

Ring Lights

LDR2 series

Refer to our website for product details.

CCS LDR2

Search



You can also use your smartphone or cell phone.

For quick access.

Provides direct light from an angled emitting part

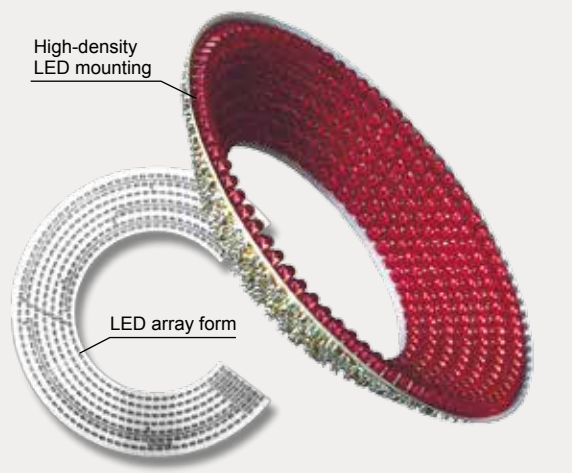


Applications Character recognition, visual inspection, inspections for damage or stains, reading 2-dimensional code, inspecting parts on boards, etc.

Standard Ring Lights

Uses a flexible circuit board to achieve the functions needed for a Ring Light. It can illuminate workpieces at an angle and can illuminate the whole workpiece. This alleviates the influence of slight position or inclination deviations in the workpiece and enables stable imaging.

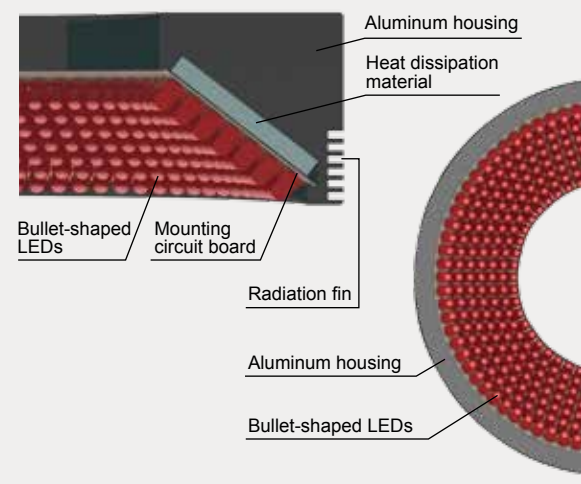
Flexible circuit board



Succeeds in greatly reducing LED's heat

Heat dissipation material is used between the board and the aluminum housing, absorbing heat produced by the LEDs. This succeeds in greatly reducing the creation of heat, which causes the LEDs to deteriorate.

Cross-section image of the LDR2-120



Custom orders

Please contact your CCS sales representative.

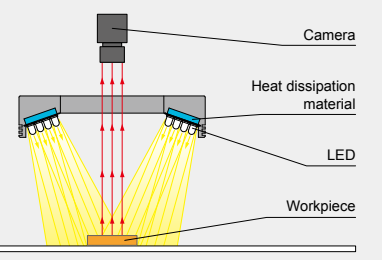
E.g.: Different color

Wavelength/Color	Creating a full color (RGB) Light Unit	External/internal diameter	Wavelength/Color
Increase output	Cable length	Illuminating angle	Format/material
Connector format	Installation/mounting	Etc.	

Example configuration

Bend the flexible circuit board to any shape necessary and mount LEDs with high density. Illuminates so that direct light is concentrated in the center.

