

Ring Light OPT-RI series

Multi-angles available for ring light to get 3D information.

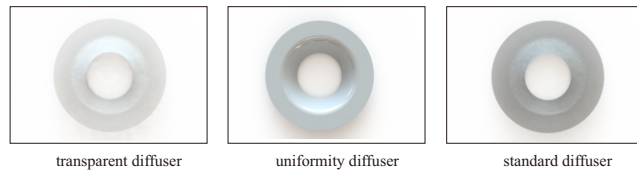


Special heat transferring design
High-density LED arrays with the intensity illumination

using gap design to enlarge the size of heat transfer area so that LED light has long life time



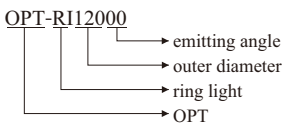
Diffuser is available for more uniform illumination



Application Area

- ◆ Inspection of printed PCB inspection
- ◆ OCR on IC chips
- ◆ Used to the microscope illumination
- ◆ Calibration
- ◆ Inspection of plastic container
- ◆ OCR on integrated circuit
- ◆ Surface inspection

Selection Guide



Note: The structure picture is only for your reference

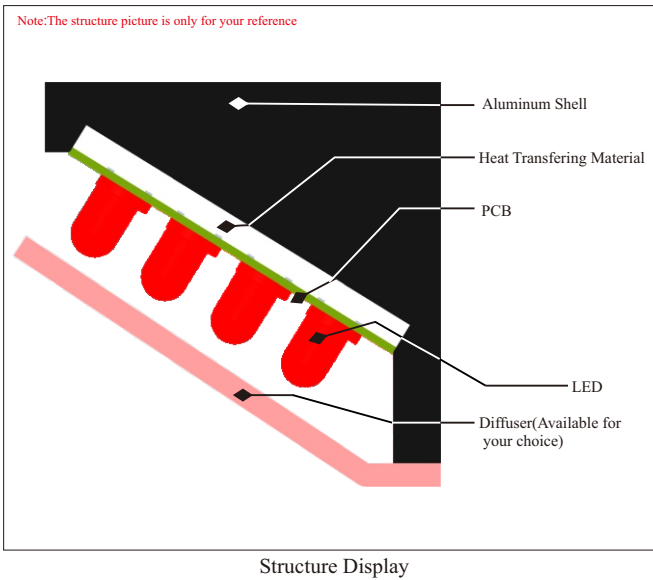
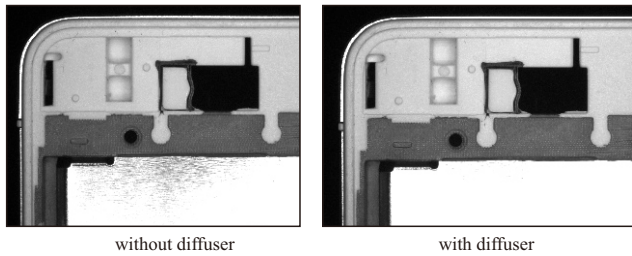
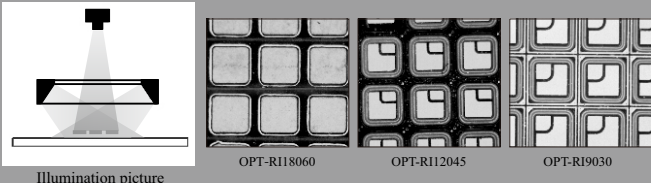


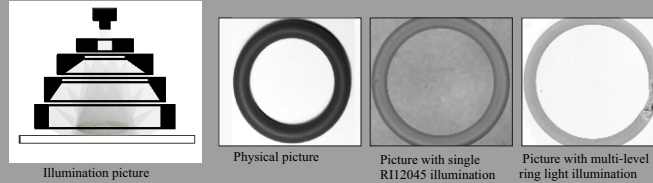
image result comparison



Application example



Wafer perimeter edge position marked. Different angle gets different image result as above pictures showed

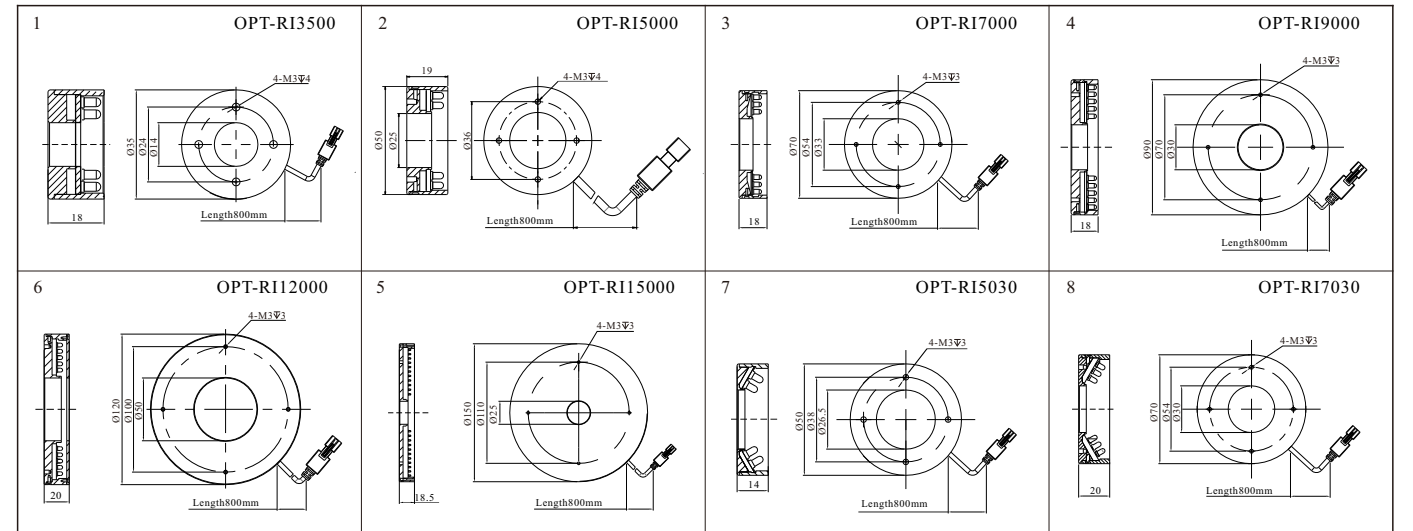


O-ring surface inspection. By using combined multi angles ring light, it is rather easy to show the curve surface information clearly

