LDR2-LA LDR-LA1

SQR-TP

LFV3

HLV2

PFBR LNSF CU-LNSP

LNSP-FN

LN/LN-HK

PFB2

LNSD LND2 Diffused HLND LT

LNV/HLDN LNIS LNIS-FN

Macro Lens

# Ring Lights **HPR2** series

Refer to our website for product details.

CCS HPR2 ▶ Search Use a search engine

your smartphone or cell phone.

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



Inspection for damage/stains, visual/color determination inspections, character recognition, text inspection, high angle uniform illumination, and 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

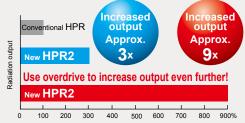


### Provides diffused light at high output

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

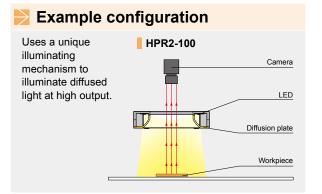


- \* This is a comparison between the HPR-100 and HPR2-100, using red and white colors.
- It is a Comparison between the Strobe Control Unit for even brighter emission than continuous of The data included is for reference only and does not guarantee the quality of this product.

#### 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.







3D CAD

Product Fliers

Data Sheets

Download here http://www.ccs-grp.com/dl/

LDR2 LDR2-LA

LDR-LA1

SQR-TP Convergent Lighting Lighting

> HPR LFR LKR

FPR FPQ2 LDL2 Pirect Lighting TDTB

HLDL2 TH LFL HPD2 HPD LDM2 LAV PDM LFX2

LFV3 LFV2

Collimated Lighting MSM NAW

Ultraviolet Lighting UV2 UV LNSP-UV-FN

Infrared Lighting HLV2 ١٧ LSP

> HFS/HFR HLV2-NR HLV2-3M-RGB-3W

PFB2 PFBR

LNSP

CO-LNSP Lighting LNSP-EN

LNSD

LND2

Diffused HIND HIND

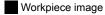
LN/LN-HK

LNV/HLDN LNIS-FN

### Imaging example: Imaging of text on electronic parts



Description	Printing inspection	
Workpiece	Electronics part in embossed tape	
Before the proposal	LED Ring Light	
After the proposal	HPR2-75RD	
Result	Improved uniformity	





Electronics part in embossed tape

LED Ring Light



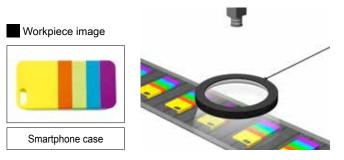
Stable inspection is difficult due to surface reflection.

HPR2-75RD



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

### Imaging example : Exterior imaging of a multi-colored workpiece



Description	Visual inspection
Workpiece	Smartphone case
Before the proposal	-
After the proposal	HPR2-200FC: full color (RGB) type
Result	Allows for color determination.

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



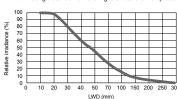
Imaging with red illumination Imaging with blue illumination Imaging with green illumination Imaging with white illumination

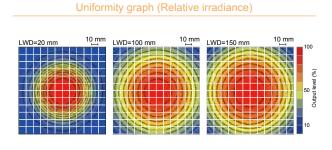
### Data: Relative irradiance graph/Uniformity graph (Representative example)

\*The graph included is for reference only and does not guarantee the quality of this product.

# HPR2-75SW Relative irradiance graph (LWD Characteristics) 2

\*1: Irradiance on the optical axis
\*2: Illuminating distance from the Light Unit to the workpiece





You can inquire using our website.

Requests for

Requests for Loan

Inquire on our website here. http://www.ccs-grp.com/contact/ Macro Lens

LDR2

Lighting,

LNSP CU-LNSP LNSP-FN

LN/LN-HK LNSD LND2

Diffused Lighting HLND LT LNV/HLDN

LNIS OBlide LNIS Telecentric Lens

Macro Lens

**HPR2** series



### Refer to our website for product details.

CCS HPR2



your smartphone or cell phone.