LDR2-90



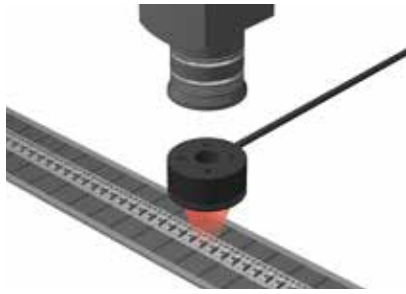
LDR2	Direct Lighting
LDR2-LA	Direct Lighting
LDR-LA1	Direct Lighting
SQR	Direct Lighting
SQR-TP	Direct Lighting
HPR2	Direct Lighting
LFR	Diffused Lighting
LKR	Diffused Lighting
FPR	Diffused Lighting
FPQ2	Diffused Lighting
LDL2	Direct Lighting
LDLB	Direct Lighting
HLDL2	Direct Lighting
HL	Direct Lighting
TH2 (5 types)	Direct Lighting
TH	Direct Lighting
LFL	Direct Lighting
HPD2	Diffused Lighting
LDM2	Diffused Lighting
LAV	Diffused Lighting
PDM	Diffused Lighting
LFX3	Diffused Lighting
LFX3-PT	Diffused Lighting
LFX2	Diffused Lighting
LFV3	Diffused Lighting
MSU	Collimated Lighting
MFU	Collimated Lighting
PF	Strobe Lighting
HLDR-IP/IQ/HSL-PCL	Water-proof
UV2	Ultraviolet Lighting
UV	Ultraviolet Lighting
LNSP-UV-FN	Ultraviolet Lighting
IR2	Infrared Lighting
IU	Intensity Control
HLV2	Spot Lighting, Etc.
LV	Spot Lighting, Etc.
LSP	Spot Lighting, Etc.
HFS/HFR	Spot Lighting, Etc.
HLV2-NR	Spot Lighting, Etc.
HLV2-3M-RGB-3W	Spot Lighting, Etc.
PFBR	Spot Lighting, Etc.
PFB2	Spot Lighting, Etc.
LNLP	Convergent Lighting
LNSP2	Convergent Lighting
LNSP	Convergent Lighting
Coaxial Units	Convergent Lighting
LNSP-FN	Convergent Lighting
LN/LN-HK	Convergent Lighting
LNSD	Diffused Lighting
LND2	Diffused Lighting
HLND	Diffused Lighting
LT	Diffused Lighting
LNV/HLND	Diffused Lighting
LNDG	Oblique Angled Lighting
LNIS	Oblique Angled Lighting
LNIS-FN	Oblique Angled Lighting
Telecentric Lens	Lenses
Macro Lens	Lenses

Various technical documents available.

- 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 : Electrode imaging of electronic parts



Description	Visual inspection
Workpiece	Electronic parts
Conventional lighting	LED Bar Light
New lighting	LDR2-32RD2
Result	Improved uniformity

Workpiece image



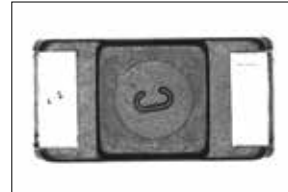
Electronic part

LED Bar Light



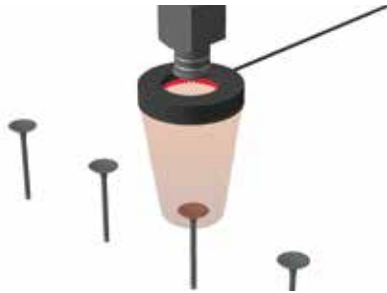
It's difficult to make an image of the electrode part using a Bar Light.

LDR2-32RD2



A Ring Light can illuminate the electrode part evenly and make an image.

➤ Imaging example : Imaging text on an intake valve



Description	Character recognition
Workpiece	Intake valve (automobile part)
Conventional lighting	LED Ring Light
New lighting	LDR2-50RD2
Result	Emphasized characters

Workpiece image



Intake valve

LED Ring Light



It's difficult to clearly recognize the text due to the inner indentation.

LDR2-50RD2



Allows for image that makes the character edges stand out.

➤ Data: Relative irradiance graph and uniformity (Representative example)

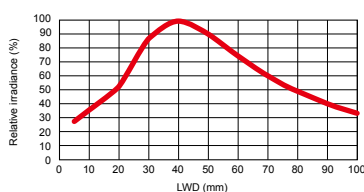
The data included is for reference only. Actual values may vary.

LDR2-50RD2

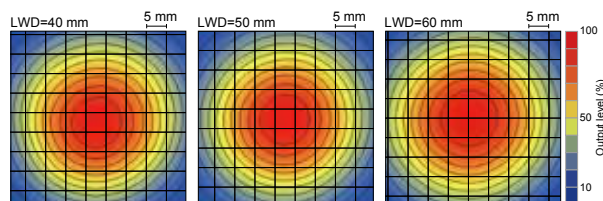
Relative irradiance graph^{*1} (LWD Characteristics)^{*2}

*1: Irradiance on the optical axis

*2: Illuminating distance from the Light Unit to the workpiece



Uniformity (Relative irradiance)



Direct Lighting

LDR2

LDR2-LA

LDR-LA1

SQR

SQR-TP

HPR2

LFR

LKR

FPR

FPQ2

LDL2

LDLB

HLDL2

HL

TH2 (5 types)

TH

LFL

HPD2

LDM2

LAV

PDM

LFX3

LFX3-PT

LFX2

LFV3

MSU

MFU

PF

HLDR-IP/

IQ/HSL-PCL

UV2

UV

LNSP-UV-FN

IR2

IU

HLV2

LV

LSP

HFS/HFR

HLV2-NR

HLV2-3M-RGB-3W

PFBR

PFB2

LNL

LNSP2

LNSP

Coaxial Units

LNSP-FN

LN/LN-HK

LNSD

LND2

HLND

LT

LNV/HLDN

LNDG

LNIS

LNIS-FN

Telecentric Lens

Macro Lens

LDR2 series



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CCS LDR2

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For quick access.