Model Table

Series	Model	Rows of LED	Output Power ●●○	Output Power ●	Color	Size	
RIXO series 0° illumination	OPT-RI3500	2	24V/1.3W	24V/0.9W	●●●○	1	The angle between illumination direction and light axis is 0°
	OPT-RI5000	2	24V/1.7W	24V/0.5W	●●●○	2	
	OPT-RI7000	3	24V/2.7W	24V/1.8W	●●●○	3	
	OPT-RI9000	5	24V/6.0W	24V/3.5W	●●●○	4	
	OPT-RI12000	5	24V/7.2W	24V/4.6W	●●●○	5	
RIX30 series 30° illumination	OPT-RI15000	11	24V/15.6W	24V/10.1W	●●●○	6	The angle between illumination direction and light axis is 30°
	OPT-RI5030	2	24V/1.6W	24V/0.8W	●●●○	7	
	OPT-RI7030	3	24V/2.9W	24V/1.7W	●●●○	8	
	OPT-RI12030	5	24V/9.4W	24V/5.0W	●●●○	10	
	OPT-RI15030	4	24V/9.4W	24V/5.3W	●●●○	11	
RIX45 series 45° illumination	OPT-RI18030	5	24V/18.0W	24V/11.8W	●●●○	12	The angle between illumination direction and light axis is 45°
	OPT-RI5045	3	24V/2.0W	24V/1.2W	●●●○	13	
	OPT-RI7045	3	24V/3.4W	24V/1.8W	●●●○	14	
	OPT-RI9045	3	24V/4.6W	24V/2.9W	●●●○	15	
RIX60 series 60° illumination	OPT-RI12045	4	24V/8.0W	24V/4.6W	●●●○	16	The angle between illumination direction and light axis is 60°
	OPT-RI15045	4	24V/10.3W	24V/6.0W	●●●○	17	
	OPT-RI7060	3	24V/3.4W	24V/2.0W	●●●○	18	
	OPT-RI9060	3	24V/4.8W	24V/2.4W	●●●○	19	
RIX80 series 80° illumination	OPT-RI12060	5	24V/10.1W	24V/5.0W	●●●○	20	The angle between illumination direction and light axis is 80°
	OPT-RI15060	4	24V/10.8W	24V/6.2W	●●●○	21	
	OPT-RI18060	5	24V/12.0W	24V/7.2W	●●●○	22	
	OPT-RI5080	2	24V/1.5W	24V/1.0W	●●●○	23	
RIX90 series 90° illumination	OPT-RI10080	2	24V/3.6W	24V/2.1W	●●●○	24	The angle between illumination direction and light axis is 90°
	OPT-RI12080	3	24V/8.0W	24V/4.8W	●●●○	25	
	OPT-RI27280	2	24V/11.0W	24V/7.2W	●●●○	26	
	OPT-RI5090	1	24V/0.8W	24V/0.5W	●●●○	27	
other angle	OPT-RI7090	1	24V/1.8W	24V/0.6W	●●●○	28	The angle between illumination direction and light axis is 90°
	OPT-RI9090	1	24V/1.3W	24V/0.8W	●●●○	29	
	OPT-RI12090	1	24V/2.2W	24V/1.6W	●●●○	30	
	OPT-RI15090	1	24V/2.8W	24V/2.5W	●●●○	31	
	OPT-RI18090	1	24V/3.4W	24V/2.2W	●●●○	32	
	OPT-RI2800	1	24V/0.5W	24V/0.3W	●●●○	33	
	OPT-RI4415	2	24V/1.5W	24V/1.1W	●●●○	34	
	OPT-RI5015	2	24V/1.7W	24V/1.2W	●●●○	35	
	OPT-RI6915	2	24V/3.7W	24V/2.9W	●●●○	36	
	OPT-RI9015	4	24V/6.3W	24V/4.3W	●●●○	37	
	OPT-RI9215	4	24V/4.8W	24V/2.9W	●●●○	38	
	OPT-RI10015	4	24V/7.7W	24V/4.1W	●●●○	39	
	OPT-RI3220	2	24V/0.7W	24V/0.7W	●●●○	40	
	OPT-RI2825	1	24V/0.5W	24V/0.5W	●●●○	41	
	OPT-RI4225	2	24V/1.2W	24V/0.5W	●●●○	42	
	OPT-RI27270	1	24V/6.0W	24V/4.8W	●●●○	43	
OPT-RI18075	2	24V/5.6W	24V/3.6W	●●●○	44		

Dimensional drawings(mm)

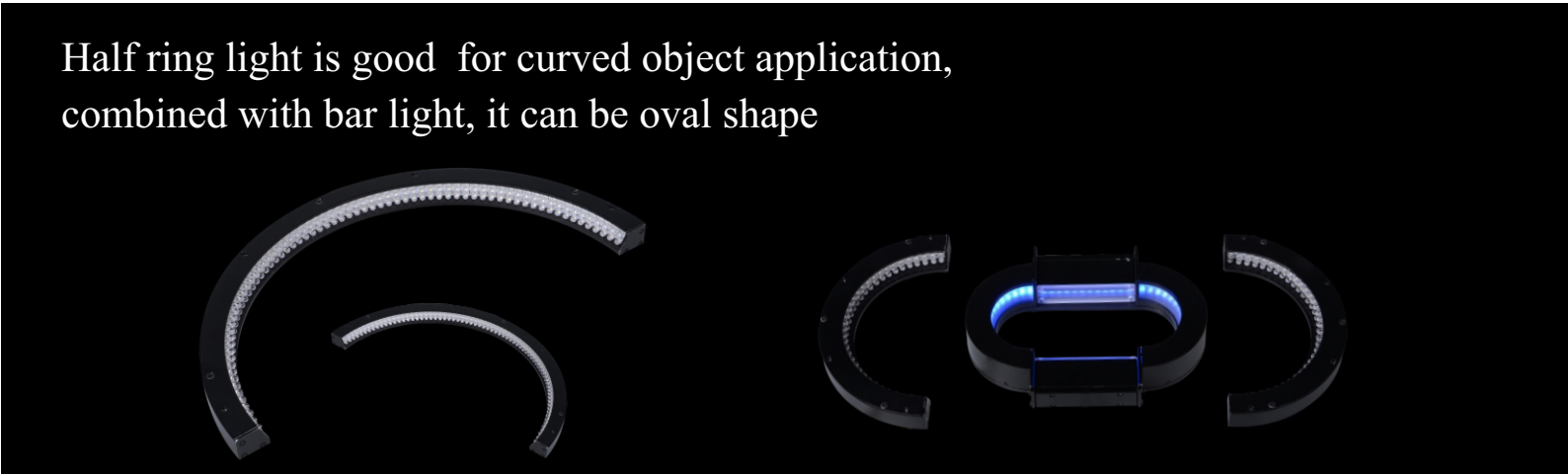


9 OPT-R19030 Length800mm	10 OPT-R112030 Length800mm	11 OPT-R115030 Length800mm	12 OPT-R118030 Length800mm
13 OPT-R15045 Length800mm	14 OPT-R17045 Length800mm	15 OPT-R19045 Length800mm	16 OPT-R112045 Length800mm
17 OPT-R115045 Length800mm	18 OPT-R17060 Length800mm	19 OPT-R19060 Length800mm	20 OPT-R112060 Length800mm
21 OPT-R115060 Length800mm	22 OPT-R118060 Length800mm	23 OPT-R15080 Length800mm	24 OPT-R110080 Length800mm
25 OPT-R112080 Length800mm	26 OPT-R127280 Length800mm	27 OPT-R15090 Length800mm	28 OPT-R17090 Length800mm
29 OPT-R19090 Length800mm	30 OPT-R112090 Length800mm	31 OPT-R115090 Length800mm	32 OPT-R118090 Length800mm
33 OPT-R12800 Length800mm	34 OPT-R14415 Length800mm	35 OPT-R15015 Length800mm	36 OPT-R16915 Length800mm

37 OPT-R19015 Length800mm	38 OPT-R19215 Length800mm	39 OPT-R110015 Length800mm	40 OPT-R12825 Length800mm
41 OPT-R13220 Length800mm	42 OPT-R14225 Length800mm	43 OPT-R127270 Length800mm	44 OPT-R118075 Length800mm

Half Ring Light OPT-RIC series

Half ring light is good for curved object application, combined with bar light, it can be oval shape



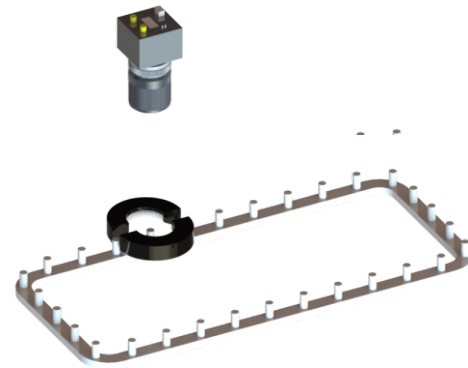
The best option for elliptical object

Combined with bar light can be circle illumination

Special half ring light design, in the curved object inspection, it achieve low angle illumination and get very good comparison

