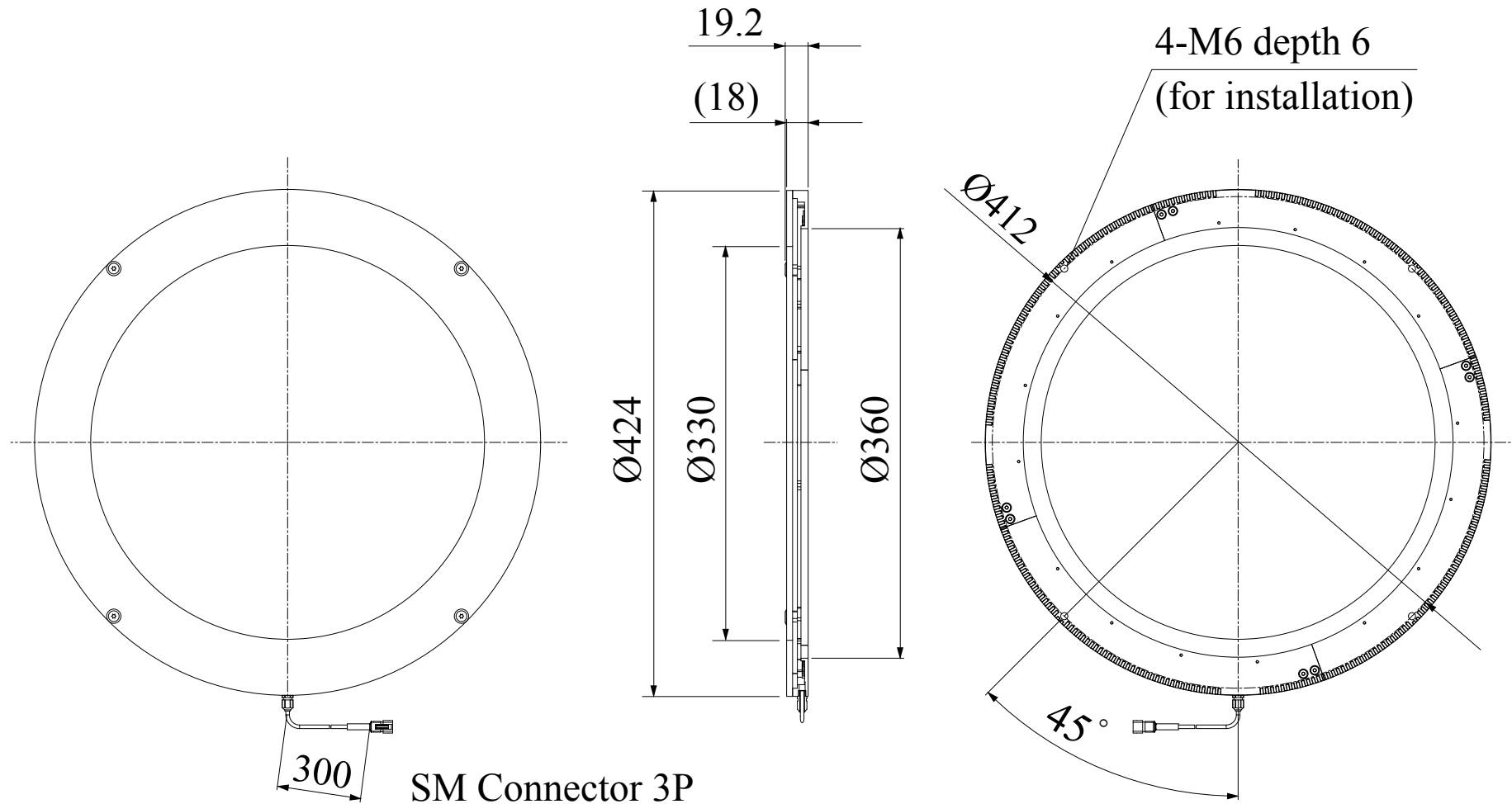


# HPR-400RD/SW/BL

Model	HPR-400RD	HPR-400SW/BL
Voltage	24V DC	
Power consumption	25W	41W
Mass	1050g	
Connector type	3P ( 1: + , 2: NC , 3: - )	

