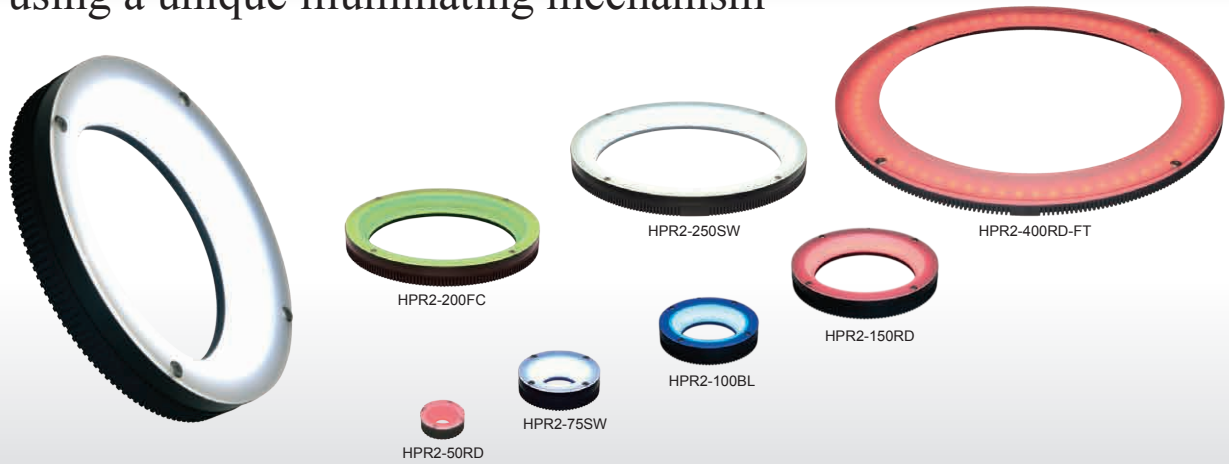




Achieves a uniform region with a high degree of freedom by using a unique illuminating mechanism



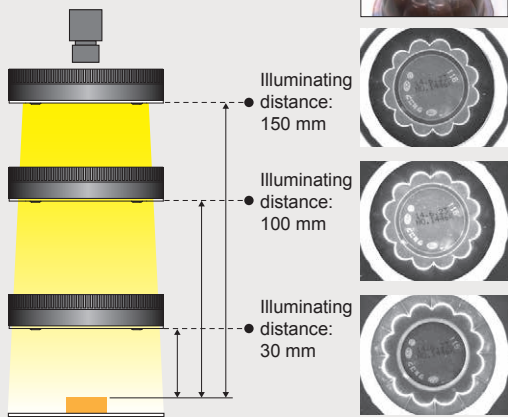
Applications

Inspection for damage or stains, visual and color determination inspections, character recognition, text inspection, high angle uniform illumination, characteristic extraction at low angle, etc.

Supports from Low Angles to High Angles

Provides diffused light from the LEDs without waste using a unique illuminating mechanism. Even if the distance from the workpiece to the light unit is changed, there is little variation in the uniform region and it can therefore be used for a wide variety of uses.

Achieves a uniform region with a high degree of freedom

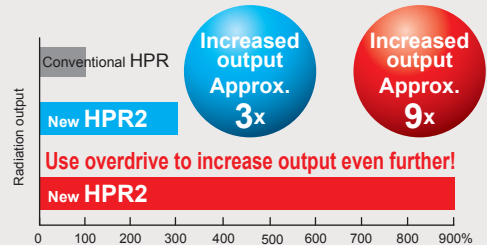


Provides Diffused Light at High Output

It achieves uniform illumination of diffused light at high output using surface-mounted LEDs and a specially processed diffusion plate.

Achieved higher output than the conventional product

Output comparison with the conventional product



\* This is a comparison between the HPR-100 and HPR2-100 light units, using red and white colors.  
\* It can be combined with a strobe control unit for even brighter emission than continuous emission.  
\* Cannot use a full color (RGB) type.  
\* The data included is for reference only. Actual values may vary.

Added two sizes and a full color (RGB) type

We added the HPR2-75 and HPR2-200 models. Also, we added a full color (RGB) type to the lineup as variation for wavelengths, increasing the applications of our products.

