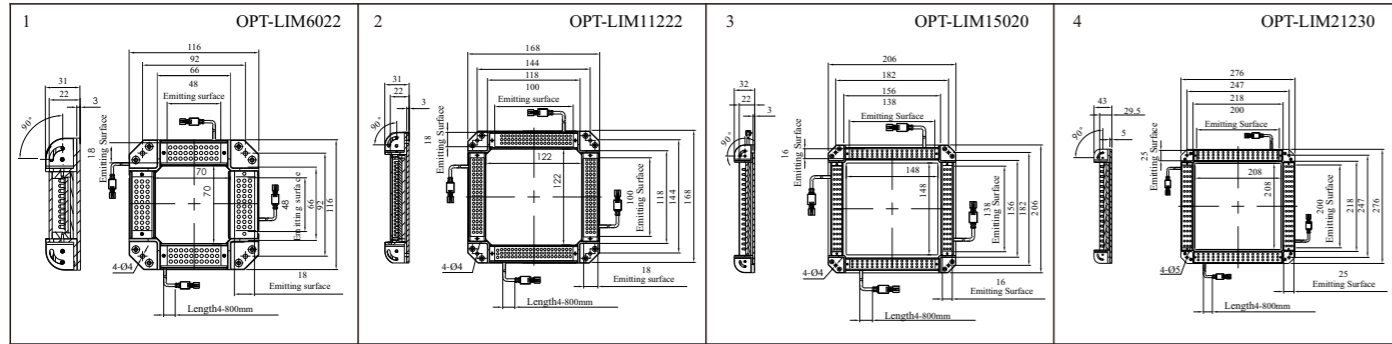


Model Table

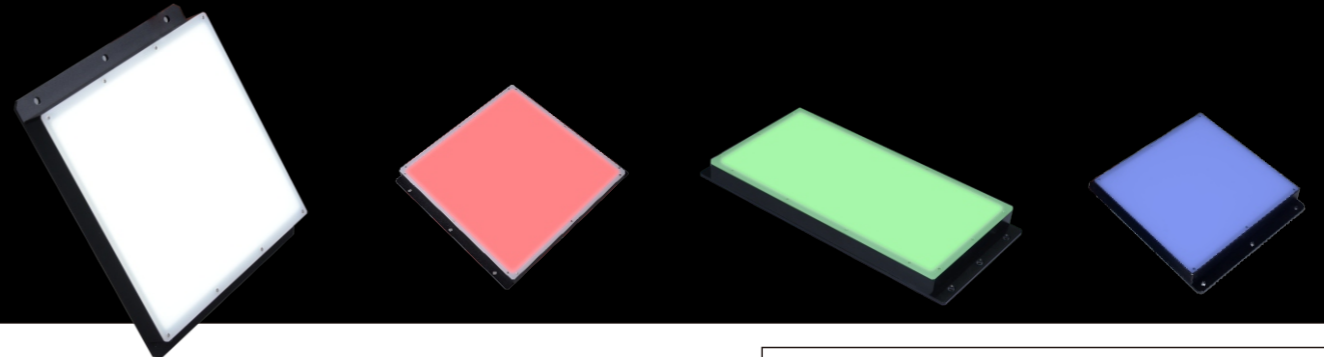
| Model | Output Power ● ● ● | Output Power ● | Color | Size |
|--------------|--|---|---|------|
| OPT-LIM6022 | 24V/2.9W | 24V/3.2W | ● ● ● | 1 |
| OPT-LIM11222 | 24V/8.2W | 24V/4.8W | ● ● ● | 2 |
| OPT-LIM15020 | 24V/11.0W | 24V/6.2W | ● ● ● | 3 |
| OPT-LIM21230 | 24V/28.8W | 24V/19.2W | ● ● ● | 4 |

Dimensional drawings (mm)



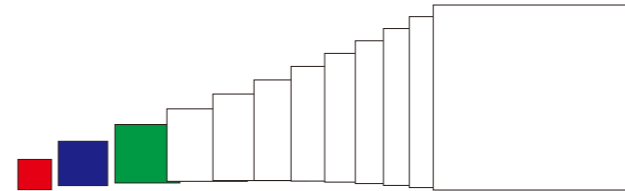
Bottom Back Light OPT-FL series

Applied in the large area illumination, to enhance the high contrast silhouettes for high speed machine



The dimension is from 30*30 to 500*500mm

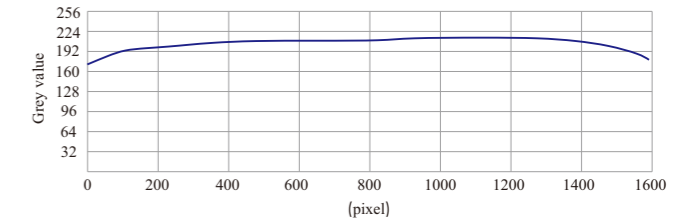
other size can be customized
Available color is red, blue, green, white
size and color combined can be customized



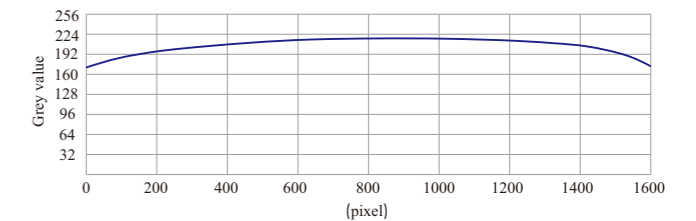
Illumination area & uniformity

Keep the same uniformity for different illumination area size

Uniformity of large size (500mmx500mm)



Illumination area (30mmx30mm)



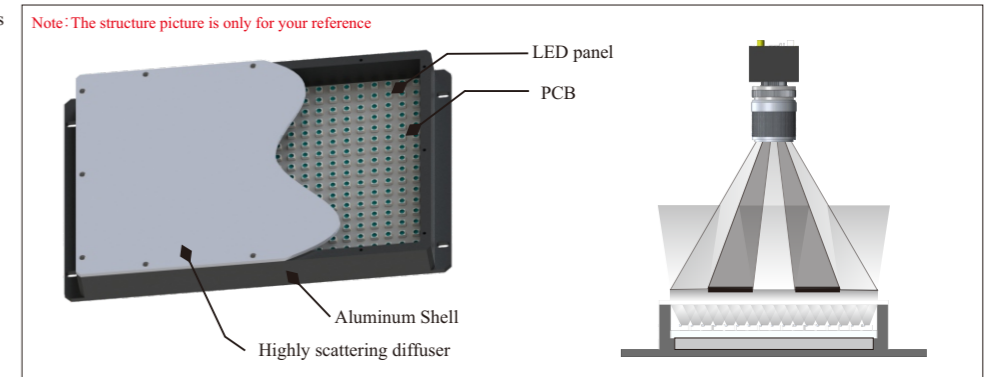
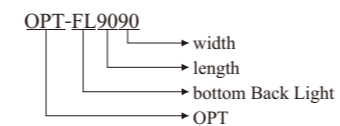
Use CCD camera to grab the picture and analysis the grey value, above drawing is the average grey value

*Above data is just for reference

Application Area

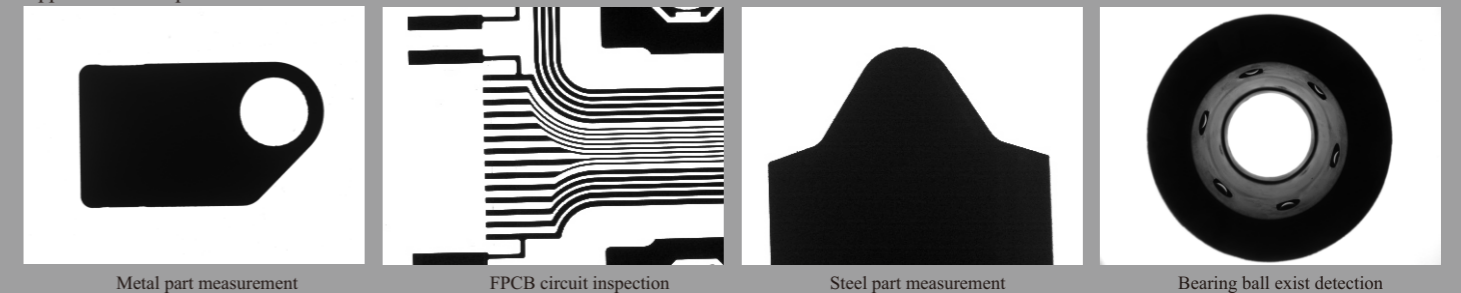
- ◆ Measurement inspection of mechanical components
- ◆ Inspection of IC pins and electronic components
- ◆ Inspection of transparent film
- ◆ Detect scratching on transparent objects