Third Angle Projection Units: mm

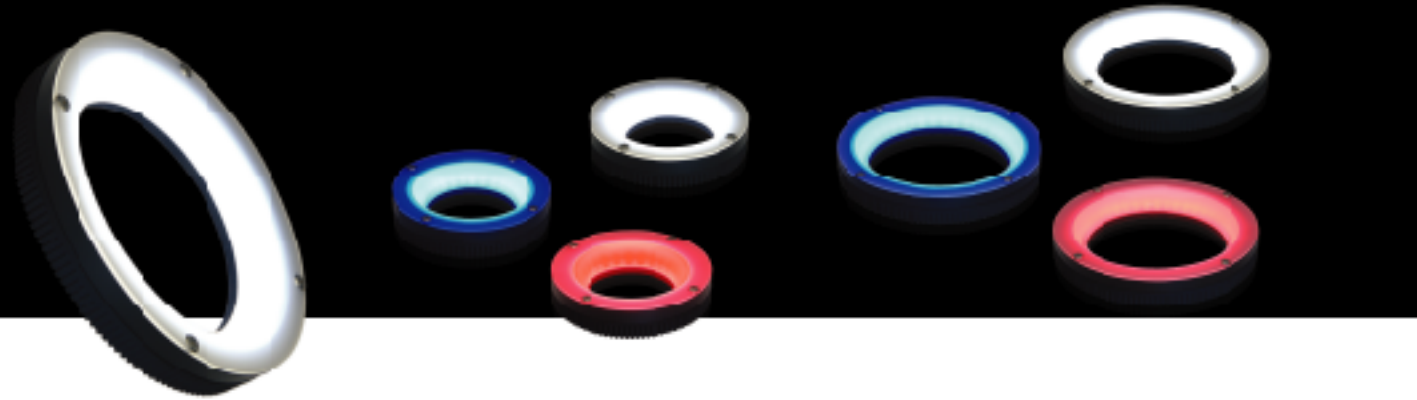




# Ring Lights

## HPR Series

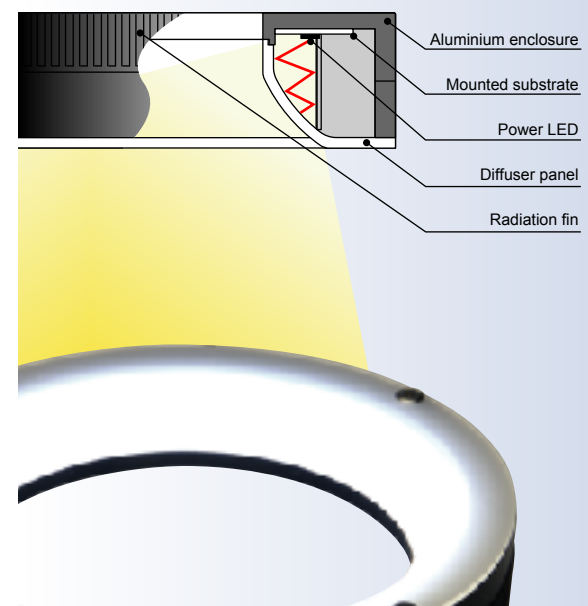
**"Brighter" "More uniform" "Easy to use" High-Power Ring Lights**  
Enhanced light intensity and larger uniform area allows for use in more diversified applications.



### Radiation of high-intensity diffusion light

The use of power LEDs markedly enhances light intensity compared with conventional diffusion ring lights. The unique illumination structure achieves a uniform area with higher flexibility.

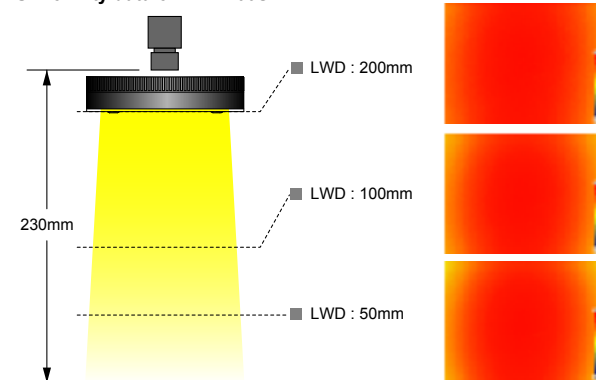
Cross section structure of HPR Series



### Achievement of larger uniform areas

The unique illumination structure effectively diffuses and irradiates light from the LED. Since there is little change in the uniform area even if the distance from a workpiece to a light is changed, this series can be used in a wide variety of environments and for diverse applications.

Uniformity data of HPR-100SW

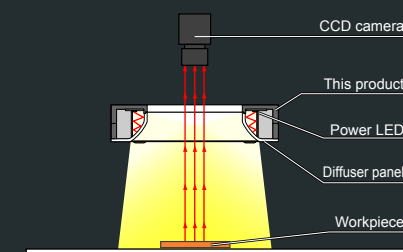


\* This shows the relative brightness distribution when the brightest area is set at 100. The data given here is intended for reference purposes only and is not intended to assure the quality of the product.

Measuring conditions	Camera	1/2CCD
	Lens	f25mm
	Macro ring	2mm
	WD	230mm
	Field (Y direction)	40mm
	Lighting	HPR-100SW
	LWD	50,100,200mm

### Illumination structure of HPR-100

The use of power LEDs significantly enhances the light intensity compared with conventional lights. The unique illumination structure achieves a uniform area with higher flexibility.