Lineup

End of the model name: -WD: Wide type

Model name	LED color	Power consumption	Peak wavelength/ correlated color temperature	Options	Extension cables	Recommended Control Units	Weight
LDR2-32RD2	Red	24 V / 1.6 W	630 nm	<input type="checkbox"/> Diffusion plate <input type="checkbox"/> Polarizing plate <input type="checkbox"/> Adapter <input type="checkbox"/> Lens attachment ring			30 g
LDR2-32SW2	White		5,500 K				
LDR2-32BL2	Blue		470 nm				
LDR2-32GR2	Green		525 nm				
LDR2-42RD2	Red	24 V / 2.1 W	630 nm	<input type="checkbox"/> Diffusion plate <input type="checkbox"/> Polarizing plate <input type="checkbox"/> Adapter			50 g
LDR2-42SW2	White		5,500 K				
LDR2-42BL2	Blue		470 nm				
LDR2-42GR2	Green		525 nm				
LDR2-50RD2	Red	24 V / 3.1 W	630 nm	<input type="checkbox"/> Diffusion plate <input type="checkbox"/> Polarizing plate <input type="checkbox"/> Adapter <input type="checkbox"/> Lens attachment ring		<input type="checkbox"/> PD3 <input type="checkbox"/> CC-ST-1024 <input type="checkbox"/> PSB <input type="checkbox"/> POD*1	50 g
LDR2-50RD2-WD							
LDR2-50SW2	White	24 V / 3.8 W	5,500 K	<input type="checkbox"/> Diffusion plate <input type="checkbox"/> Polarizing plate <input type="checkbox"/> Adapter <input type="checkbox"/> Lens attachment ring			50 g
LDR2-50BL2	Blue		470 nm				
LDR2-50GR2	Green		525 nm				
LDR2-70RD2	Red	24 V / 6.1 W	630 nm	<input type="checkbox"/> Diffusion plate <input type="checkbox"/> Polarizing plate	<input type="checkbox"/> FCB*2 Straight Cable		110 g
LDR2-70RD2-WD							
LDR2-70SW2	White	24 V / 7.6 W	5,500 K	<input type="checkbox"/> Diffusion plate <input type="checkbox"/> Polarizing plate	<input type="checkbox"/> FCB-W 2-branch Cable <input type="checkbox"/> FCB-F 4-branch Cable <input type="checkbox"/> FRCB Robot Cable		120 g
LDR2-70BL2	Blue		470 nm				
LDR2-70GR2	Green		525 nm				
LDR2-90RD2	Red	24 V / 11 W	630 nm	<input type="checkbox"/> Diffusion plate <input type="checkbox"/> Polarizing plate <input type="checkbox"/> Adapter		<input type="checkbox"/> PD3 <input type="checkbox"/> PSB <input type="checkbox"/> POD*1	170 g
LDR2-90RD2-WD							
LDR2-90SW2	White	24 V / 14 W	5,500 K	<input type="checkbox"/> Diffusion plate <input type="checkbox"/> Polarizing plate <input type="checkbox"/> Adapter		<input type="checkbox"/> PD3 <input type="checkbox"/> PSB <input type="checkbox"/> POD*1	170 g
LDR2-90BL2	Blue		470 nm				
LDR2-90GR2	Green		525 nm				
LDR2-90-30RD2	Red	24 V / 14 W	630 nm	-			220 g
LDR2-90-30SW2	White	24 V / 18 W	5,500 K				
LDR2-90-30BL2	Blue	24 V / 17 W	470 nm				
LDR2-90-30GR2	Green		525 nm				
LDR2-120RD2-WD	Red	24 V / 24 W	630 nm	<input type="checkbox"/> Diffusion plate <input type="checkbox"/> Polarizing plate <input type="checkbox"/> Adapter		<input type="checkbox"/> PD3 <input type="checkbox"/> PSB <input type="checkbox"/> POD*1	510 g
LDR2-120SW2	White	24 V / 28 W	5,500 K				
LDR2-120BL2	Blue	24 V / 26 W	470 nm				
LDR2-120GR2	Green		525 nm				

*2 The cables with a model name that ends with "MEF" or "EL2" are not included.