Compact LED array to increase the intensity and uniformity

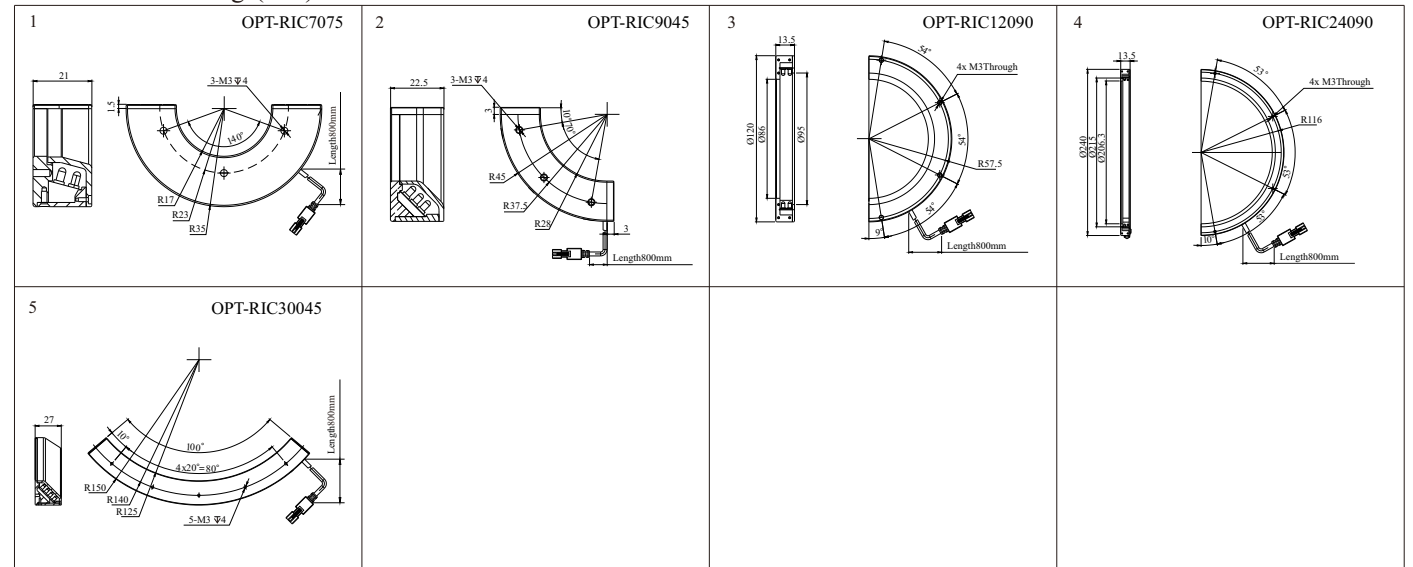
Curved angle can be customized



Model Table

Model	Output Power ● ● ●	Output Power ●	Color	Size
OPT-RIC7075	24V/1.5W	24V/0.9W	● ● ●	1
OPT-RIC9045	24V/1.5W	24V/0.9W	● ● ●	2
OPT-RIC12090	24V/2.9W	24V/2.0W	● ● ●	3
OPT-RIC24090	24V/5.2W	24V/3.7W	● ● ●	4
OPT-RIC30045	24V/7.8W	24V/4.9W	● ● ●	5

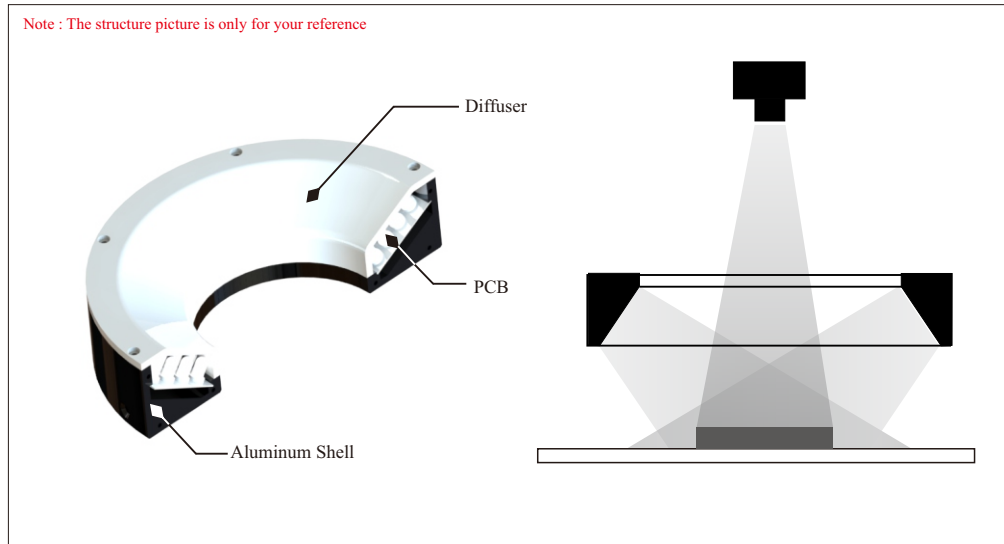
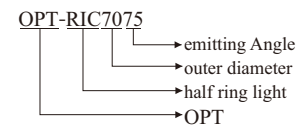
Dimensional drawings(mm)



Application Area

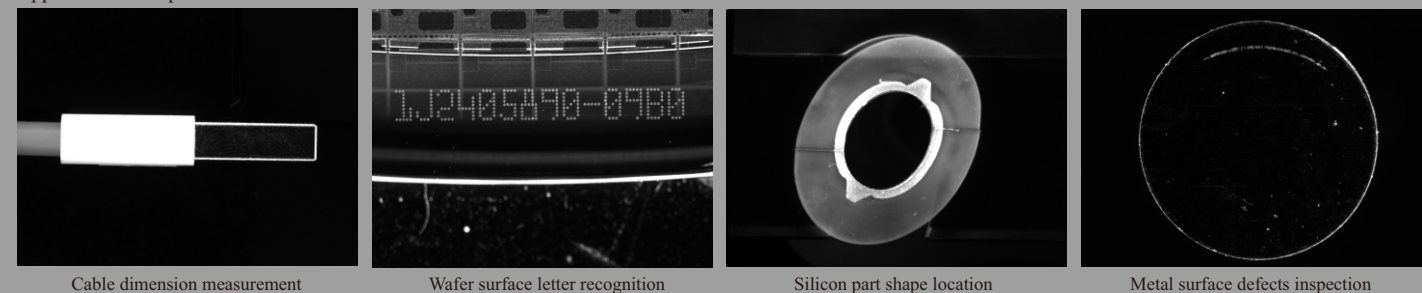
- ◆ Curved object size measurement
- ◆ Inspection of reflective surface

Selection Guide



Struction display and working way

Application example



Cable dimension measurement

Wafer surface letter recognition

Silicon part shape location

Metal surface defects inspection

Low Angle Ring Light OPT-RIF series

Ring shape and diffusing illumination. Even illumination in the large square, without the shadow

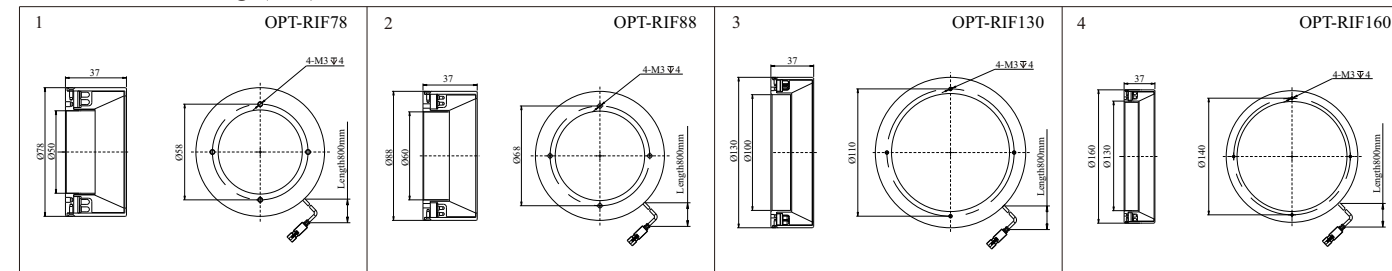


Used in large ring objects and small irregularly shaped objects

Model Table

Model	Output Power ● ● ●	Output Power ●	Color	Size
OPT-RIF78	24V/3.1W	24V/2.2W	● ● ●	1
OPT-RIF88	24V/4.3W	24V/2.4W	● ● ●	2
OPT-RIF130	24V/6.0W	24V/4.9W	● ● ●	3
OPT-RIF160	24V/8.0W	24V/6.0W	● ● ●	4

Dimensional drawings(mm)



