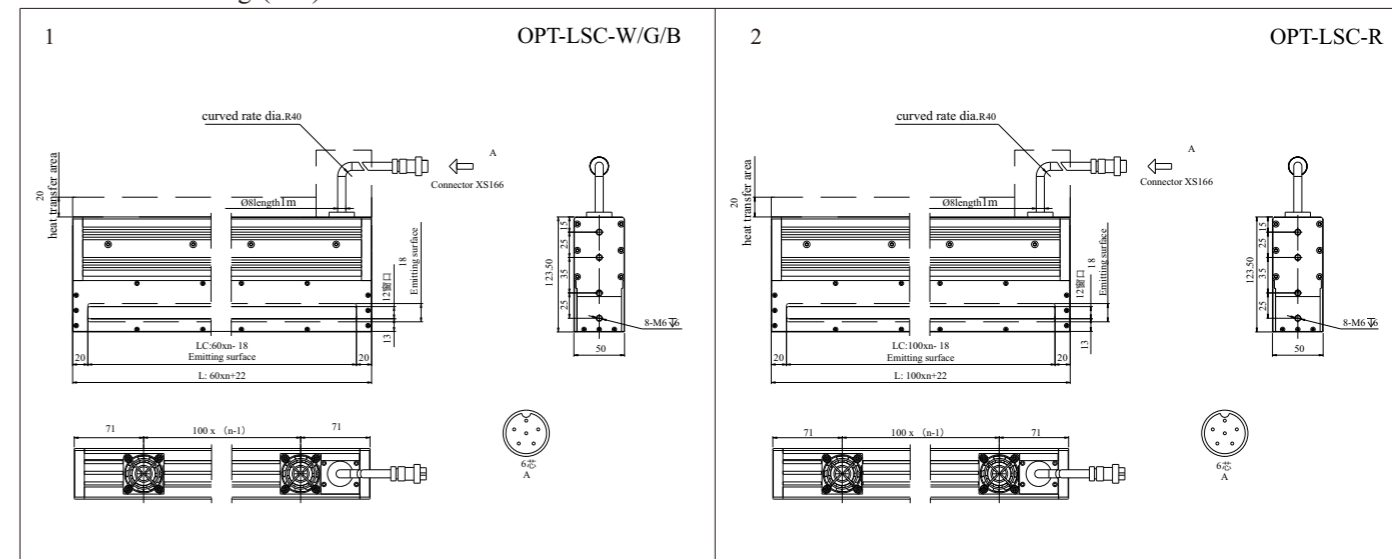


Structure display and working way

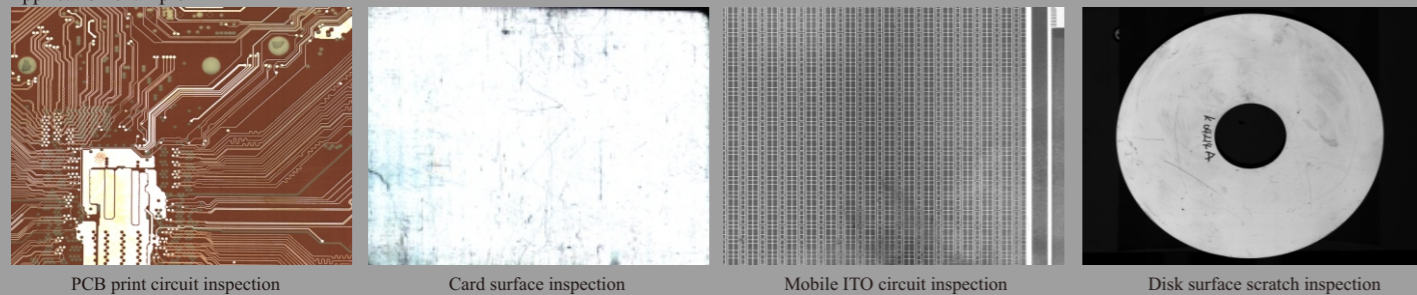
### Model Table

Model	Output Power	Emitting Surface (LC/mm)	Length Size (LC/mm)	Color	Size	n
OPT-LSC82-W	24V/9.6W	42	82	○●●	1	1
OPT-LSC142-W	24V/19.2W	102	142	○●●	1	2
OPT-LSC202-W	24V/28.8W	162	202	○●●	1	3
OPT-LSC262-W	24V/38.4W	222	262	○●●	1	4
OPT-LSC322-W	24V/48.0W	282	322	○●●	1	5
OPT-LSC122-R	24V/9.6W	82	122	●	2	1
OPT-LSC222-R	24V/19.2W	182	222	●	2	2
OPT-LSC322-R	24V/28.8W	282	322	●	2	3

### Dimensional drawings(mm)



### Application example



PCB print circuit inspection

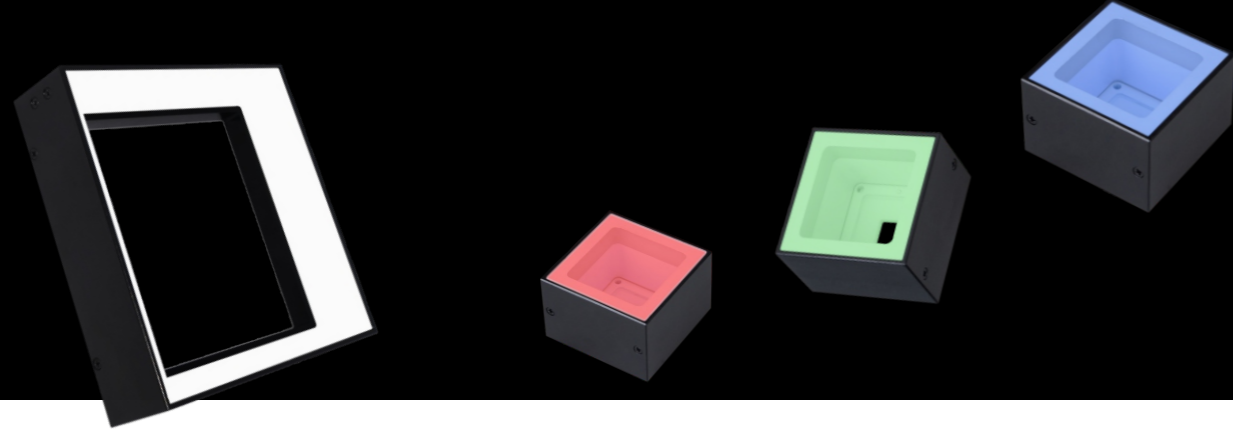
Card surface inspection

Mobile ITO circuit inspection

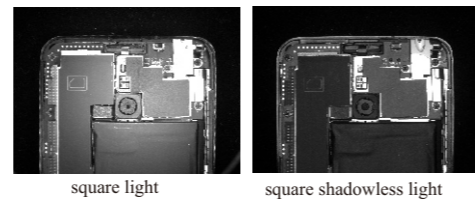
Disk surface scratch inspection

# Low Angle Square Light OPT-RIH series

High uniform illumination onto the field of view from four directions



It is good for square objects or different shape object inspection



Illuminate surface evenly without shadow

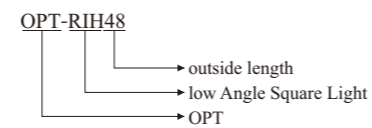
It is achieved the four side shadowless result, it is good for different object inspection as different WD with different image result.

It is more uniform than bar light combined

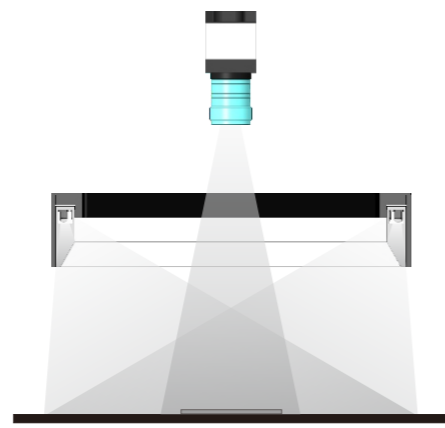
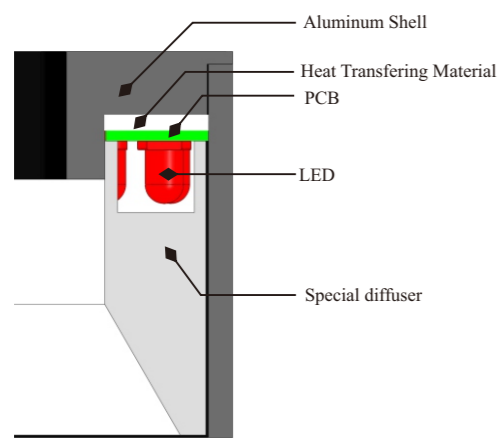
### Application Area

- ◆ Surface scratch, dent and some other defects inspection
- ◆ Print letters, marks, bar code, finger print and image recognition

