

Dome Lights

HPD2 series

Refer to our website for product details.

CCS HPD2

Search



You can also use your smartphone or cell phone.

Use a search engine.

Provides diffused light evenly through the dome-shaped reflective panel



Applications

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

HPD2 series

- LDR2
- LDR2-LA
- LDR-LA1
- SQR
- SQR-TP
- HLDR-IP
- HPR2
- HPR
- LFR
- LKR
- FPR
- FPO2
- LDL2
- HLDL2
- TH
- LFL
- HPD2
- HPD
- LDM2
- LAV
- PDM
- LFX2
- LFV3
- LFV2/LFV
- MSU
- MFU
- UV2
- UV
- LNSP-UV-FN
- IR
- HLV2
- LV
- LSP
- HFS/HFR
- HLV2-NR
- HLV2-3M-RGB-3W
- PFB2
- PFBR
- LNSP
- CU-LNSP
- LNSP-FN
- LN/LN-HK
- LND2
- HLND
- LT
- LNV
- Telecentric Lens
- Macro Lens

Supports applications for 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 (Condenser)



HPD2-150SW (White)

Food industry (Chocolate)



HPD2-250SW (White)

Packaging industry (Top of a drink container)



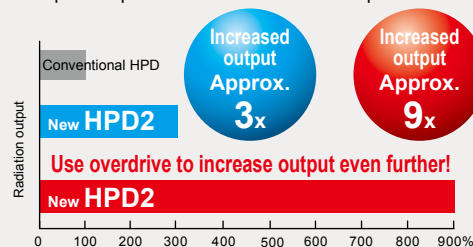
HPD2-150SW (White)

Illuminates diffused light at high output

Light from the surface-mounted LEDs is diffused inside the dome-shaped reflective panel. The diffused light from the wide uniform region is illuminated evenly.

Achieved higher output than the conventional product

Output comparison with the conventional product



* This is a comparison between the HPD-100 and HPD2-100, using red and white colors.
 * It can be combined with a Strobe Control Unit for even brighter emission than continuous emission.
 * The data included is for reference only and does not guarantee the quality of this product.

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 orders

Please contact your CCS sales representative.

E.g.: Different shape

Format/material
 Changed the camera aperture to a rectangle

Customizable items

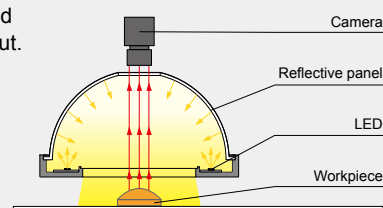
- External/internal diameter
 - Wavelength/color
 - Increase output
 - Cable length
 - Illuminating angle
 - Format/material
 - Connector format
 - Installation/mounting
- Etc.



Example configuration

Uses a unique illuminating mechanism to illuminate diffused light at high output.

HPD2-150



We have various materials.

- PDF Drawings
- DXF Drawings
- 3D CAD
- Instruction Guides
- Product Filers
- Imaging Samples
- Data Sheets
- Examples of Custom Ordered Products

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

Imaging example : Imaging of foreign materials mixed in food



Description	Mixed foreign materials inspection
Workpiece	Macaroni
Before the proposal	HPD2-200SW
After the proposal	HPD2-200IR860: Infrared type
Result	Emphasizes the foreign material

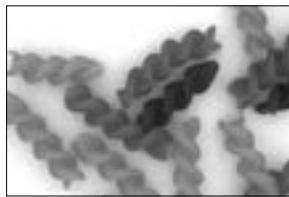
Workpiece image



Macaroni

* This image was altered at our company for display purposes.

HPD2-200SW



It is difficult to form an image of the foreign material using white light.

HPD2-200IR860



It is possible to form an image of the foreign material using infrared light.