Illuminate surface evenly without shadow

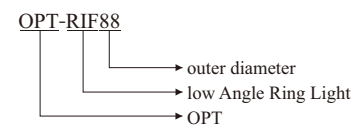
Comparing to the general ring light, it is higher uniformity illumination

In order to achieve shadowless illumination of ring light, different work distance gets different illumination result with different image result

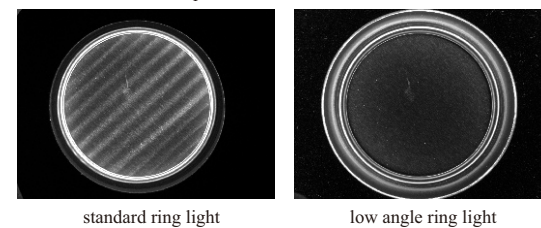
Application Area

- ◆ Inspection of surface scratches
- ◆ Identification of printing character, logo barcode, fingerprint

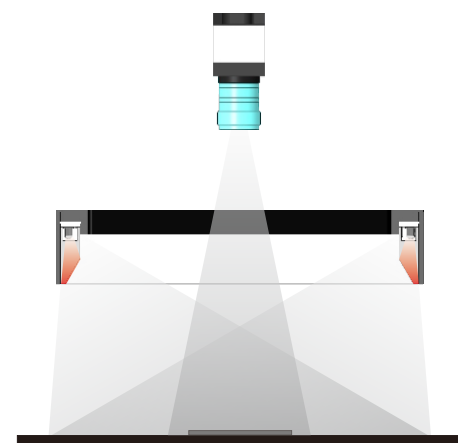
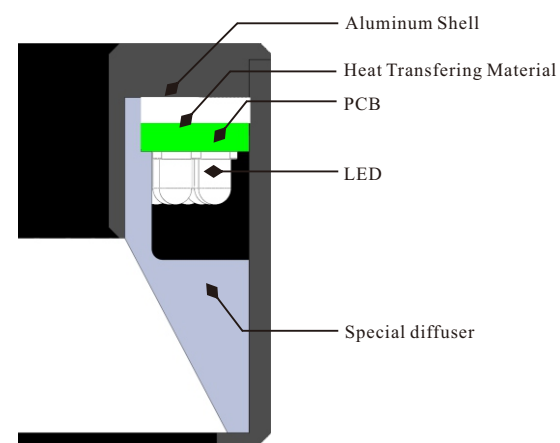
Selection Guide



illumination result comparison

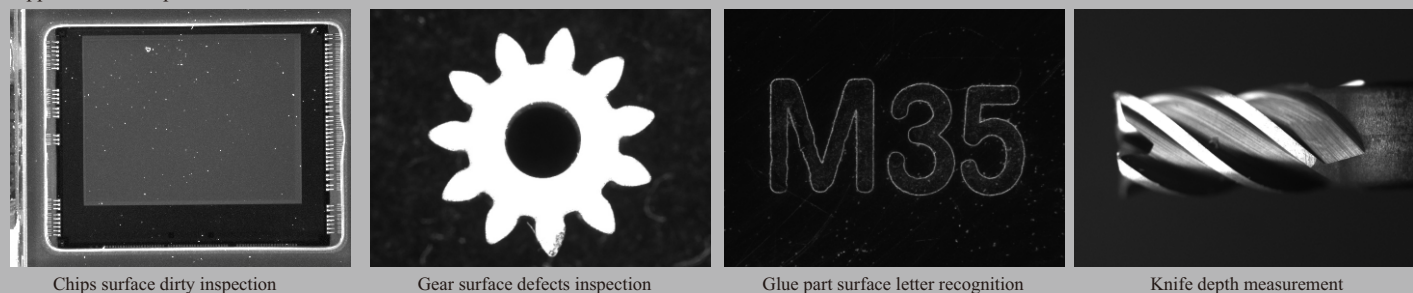


Note: The structure picture is only for your reference



Structure display and working way

Application example



Chips surface dirty inspection

Gear surface defects inspection

Glue part surface letter recognition

Knife depth measurement

Flat Dome Ring Light OPT-RIE series

High uniform illumination for the large square area, to eliminate the flare and ghosting

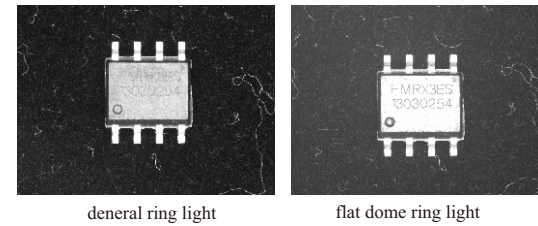


Special diffuser design

Using special diffuser design to make the light diffused and reflected, and get even illumination. It can filter the tiny different and show the big different clearly.

Comparing the general ring light, it is higher uniformity illumination

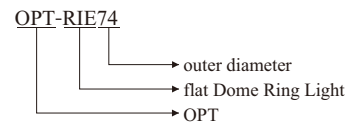
The comparison of ring light and flat dome ring light