### Selection Guide

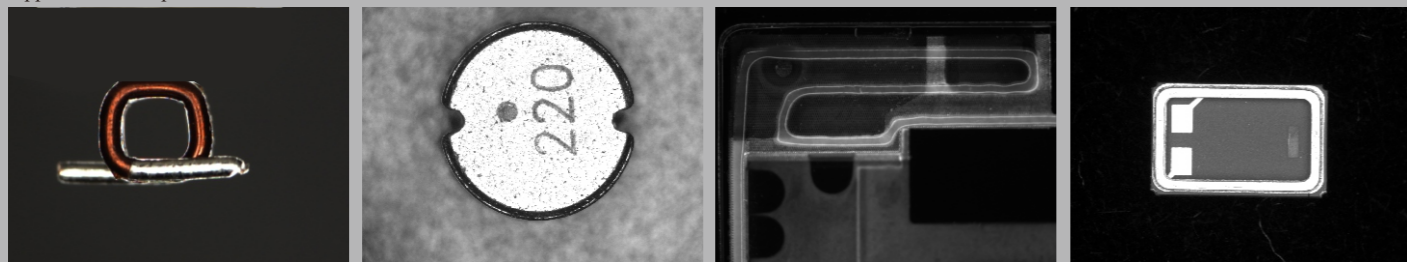


Note: The structure picture in only for your reference



Structure Display and working way

### Application example













Metal clip surface solder inspection

Electronic surface letter print defects inspection

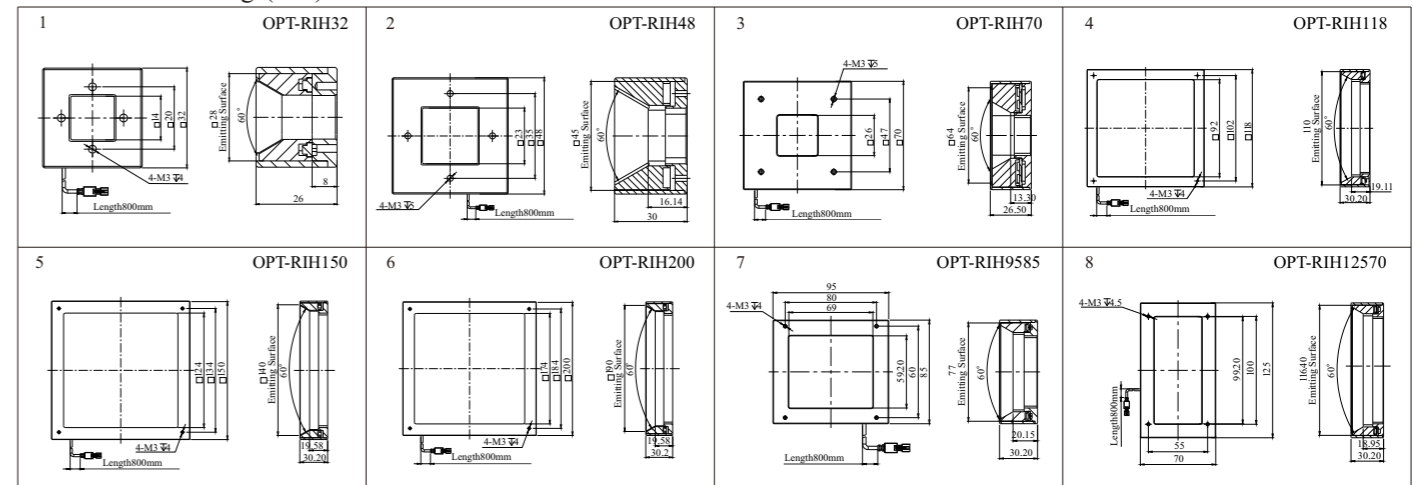
Mobile inside glue inspection

Parts surface golden circle location

### Model Table

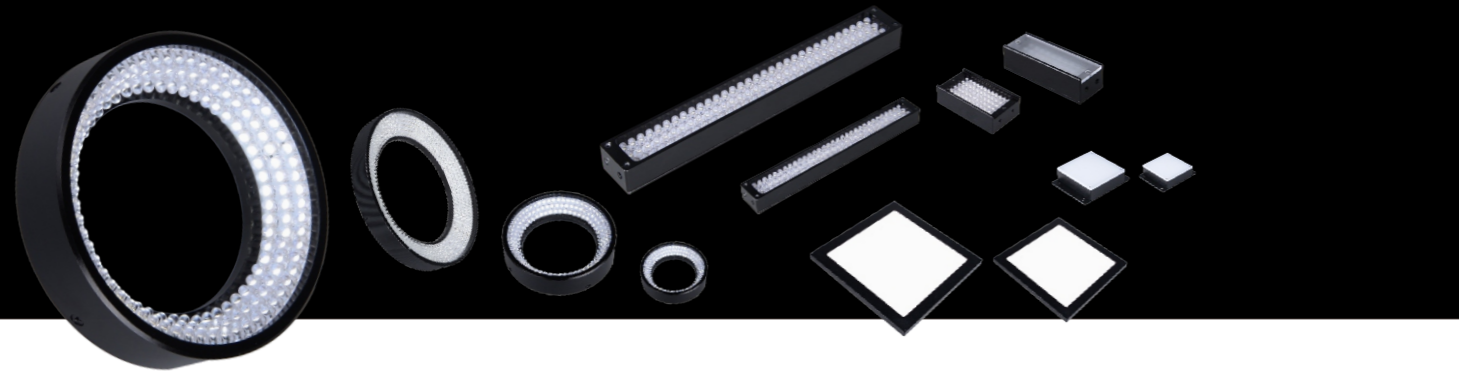
Model	Output Power 	Output Power 	Color	Size
OPT-RIH32	24V/0.6W	24V/0.3W		1
OPT-RIH48	24V/1.4W	24V/0.7W		2
OPT-RIH70	24V/2.1W	24V/1.1W		3
OPT-RIH118	24V/2.9W	24V/2.0W		4
OPT-RIH150	24V/4.3W	24V/2.4W		5
OPT-RIH200	24V/5.5W	24V/3.1W		6
OPT-RIH9585	24V/1.7W	24V/1.2W		7
OPT-RIH12570	24V/2.3W	24V/1.4W		8

### Dimensional drawings(mm)



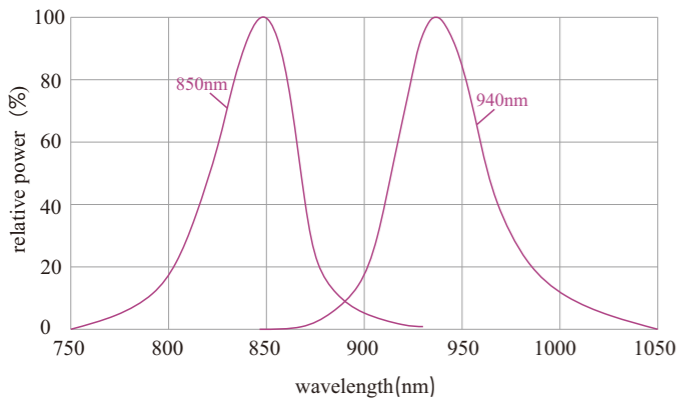
# IR Light OPT-IR series

The 850nm,940nm wavelength is available, and the shape and illumination angle can be customized.



850nm/940nm as standard one

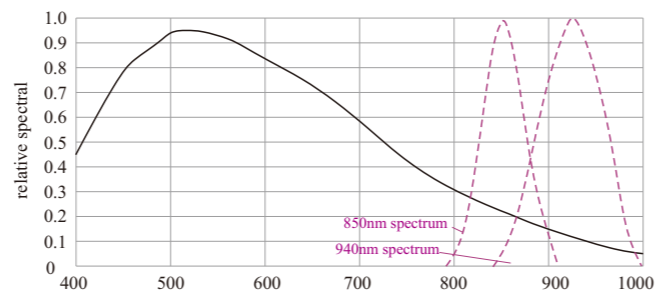
Spectrum drawing of 850nm and 940nm



IR for below lights, drawing is the same with standard one



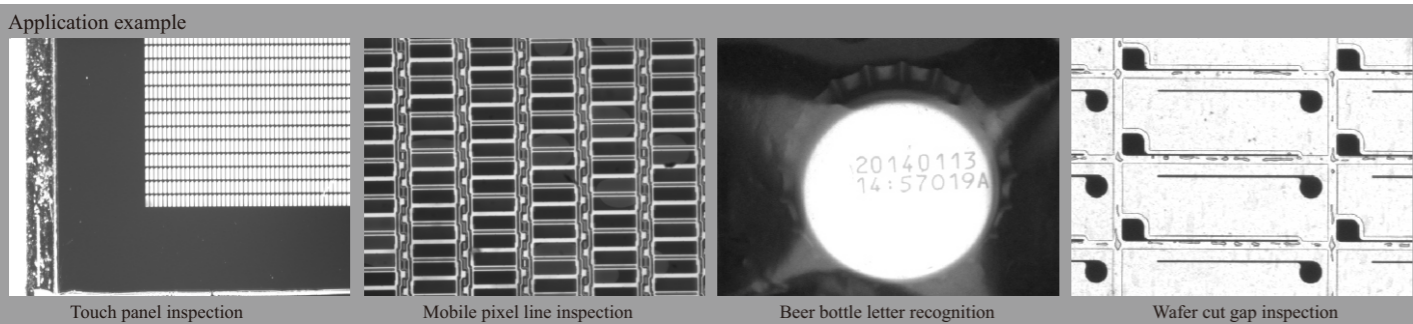
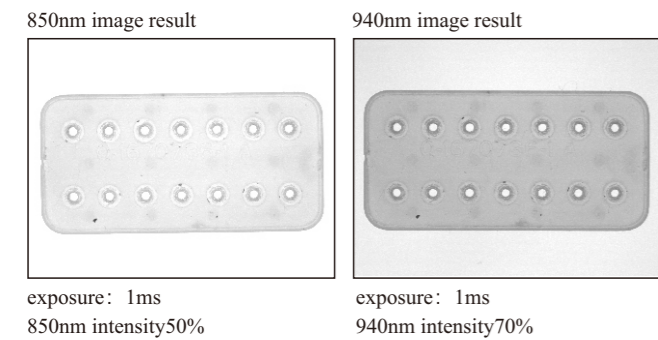
IR CCD response light drawing