LDR2
LDR2-LA
LDR-LA1
SQR
SQR-TP
HLDR-IP
HPR2
HPR
LFR
LKR
FPR
FPO2
LDL2
HLDL2
TH
LFL
HPD2
HPD
LDM2
LAV
PDM
LFX2
LFV3
LFV2/LFV
MSU
MFU
UV2
UV
LNSP-UV-FN
IR
HLV2
LV
LSP
HFS/HFR
HLV2-NR
HLV2-3M- RGB-3W
PFB2
PFBR
LNSP
CU-LNSP
LNSP-FN
LN/LN-HK
LND2
HLND
LT
LNV
Telecentric Lens
Macro Lens

Imaging example : Exterior imaging using color determination of a multi-colored workpiece

Workpiece image

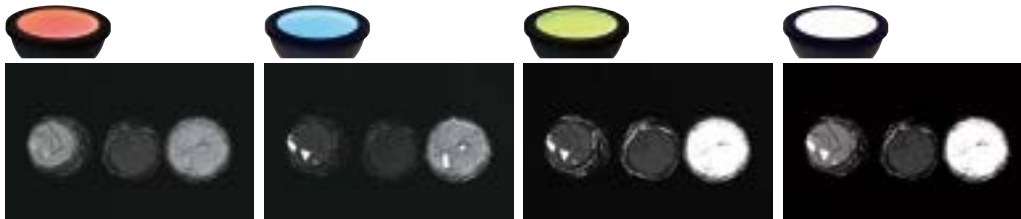


Chocolate



Description	Visual inspection
Workpiece	Chocolate
Before the proposal	-
After the proposal	HPD2-200FC: Full color (RGB) type
Result	Allows for multi-color determination

HPD2-200FC: Full color (RGB) type



Imaging with red illumination

Imaging with blue illumination

Imaging with green illumination

Imaging with white illumination

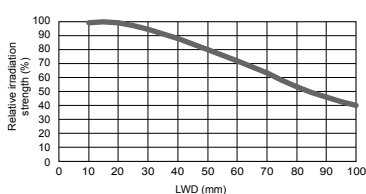
Data: Relative irradiation strength graph/Uniformity graph (Representative example)

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

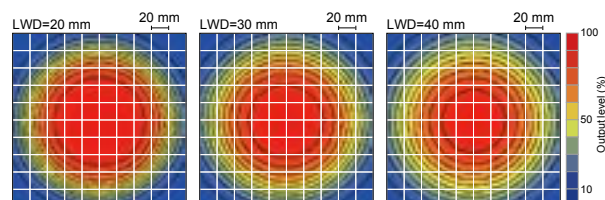
HPD2-200SW

Relative irradiation strength graph (LWD Characteristics)²

*1: Irradiation strength on the optical axis
*2: Illuminating distance from the Light Unit to the workpiece



Uniformity graph (Relative irradiation strength)





CCS HPD2

Search



You can also use 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
HPD2-75RD	Red	24 V / 17 W	635 nm	Bracket	<input type="checkbox"/> PD3 <input type="checkbox"/> PSB <input type="checkbox"/> PTU2	140 g
HPD2-75SW	White	24 V / 16 W	6,500 K			
HPD2-75BL	Blue		470 nm			
HPD2-75IR860	Infrared	24 V / 12 W	860 nm			
HPD2-75FC*1	Red/Green/Blue	24 V / 6.0 W	622 nm/525 nm/470 nm			
HPD2-100RD	Red	24 V / 17 W	635 nm	Bracket	<input type="checkbox"/> PD3 <input type="checkbox"/> PSB <input type="checkbox"/> PTU2	160 g
HPD2-100SW	White	24 V / 23 W	6,500 K			
HPD2-100BL	Blue		470 nm			
HPD2-100IR860	Infrared	24 V / 23 W	860 nm			
HPD2-100FC*1	Red/Green/Blue	24 V / 11 W	622 nm/525 nm/470 nm			
HPD2-150RD	Red	24 V / 27 W	635 nm	Bracket	<input type="checkbox"/> PD3 <input type="checkbox"/> PSB <input type="checkbox"/> PTU2	285 g
HPD2-150SW	White		6,500 K			
HPD2-150BL	Blue		470 nm			
HPD2-150IR860	Infrared		860 nm			
HPD2-150FC*1	Red/Green/Blue		24 V / 15 W			
HPD2-200RD	Red	24 V / 34 W	635 nm	Bracket	<input type="checkbox"/> PD3	460 g
HPD2-200SW	White	24 V / 41 W	6,500 K			
HPD2-200BL	Blue		470 nm			
HPD2-200IR860	Infrared	24 V / 46 W	860 nm			
HPD2-200FC*1	Red/Green/Blue	24 V / 19 W	622 nm/525 nm/470 nm			
HPD2-250RD	Red	24 V / 45 W	635 nm	Bracket	<input type="checkbox"/> PD3	650 g
HPD2-250SW	White	24 V / 46 W	6,500 K			
HPD2-250BL	Blue		470 nm			
HPD2-250IR860	Infrared	24 V / 46 W	860 nm			
HPD2-250FC*1	Red/Green/Blue	24 V / 24 W	622 nm/525 nm/470 nm			
HPD2-400RD	Red	24 V / 45 W	635 nm	-	<input type="checkbox"/> PD3	1,300 g
HPD2-400SW	White	24 V / 46 W	6,500 K			
HPD2-400BL	Blue		470 nm			
HPD2-400IR860	Infrared	24 V / 46 W	860 nm			
HPD2-400FC*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.

