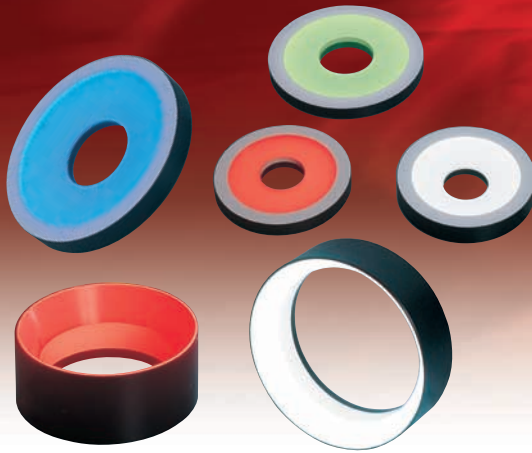


# Indirect light type

# Shadow-less Ring Light, Close-distance Shadow-less Ring Light

## IFR IPR

DC 24V products available



### Uniform irradiation on works with gloss or irregular surface profiles

This is an indirect light where LED elements are mounted around the ring-shaped light-transmitting plate. There is no LED element on the luminescent plane, which is different from the direct ring light; therefore, the shadow of the elements is not projected on a work. Uniform irradiation is possible even on glossy works with gloss or irregular surface profiles. IPR is more compact and lightweight than IHLR (Example: IPR-100/73R About 150g, IHLR-120R About 420g). In addition, a lot of LED elements achieve high uniformity.

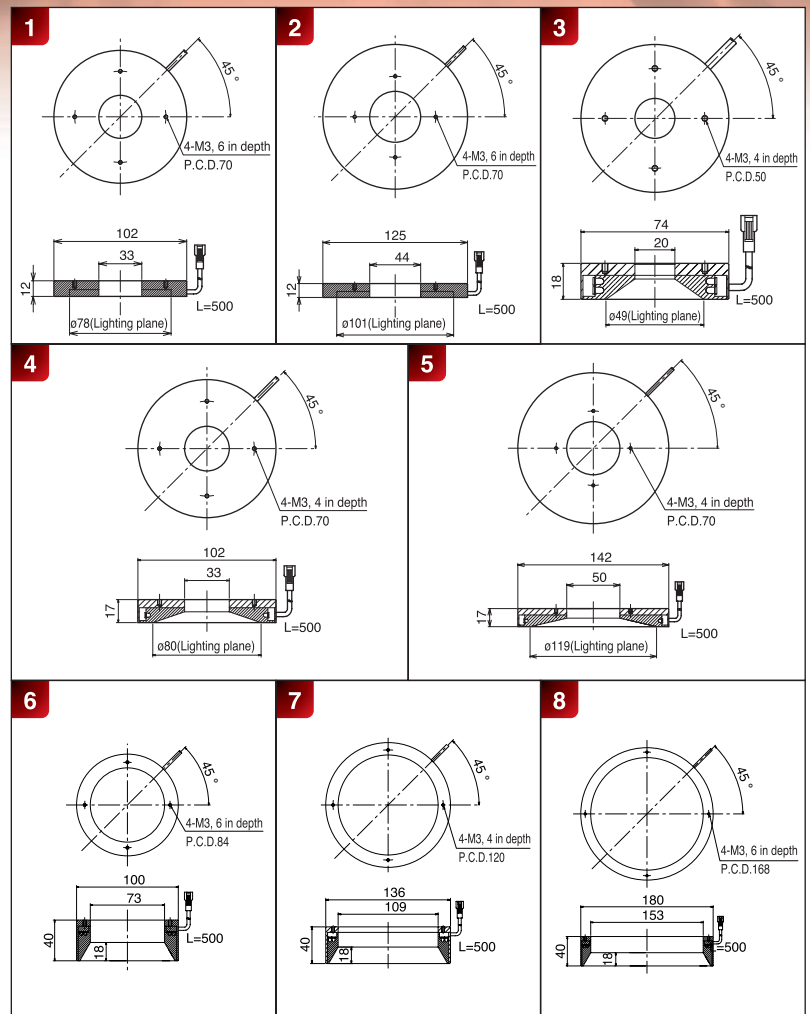
Unit: mm

Model (12V)	Irradiating color	Number of LEDs	Power Consumption (W)	SAG (*)	Outline drawing	Model (24V)
IFR-100R	R	72	2.9	6F	-	-
IFR-100DW	W	72	5.8	FF	1	-
IFR-100	B/G	72	5.8	DE	-	-
IFR-130R	R	90	3.6	70	-	-
IFR-130DW	W	90	7.2	FF	2	-
IFR-130	B/G	90	7.2	E0	-	-
IFR-K74/20R	R	96	3.9	70	-	-
IFR-K74/20DW	W	96	7.7	FF	3	-
IFR-K74/20	B/G	96	7.7	E1	-	-
IFR-K100R	R	72	2.9	6F	-	-
IFR-K100DW	W	72	5.8	FF	4	-
IFR-K100	B/G	72	5.8	DE	-	-
IFR-K150R	R	102	4.1	70	-	-
IFR-K150DW	W	102	8.2	FF	5	-
IFR-K150	B/G	102	8.2	E2	-	-
IPR-100/73R	R	132	5.3	71	-	IPR-100/73RHV
IPR-100/73DW	W	132	10.6	FF	6	IPR-100/73WHV
IPR-100/73	B/G	132	10.6	E7	-	IPR-100/73 HV
IPR-136/109R	R	180	7.2	72	-	IPR-136/109RHV
IPR-136/109DW	W	180	14.4	FF	7	IPR-136/109WHV
IPR-136/109	B/G	180	14.4	EE	-	IPR-136/109 HV
IPR-180/153R	R	258	10.4	75	-	IPR-180/153RHV
IPR-180/153DW	W	258	20.8	FF	8	IPR-180/153WHV
IPR-180/153	B/G	258	20.8	FA	-	IPR-180/153 HV

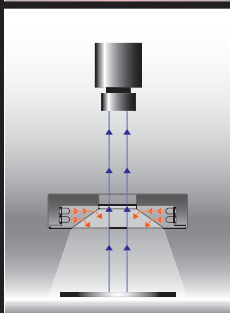
represents B = blue, or G = green.

Number of LEDs, power consumption, SAG value, and outline drawing are for DC12V products. Please contact us for specifications of DC24V products.

\* SAG represents the maximum SAG setting value. For details, refer to page 54.



### Example of use



### Example of the Image Photographed



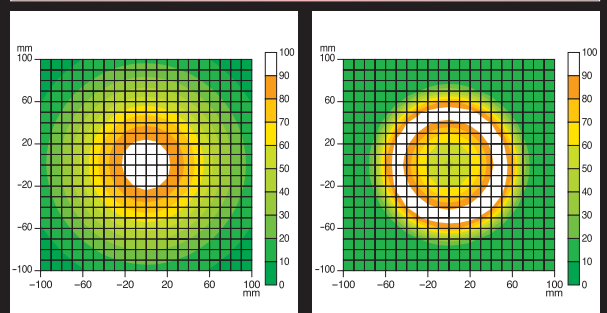
Direct ring light is used. Halation on the surface is observed.

Work: Glossy paper  
Light: IDR-90/50DW

Irradiating indirect light can prevent halation.

Work: Glossy paper  
Light: IFR-K100DW

### Luminance distribution



Soft irradiation, and excellent in uniformity. The K model can irradiate the central area more brightly.

Measurement model: IFR-K150DW  
WD: 50mm

The irradiating plane can be moved by changing the WD.

Measurement model: IPR-136/109DW  
WD: 10mm