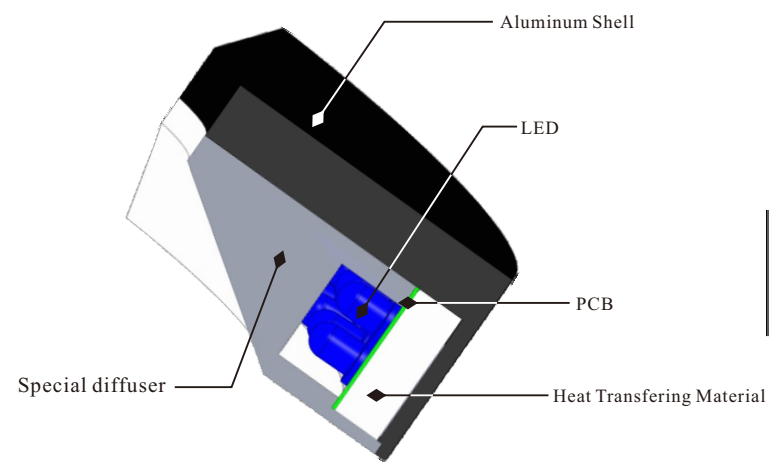
Application Area

- ◆ Metal objects locating and measurement
- ◆ Inspection of scratches

Selection Guide



















Note : The structure picture is only for your reference

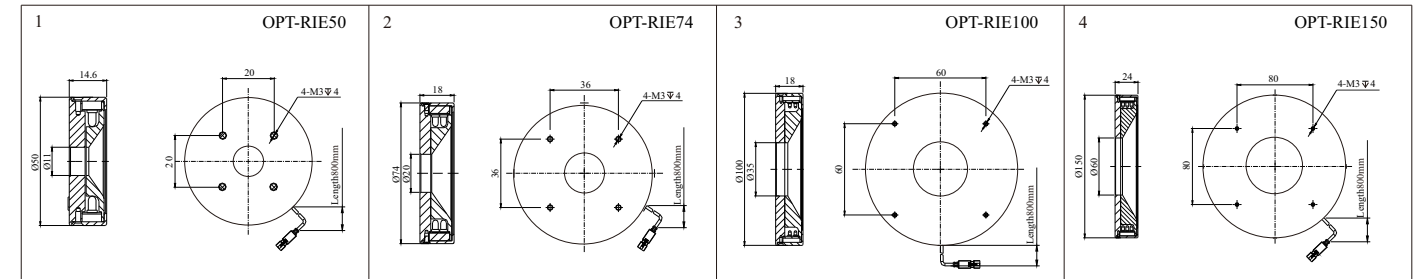


Structure display and working way

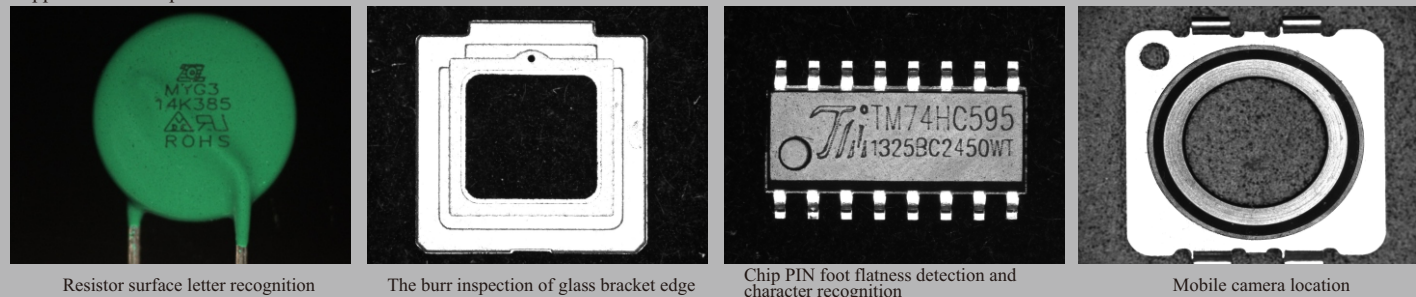
Model Table

Model	Output Power   	Output Power 	Color	Size
OPT-RIE50	24V/1.4W	24V/0.9W	  	1
OPT-RIE74	24V/2.9W	24V/2.0W	  	2
OPT-RIE100	24V/4.8W	24V/3.1W	  	3
OPT-RIE150	24V/8.0W	24V/5.0W	  	4

Dimensional drawings(mm)

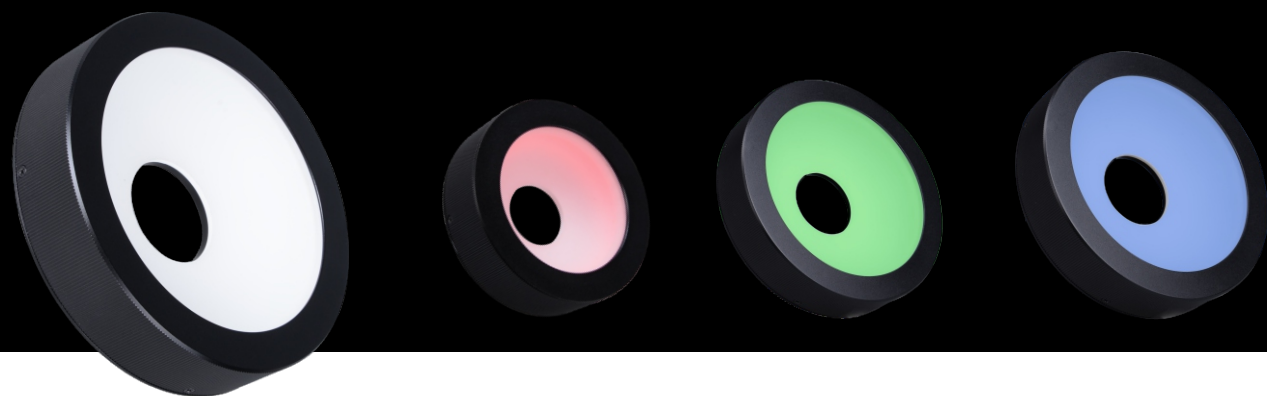


Application example



Dome Ring Light OPT-RIW series

High uniform illumination in large area, even illumination on the multi-slope objects to eliminate the reflection

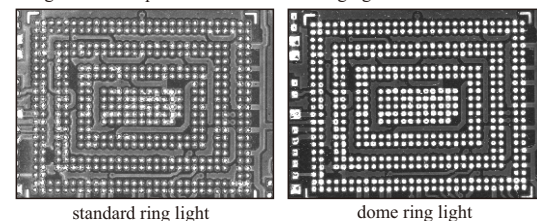


Special diffuser equipped design

Special diffuser design makes the light multi refract and reflect, it makes the multi direction and uniformity illumination

Comparing to the general ring light, higher uniformity illumination

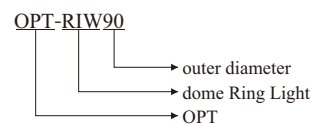
Image result comparison with standard ring light



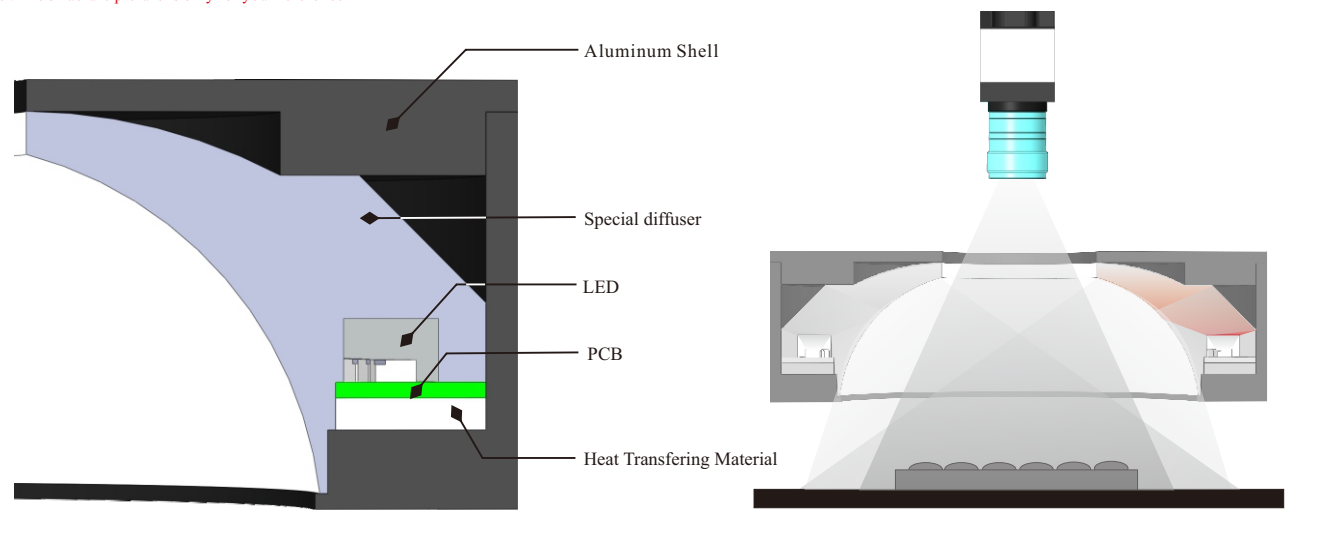
Application Area

- ◆ Electronic part repair or collection inspection
- ◆ Electronic part installation location
- ◆ Surface letter and image recognition
- ◆ Size measurement