\*Above data is just for reference, not for quality insurance

### Application Area

- ◆ Medical(the recognition of the vascular net, the marking of the eye ball)
- ◆ Package(transparent plastic material )
- ◆ Cloth and textile
- ◆ Electronic and the semiconductor
- ◆ Pharmaceutical industry
- ◆ LCD、OLED



### Model Table

Series	Model	Output Power	Color	Size
CO Series	OPT-CO30	24V/1.2W	IR	1
	OPT-CO40	24V/1.4W	IR	2
	OPT-CO50	24V/1.9W	IR	3
	OPT-CO60	24V/2.9W	IR	4
	OPT-CO70	24V/4.7W	IR	5
	OPT-CO80	24V/5.0W	IR	6
	OPT-CO100	24V/8.7W	IR	7
FL series	OPT-FL3729	24V/0.3W	IR	8
	OPT-FL5050	24V/1.3W	IR	9
	OPT-FL7070	24V/1.6W	IR	10
	OPT-FL9090	24V/3.7W	IR	11
	OPT-FL10884	24V/4.4W	IR	12
	OPT-FL130130	24V/7.5W	IR	13
	OPT-FL150130	24V/12.2W	IR	14
	OPT-FL212230	24V/20.6W	IR	15
LI series	OPT-LI6022	24V/0.6W	IR	16
	OPT-LI9022	24V/1.2W	IR	17
	OPT-LI8532	24V/1.9W	IR	18

Series	Model	Output Power	Color	Size
LI Series	OPT-LI11222	24V/1.2W	IR	19
	OPT-LI15020	24V/1.9W	IR	20
	OPT-LI21230	24V/5.6W	IR	21
	OPT-LI25030	24V/6.9W	IR	22
	OPT-LI29026	24V/3.7W	IR	23
	OPT-LI38037	24V/10.0W	IR	24
	OPT-LI3500	24V/0.6W	IR	25
RI Series	OPT-RI5030	24V/1.0W	IR	26
	OPT-RI7000	24V/1.9W	IR	27
	OPT-RI7030	24V/1.9W	IR	28
	OPT-RI9030	24V/3.4W	IR	29
	OPT-RI9090	24V/0.9W	IR	30
	OPT-RI10080	24V/2.8W	IR	31
	OPT-RI12000	24V/6.0W	IR	32
	OPT-RI12030	24V/3.4W	IR	33
	OPT-RI12045	24V/6.0W	IR	34
	OPT-RI15060	24V/7.5W	IR	35
	OPT-RI18030	24V/11.2W	IR	36

### Dimensional drawings (mm)

1 OPT-CO30-IR	2 OPT-CO40-IR	3 OPT-CO50-IR	4 OPT-CO60-IR
5 OPT-CO70-IR	6 OPT-CO80-IR	7 OPT-CO100-IR	
8 OPT-FL3729-IR	9 OPT-FL5050-IR	10 OPT-FL7070-IR	11 OPT-FL9090-IR
12 OPT-FL10884-IR	13 OPT-FL130130-IR	14 OPT-FL150130-IR	15 OPT-FL212230-IR

16 OPT-LI6022-IR 	17 OPT-LI8532-IR 	18 OPT-LI9022-IR 	19 OPT-LI11222-IR 
20 OPT-LI15020-IR 	21 OPT-LI21230-IR 	22 OPT-LI25030-IR 	23 OPT-LI29026-IR 
24 OPT-LI38037-IR 			
25 OPT-RI3500-IR 	26 OPT-RI5030-IR 	27 OPT-RI7000-IR 	28 OPT-RI7030-IR 
29 OPT-RI9030-IR 	30 OPT-RI9090-IR 	31 OPT-RI10080-IR 	32 OPT-RI12000-IR 
33 OPT-RI12030-IR 	34 OPT-RI12045-IR 	35 OPT-RI15060-IR 	36 OPT-RI18030-IR 

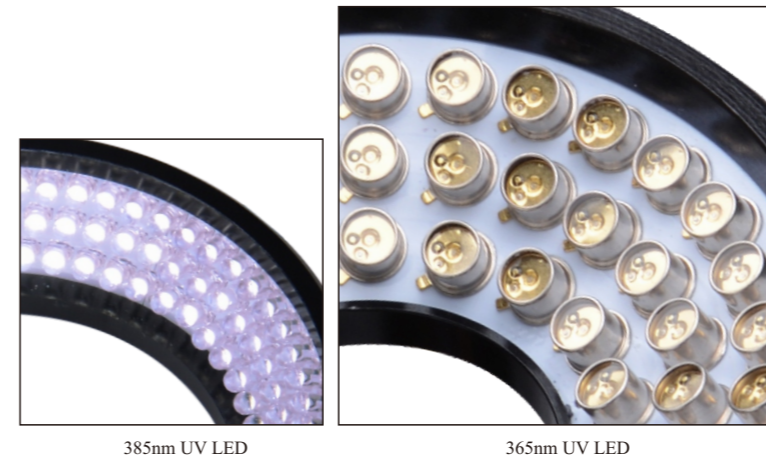
## Ultraviolet Light OPT-UV series

The 385nm wavelength is available, and the shape and illumination angle can be customized.

Used the world's famous UV LED, assuring the stability of the UV light



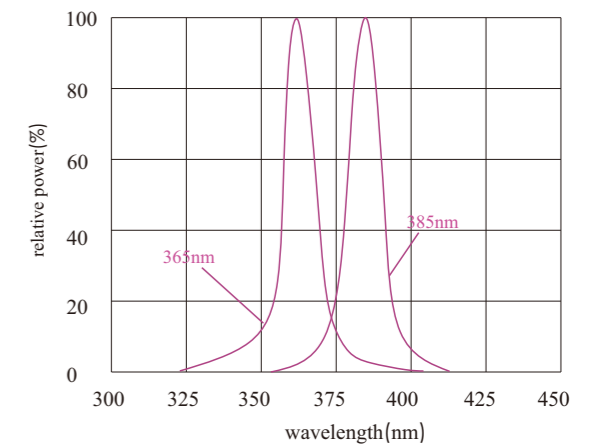
Used the world-class UV LED, higher stability