Custom Order Example

Please contact your CCS sales representative.

E.g.: Different shape

Format/material Changed the format to a semicircle to match the workpiece.

Customizable items

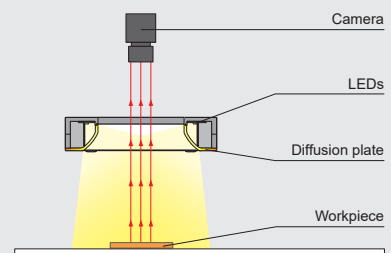
- External/internal diameter
- Wavelength/Color
- Increase output
- Cable length
- Illuminating angle
- Format/material
- Connector format
- Installation/mounting



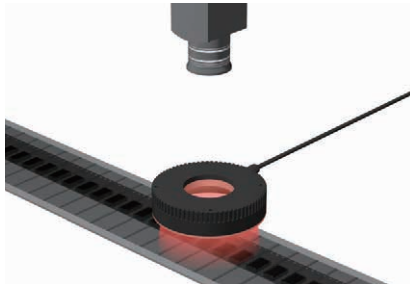
Example Configuration

Uses a unique illuminating mechanism and emits diffused light at high output.

HPR2-100



➤ Imaging Example: Imaging Text on Electronic Parts



Description	Printing inspection
Workpiece	Electronics parts in embossed tapes
Conventional lighting	LED Ring Light
New lighting	HPR2-75RD
Result	Improved uniformity

**Workpiece image**

Electronics parts in embossed tapes

**LED Ring Light**

Stable inspection is difficult due to surface reflection.

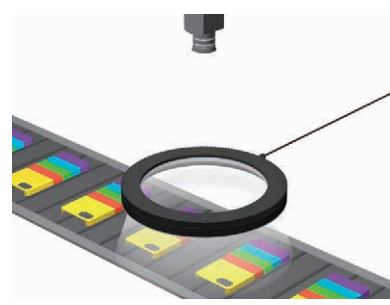
**HPR2-75RD**

Surface reflection is reduced and an image of the text can be made.

➤ Imaging Example: Imaging the Appearance of Multi-Colored Workpieces

**Workpiece image**

Smartphone cases

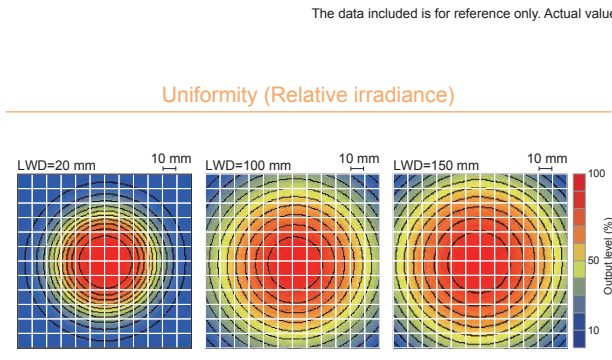
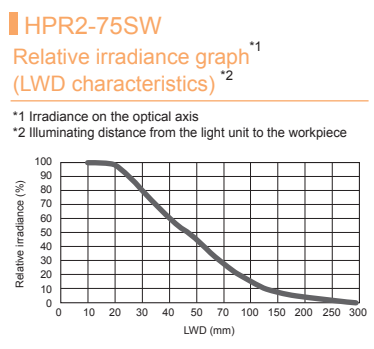


Description	Visual inspection
Workpiece	Smartphone cases
Conventional lighting	-
New lighting	HPR2-200FC: full color (RGB) type
Result	Allows for color determination.

**HPR2-200FC: full color (RGB) type**

Imaging with red illumination    Imaging with blue illumination    Imaging with green illumination    Imaging with white illumination

➤ Data: Relative Irradiance Graph and Uniformity (Representative Example)



The data included is for reference only. Actual values may vary.