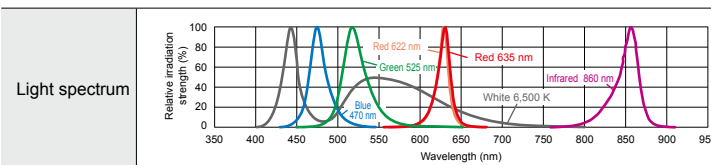
*1: The full color (RGB) type cannot be used in combination with Strobe Control Units (PTU2-3024, BB-V24S30-M, BB-V24S30-S). ON/OFF control is possible via the strobe mode or ON/OFF mode of the PD3 series, and continuous lighting Control Units (PD2 series, BB series, etc.).

Extension Cables ▶ P.196

Control Unit Selection Guide ▶ P.155

Control Unit Page ▶ P.159

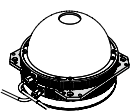
LED properties



If using a sharp-cut filter, please use the R60 (option). For details about the sharp-cut filter, refer to P.189.

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

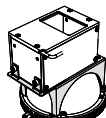


Combine with a Ring Light to achieve imaging by light switching and simultaneous lighting.

Light joint bracket

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

▶ P.185



Combine with a Coaxial Light to solve uneven illumination and achieve uniform illumination from all directions.

Coaxial Light joint bracket

Model name	Applicable Light Unit (Common for all colors)
BK-HPD2-75-LFV	HPD2-75 series
BK-HPD2-100-LFV	HPD2-100 series
BK-HPD2-150-LFV	HPD2-150 series
BK-HPD2-200-LFV	HPD2-200 series
BK-HPD2-250-LFV	HPD2-250 series