Selection Guide



Note : The structure picture is only for your reference

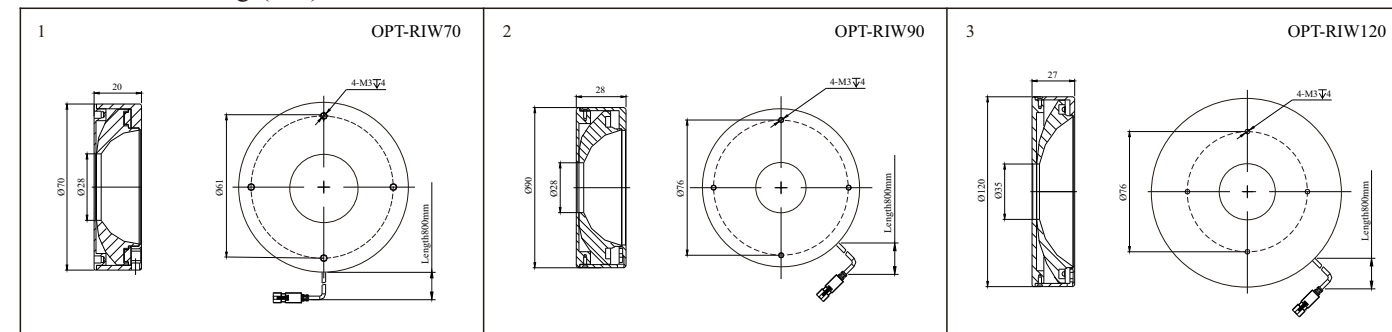


Structure display and working way

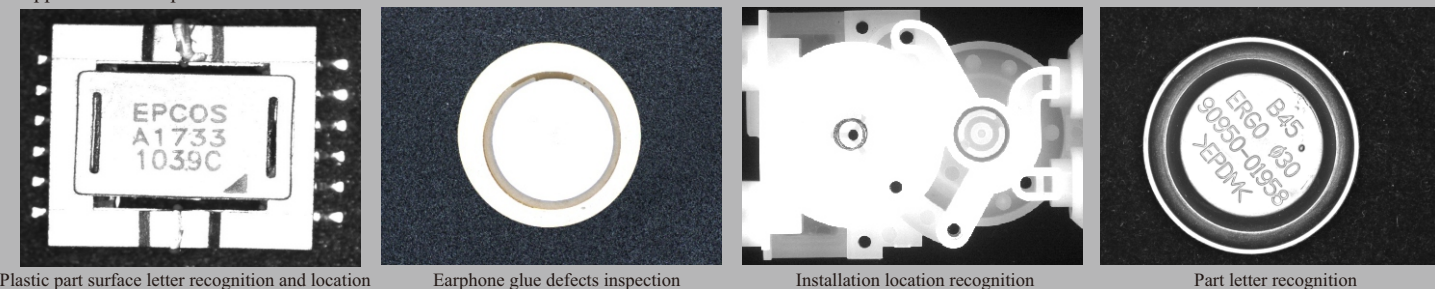
Model Table

Model	Output Power ● ● ●	Output Power ●	Color	Size
OPT-RIW70	24V/1.0W	24V/0.7W	● ● ●	1
OPT-RIW90	24V/2.2W	24V/1.0W	● ● ●	2
OPT-RIW120	24V/2.5W	24V/1.3W	● ● ●	3

Dimensional drawings(mm)

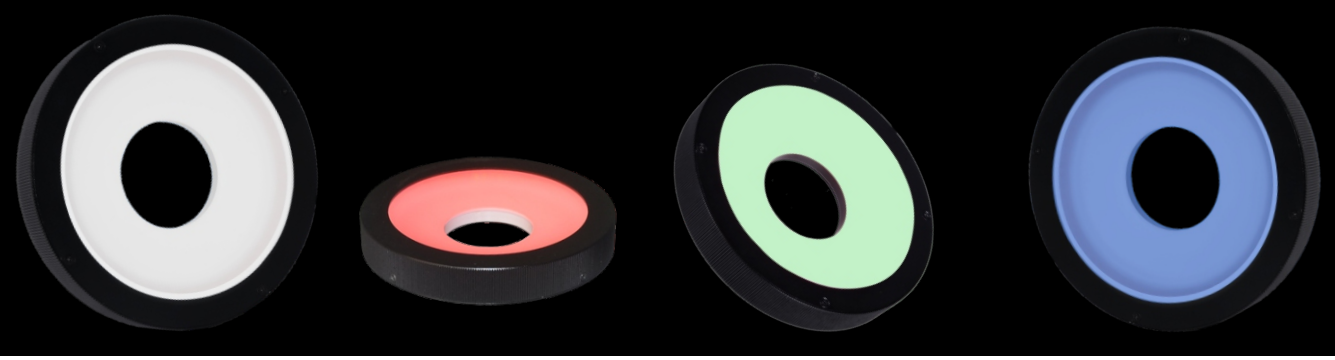


Application example



Flat Ring Light OPT-RIU series

Spherical design, to eliminate the reflection on the surface effectively



Special diffuser design to diffuse the light in multi-angle direction, for the uniform illumination on the uneven surface.

Comparing to the general ring light, it is higher uniformity illumination

Special diffuser makes light reflect to different direction, and achieve dome illumination to reduce reflective and make the whole part even.

Application area

- ◆ Reflective surface letter or image inspection and recognition
- ◆ Electronic part and glass products inspection
- ◆ Punching metal inspection
- ◆ Injection plastic inspection

Selection Guide

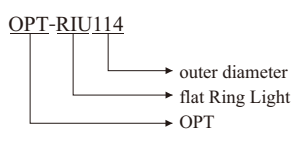
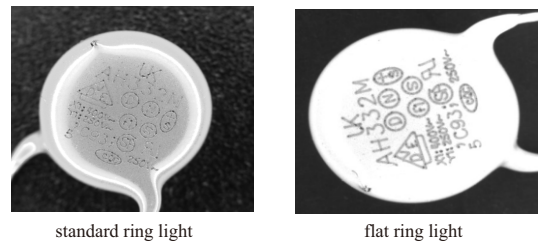


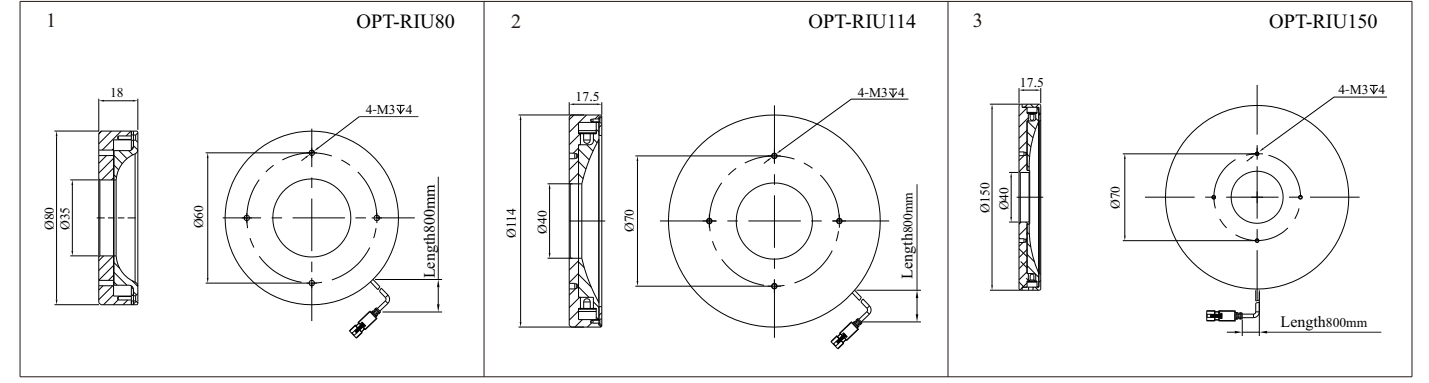
Image result comparison with standard ring light



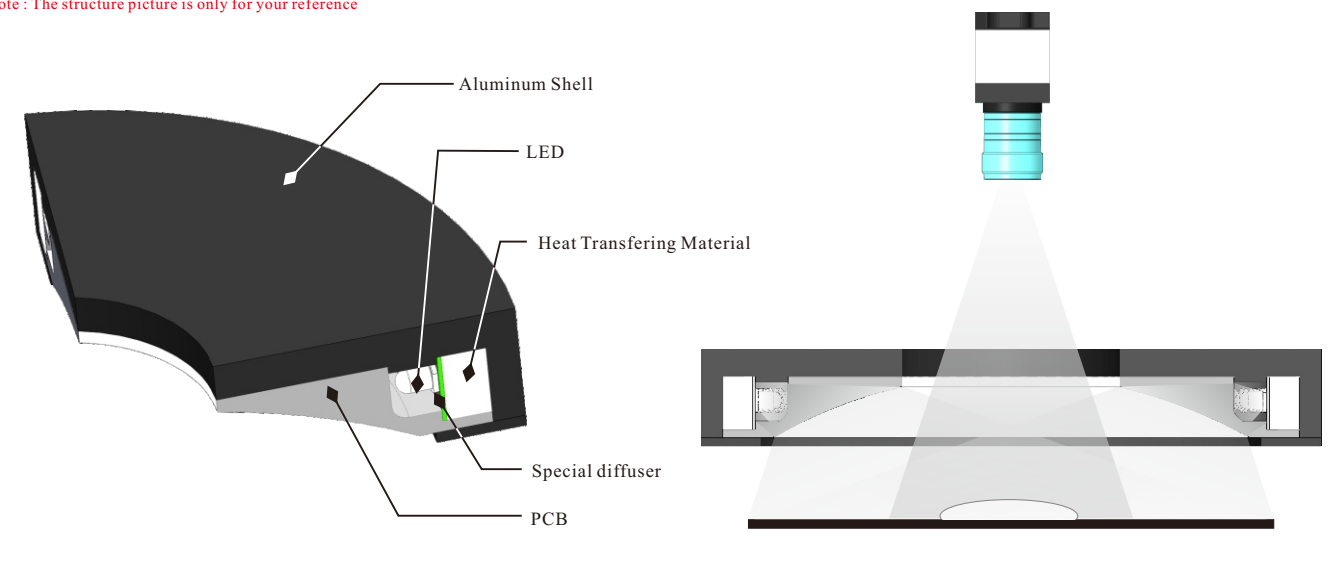
Model Table

Model	Output Power ● ● ●	Output Power ●	Color	Size
OPT-RIU80	24V/1.5W	24V/1.0W	● ● ●	1
OPT-RIU114	24V/2.9W	24V/2.0W	● ● ●	2
OPT-RIU150	24V/3.6W	24V/2.2W	● ● ●	3