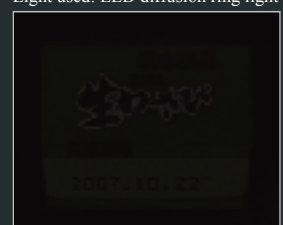


### Example of surface-emitting ring light images

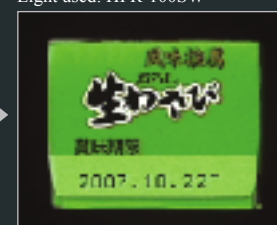
Image of date on food product  
Macroscopic image



Light intensity is not adequate at a shutter speed of 1/10000 with the LED diffusion ring light.  
Light used: LED diffusion ring light



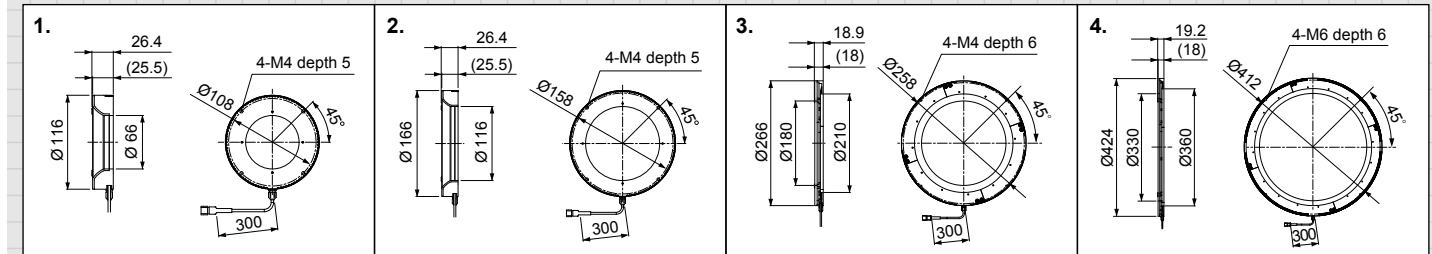
The surface of a workpiece is imaged evenly and brightly with the high-power ring light.  
Light used: HPR-100SW



### Product Lineup Table

Series	Model Name	Color	Power Consumption	Options	Dimension
HPR	HPR-100RD	●	24V/9.0W	—	1
	HPR-100SW/BL	○/●	24V/14W	—	
	HPR-150RD	●	24V/16W	—	2
	HPR-150SW/BL	○/●	24V/20W	—	
	HPR-250RD	●	24V/25W	—	3
	HPR-250SW/BL	○/●	24V/37W	—	
	HPR-400RD	●	24V/25W	—	4
	HPR-400SW/BL	○/●	24V/41W	—	

### Dimensions (Unit: mm)



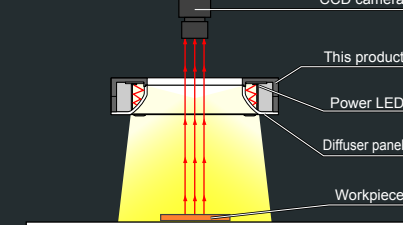
\* HPR Series cannot be used in combination with our strobe light (PTU2 Series, etc.).

(Lighting ON/OFF control by an ambient light source is possible.)

The peak wavelength of red light is 625nm. Use R60 (optional) for use with a sharp-cut filter (See pg. 67).

### Example of surface-emitting ring light images

Image of letters on can bottom  
Light intensity is not adequate at a shutter speed of 1/10000 with the LED diffusion ring light.  
Light used: LED diffusion ring light

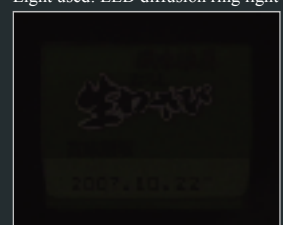


### Example of surface-emitting ring light images

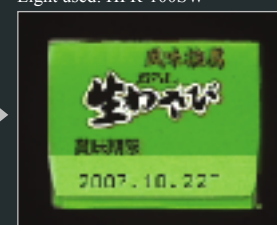
Image of letters on package bottom  
Light intensity is not adequate at a shutter speed of 1/10000 with the fluor ring lamp.  
Light used: Fluor ring lamp



The surface of a workpiece is imaged evenly and brightly with the high-power ring light.  
Light used: HPR-150RD



The surface of a workpiece is imaged evenly and brightly with the high-power ring light.  
Light used: HPR-100RD



### Example of surface-emitting ring light images

#### Image of letters on can bottom

Light intensity is not adequate at a shutter speed of 1/10000 with the LED diffusion ring light.  
Light used: LED diffusion ring light

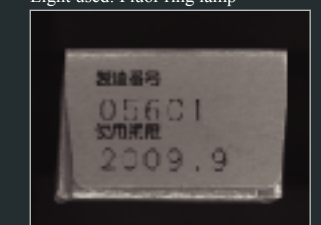


The surface of a workpiece is imaged evenly and brightly with the high-power ring light.  
Light used: HPR-150RD



#### Image of letters on package bottom

Light intensity is not adequate at a shutter speed of 1/10000 with the fluor ring lamp.  
Light used: Fluor ring lamp



The surface of a workpiece is imaged evenly and brightly with the high-power ring light.  
Light used: HPR-100RD

