



Provides diffused light evenly through the dome-shaped reflective panel



Applications Visual, text, or color determination inspections on glossy surfaces, curved surfaces, or uneven surfaces; inspection for engraving, damage, or stains on stain finishing; visual inspection of metal with hairline finishing; inspection of parts on circuit boards; etc.

Applicable to a Wide Variety of Industries

It is bright and even if the distance from the workpiece to the light unit is changed, there is little change in the uniform region. Therefore, it can be used in a wide range of industries.

Semiconductor industry (Circuit board)



HPD2-100SW (White)

Electronic parts industry (Capacitor)



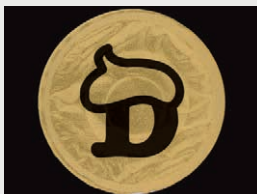
HPD2-150SW (White)

Food industry (Chocolate)



HPD2-250SW (White)

Packaging industry (Top of a drink container)



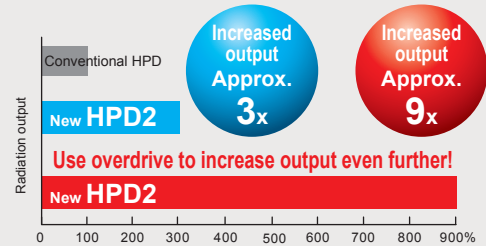
HPD2-150SW (White)

Diffused Light at High Output

Light from the surface-mounted LEDs is diffused inside the dome-shaped reflective panel. This uniformly illuminates a wide range of region.

Achieved higher output than the conventional product

Output comparison with the conventional product



* This is a comparison between the HPD-100 and HPD2-100 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 an infrared and full color (RGB) type

We added the HPD2-75 and HPD2-200 models. Also, we added infrared (860 nm) and full color (RGB) types 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 camera aperture to a rectangle

Customizable items

External/internal diameter

Wavelength/color

Increase output

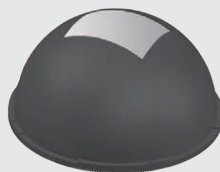
Cable length

Illuminating angle

Format/material

Connector format

Installation/mounting

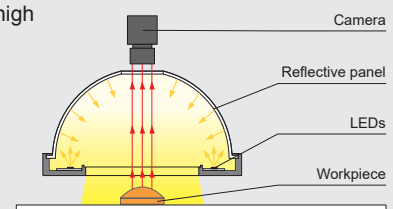


Etc.

Example Configuration

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

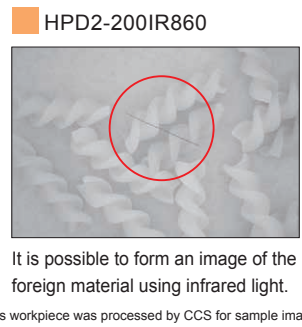
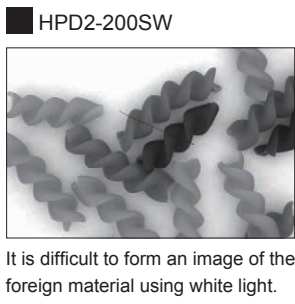
HPD2-150



➤ Imaging Example: Imaging Foreign Materials Mixed in Food



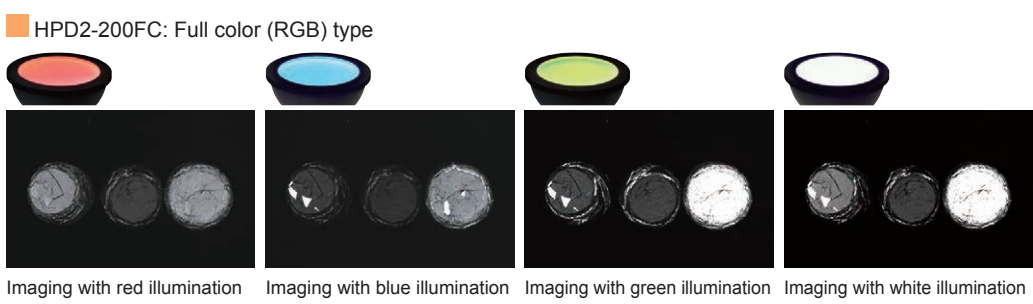
Description	Foreign material inspection
Workpiece	Macaroni
Conventional lighting	HPD2-200SW
New lighting	HPD2-200IR860: Infrared type
Result	Emphasizes the foreign material



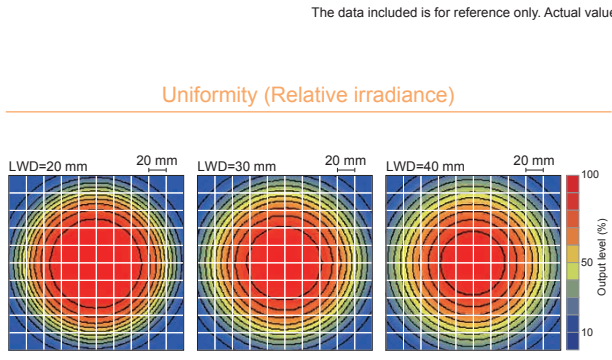
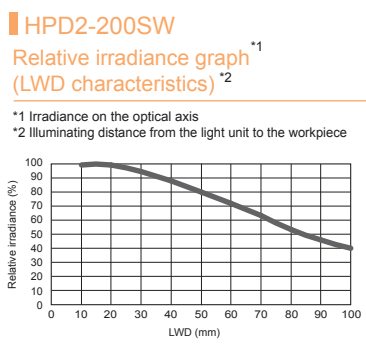
➤ Imaging Example: Imaging the Appearance of Multi-Colored Workpieces for Color Determination