385nm UV LED

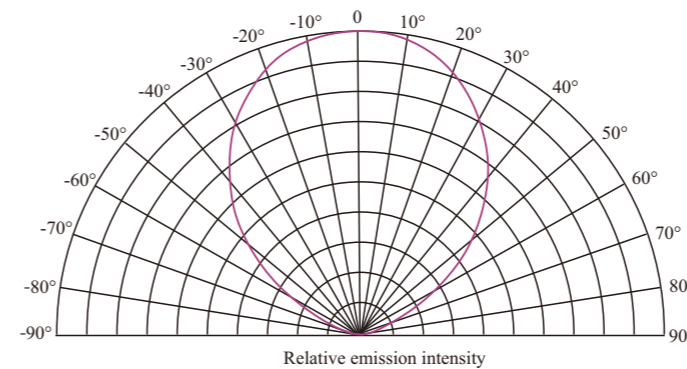
365nm UV LED

Spectrum drawing



\*Above data is just for reference, not for quality insurance

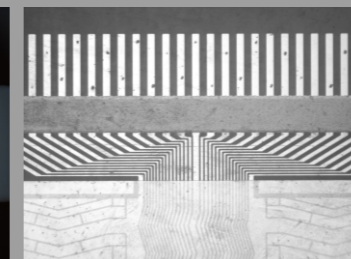
365 wavelength LED



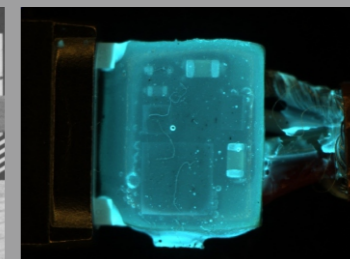
Application example



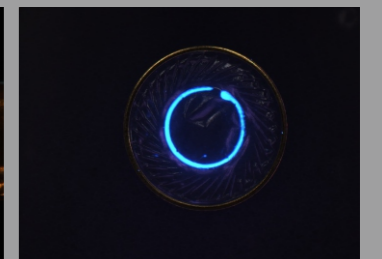
Color recognition of pregnant test bar



ITO gold print circuit inspection



USB printed glue inspection



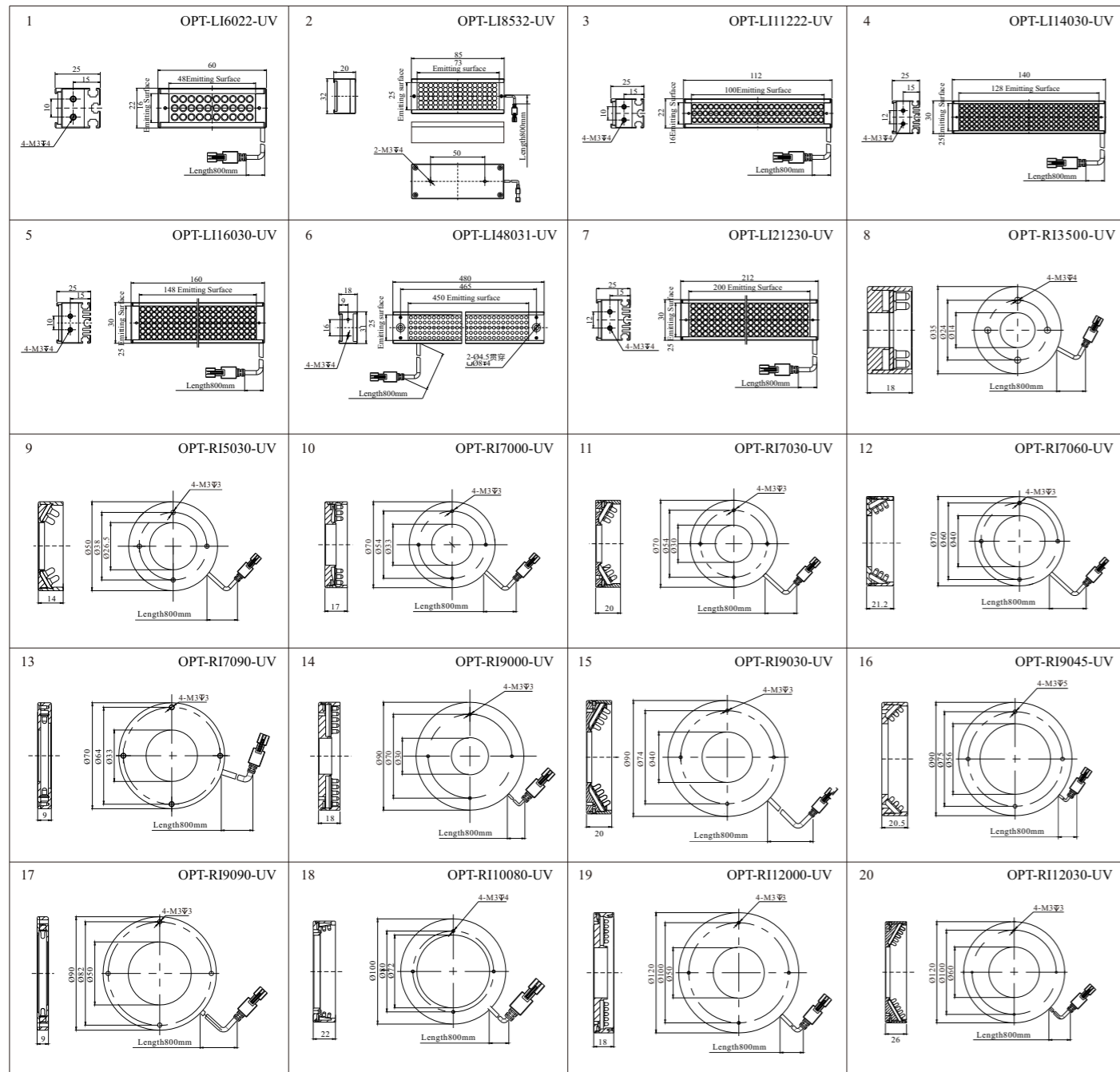
UV glue inspection

Model Table(385nm)

Series	Model	Output Power	Color	Size
LISeries	OPT-LI6022	24V/1.4W	UV	1
	OPT-LI8532	24V/4.6W	UV	2
	OPT-LI11222	24V/3.2W	UV	3
	OPT-LI14030	24V/8.1W	UV	4
	OPT-LI16030	24V/8.6W	UV	5
	OPT-LI48031	24V/23.0W	UV	6
	OPT-LI21230	24V/13.0W	UV	7
RISeries	OPT-RI3500	24V/6.0W	UV	8
	OPT-RI5030	24V/1.4W	UV	9
	OPT-RI7000	24V/2.3W	UV	10

Series	Model	Output Power	Color	Size
RISeries	OPT-RI7030	24V/5.2W	UV	11
	OPT-RI7060	24V/4.3W	UV	12
	OPT-RI7090	24V/5.8W	UV	13
	OPT-RI9000	24V/1.7W	UV	14
	OPT-RI9030	24V/10.4W	UV	15
	OPT-RI9045	24V/7.0W	UV	16
	OPT-RI9090	24V/7.2W	UV	17
	OPT-RI10080	24V/2.3W	UV	18
	OPT-RI12000	24V/13.2W	UV	19
	OPT-RI12030	24V/14.4W	UV	20

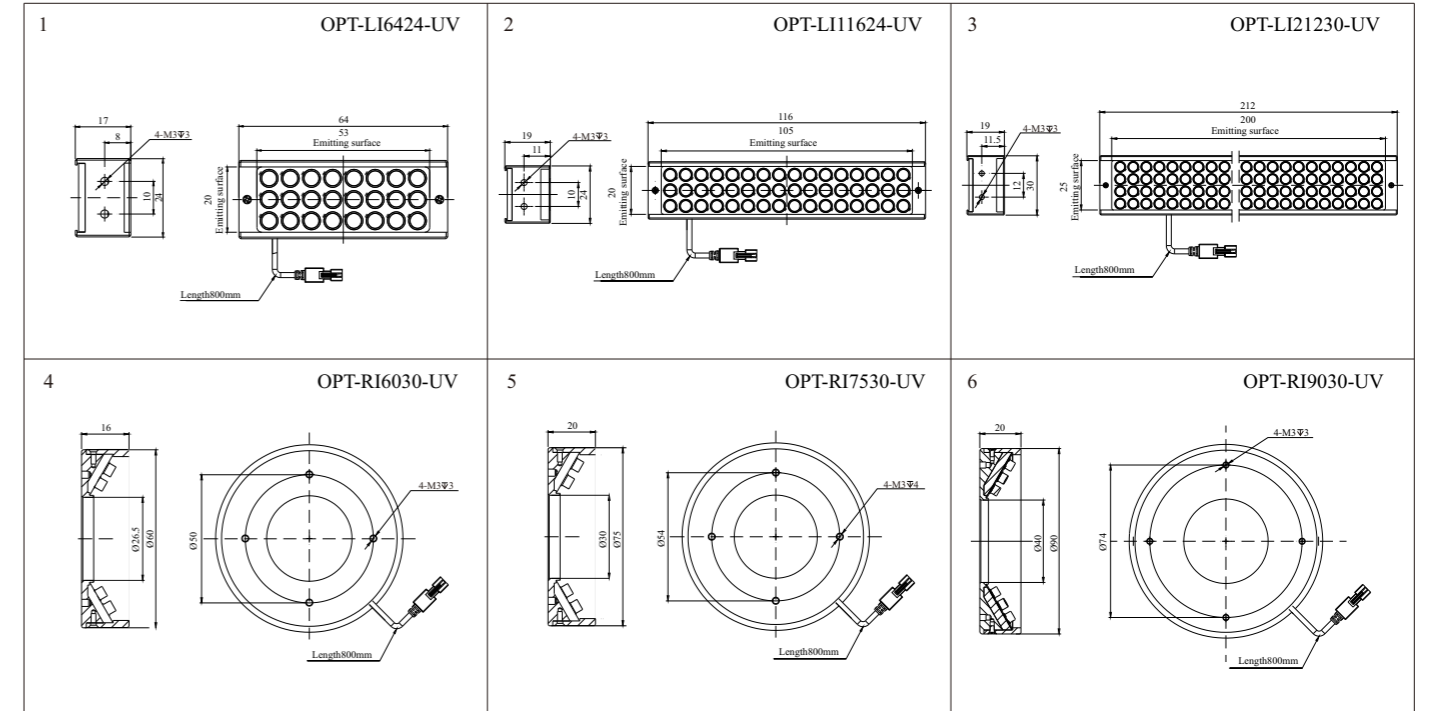
Dimensional drawings(mm)