LDR2 LDR2-LA LDR-LA1 SQR SQR-TP	Ring (Direct)
HLDR3 HPR2 LFR LKR FPR	Ring (Convergent/Diffused)
FPQ3	Square
LDL2 LDLB HDL3 LB	Bar
TH2 (5 types) LFL	Flat
HPD2 LDM2 LAV PDM LFXV LFX3 LFX3-PT	Dome
LFV3 LFV3-G	Coaxial
MSU MFU	Coaxial
PF	Strobe
HLDR-IP HSL-PCL	Water-proof
Small COB Lights	COB
UV3/VL3 UV LNSP-UV3-FN	UV / Violet
IR2 (Under 1000-nm Type) IR (Over 1000-nm Type) CIR	Infrared
IU	Intensity Control
HLV3 LV LSP HFS/HFR HLV3-22-4-NR HLV3-3M-RGB-4 PFBR-600SW2 PFBR-150 PFB3	Spot, Etc.
LNLP LNSP2 Coaxial Units LNSP-FN LN/LN-HK	Line (Convergent)
LNSD LND2 LT LNV LFXV (Rectangular Type) TH2 (Rectangular Type)	Line (Diffused)
LNDG LNIS2 LNIS LNIS-FN	Line (Oblique Angled)
Telecentric Lens Macro Lens	Lenses

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- Pricing/Quotation
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# HPR2 Series



Refer to our website for product details.

CCS HPR2

Search



## Introduction to Half Ring Lights (Custom Order Example)

### HPR2-HFCT Series

It has a space-saving design that can be installed and used in a limited space

- The contrast can be increased by illuminating only the required parts
- Can be installed in a device with limited space and illuminates the area to be observed in pinpoint
- Can be customized according to the application such as emission color and size



HPR2-100SW-HFCT

**Custom order products** The warranty period of the custom order product is different from that of the CCS standard products. Contact our local sales office for details.

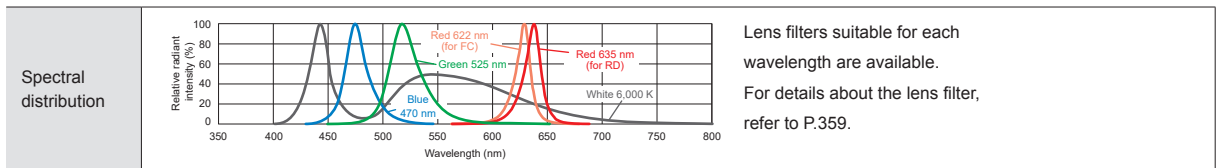
## Lineup

Classification	Model Name *1	Input Voltage	Power Consumption				Options	Extension Cables	Recommended Control Units *4		Weight	
			RD (Red)	SW (White)	BL (Blue)	FC** (Red/Green/Blue)			PD4	PD3		
Standard products	HPR2-50□□	24 V	7.6 W	9.1 W	9.1 W	3.8 W**4	Bracket	FCB*5 Straight Cable	PD4	PD3	46 g	
	HPR2-75□□	24 V	17 W	16 W	16 W	6.0 W**4			CC-ST-1024	POD*2		
	HPR2-100□□	24 V	17 W	23 W	23 W	11 W**4		FCB-W*6 2-Branch Cable	FCB-F 4-Branch Cable	PD4	PD3	160 g
	HPR2-150□□	24 V	27 W	27 W	27 W	15 W**4				POD*2	250 g	
	HPR2-200□□	24 V	34 W	41 W	41 W	19 W**4				FRCB Robot Cable	POD	380 g
	HPR2-250□□	24 V	45 W	46 W	46 W	24 W**4		1,050 g				
	HPR2-400□□-FT	24 V	45 W	46 W	46 W	30 W**4		-	-	-	-	-
Custom order products	HPR2-50□□-HFCT	24 V	*3	4.6 W	*3	*3	*3	*5 The cables with a model name that ends with "ME7", "EL2", "PF", or "PF-EL9" are not included. *6 The cables with a model name that ends with "EL2" are not included.	PD4	PD3	*3	
	HPR2-75□□-HFCT	24 V	*3	7.6 W	*3	*3			CC-ST-1024	POD		
	HPR2-100□□-HFCT	24 V	*3	12 W	*3	*3			PD4	PD3		
	HPR2-150□□-HFCT	24 V	*3	14 W	*3	*3			POD			

Extension Cables ▶ P.371    Control Unit Selection Guide ▶ P.305    List of Control Unit Specifications ▶ P.307

\*1 □□ in the model name contains the LED color. (RD: Red, SW: White, BL: Blue, FC: Red/Green/Blue)  
 \*2 For information on the combination of light units and POD Series control unit, please refer to our website. <https://www.ccs-grp.com/lnk/qtr/pod>  
 \*3 This product is custom-made. Contact our local sales office for details.  
 \*4 For the full color (RGB) type control unit, use the PD3 3-channel specification. Cannot be used with the strobe control unit (overdrive mode).

