



Provides direct light at a low angle from an angled emitting part



LDR2-208SW2-LA



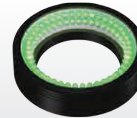
LDR2-170BL2-LA



LDR2-132RD2-LA



LDR2-100RD2-LA



LDR2-74GR2-LA



LDR2-48SW2-LA

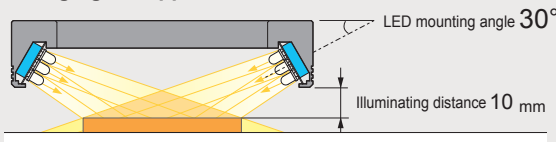
Applications

Inspection for engraving, damage, or stains on metal surfaces; edge extraction; foreign material inspection of medicine; inspection for damage to glass edges; visual inspection for O-rings; etc.

Extraction of Uneven Damage or Engravings

Providing direct light from a low angle to the center section allows for an image that emphasizes the workpiece's characteristic features.

Imaging example for the LDR2-100RD2-LA:
Imaging the appearance of coins



LDR2-90RD2



Edge extraction is difficult with illumination from a high angle.

LDR2-100RD2-LA

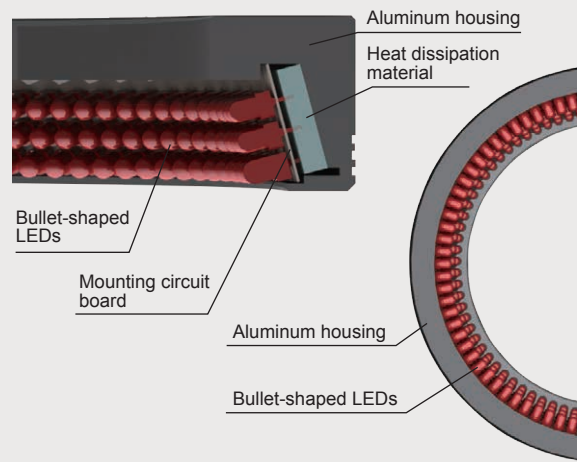


Illuminating from a low angle allows for imaging that emphasizes the edges.

Illuminating from a Low-Angle at a Steep Slope

By mounting LEDs on a flexible circuit board in a steep angle, it becomes possible to converge light in the center section from a low position.

Cross-section image of the LDR2-132-LA



Custom Order Example

Please contact your CCS sales representative.

E.g.: Different shape

Format/material Changed the format to a semicircle



Customizable items

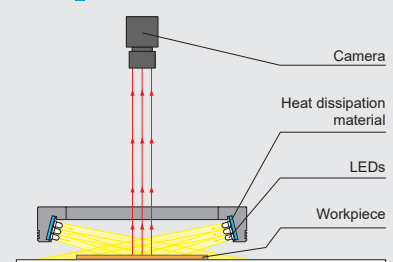
- External/internal diameter
- Wavelength/Color
- Increase output
- Cable length
- Illuminating angle
- Format/material
- Connector format
- Installation/mounting

Etc.

Example Configuration

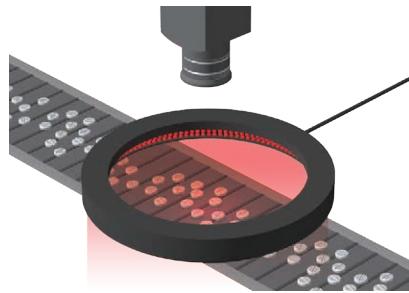
Using a flexible circuit board to create any angle needed. Emits direct light to the center of the workpiece from a low angle.