Selection Guide



Structure display and illumination picture

Application example



Metal part measurement

FPCB circuit inspection

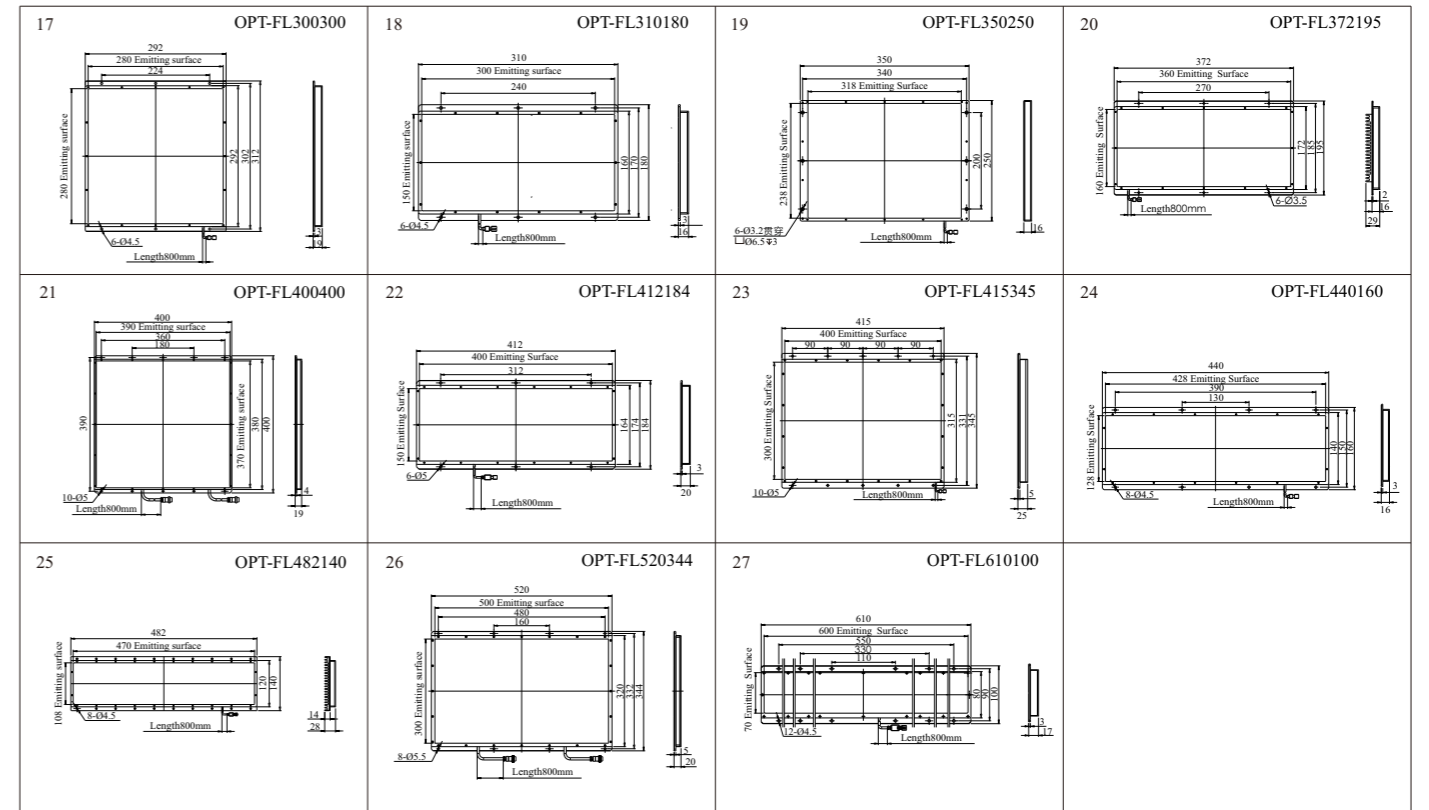
Steel part measurement

Bearing ball exist detection

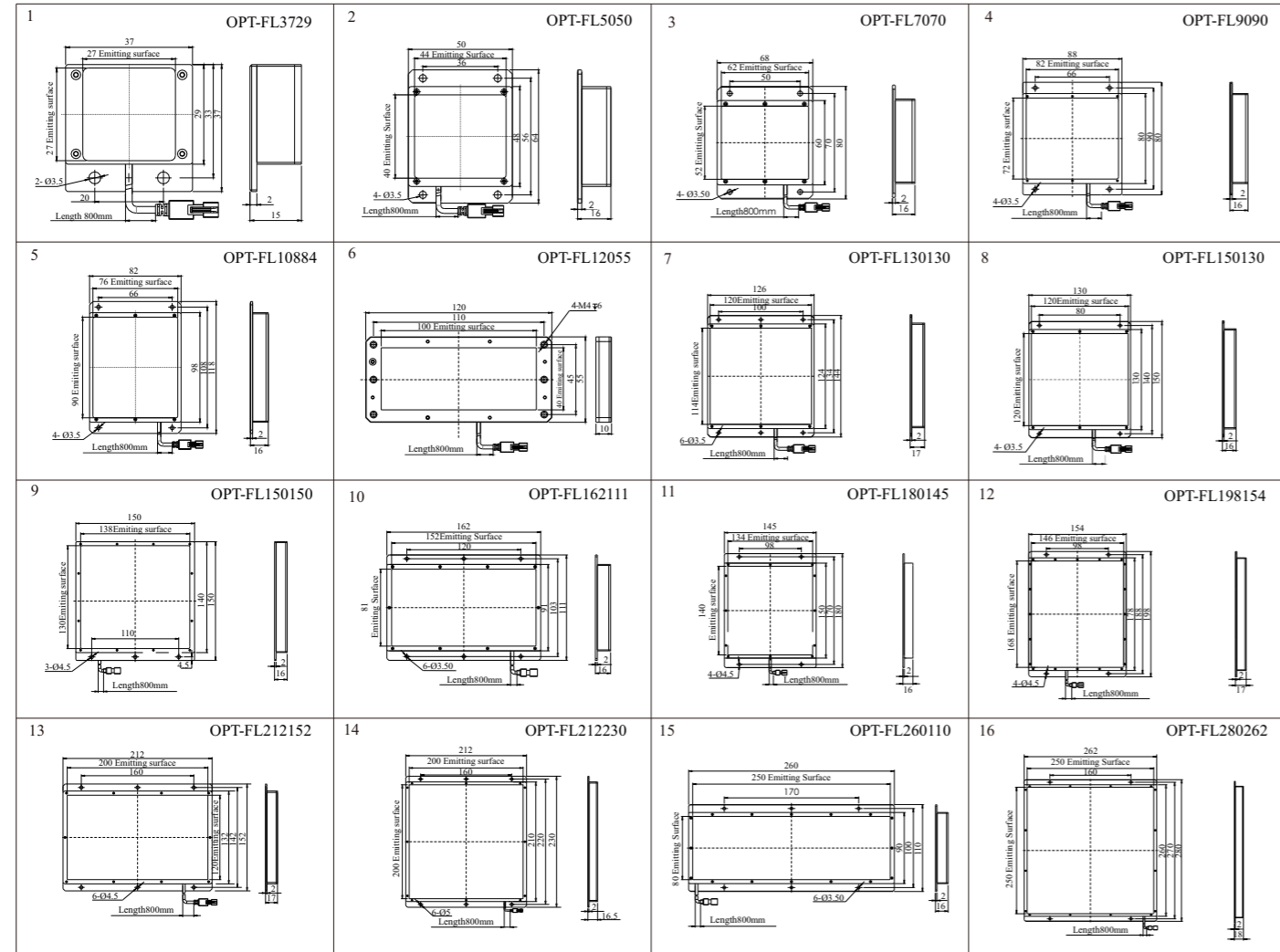
Model Table

| Model | Output Power ●○● | Output Power ●●● | Color | Emitting mode | Emitting surface | Size |
|--------------|---------------------|---------------------|-------|-----------------|------------------|------|
| OPT-FL3729 | 24V/0.6W | 24V/0.3W | ●○● | Bottom Emitting | 27x27 | 1 |
| OPT-FL5050 | 24V/1.5W | 24V/0.7W | ●○● | Bottom Emitting | 44x40 | 2 |
| OPT-FL7070 | 24V/2.4W | 24V/1.2W | ●○● | Bottom Emitting | 62x52 | 3 |
| OPT-FL9090 | 24V/5.0W | 24V/2.7W | ●○● | Bottom Emitting | 82x72 | 4 |
| OPT-FL10884 | 24V/5.2W | 24V/2.5W | ●○● | Bottom Emitting | 76x90 | 5 |
| OPT-FL12055 | 24V/4.8W | 24V/2.9W | ●○● | Bottom Emitting | 100x40 | 6 |
| OPT-FL130130 | 24V/9.8W | 24V/6.0W | ●○● | Bottom Emitting | 120x114 | 7 |
| OPT-FL150130 | 24V/15.6W | 24V/10.0W | ●○● | Bottom Emitting | 120x120 | 8 |
| OPT-FL150150 | 24V/15.8W | 24V/13.3W | ●○● | Bottom Emitting | 130x138 | 9 |
| OPT-FL162111 | 24V/10.1W | 24V/5.3W | ●○● | Bottom Emitting | 152x81 | 10 |
| OPT-FL180145 | 24V/10.6W | 24V/8.4W | ●○● | Bottom Emitting | 134x140 | 11 |
| OPT-FL198154 | 24V/18.0W | 24V/8.9W | ●○● | Bottom Emitting | 168x146 | 12 |
| OPT-FL212152 | 24V/25.2W | 24V/16.1W | ●○● | Bottom Emitting | 200x120 | 13 |
| OPT-FL212230 | 24V/27.6W | 24V/16.6W | ●○● | Bottom Emitting | 200x200 | 14 |
| OPT-FL260110 | 24V/15.6W | 24V/10.1W | ●○● | Bottom Emitting | 250x80 | 15 |

| Model | Output Power ●○● | Output Power ●●● | Color | Emitting mode | Emitting surface | Size |
|--------------|---------------------|---------------------|-------|-----------------|------------------|------|
| OPT-FL280262 | 24V/46.8W | 24V/35.8W | ●○● | Bottom Emitting | 250x250 | 16 |