## LED Properties

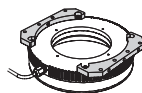


Be sure to read the User Manual included with the product before use and follow the safety precautions upon use. The data included is for reference only. Actual values may vary.

## Options



Combine with the Dome Light HPD2 Series to achieve imaging by light switching and simultaneous lighting.



Achieves installation using installation holes with a larger gap than the light unit body installation holes, or installation on a vertical surface.

### Light joint bracket

Model name	Applicable Light Unit 1 (Common for all colors)	Applicable Light Unit 2 (Common for all colors)
BK-75-JO	HPR2-75 Series	HPD2-75 Series
BK-100-JO	HPR2-100 Series	HPD2-100 Series
BK-150-JO	HPR2-150 Series	HPD2-150 Series
BK-200-JO	HPR2-200 Series	HPD2-200 Series
BK-250-JO	HPR2-250 Series	HPD2-250 Series

▶ P.370

### Expansion mounting bracket

Model name	Applicable Light Unit (Common for all colors)
BK-50-CI	HPR2-50 Series
BK-75-CI	HPR2-75 Series
BK-100-CI	HPR2-100 Series
BK-150-CI	HPR2-150 Series
BK-200-CI	HPR2-200 Series
BK-250-CI	HPR2-250 Series

▶ P.370

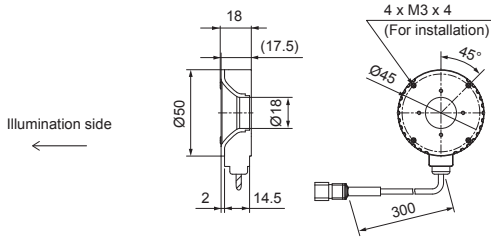
- Example of the expansion mounting bracket in use



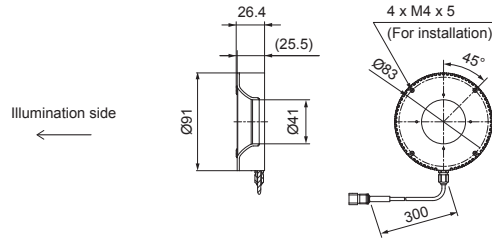
Ring Light: Image of usage with the HPR2-200RD

➤ Dimensions (mm)