LDR2-132-LA



Ring (Direct)	LDR2 LDR2-LA LDR-LA1 SQR SQR-TP
Ring (Convergent/Diffused)	HLDR3 HPR2 LFR LKR FPR
Square	FPQ3
Bar	LDL2 LDLB HLDL3 LB
Flat	TH2 (5 types) LFL
Dome	HPD2 LDM2 LAV PDM LFXV LFX3 LFX3-PT
Coaxial	LFV3 LFV3-G MSU MFU
Strobe	PF
Water-proof	HLDR-IP HSL-PCL
COB	Small COB Lights
UV/Violet	UV3/VL3 UV LNSP-UV3-FN
Infrared	IR2 (Under 1000-nm Type) IR (Over 1000-nm Type) CIR
Intensity Control	IU
Spot, Etc.	HLV3 LV LSP HFS/HFR HLV3-22-4-NR HLV3-3M-RGB-4 PFBR-600SW2 PFBR-150 PFB3
Line (Convergent)	LNL2 LNSP2 Coaxial Units LNSP-FN LN/LN-HK
Line (Diffused)	LNSD LND2 LT LNV
Line (Oblique Angled)	LFXV (Rectangular Type) TH2 (Rectangular Type)
Line (Oblique Angled)	LNDG LNSIS2 LNSIS LNSIS-FN
Lenses	Telecentric Lens Macro Lens

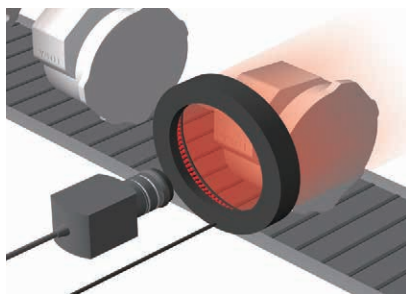
➤ Imaging Example: Imaging Text on Tablets and Their Appearance



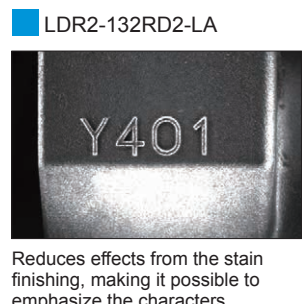
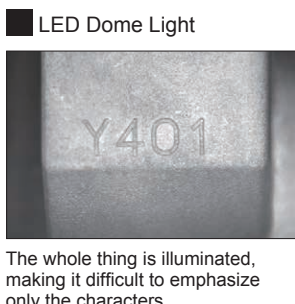
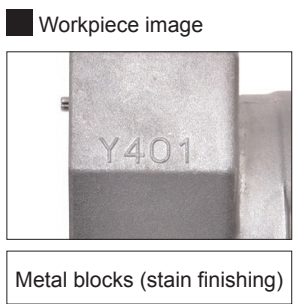
Description	Text, visual inspection
Workpiece	Tablets
Conventional lighting	Interior lamp
New lighting	LDR2-170RD2-LA
Result	Emphasizes text and edge of the exterior



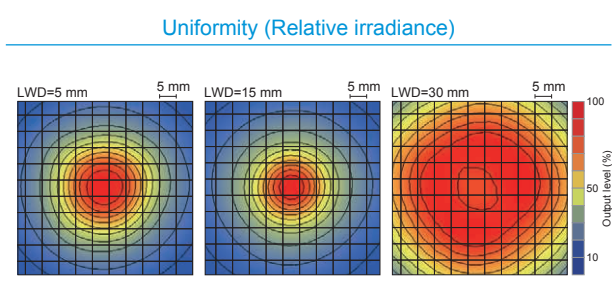
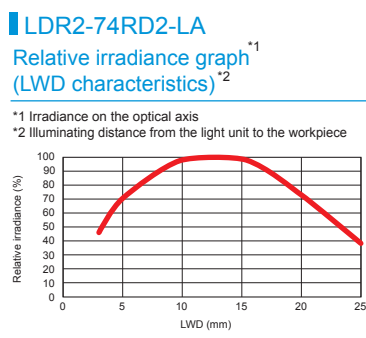
➤ Imaging Example : Imaging Engraved Text on Metal Blocks (Stain Finishing)



Description	Character recognition
Workpiece	Metal blocks
Conventional lighting	LED Dome Light
New lighting	LDR2-132RD2-LA
Result	Extracts only the engraved text



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



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

LDR2	Ring (Direct)
LDR2-LA	Ring (Direct)
LDR-LA1	Ring (Direct)
SQR	Ring (Convergent/Diffused)
SQR-TP	Ring (Convergent/Diffused)
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	UV / Violet
UV	UV / Violet
LNSP-UV3-FN	UV / Violet
IR2 (Under 1000-nm Type)	Infrared
IF (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)
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)
LVN	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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- Light Unit Selection
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- Product Details
- Pricing/Quotation
- Discontinued Products