| OPT-FL300300 | 24V/36.0W | 24V/21.6W | ●○● | Bottom Emitting | 280x280 | 17 |
| OPT-FL310180 | 24V/34.1W | 24V/19.4W | ●○● | Bottom Emitting | 300x150 | 18 |
| OPT-FL350250 | 24V/38.1W | 24V/25.4W | ●○● | Bottom Emitting | 318x238 | 19 |
| OPT-FL372195 | 24V/48.0W | 24V/28.8W | ●○● | Bottom Emitting | 360x160 | 20 |
| OPT-FL400400 | 24V/96.0W | 24V/57.6W | ●○● | Bottom Emitting | 390x370 | 21 |
| OPT-FL412184 | 24V/42.4W | 24V/27.2W | ●○● | Bottom Emitting | 400x150 | 22 |
| OPT-FL415345 | 24V/86.4W | 24V/57.6W | ●○● | Bottom Emitting | 400x300 | 23 |
| OPT-FL440160 | 24V/38.4W | 24V/28.8W | ●○● | Bottom Emitting | 428x128 | 24 |
| OPT-FL482140 | 24V/57.6W | 24V/38.4W | ●○● | Bottom Emitting | 470x108 | 25 |
| OPT-FL520344 | 24V/144.0W | 24V/91.2W | ●○● | Bottom Emitting | 500x300 | 26 |
| OPT-FL610100 | 24V/28.8W | 24V/2.0W | ●○● | Bottom Emitting | 600x70 | 27 |

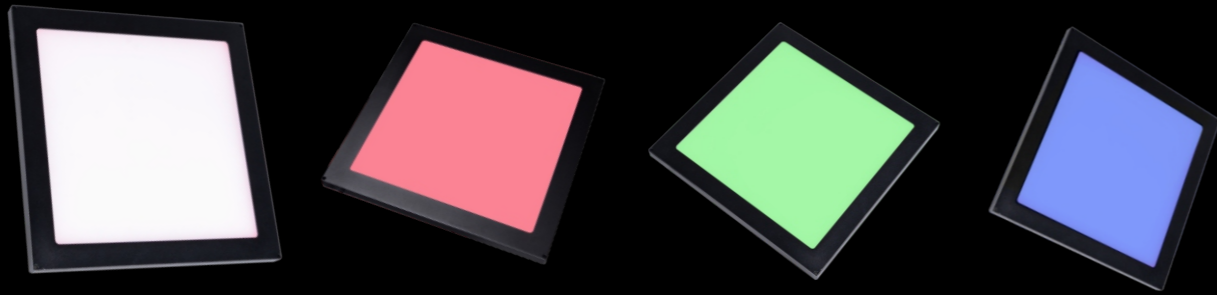


Dimensional drawings (mm)



Side Back Light OPT-FLC series

Thin depth design for easy installation; Size can be customized as inquired;
Can be used as front light when open a hole in the middle.

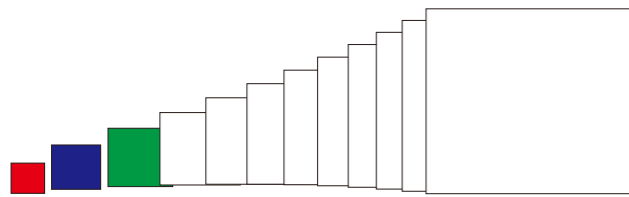


Ultra thin design, the thinness can be up to 6mm,



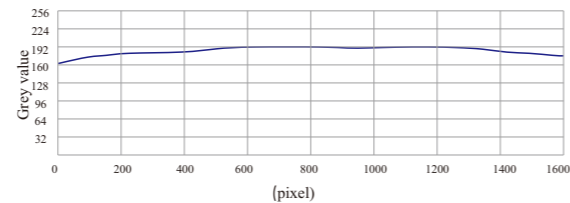
Customized size can be made, even the large size required

Illumination area size is from 30*30mm to 500*500mm
other size can be customized
size and color combined can be customized



Several times dispersion making the part and whole image uniformity

Uniformity drawing



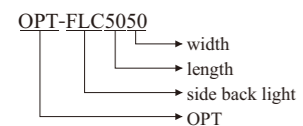
Use CCD camera to grab the picture and analysis the grey value, above drawing is the average grey value

*Above data is just for reference

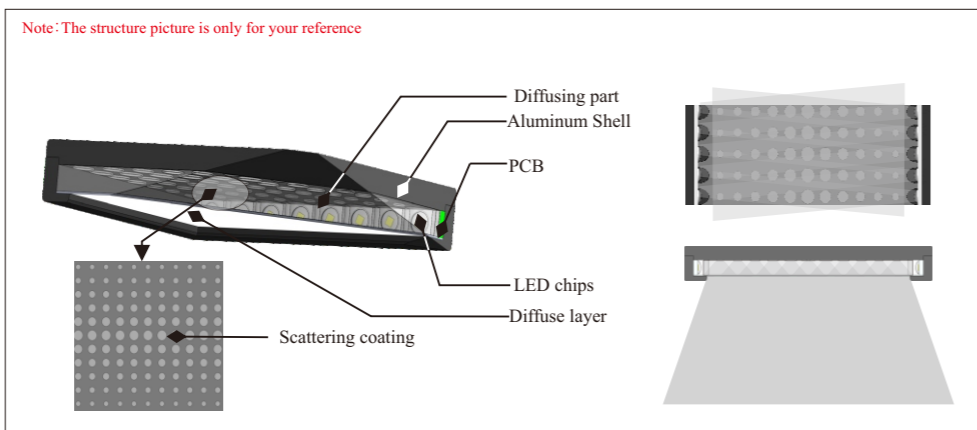
Application Area

- ◆ The identification and inspection on the large square mechanical or electronic parts
- ◆ The measurement inspection of perspective
- ◆ LED defects inspection