Dimensional drawings(mm)

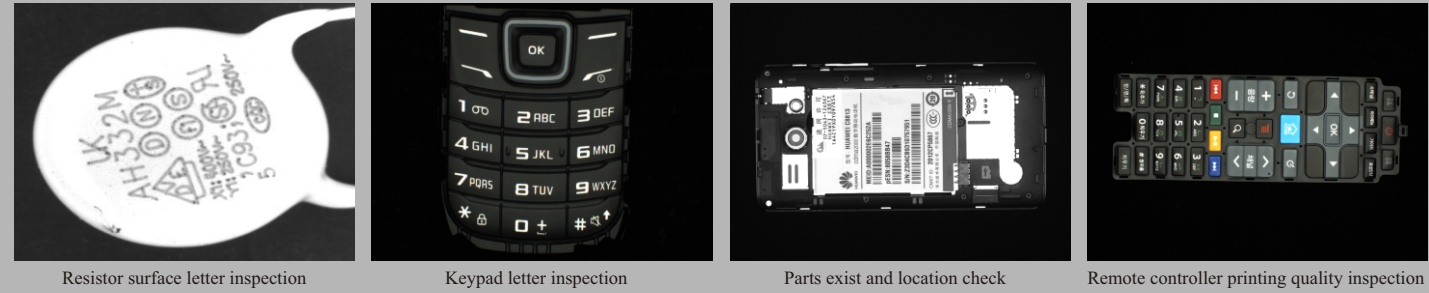


Note: The structure picture is only for your reference



Structure display and working way

Application example



Resistor surface letter inspection

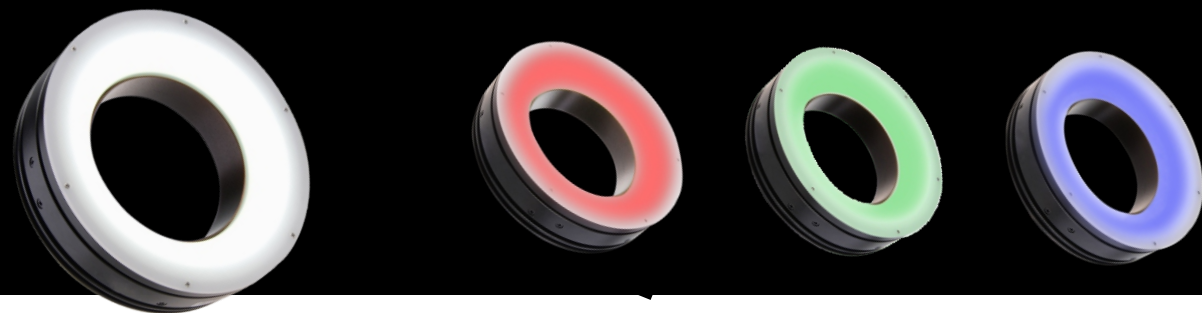
Keypad letter inspection

Parts exist and location check

Remote controller printing quality inspection

Shadowless Ring Light OPT-RIP series

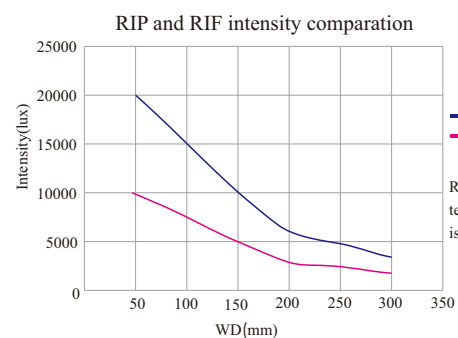
Using high power LED and diffuser with high emission to get high intensity shadowless area



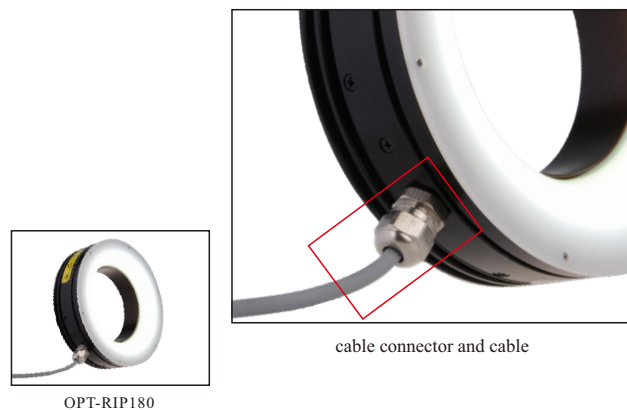
High power LED, high concentration and shadowless result

RIP series and RIF intensity comparison

Item No.	WD	50	100	150	200	250	300
RIP120	Intensity	1.99	1.51	1.01	0.62	0.47	0.34
RIF130	Intensity	0.99	0.74	0.51	0.3	0.24	0.17



Output area is used connector to make cable stable

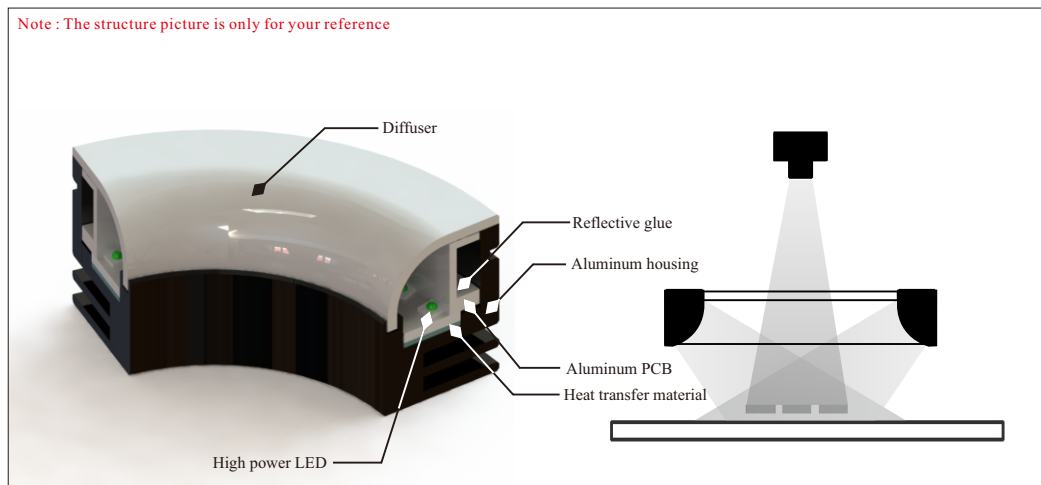
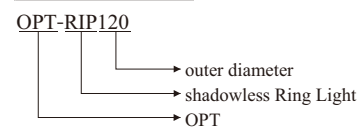