Inquire on our website here. <https://www.ccs-grp.com/contact/>



Introduction to Half Ring Lights (Custom Order Example)

LDR2-LA-HF 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



LDR2-100SW2-LA-HF

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		Weight	
			RD (Red)	SW (White)	BL (Blue)	GR (Green)						
Standard products	LDR2-48□□2-LA	24 V	2.1 W	3.1 W	3.1 W	3.1 W	Diffusion Plate Bracket	FCB*4 Straight Cable	PD4	PD3	50 g	
	LDR2-74□□2-LA	24 V	4.6 W	5.7 W	5.7 W	5.7 W			CC-ST-1024	POD*2	90 g	
	LDR2-100□□2-LA	24 V	9.1 W	12 W	12 W	12 W		FCB-F 4-Branch Cable	PD4	PD3	170 g	
	LDR2-132□□2-LA	24 V	13 W	16 W	16 W	16 W					270 g	
	LDR2-170□□2-LA	24 V	18 W	22 W	22 W	22 W					POD*2	350 g
	LDR2-208□□2-LA	24 V	22 W	28 W	28 W	28 W					380 g	
Custom order products	LDR2-74□□2-LAHF	24 V	*3	2.7 W	*3	*3	*3	*5 The cables with a model name that ends with "EL2" are not included.	PD4	PD3	*3	
	LDR2-100□□2-LAHF	24 V	4.6 W	5.7 W	5.7 W	*3			CC-ST-1024	POD		

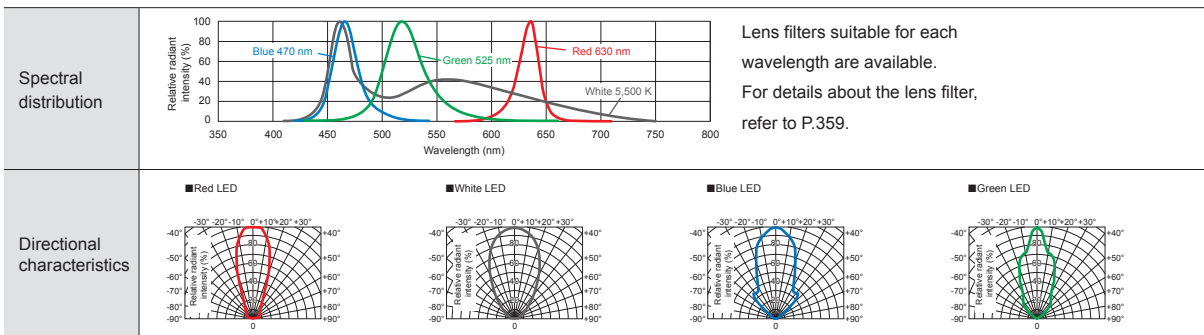
Extension Cables ▶ P.371 Control Unit Selection Guide ▶ P.305 List of Control Unit Specifications ▶ P.307

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

*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/qr/pod>

*3 This product is custom-made. Contact our local sales office for details.

LED Properties



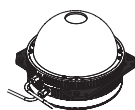
Lens filters suitable for each wavelength are available. For details about the lens filter, refer to P.359.

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



Can prevent glare, which is a problem when making images of glossy workpieces.



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

Diffusion plate

Model name	Applicable Light Unit (Common for all colors)
DF-LDR-48LA	LDR2-48-LA
DF-LDR-74LA	LDR2-74-LA
DF-LDR-100LA	LDR2-100-LA
DF-LDR-132LA	LDR2-132-LA
DF-LDR-170LA	LDR2-170-LA
DF-LDR-208LA	LDR2-208-LA

Light joint bracket

Model name	Applicable Light Unit 1 (Common for all colors)	Applicable Light Unit 2 (Common for all colors)
BK-75-JO	LDR2-100-LA	HPD2-75
BK-100-JO	LDR2-132-LA	HPD2-100
BK-150-JO	LDR2-170-LA	HPD2-150
BK-200-JO	LDR2-208-LA	HPD2-200

▶ P.370

▶ P.363

Various technical documents available.