Selection Guide

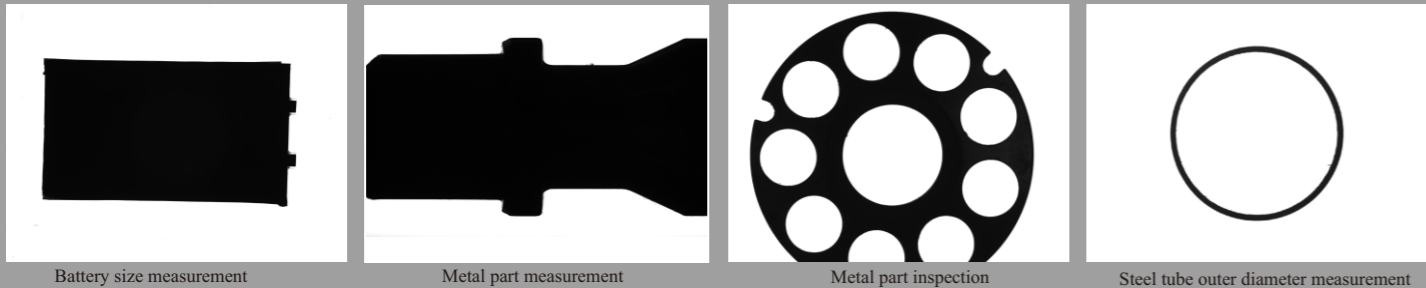


Note: The structure picture is only for your reference



Structure display and working way

Application example



Battery size measurement

Metal part measurement

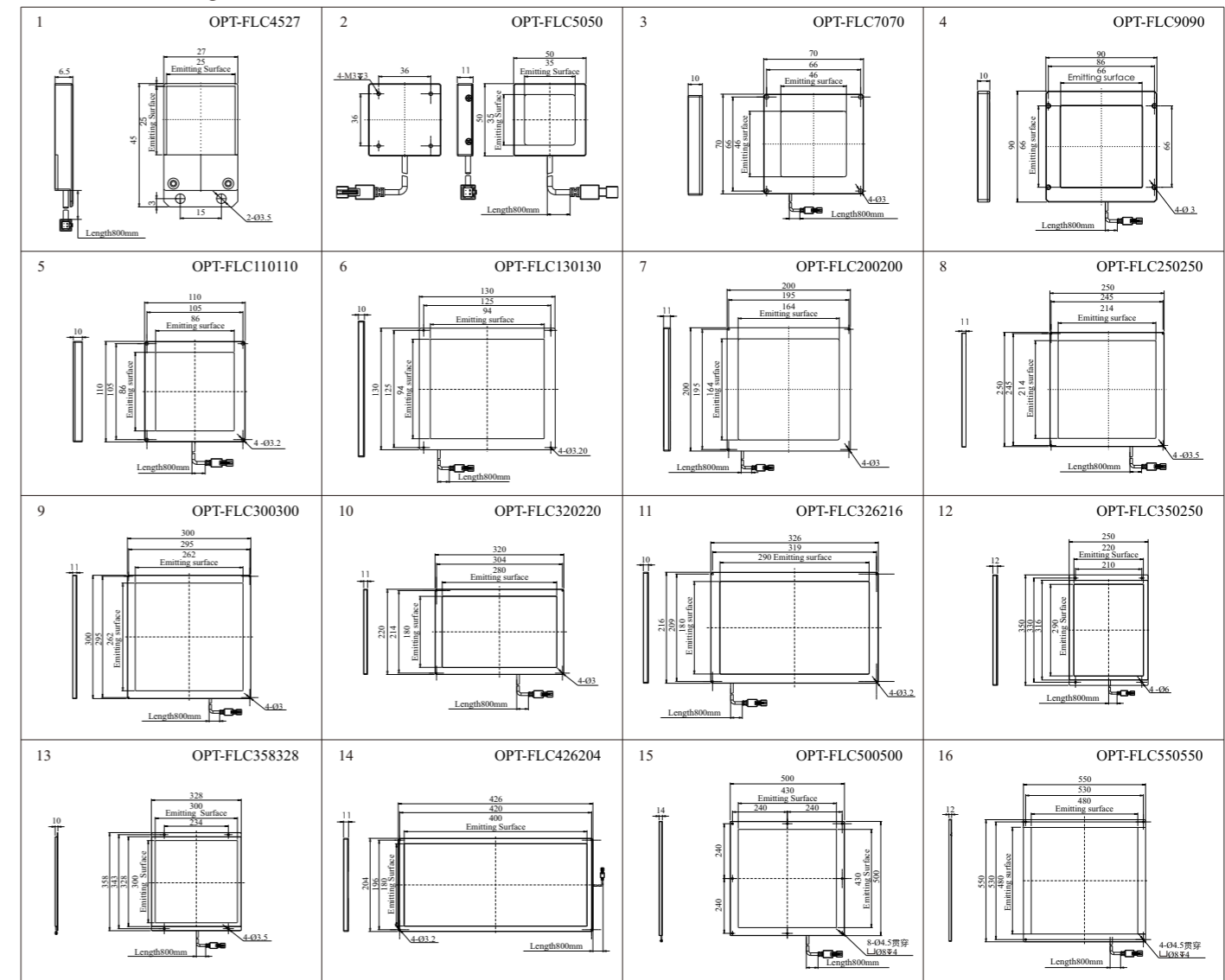
Metal part inspection

Steel tube outer diameter measurement

Model Table

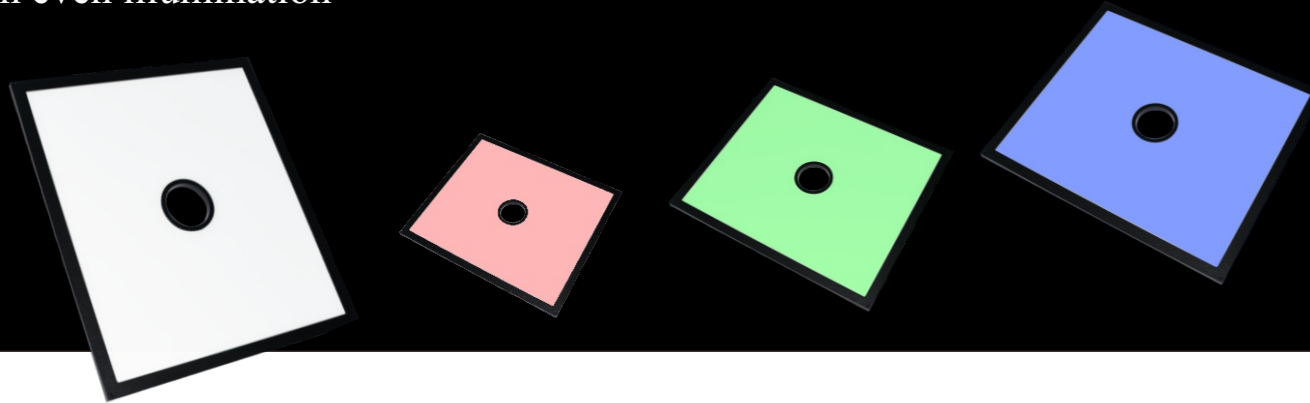
| Model | Output Power | Output Power | Color | Emitting mode | Emitting Surface | Size |
|---------------|--------------|--------------|-------|-----------------|------------------|------|
| OPT-FLC4527 | 24V/0.2W | 24V/0.1W | | Side Back Light | 25x25 | 1 |
| OPT-FLC5050 | 24V/1.1W | 24V/0.4W | | Side Back Light | 35x35 | 2 |
| OPT-FLC7070 | 24V/1.3W | 24V/1.0W | | Side Back Light | 46x46 | 3 |
| OPT-FLC9090 | 24V/2.4W | 24V/1.2W | | Side Back Light | 66x66 | 4 |
| OPT-FLC110110 | 24V/2.5W | 24V/1.7W | | Side Back Light | 86x86 | 5 |
| OPT-FLC130130 | 24V/3.7W | 24V/2.1W | | Side Back Light | 94x94 | 6 |
| OPT-FLC200200 | 24V/5.3W | 24V/2.9W | | Side Back Light | 164x164 | 7 |
| OPT-FLC250250 | 24V/5.8W | 24V/4.6W | | Side Back Light | 214x214 | 8 |
| OPT-FLC300300 | 24V/7.0W | 24V/5.0W | | Side Back Light | 262x262 | 9 |
| OPT-FLC320220 | 24V/6.5W | 24V/4.1W | | Side Back Light | 280x180 | 10 |
| OPT-FLC326216 | 24V/6.5W | 24V/4.1W | | Side Back Light | 290x180 | 11 |
| OPT-FLC350250 | 24V/7.0W | 24V/4.8W | | Side Back Light | 220x290 | 12 |
| OPT-FLC358328 | 24V/7.2W | 24V/5.3W | | Side Back Light | 300x300 | 13 |
| OPT-FLC426204 | 24V/7.0W | 24V/5.0W | | Side Back Light | 400x180 | 14 |
| OPT-FLC500500 | 24V/11.5W | 24V/7.7W | | Side Back Light | 430x430 | 15 |
| OPT-FLC550550 | 24V/11.5W | 24V/7.7W | | Side Back Light | 480x480 | 16 |