▶ P.186



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

Expansion mounting bracket

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

▶ P.186

- Example of the expansion mounting bracket in use

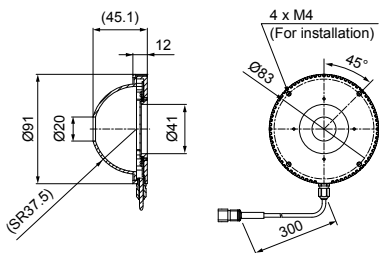


Dome Light: Image of usage with the HPD2-250SW

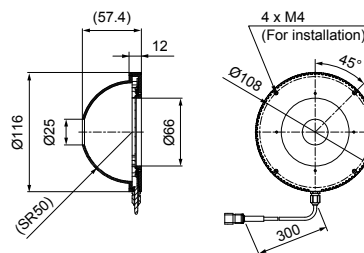
- LDR2
- LDR2-LA
- LDR-LA1
- SQR
- SQR-TP
- HLDR-IP
- HPR2
- HPR
- LFR
- LKR
- FPR
- FPO2
- LDL2
- HLDL2
- TH
- LFL
- HPD2
- HPD
- LDM2
- LAV
- PDM
- LFX2
- LFV3
- LFV2/LFV
- MSU
- MFU
- UV2
- UV
- LNSP-UV-FN
- IR
- HLV2
- LV
- LSP
- HFS/HFR
- HLV2-NR
- HLV2-3M- RGB-3W
- PFB2
- PFBR
- LNSP
- CU-LNSP
- LNSP-FN
- LN/LN-HK
- LND2
- HLND
- LT
- LNV
- Telecentric Lens
- Macro Lens

Dimensions (mm)

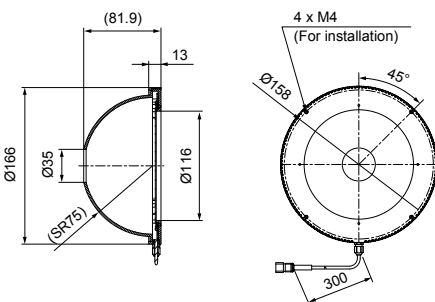
HPD2-75RD/SW/BL/FC/IR860



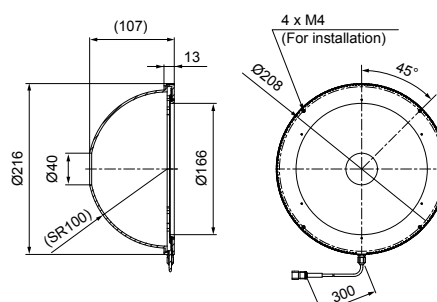
HPD2-100RD/SW/BL/FC/IR860



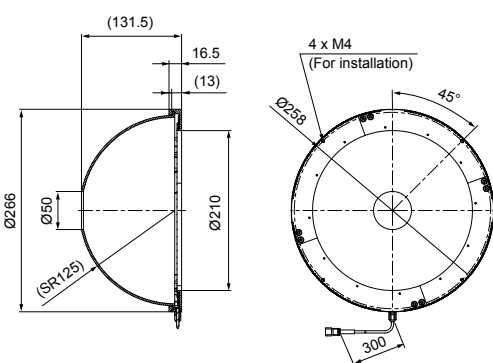
HPD2-150RD/SW/BL/FC/IR860



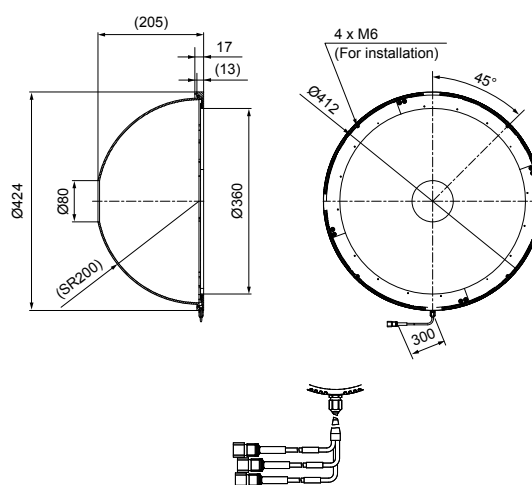
HPD2-200RD/SW/BL/FC/IR860



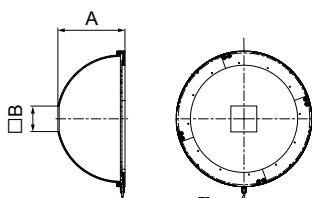
HPD2-250RD/SW/BL/FC/IR860



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	128.5	60
HPD2-400□-SQ80	201.2	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, HPD2-400FC-FT) has three connectors. Use a 3-channel Control Unit if controlling intensity separately for each color.

* The full color (RGB) type cannot be used in combination with Strobe Control Units (PTU2-3024, BB-V24S30-M, BB-V24S30-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.).

You can change the connectors of the Light Unit cable. Choose between M12 connectors and flying leads. Refer to P.115 for details.