PDF Drawings

DXF Drawings

Product Brochures

Instruction Guides

3D CAD

Data Sheets

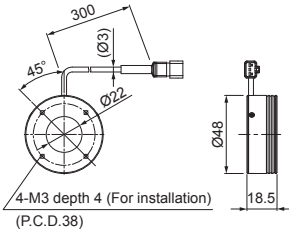
Imaging Examples

Digital Catalogs

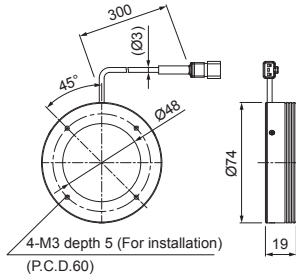
Register to use them.

➤ Dimensions (mm)

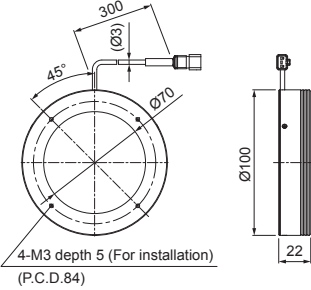
LDR2-48RD2-LA / SW2-LA / BL2-LA / GR2-LA



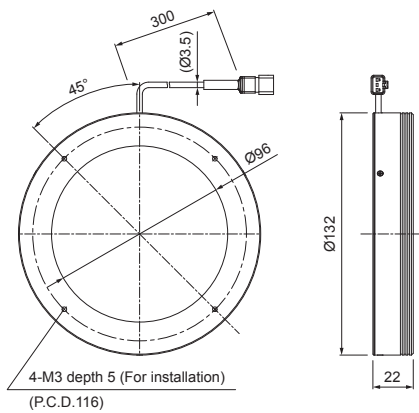
LDR2-74RD2-LA / SW2-LA / BL2-LA / GR2-LA



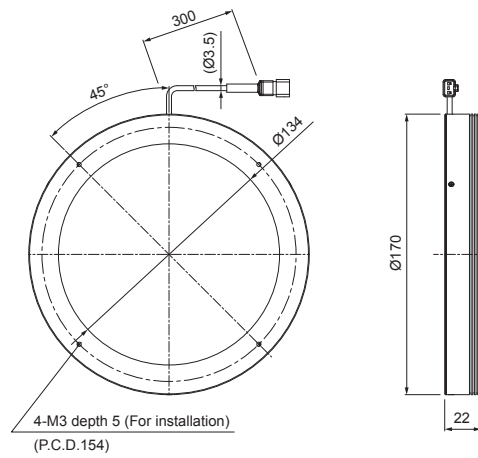
LDR2-100RD2-LA / SW2-LA / BL2-LA / GR2-LA



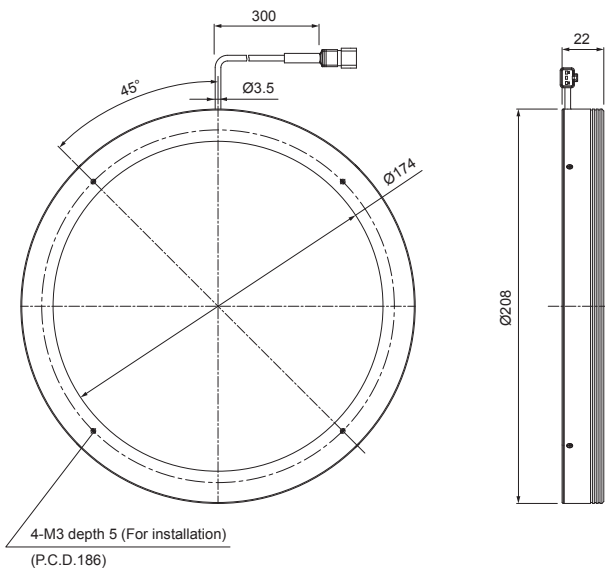
LDR2-132RD2-LA / SW2-LA / BL2-LA / GR2-LA



LDR2-170RD2-LA / SW2-LA / BL2-LA / GR2-LA



LDR2-208RD2-LA / SW2-LA / BL2-LA / GR2-LA



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

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LDR2-LA	Ring (Direct)
LDR-LA1	Ring (Direct)
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LDM2	Dome
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PDM	Dome
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LFX3-PT	Dome
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