Model Table(365nm)

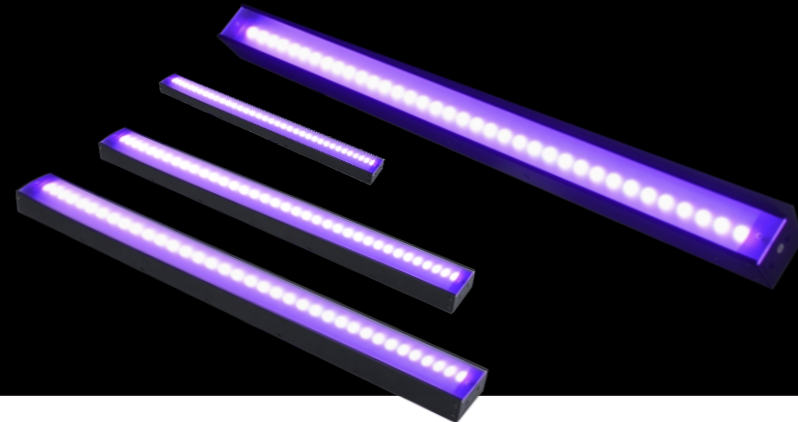
Series	Model	Output Power	Color	Size
LI Series	OPT-LI6424	24V/1.3W	UV	1
	OPT-LI11624	24V/2.7W	UV	2
	OPT-LI21230	24V/6.7W	UV	3
RI Series	OPT-RI6030	24V/2.3W	UV	4
	OPT-RI7530	24V/4.1W	UV	5
	OPT-RI9030	24V/5.0W	UV	6

Dimensional drawings(mm)



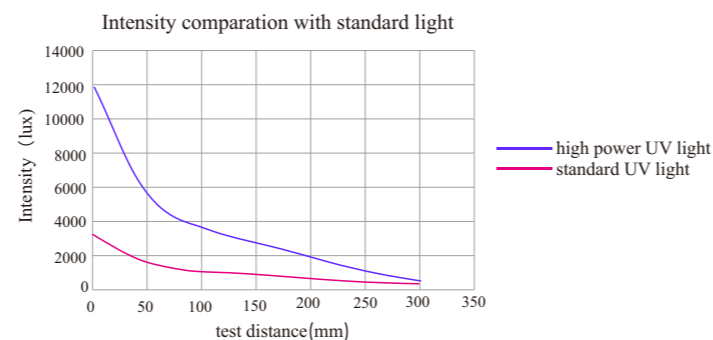
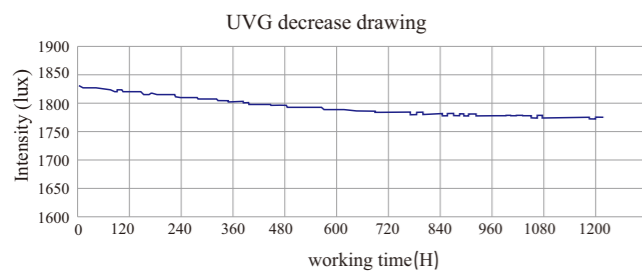
# High power UV light OPT-UVG Series **New**

Using high quality high power UV LED with high intensity and few decrease

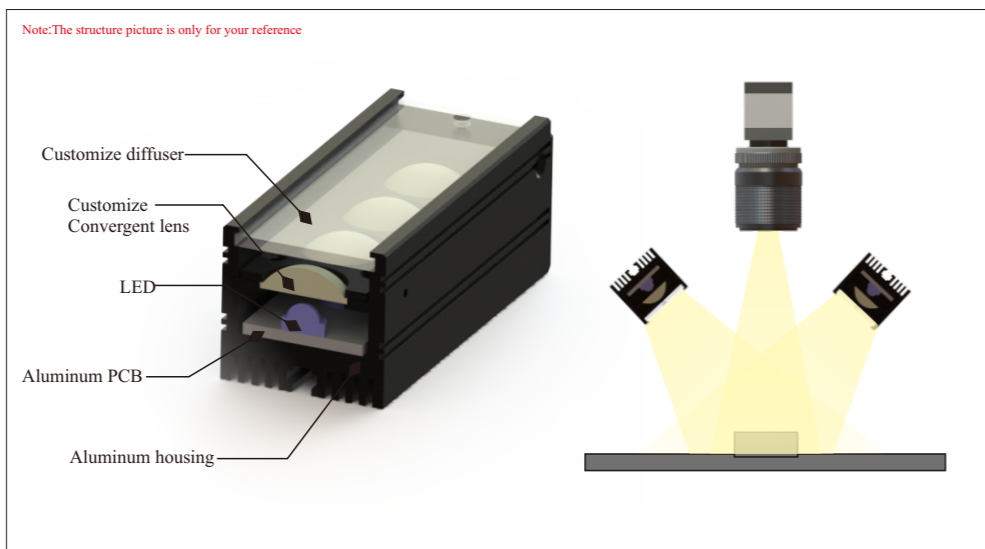
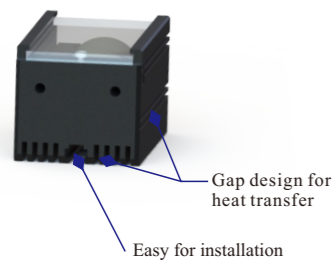


Under environment temperature, the UV works 1200 hours with complete load, intensity is just reduced 2.8%

High power UV light intensity is 3 times higher than standard one



Using heat transfer gap to improve the heat transfer and enlarge LED life time



(Power supply 100% work, above value is test result under different work distance.)  
\*Above data is just for reference, not for quality insurance

Structure display and working way

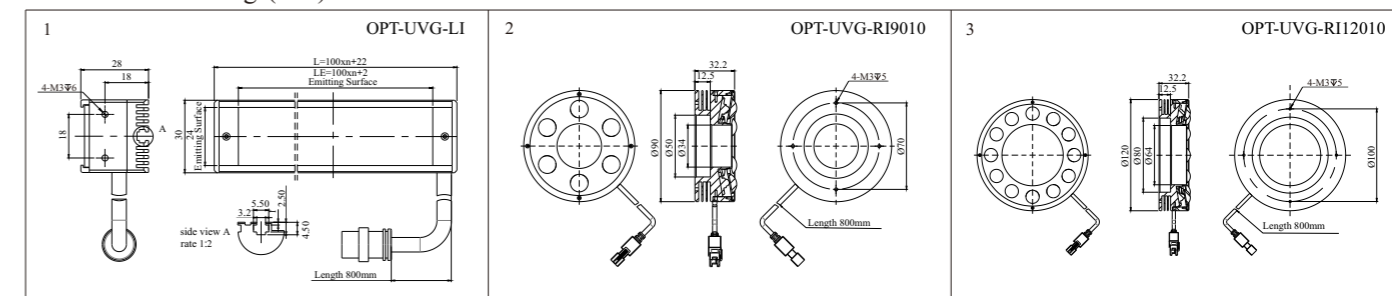
### application

- ◆ ITO print circuit inspection
- ◆ Surface tiny scratch and defect inspection
- ◆ Electric product print glue
- ◆ Fluorescence material inspection

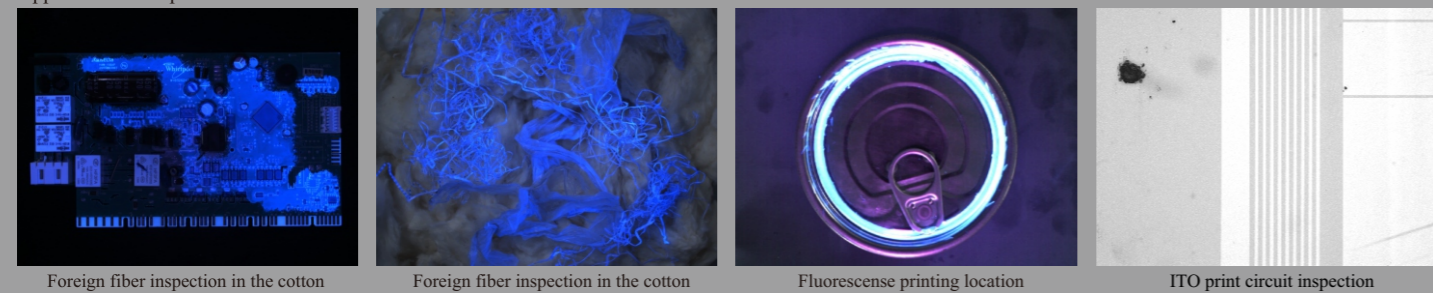
### Model Table

Series	Model	Output Power	Color	n	Size
LISeries	OPT-UVG-LI12230	24V/7.2W	UV	1	1
	OPT-UVG-LI22230	24V/14.4W	UV	2	1
	OPT-UVG-LI32230	24V/21.6W	UV	3	1
	OPT-UVG-LI42230	24V/28.8W	UV	4	1
	OPT-UVG-LI52230	24V/36.0W	UV	5	1
	OPT-UVG-LI62230	24V/43.2W	UV	6	1
	OPT-UVG-LI72230	24V/50.4W	UV	7	1
	OPT-UVG-LI82230	24V/57.6W	UV	8	1
	OPT-UVG-LI92230	24V/64.8W	UV	9	1
	OPT-UVG-LI102230	24V/72.0W	UV	10	1
RISeries	OPT-UVG-RI9010	24V/7.2W	UV		2
	OPT-UVG-RI12010	24V/14.4W	UV		3

### Dimensional drawings(mm)



### Application example



Foreign fiber inspection in the cotton

Foreign fiber inspection in the cotton

Fluorescence printing location

ITO print circuit inspection

# AOI Light OPT-RIA series

Multi-color illumination from different angles, 3D information can be highlighted.  
Widely applied in the defects inspection of multi-shape objects



Multi-color illumination from different angles, highlights the 3D information.