Description	Visual inspection
Workpiece	Chocolate
Conventional lighting	-
New lighting	HPD2-200FC: Full color (RGB) type
Result	Allows for multi-color determination



➤ 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 HLDL3 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) IF (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.
LNL LNSP2 Coaxial Units LNSP-FN LN/LN-HK	Line (Convergent)
LNSD LND2 LT LNV LFXV (Rectangular Type) TH2 (Rectangular Type)	Line (Diffused)
LNDG LNSIS2 LNSIS LNSIS-FN	Line (Oblique Angled)
Telecentric Lens Lenses Macro Lens	

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<https://www.ccs-grp.com/contact/>

HPD2 Series



Refer to our website for product details.

CCS HPD2

Search



Lineup

Model Name*1	Input Voltage	Power Consumption					Options	Extension Cables	Recommended Control Units*2	Weight
		RD (Red)	SW (White)	BL (Blue)	IR860 (Infrared)	FC (Red/Green/Blue)				
HPD2-75□□	24 V	17 W	16 W	16 W	12 W	6.0 W*2	Bracket	FCB*5 Straight Cable FCB-W*6 2-Branch Cable FCB-F 4-Branch Cable FRCB Robot Cable	PD4 PD3 POD*3	140 g
HPD2-100□□	24 V	17 W	23 W	23 W	23 W	11 W*2				160 g
HPD2-150□□	24 V	27 W	27 W	27 W	35 W	15 W*2				285 g
HPD2-200□□	24 V	34 W	41 W	41 W	46 W	19 W*2				460 g
HPD2-250□□	24 V	45 W	46 W	46 W	46 W	24 W*2				650 g
HPD2-400□□	24 V	45 W	46 W	46 W	46 W	30 W*2				1,300 g

*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.

Extension Cables ▶ P.371

Control Unit Selection Guide ▶ P.305

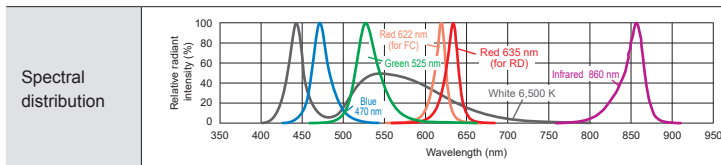
List of Control Unit Specifications ▶ P.307

*1 □□ in the model name contains the LED color. (RD: Red, SW: White, BL: Blue, IR860: Infrared, FC: Red/Green/Blue)

*2 For the full color (RGB) type control unit, use the PD3 3-channel specification. Cannot be used with the strobe control unit (overdrive mode).

*3 For information on the combination of light units and POD Series control unit, please refer to our website. <https://www.ccs-grp.com/lnk/qr/pod>

LED Properties

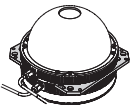


Lens filters suitable for each wavelength are available.

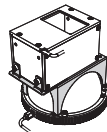
For details about the lens filter, refer to P.359.

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 a ring light to achieve imaging by light switching and simultaneous lighting.



Combine with a coaxial light to solve uneven illumination and achieve uniform illumination from all directions.



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	HPD2-75	HPR2-75	LDR2-100-LA	LDR-96-LA1	
BK-100-JO	HPD2-100	HPR2-100	LDR2-132-LA	LDR-146-LA1	
BK-150-JO	HPD2-150	HPR2-150	LDR2-170-LA	LDR-176-LA1	
BK-200-JO	HPD2-200	HPR2-200	LDR2-208-LA	LDR-206-LA1	
BK-250-JO	HPD2-250	HPR2-250	-	-	

▶ P.370

Coaxial light joint bracket

Model Name	Applicable Light Unit 1 (Common for all colors)	Applicable Light Unit 2 (Common for all colors)
BK-HPD2-75-LFV	HPD2-75	LFV3-35
BK-HPD2-100-LFV	HPD2-100	LFV3-50
BK-HPD2-150-LFV	HPD2-150	
BK-HPD2-200-LFV	HPD2-200	LFV3-70
BK-HPD2-250-LFV	HPD2-250	

▶ P.370

Expansion mounting bracket

Model Name	Applicable Light Unit (Common for all colors)
BK-75-CI	HPD2-75
BK-100-CI	HPD2-100
BK-150-CI	HPD2-150
BK-200-CI	HPD2-200
BK-250-CI	HPD2-250

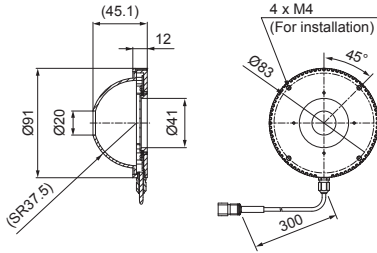
▶ P.370

Transparent acrylic protective plates (PR Series) with AR (anti-reflective) coatings are available to protect the light emission surface from scratches and dirt. Contact our local sales office for details.