Dimensional drawings



Front Back Light OPT-FLK series New

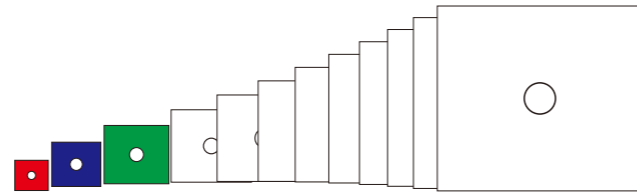
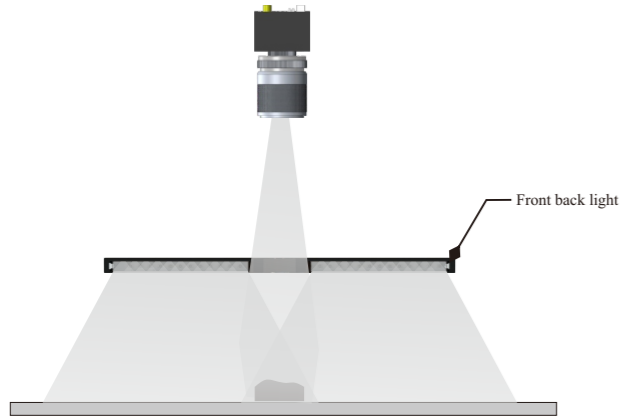
Front back light can be used as front light for the big FOV with even illumination



Back light as front light

Large size uniformity illumination, customized size can be made

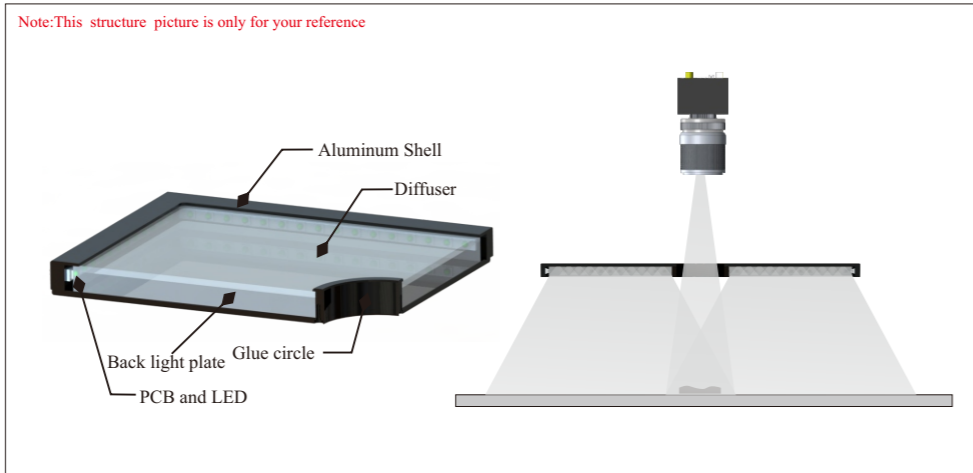
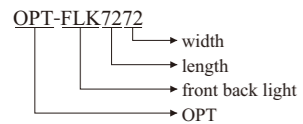
Emitting surface standard size can be made from 70×70mm to 500×500mm
Other size can be customized
LED color: red, blue, green and white colors can be optionally combined



Application Area

- ◆ Big PCB parts inspection and recognition
- ◆ Big electronic part surface letter inspection
- ◆ The mark point position