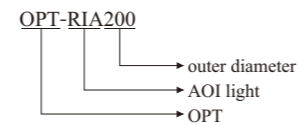
Diffuser equipped to guide the illumination, prevent the light loss

RIM combination of different angles

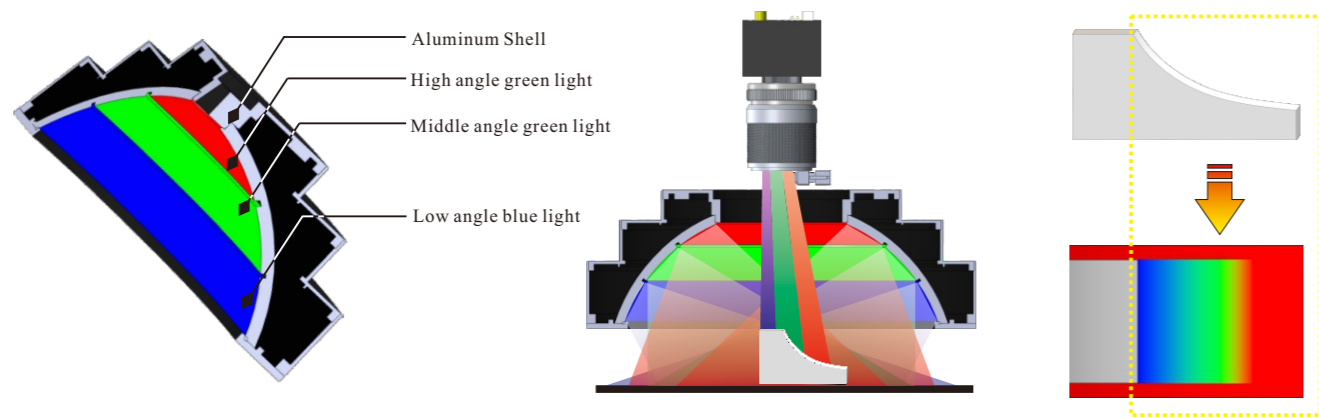
### Application Area

- ◆ Specially applied in the inspection of the circuit board solder tin
- ◆ Defects inspection for the rotates shapes,
- ◆ Inspection for the multi-level objects

### Selection Guide



Note: The structure pictures is only for your reference

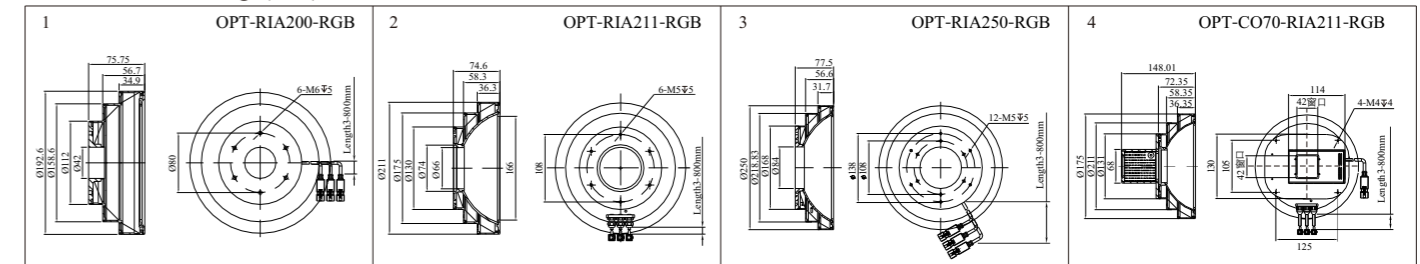


Structure display and working way

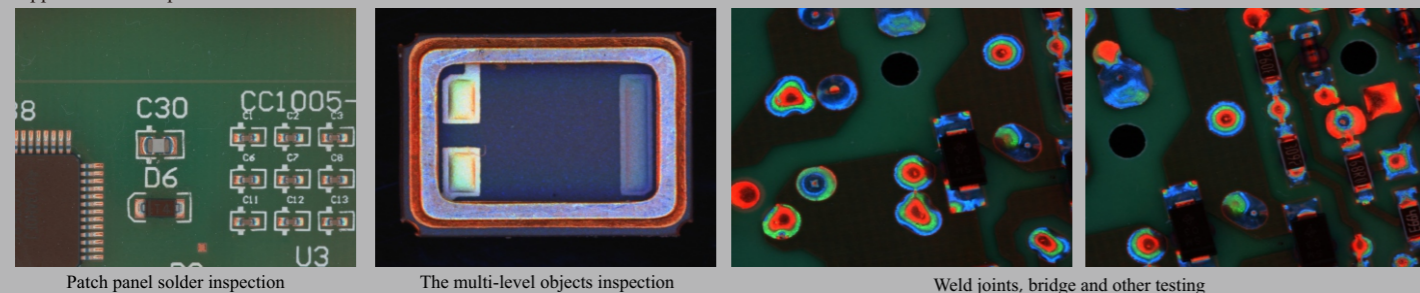
### Model Table

Model	Output Power	Color	Size
OPT-RIA200	24V/27.1W	●●●	1
OPT-RIA211	24V/32.0W	●●●	2
OPT-RIA250	24V/52.1W	●●●	3
OPT-CO70-RIA211	24V/32.4W	●●●	4

### Dimensional drawings(mm)



### Application example



Patch panel solder inspection

The multi-level objects inspection

Weld joints, bridge and other testing














# Vault Light OPT-LIU series New

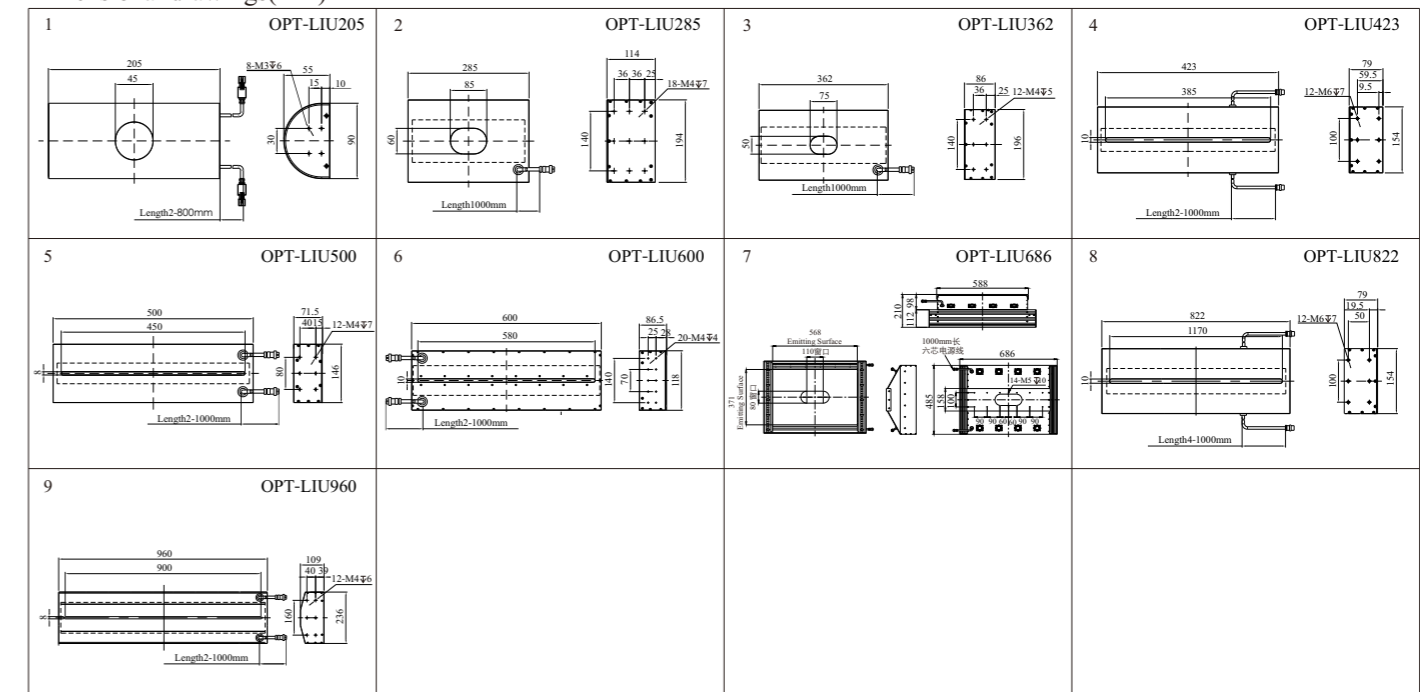
With the function of dome light and bar light.  
The top can be open hole or gap for the area scan or line scan application