Use a search engine

### Lineup

Model name	LED color	Power consumption	Peak wavelength/ correlated color temperature	Options	Recommended Control Units	Weight
HPR2-50RD	Red	24 V / 7.6 W	635 nm	Bracket	PD3 CC-ST-1024	
HPR2-50SW	White	24 V / 9.1 W	6,000 K		PSB PTU2	40 -
HPR2-50BL	Blue		470 nm		P3B P102	46 g
HPR2-50FC*1	Red/Green/Blue	24 V / 3.8 W	622 nm/525 nm/470 nm		PD3	
HPR2-75RD	Red	24 V / 17 W	635 nm		PD3	
HPR2-75SW	White	24 V / 16 W	6,000 K	Bracket	PSB PTU2	160 g
HPR2-75BL	Blue		470 nm		P3B P102	
HPR2-75FC*1	Red/Green/Blue	24 V / 6.0 W	622 nm/525 nm/470 nm		PD3	
HPR2-100RD	Red	24 V / 17 W	635 nm		PD3	170 g
HPR2-100SW	White	24.1//22.10/	6,000 K	Bracket	PSB PTU2	
HPR2-100BL	Blue	24 V / 23 W	470 nm		PSB P102	
HPR2-100FC*1	Red/Green/Blue	24 V / 11 W 622 nm.	622 nm/525 nm/470 nm		PD3	
HPR2-150RD	Red	24 V / 27 W	635 nm	Bracket	PD3	
HPR2-150SW	White		6,000 K		PSB PTU2	250 ~
HPR2-150BL	Blue		470 nm		F3B F102	250 g
HPR2-150FC*1	Red/Green/Blue	24 V / 15 W	622 nm/525 nm/470 nm		PD3	
HPR2-200RD	Red	24 V / 34 W	635 nm			
HPR2-200SW	White	24 V / 41 W	6,000 K	Bracket	PD3	380 g
HPR2-200BL	Blue		470 nm			
HPR2-200FC*1	Red/Green/Blue		622 nm/525 nm/470 nm			
HPR2-250RD	Red	24 V / 45 W	635 nm			
HPR2-250SW	White	24 V / 46 W 24 V / 24 W	6,000 K	Bracket	PD3	510 g
HPR2-250BL	Blue		470 nm			
HPR2-250FC*1	Red/Green/Blue		622 nm/525 nm/470 nm			
HPR2-400RD-FT	Red	24 V / 45 W	635 nm	-	PD3	1,050 g
HPR2-400SW-FT	White		6,000 K			
HPR2-400BL-FT	Blue	24 V / 46 W	470 nm			
HPR2-400FC-FT*1	Red/Green/Blue	24 V / 30 W	622 nm/525 nm/470 nm			

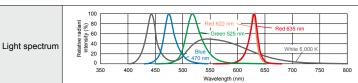
\*1: Use a 3-channel Control Unit for a full color (RGB) type

\*1: The full color (RGB) type cannot be used in combination with Strobe Control Units

| Extension Cables | P.222 | P.222 | P.2302 | P.2303 | P.24830-S).

ON/OFF control is possible via the strobe mode or ON/OFF mode of the PD3 series, and continuous lighting Control Units (PD2 series, BB series, etc.).

### **LED** properties



If using a sharp-cut filter, please use the R60 (option). For details about the sharp-cut filter, refer to P.215.

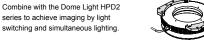
Control Unit Selection Guide ▶ P.181

Be sure to read the "Instruction Guide" included with the product before use and observe cautionary information. The data included is for reference only and does not guarantee the quality of this product.

### **Options**



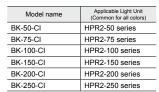
series to achieve imaging by light switching and simultaneous lighting.



#### Light joint bracket Expansion mounting bracket

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

P.219



P.220

#### • Example of the expansion mounting bracket in use



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

We have various materials.

3D CAD

Product Fliers

Achieves installation using installation holes with

a larger gap than the Light Unit body installation

holes, or installation on a vertical surface.

Data Sheets

Download here. http://www.ccs-grp.com/dl/

Control Unit Page ▶ P.185

LDM2 LAV PDM LFX2 LFV3 LFV2

Collimated Lighting MSM MFU UV2

Ultraviolet Lighting UV LNSP-UV-FN Infrared Lighting

HLV2 ١٧ LSP HFS/HFR HLV2-NR

HLV2-3M-RGB-3W PFB2 PFBR

LNSP

COnvergent Lighting CALPLAS LIGHTING CAL

LN/LN-HK LNSD

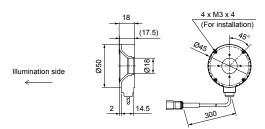
LND2 Diffused HIND HIND

LNV/HLDN LNIS LNIS LNIS-FN

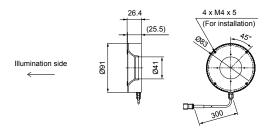
Macro Lens

# **Dimensions (mm)**

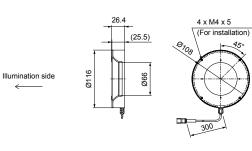
#### HPR2-50RD/SW/BL/FC



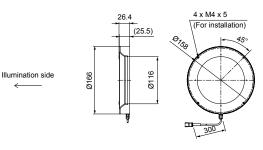
#### HPR2-75RD/SW/BL/FC



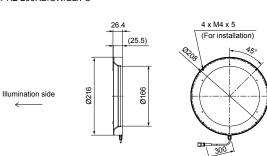
#### HPR2-100RD/SW/BL/FC



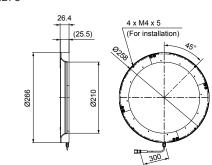
#### HPR2-150RD/SW/BL/FC



#### HPR2-200RD/SW/BL/FC



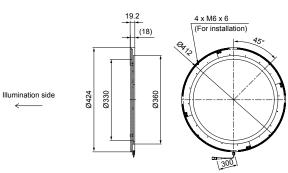
#### HPR2-250RD/SW/BL/FC



Illumination side

\* 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 full color type (HPR2- $\square\square$ FC, HPR2-400FC-FT) has three connectors. Use a 3-channel Control Unit if controlling intensity separately for each color.

\* The HPR2-400-FT has a flat diffusion plate

You can change the connectors of the Light Unit cable. Choose between M12 connectors and flying leads. Refer to P.125 for details.