Selection Guide

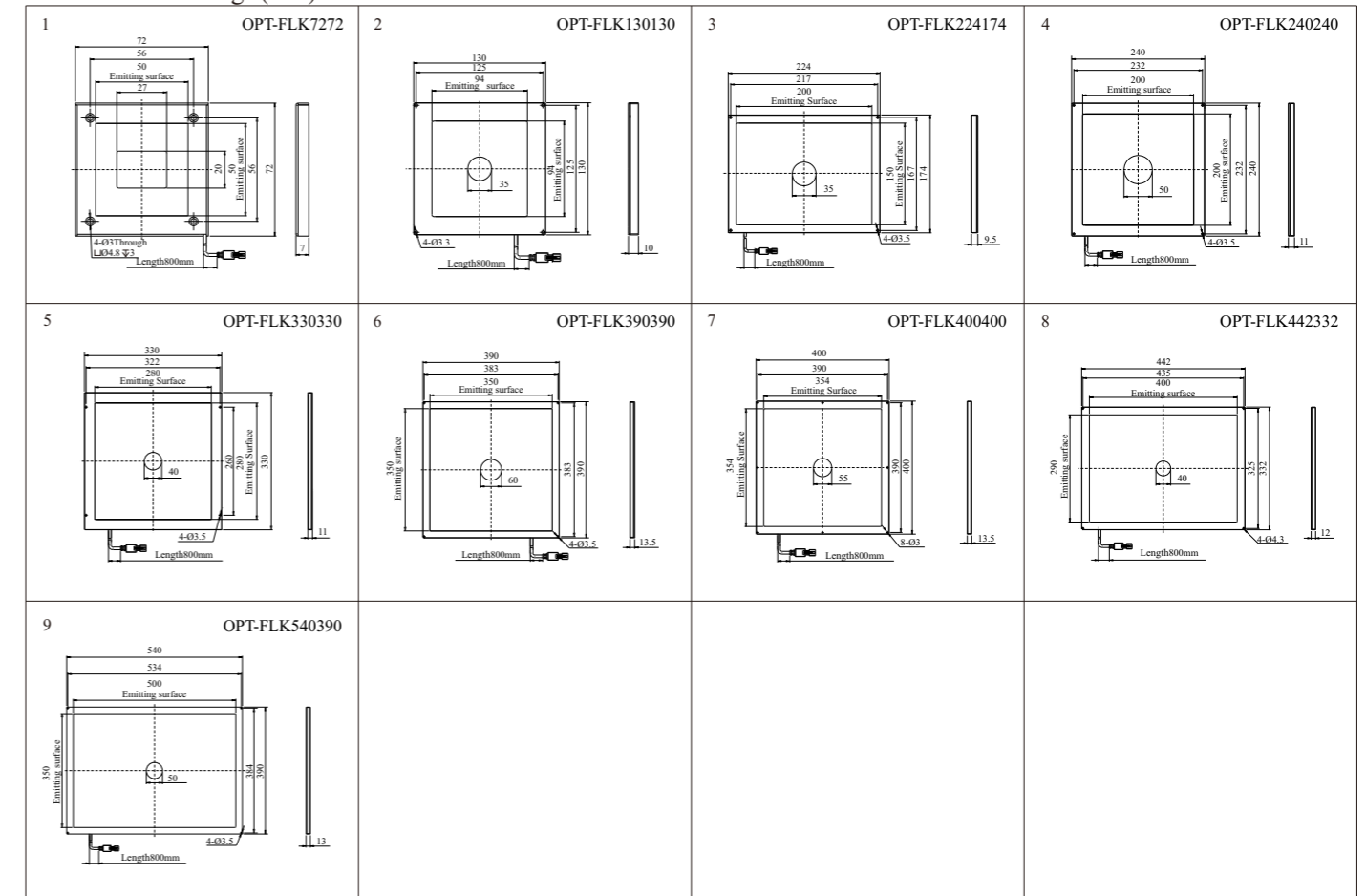


Structure display and working way

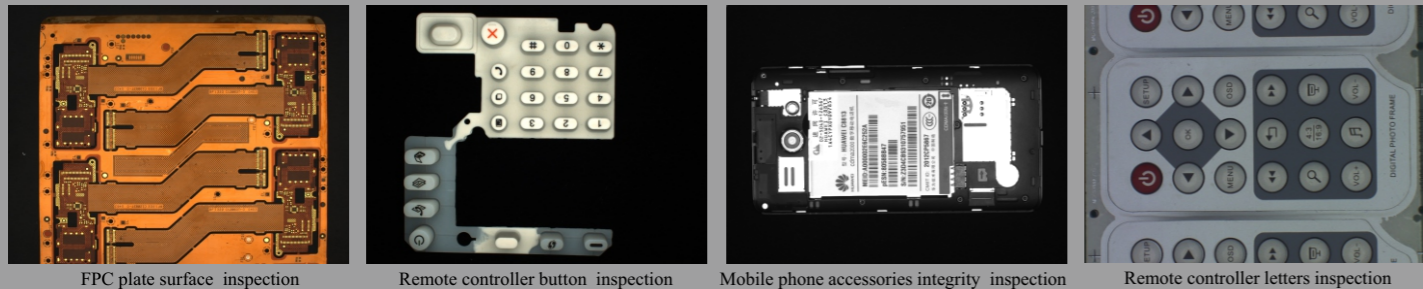
Model Table

| Model | Output Power ●●○ | Output Power ●●● | Color | Luminous mode | Emitting Surface | Size |
|---------------|------------------|------------------|-------|---------------|------------------|------|
| OPT-FLK7272 | 24V/1.2W | 24V/1.2W | ●●● | Side lighting | 50x50 | 1 |
| OPT-FLK130130 | 24V/3.7W | 24V/2.1W | ●●● | Side lighting | 94x94 | 2 |
| OPT-FLK224174 | 24V/4.1W | 24V/2.9W | ●●● | Side lighting | 200x150 | 3 |
| OPT-FLK240240 | 24V/5.8W | 24V/4.0W | ●●● | Side lighting | 200x200 | 4 |
| OPT-FLK330330 | 24V/8.1W | 24V/5.8W | ●●● | Side lighting | 280x280 | 5 |
| OPT-FLK390390 | 24V/10.4W | 24V/7.0W | ●●● | Side lighting | 350x350 | 6 |
| OPT-FLK400400 | 24V/8.2W | 24V/5.8W | ●●● | Side lighting | 354x354 | 7 |
| OPT-FLK442332 | 24V/17.3W | 24V/10.4W | ●●● | Side lighting | 290x400 | 8 |
| OPT-FLK540390 | 24V/12.1W | 24V/8.1W | ●●● | Side lighting | 500x350 | 9 |

Dimensional drawings (mm)



Application example



FPC plate surface inspection

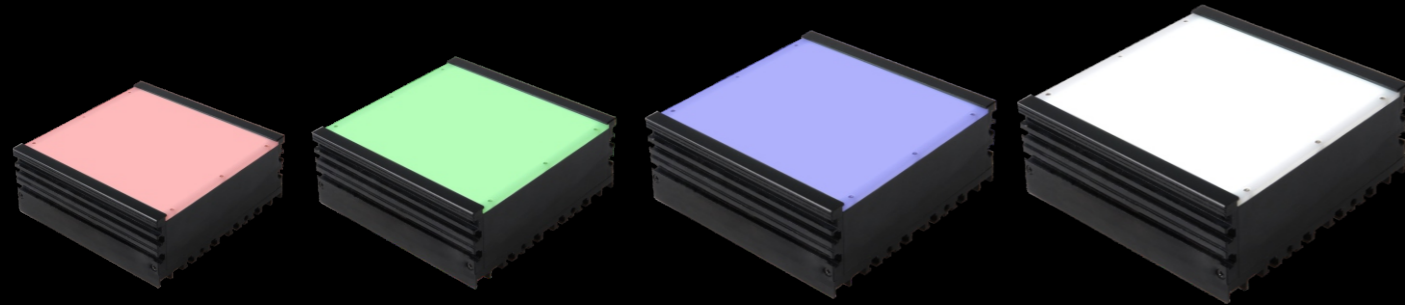
Remote controller button inspection

Mobile phone accessories integrity inspection

Remote controller letters inspection

High Power Back Light OPT-FLG series **New**

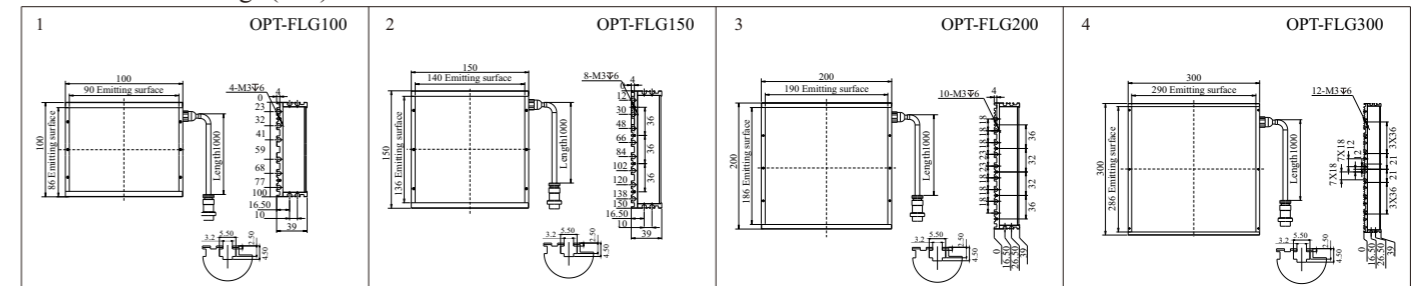
Using high power LED and heat transfer material to make the high brightness back light, it is good for short exposure application



Model Table

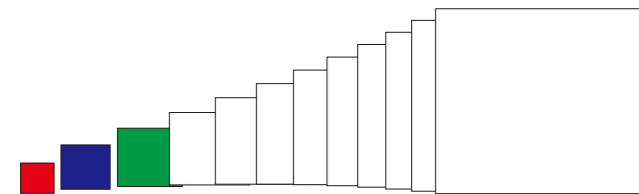
| Model | Output Power ● ● ● | Output Power ● | Color | Luminous mode | Emitting Surface | Size |
|------------|--|---|---|-----------------|------------------|------|
| OPT-FLG100 | 24V/21.6W | 24V/14.4W | ● ● ● | Bottom emission | 90x86 | 1 |
| OPT-FLG150 | 24V/50.4W | 24V/28.8W | ● ● ● | Bottom emission | 140x136 | 2 |
| OPT-FLG200 | 24V/64.8W | 24V/43.2W | ● ● ● | Bottom emission | 190x186 | 3 |
| OPT-FLG300 | 24V/100.8W | 24V/57.6W | ● ● ● | Bottom emission | 290x286 | 4 |

Dimensional drawings (mm)