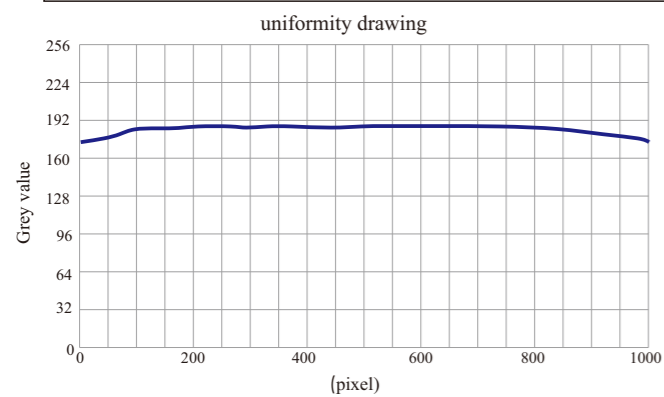
Model Table

Model	Output Power 	Output Power 	Color	Emitting surface	Size
OPT-LIU205	24V/9.6W	24V/9.6W		189x46	1
OPT-LIU285	24V/115.2W	24V/57.6W		265x100	2
OPT-LIU362	24V/96.0W	24V/57.6W		350x102	3
OPT-LIU423	24V/168.0W	24V/96.0W		401x60	4
OPT-LIU500	24V/115.2W	24V/76.8W		480x52	5
OPT-LIU600	24V/134.4W	24V/76.8W		590x94	6
OPT-LIU686	24V/211.2W	24V/134.4W		568x371	7
OPT-LIU822	24V/235.2W	24V/168.0W		800x60	8
OPT-LIU960	24V/288.0W	24V/172.8W		940x142	9

Dimensional drawings(mm)

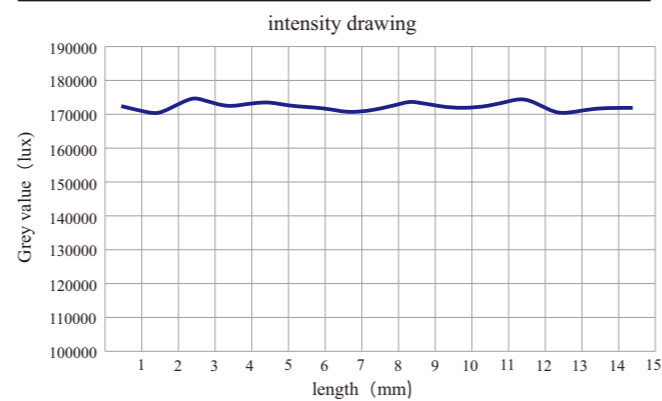


### It can get pretty even illumination



Use CCD camera to grab the picture and analysis the grey value, above drawing is the average grey value  
\*Above data is just for reference

### High intensity light



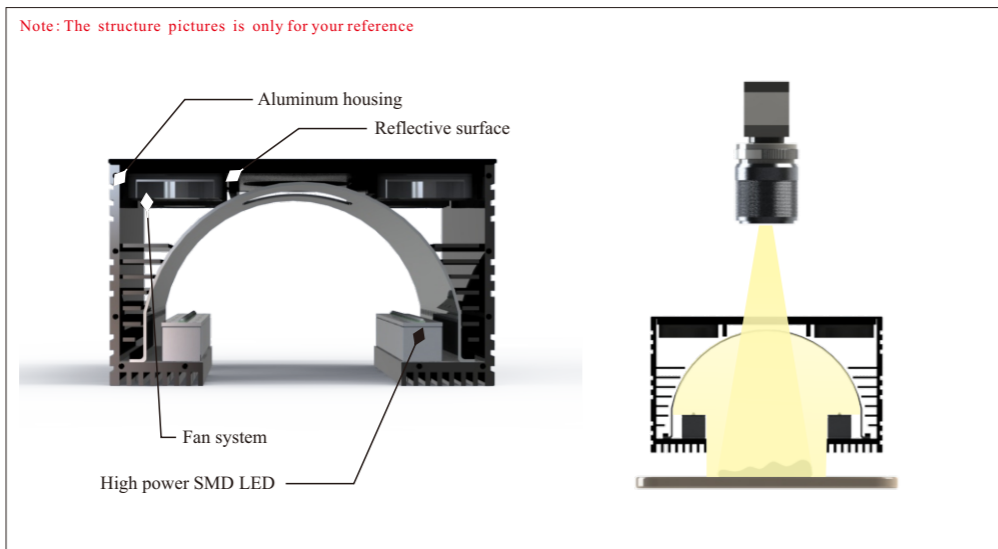
Remark: the test sample is LIU900-W, and take the picture every 60mm

### Selection Guide

- OPT-LIU205**
- length
  - vault light
  - OPT

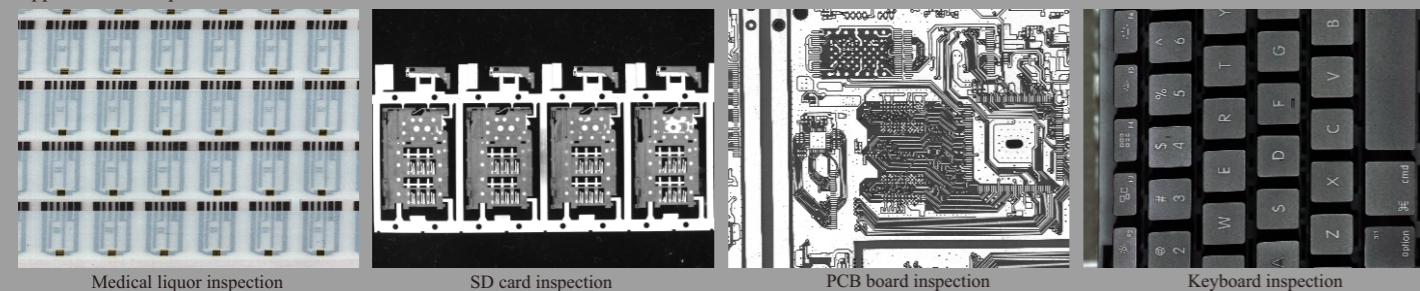
### Selection Guide

- ◆ Tobacco box surface inspection
- ◆ Electronic part housing defects and dirty points inspection
- ◆ Line scan AOI inspection
- ◆ Big FOV surface defects inspection