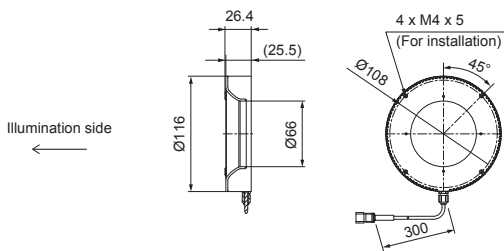
HPR2-50RD/SW/BL/FC



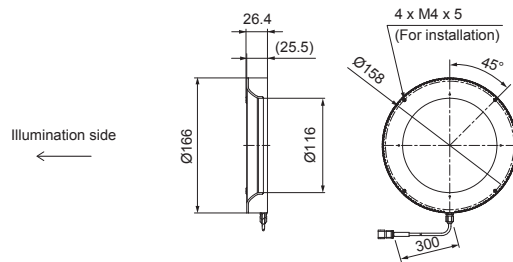
HPR2-75RD/SW/BL/FC



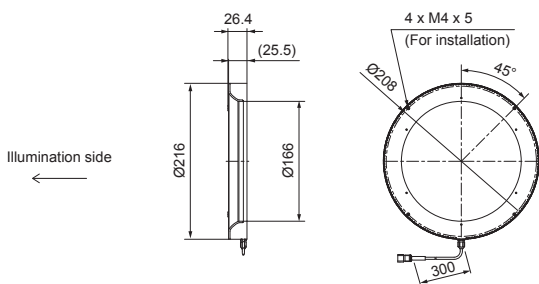
HPR2-100RD/SW/BL/FC



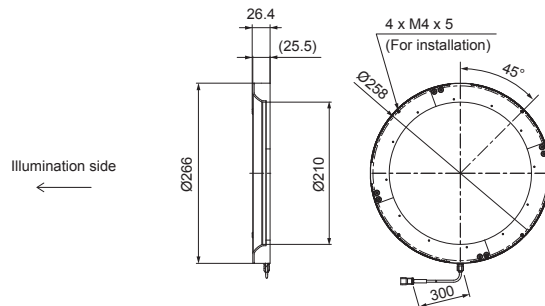
HPR2-150RD/SW/BL/FC



HPR2-200RD/SW/BL/FC

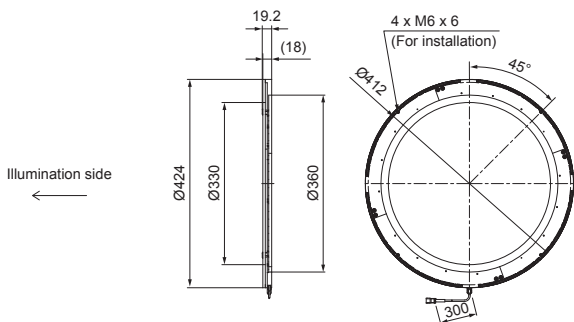


HPR2-250RD/SW/BL/FC

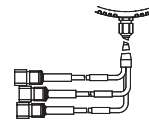


The HPR2-250 model has a curved diffusion plate. Be aware this differs from the conventional product.

HPR2-400RD-FT / SW-FT / BL-FT / FC-FT



The HPR2-400-FT has a flat diffusion plate.



The full color type (HPR2-□□FC, HPR2-400FC-FT) has three connectors. Use a 3-channel control unit if controlling intensity separately for each color.

You can change the connectors of the light unit cable. Choose between M12 connectors and flying leads. Refer to P.19 for details.

LDR2	Ring (Direct)
LDR2-LA	Ring (Direct)
LDR-LA1	Ring (Direct)
SQR	Ring (Direct)
SQR-TP	Ring (Direct)
HLDR3	Ring (Convergent/Diffused)
HPR2	Ring (Convergent/Diffused)
LFR	Ring (Convergent/Diffused)
LKR	Ring (Convergent/Diffused)
FPR	Ring (Convergent/Diffused)
FPQ3	Square
LDL2	Bar
LDLB	Bar
HLDL3	Bar
LB	Bar
TH2 (5 types)	Flat
LFL	Flat
HPD2	Dome
LDM2	Dome
LAV	Dome
PDM	Dome
LFXV	Dome
LFX3	Dome
LFX3-PT	Dome
LFV3	Coaxial
LFV3-G	Coaxial
MSU	Coaxial
MFU	Coaxial
PF	Strobe
HLDR-IP	Water-proof
HSL-PCL	Water-proof
Small COB Lights	COB
UV3/VL3	Violet
UV	Violet
LNSP-UV3-FN	Violet
IR2 (Under 1000-nm Type)	Infrared
IR (Over 1000-nm Type)	Infrared
CIR	Infrared
IU	Intensity Control
HLV3	Spot, Etc.
LV	Spot, Etc.
LSP	Spot, Etc.
HFS/HFR	Spot, Etc.
HLV3-22-4-NR	Spot, Etc.
HLV3-3M-RGB-4	Spot, Etc.
PFBR-600SW2	Spot, Etc.
PFBR-150	Spot, Etc.
PFB3	Spot, Etc.
LNLP	Line (Convergent)
LNSP2	Line (Convergent)
Coaxial Units	Line (Convergent)
LNSP-FN	Line (Convergent)
LN/LN-HK	Line (Convergent)
LNSD	Line (Diffused)
LND2	Line (Diffused)
LT	Line (Diffused)
LN	Line (Diffused)
LN	Line (Diffused)
LFXV (Rectangular Type)	Line (Diffused)
TH2 (Rectangular Type)	Line (Diffused)
LNDG	Line (Oblique Angled)
LNIS2	Line (Oblique Angled)
LNIS	Line (Oblique Angled)
LNIS-FN	Line (Oblique Angled)
Telecentric Lens	Lenses
Macro Lens	Lenses

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