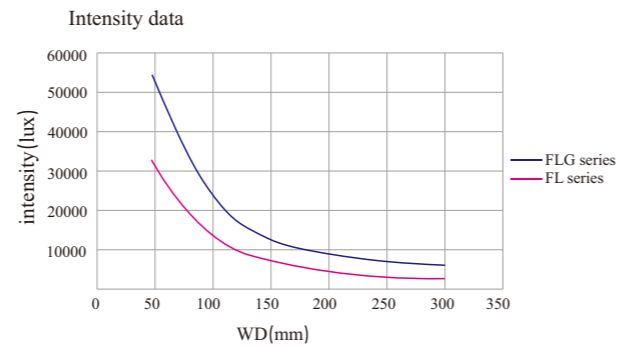


With high intensity and uniformity, size can be customized freely

Emitting surface standard size can be made from 50×50mm to 500×500mm
other size can be customized
LED color: red, blue, green and white
colors can be optionally combined



Intensity is 1.5 times higher than standard one

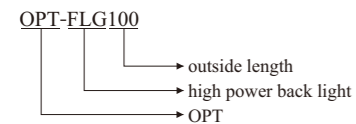


*above data is just for reference

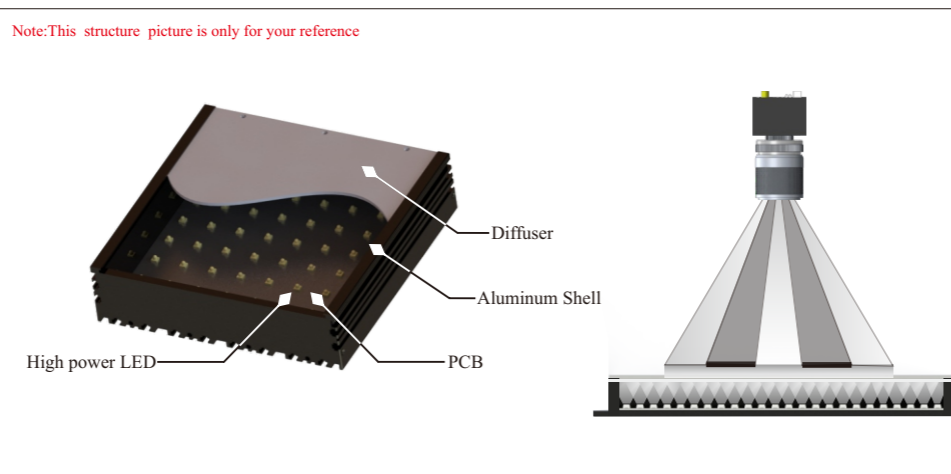
Application Area

- ◆ High speed, short exposure application
- ◆ Mechanical part measurement
- ◆ Electronic part and IC outer shape inspection

Selection Guide

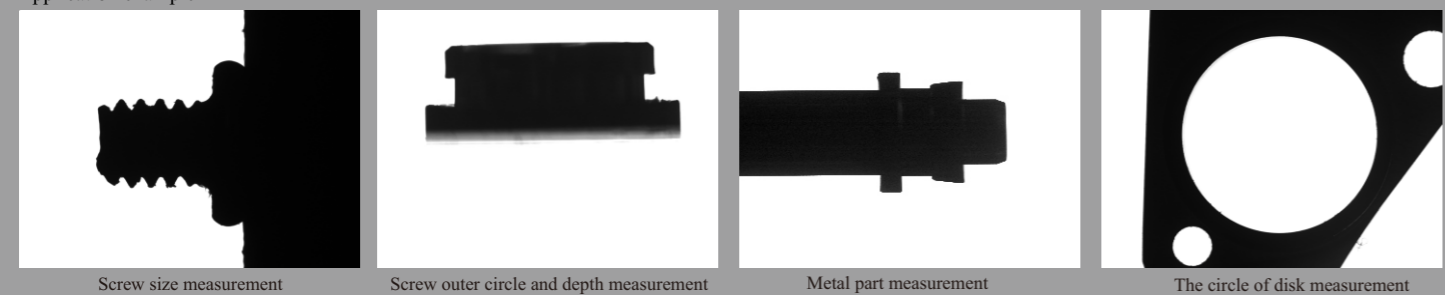


Note: This structure picture is only for your reference



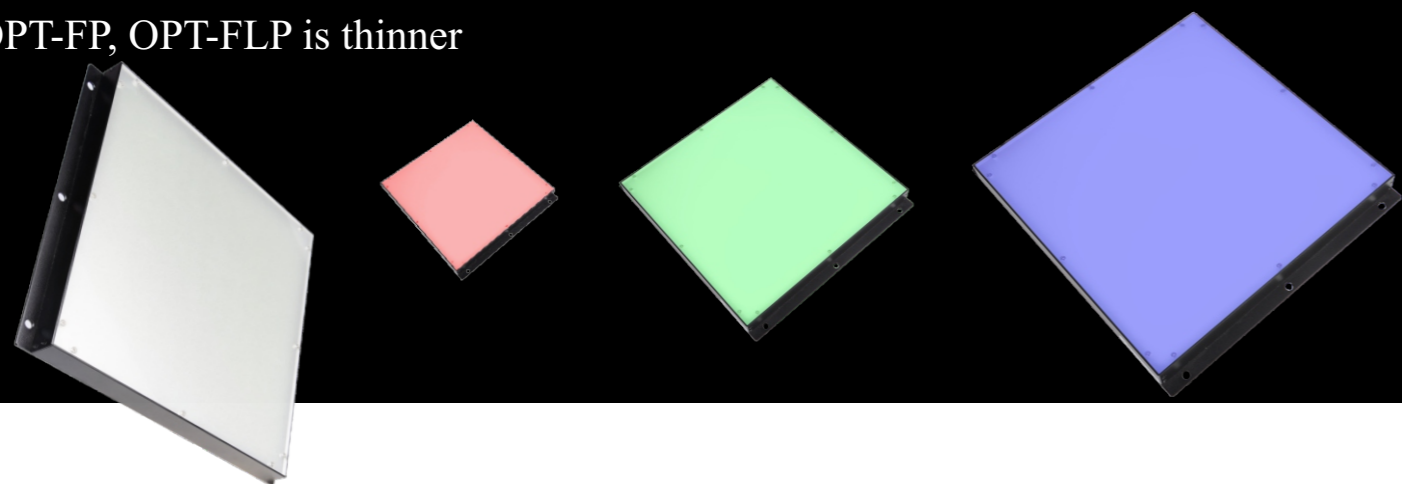
Structure display and working way

Application example



Parallel Back Light OPT-FLP series

Larger emitting surface parallel back light, comparing OPT-FP, OPT-FLP is thinner



OPT-FLP is thinner than OPT-FP series, easy installation, space-efficient

Replacement of back light, applied in high-accuracy, large square product measurement

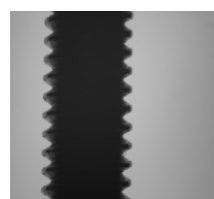


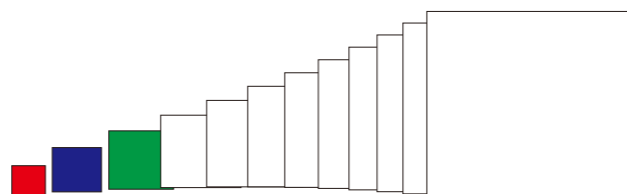
image result of OPT-FL series



image result of OPT-FLP series

Emitting surface and size can be customized

Emitting surface standard size can be made from 30×30mm to 500×500mm
Other size can be customized
LED color: red, blue, green and white colors can be optionally combined