Structure display and working way

### Application example



Medical liquor inspection

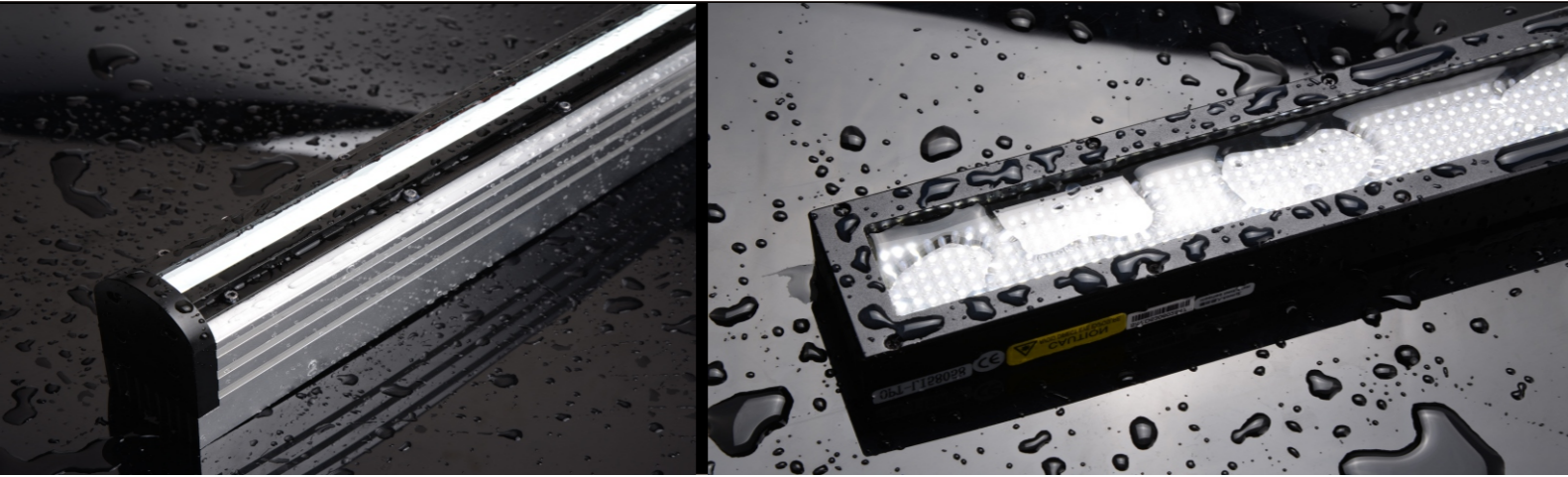
SD card inspection

PCB board inspection

















Keyboard inspection

# Waterproof light New

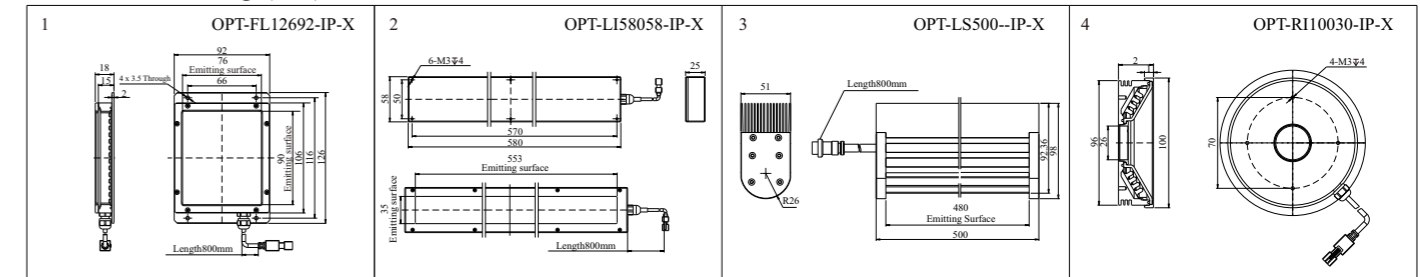
Used in much dust and water environment, waterproof ability reaches Ip67



### Model Table

Model	Output Power   	Output Power 	Color	Size
OPT-FL12692-IP	24V/5.2W	24V/2.5W	  	1
OPT-LI58058-IP	24V/35.0W	24V/21.0W	  	2
OPT-LS500-IP	24V/76.8W	24V/48.0W	  	3
OPT-RI10030-IP	24V/5.5W	24V/3.1W	  	4

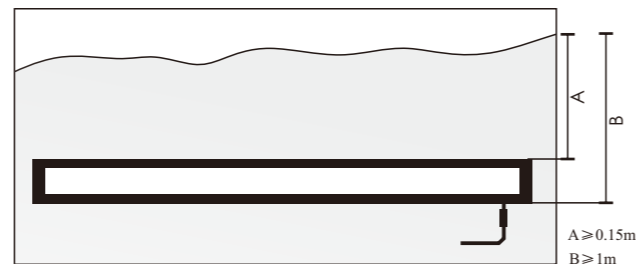
### Dimensional drawings(mm)



OPT standard items can be produced as waterproof products

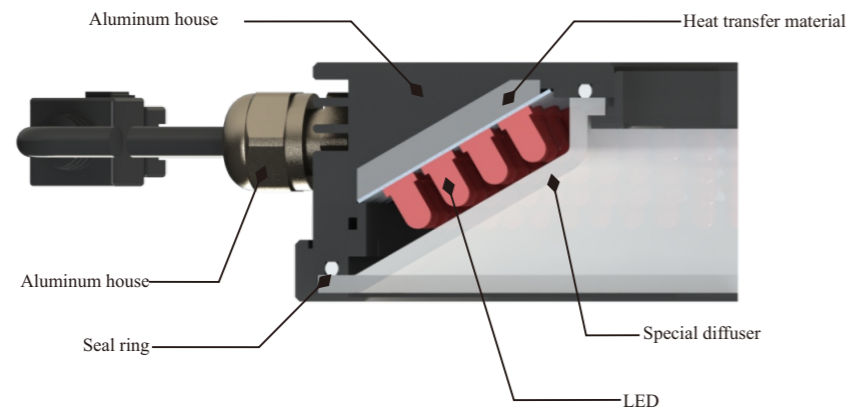
Waterproof ability is Ip67

After several times test, OPT waterproof light is very stable, it is not just used for dusty and water environment, but also used for outside or water condition. It is very compact design, and few gap to make sure the whole structure is sealed very good. It is also added heat transfer system so that it also has good heat transfer under sealed condition to prolong the life time



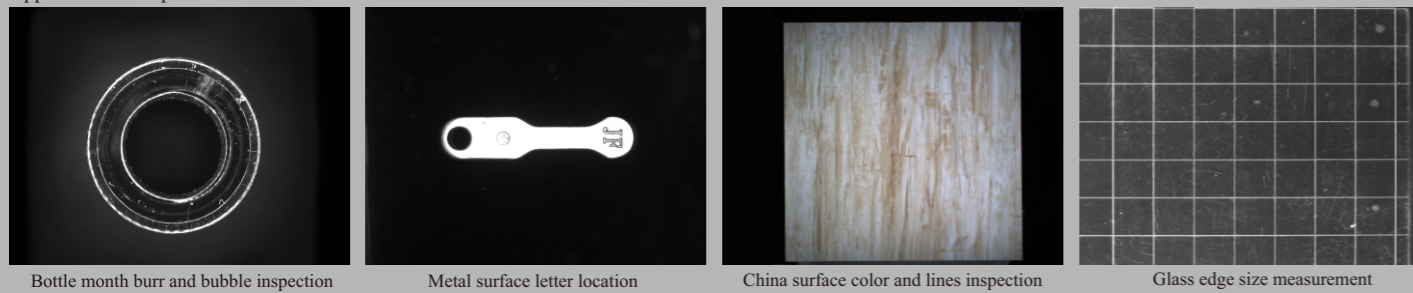
When the light is put into the water tank, the distance between the the surface of the water and the bottom of the light should be at least 1m, the distance between the the surface of the water and the top of the light should be at least 0.15m.  
Test period: 2h

Note: The structure pictures is only for your reference



Waterproof light structure

### Application example



Bottle mouth burr and bubble inspection

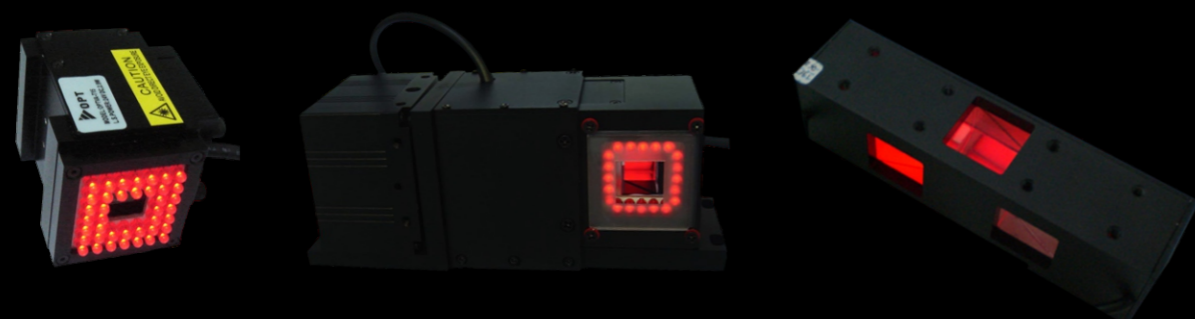
Metal surface letter location

China surface color and lines inspection

Glass edge size measurement

# VA Light OPT-VA series

SMT Industry-dedicated light , with high precision , high speed and compact design



High accuracy,high speed alignment,rich field of view

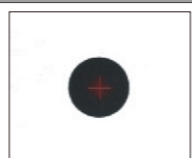
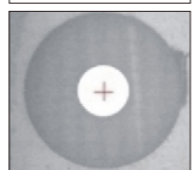
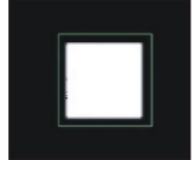

Compact design easy for the image acquisition

High brightness can be a subsidiary for the ring light

### Application Area

◆ For the alignment in the full automatic printing inspection

### Model Table

Model	VA-S	VA-T	VA-D	VA-U	Resulting Image
Characteristics	High speed position	Rich FOV and ideally suit to inspection lump	High speed position, rich FOV,ideally suit to inspection lump	High speed position, rich FOV,ideally suit to inspection lump	
Camera mounting	USB/IEEE1394/Simulation			--	
3D inspect laser	Optional			Optional	
Illumination	Coaxial light+ring light			Coaxial light or ring light ,optional	
Field of view	Available from 4*3 to 12*9			--	
MAGE.	Available from 0.5x to 2x			--	
The max pixel	1280x1024			--	
Transmission distance	4.5m(with trunking , could reach 72m)			--	
PLC	Image dimension,brightness,exposure time			--	
Power consumption	2.9W			2.0W	

# Application

Semiconductor industry

Electronic Industry

Laser processing industry

Automotive industry

Package industry

Medical industry

Hardware processing industry

Cosmetic industry

Surface inspection

### Application example