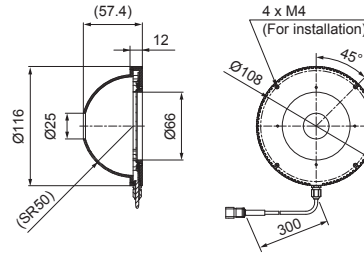
Dimensions (mm)

M4 and M6 installation holes are tapped and perforated holes.

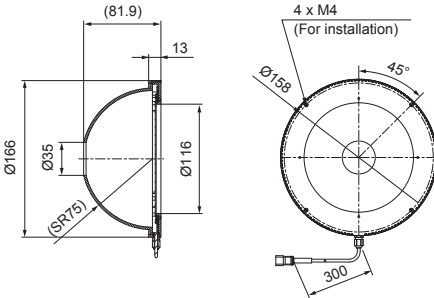
HPD2-75RD/SW/BL/FC/IR860



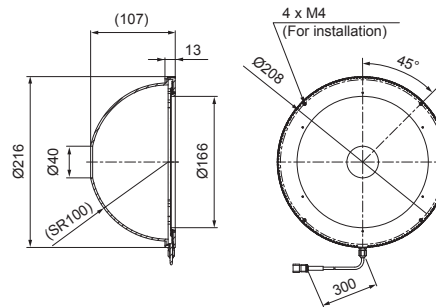
HPD2-100RD/SW/BL/FC/IR860



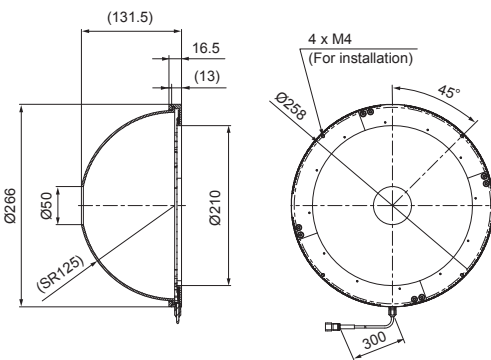
HPD2-150RD/SW/BL/FC/IR860



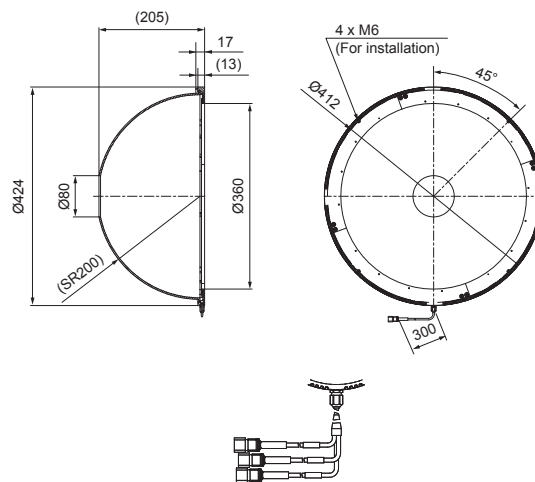
HPD2-200RD/SW/BL/FC/IR860



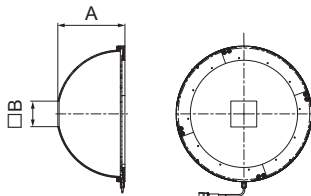
HPD2-250RD/SW/BL/FC/IR860



HPD2-400RD/SW/BL/FC/IR860



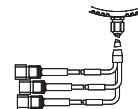
- The camera aperture can be changed to a square.
- Special order



Model	Dimension A	Dimension B
HPD2-75□-SQ20	45.1	20
HPD2-100□-SQ30	56.7	30
HPD2-150□-SQ40	81.3	40
HPD2-200□-SQ50	105.8	50
HPD2-250□-SQ60	130.3	60
HPD2-400□-SQ80	205	80

□ is a placeholder for letters that indicate the color of the emitted light. Dimensions are subject to change.

The full color type (HPD2-□□FC) 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.

You can inquire using our website.

Sample Testing	Light Unit Selection	Free Product Trial	Custom Orders	Product Details	Pricing/Quotation	Discontinued Products
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Inquire on our website here. <https://www.ccs-grp.com/contact/>

LDR2	Ring (Direct)
LDR2-LA	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
IF	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.
PFBR-150	Spot, Etc.
LNLP	Line (Convergent)
LNLP2	Line (Convergent)
Coaxial Units	Line (Convergent)
LNFP-FN	Line (Convergent)
LN/LN-HK	Line (Convergent)
LNLD	Line (Diffused)
LND2	Line (Diffused)
LT	Line (Diffused)
LNVP	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