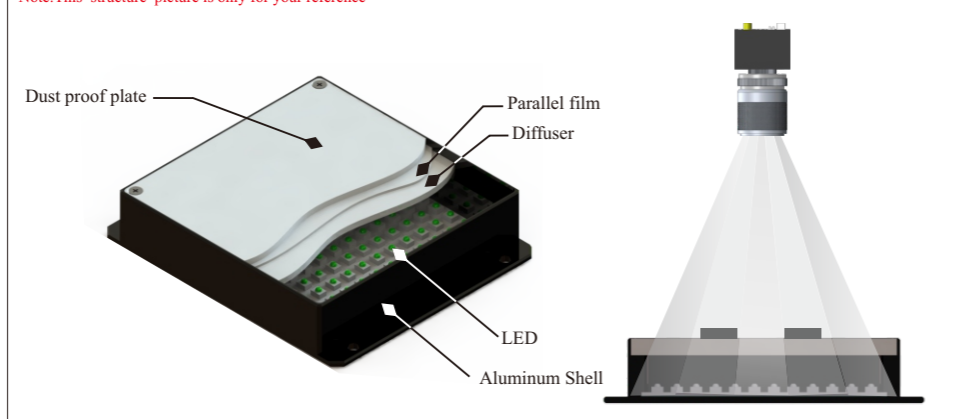
Application Area

- ◆ The identification and inspection of the large square mechanical or electronic parts
- ◆ The measurement inspection of perspective
- ◆ LED defects inspection

Selection Guide

- OPT-FLP12086
- width
 - length
 - parallel back light
 - OPT

Note: This structure picture is only for your reference

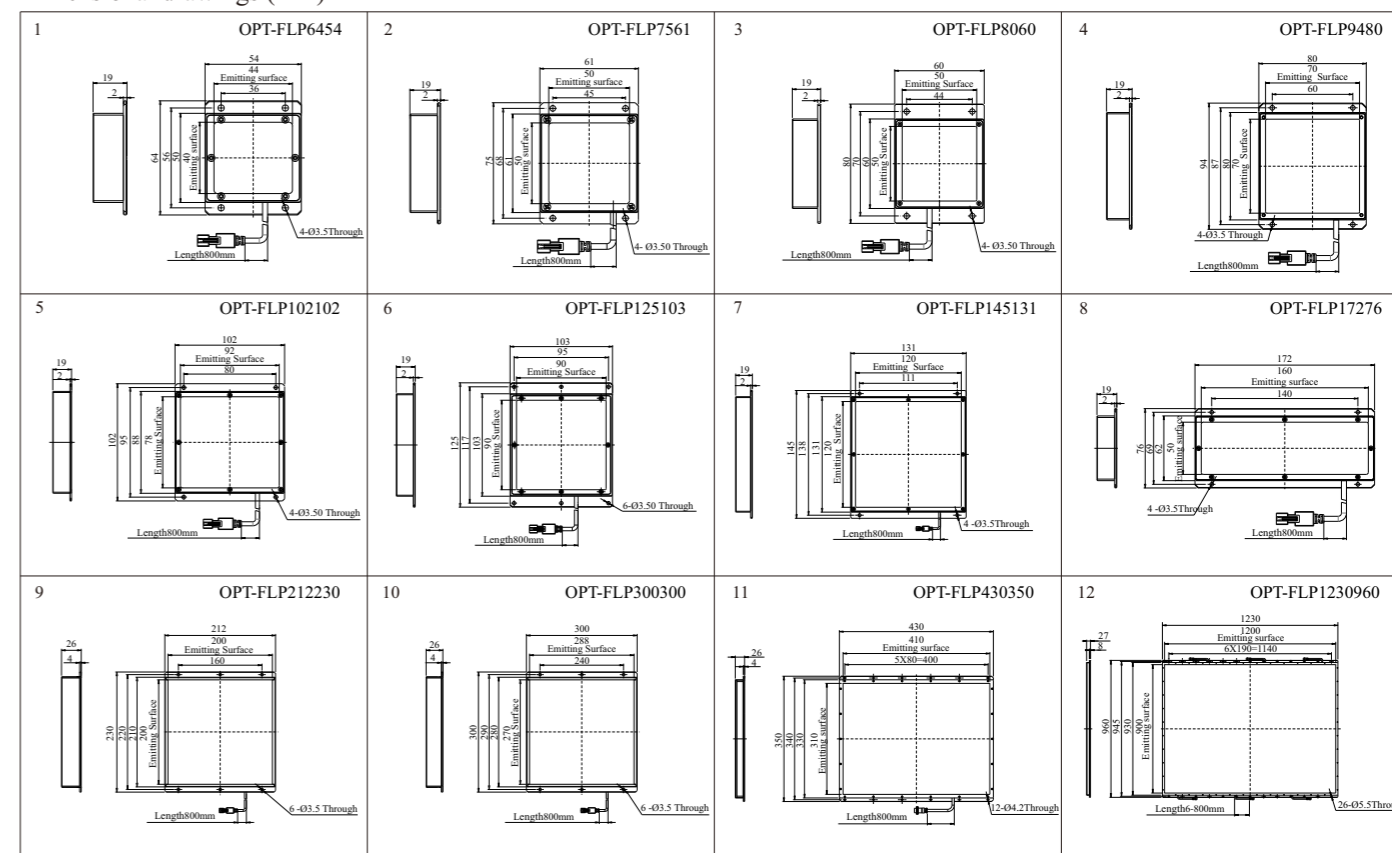


Structure display and working way

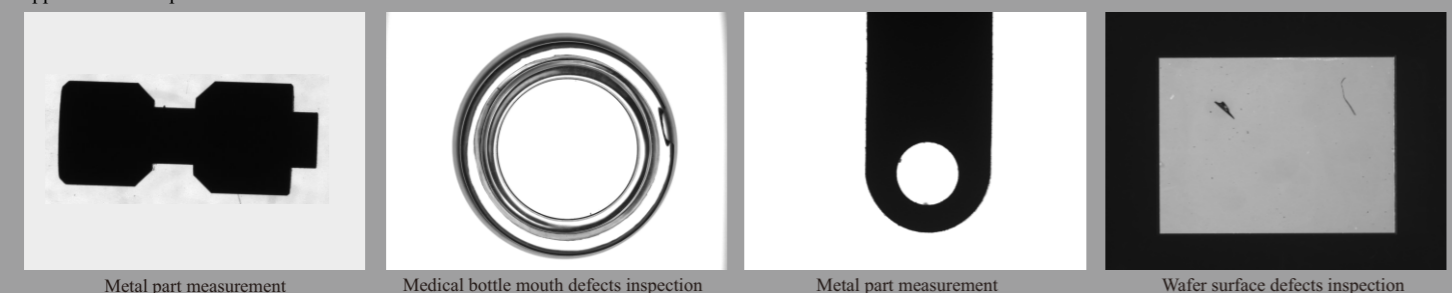
Model Table

| Model | Emitting Surface | Output Power ●●○ | Output Power ● | Color | Size |
|----------------|------------------|------------------|----------------|-------|------|
| OPT-FLP6454 | 44x40 | 24V/1.7W | 24V/1.2W | ●●●● | 1 |
| OPT-FLP7561 | 50x50 | 24V/2.6W | 24V/1.7W | ●●●● | 2 |
| OPT-FLP8060 | 50x50 | 24V/2.3W | 24V/1.7W | ●●●● | 3 |
| OPT-FLP9480 | 70x70 | 24V/5.2W | 24V/3.6W | ●●●● | 4 |
| OPT-FLP102102 | 160x160 | 24V/7.2W | 24V/4.8W | ●●●● | 5 |
| OPT-FLP125103 | 90x90 | 24V/10.1W | 24V/8.1W | ●●●● | 6 |
| OPT-FLP145131 | 120x120 | 24V/13.2W | 24V/9.6W | ●●●● | 7 |
| OPT-FLP17276 | 50x160 | 24V/7.8W | 24V/5.2W | ●●●● | 8 |
| OPT-FLP212230 | 200x200 | 24V/24.0W | 24V/19.2W | ●●●● | 9 |
| OPT-FLP300300 | 270x288 | 24V/62.4W | 24V/38.4W | ●●●● | 10 |
| OPT-FLP430350 | 310x410 | 24V/96.0W | 24V/48.0W | ●●●● | 11 |
| OPT-FLP1230960 | 1200x900 | 24V/691.2W | 24V/384.0W | ●●●● | 12 |

Dimensional drawings (mm)



Application example



Metal part measurement

Medical bottle mouth defects inspection

Metal part measurement

Wafer surface defects inspection