*Above data is just for reference, not for quality insurance

Application Area

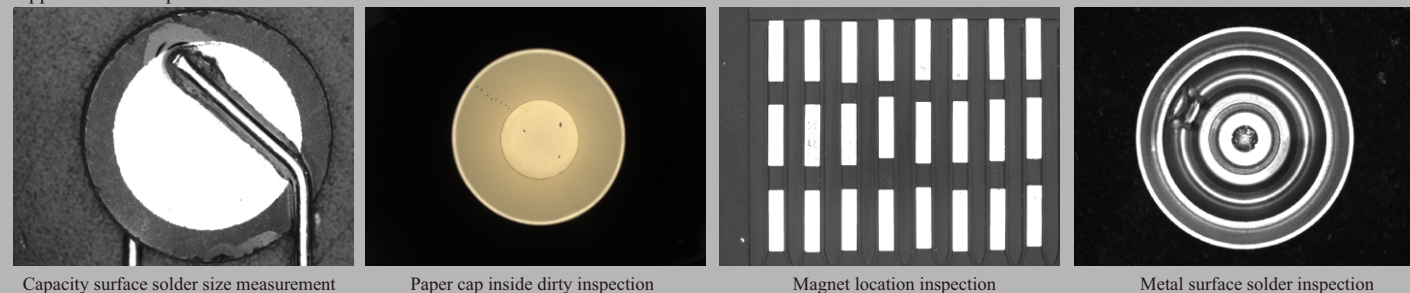
- ◆ Electronic part surface inspection
- ◆ Cylinder object inside surface dirty point inspection

Selection Guide



Structure display and working way

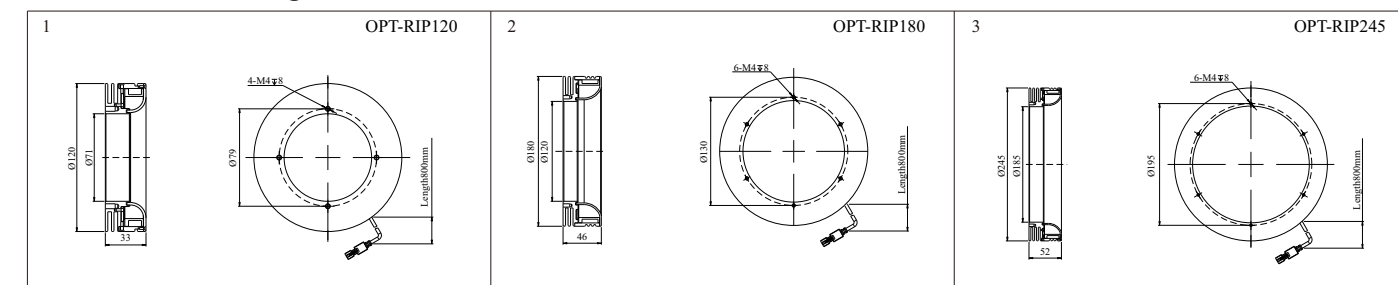
Application example



Model Table

Model	Output Power	Output Power	Color	Size
OPT-RIP120	24V/9.6W	24V/7.7W		1
OPT-RIP180	24V/19.2W	24V/12.7W		2
OPT-RIP245	24V/24.0W	24V/16.8W		3

Dimensional drawings(mm)



High Power Ring Light OPT-RIG series New

High power LED, compact LED array, intensity is 2 times than standard one

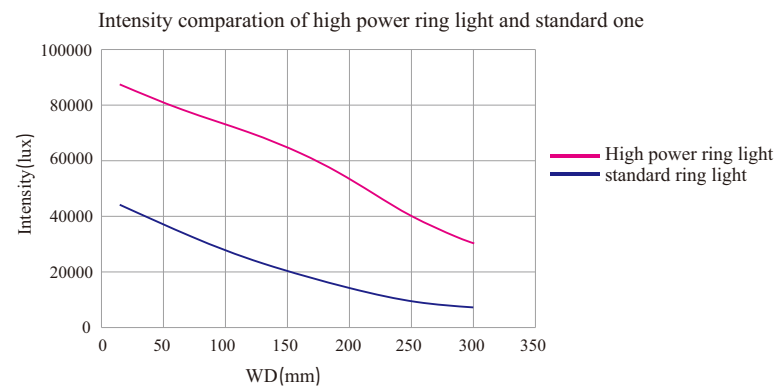


Gap design for good heat transfer, light is stable with long life time

Double intensity compared with standard one



Item no:OPT-RIG9000

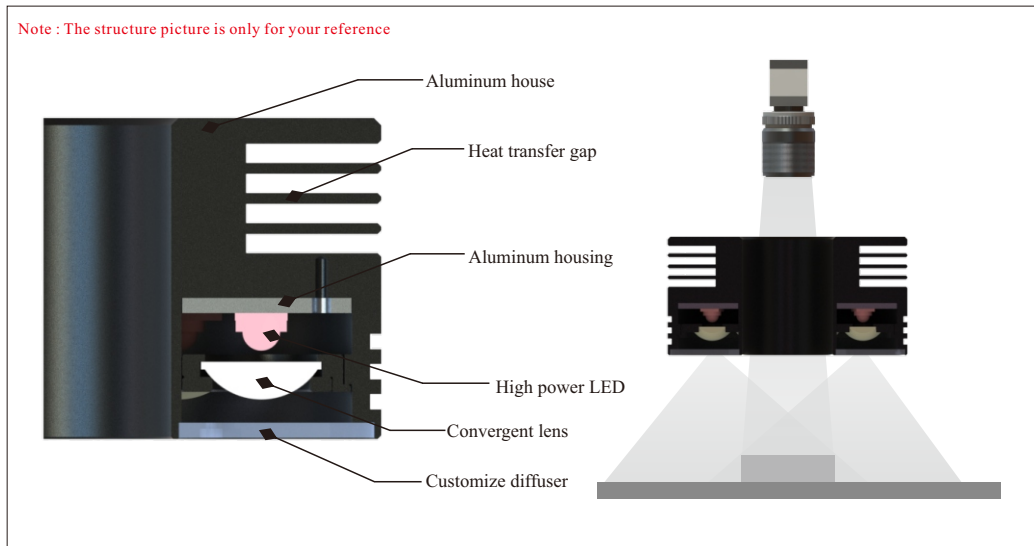
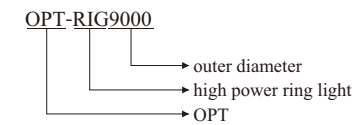


*Above data is just for reference, not for quality insurance

Application Area

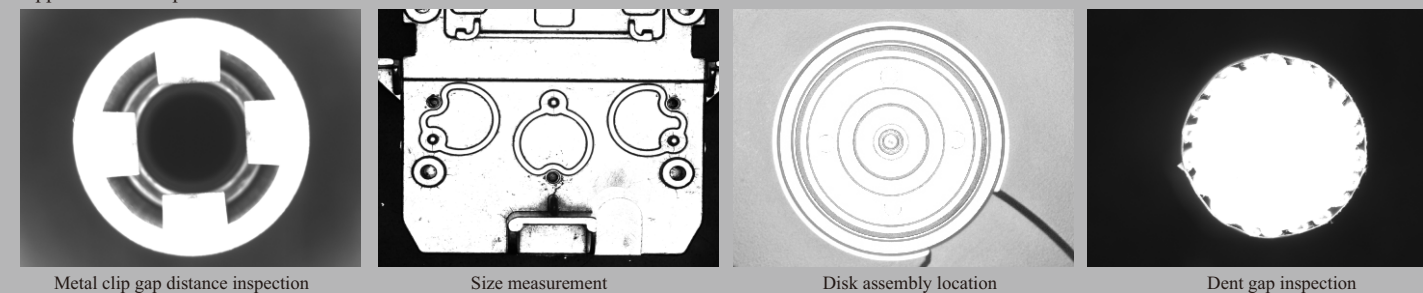
- ◆ Long working distance illumination
- ◆ High speed on-line inspection
- ◆ Big FOV illumination

Selection Guide

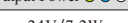






Structure display and working way

Application example



Model Table

Model	Output Power 	Output Power 	Color	Size
OPT-RIG9000	24V/7.2W	24V/4.8W		1
OPT-RIG12000	24V/14.4W	24V/9.6W		2
OPT-RIG18000	24V/28.8W	24V/19.2W		3

Dimensional drawings(mm)