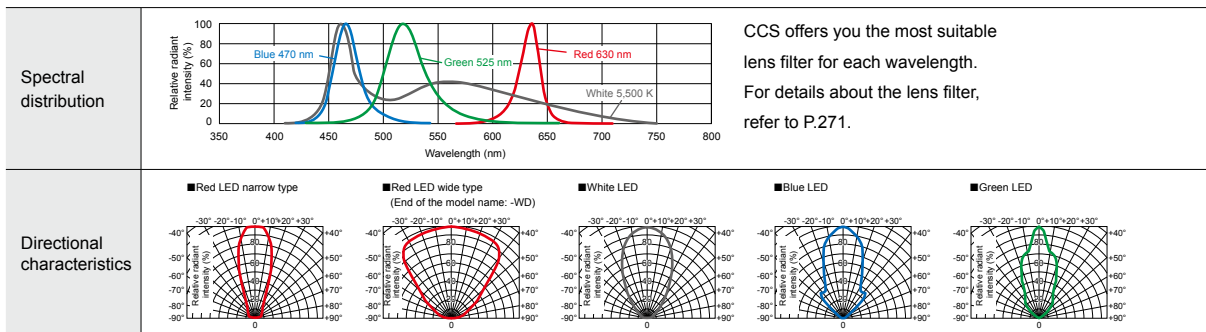
Extension Cables ▶ P.280

Control Unit Selection Guide ▶ P.229

List of Control Unit Specifications ▶ P.231

*1 For information on the combination of Light Units and POD-series Control Unit, please refer to our website. <http://www.ccs-grp.com/lnk/qr/pod>

LED properties



CCS offers you the most suitable lens filter for each wavelength. For details about the lens filter, refer to P.271.

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

Various technical documents available.

- PDF Drawings
- DXF Drawings
- 3D CAD
- Instruction Guides
- Product Filers
- Imaging Samples
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Options



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

Diffusion plate

An adapter is required when installing a diffusion plate.

Model name	Applicable Light Unit (Common for all colors)
DF-LDR-32	LDR2-32
DF-LDR-42	LDR2-42
DF-LDR-50	LDR2-50
DF-LDR-70*	LDR2-70
DF-LDR-90	LDR2-90
DF-LDR-120-45	LDR2-120

* DF-LDR-70 does not require an adapter. Directly affix it to the Light Unit.

► P.274



Use with a polarizing filter to remove the light's surface reflection.

Polarizing plate

An adapter is required when installing a polarizing plate.

Model name	Applicable Light Unit (Common for all colors)
PL-LDR-32	LDR2-32
PL-LDR-42	LDR2-42
PL-LDR-50	LDR2-50
PL-LDR2-70*	LDR2-70
PL-LDR-90	LDR2-90
PL-LDR-120-40	LDR2-120

* PL-LDR2-70 includes an adapter for attachment.

► P.275



Use when installing a diffusion plate or polarizing plate to the Light Unit.

Adapter

Model name	Applicable Light Unit (Common for all colors)
AD-LDR-32	LDR2-32
AD-LDR-42	LDR2-42
AD-LDR-50	LDR2-50
AD-LDR-90	LDR2-90
AD-LDR-120	LDR2-120

► P.279



Can directly install the Light Unit to the screw section for the lens filter. Perfect for environments with narrow installation spots.

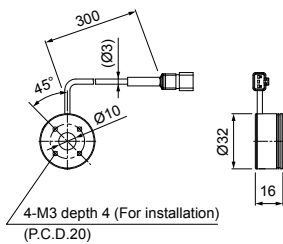
Lens attachment ring

Model name	Note	Applicable Light Unit (Common for all colors)
MR-LDR-32-M25	M25.5 P0.5	LDR2-32
MR-LDR-32-M27	M27.0 P0.5	
MR-LDR-32-M30	M30.5 P0.5	LDR2-50
MR-LDR-50-M25	M25.5 P0.5	
MR-LDR-50-M27	M27.0 P0.5	
MR-LDR-50-M30	M30.5 P0.5	

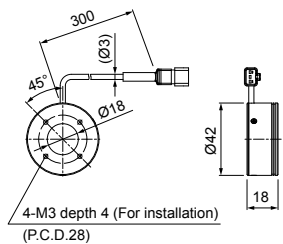
► P.279

Dimensions (mm)

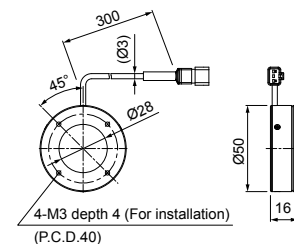
LDR2-32RD2/SW2/BL2/GR2



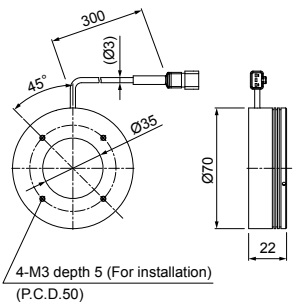
LDR2-42RD2/SW2/BL2/GR2



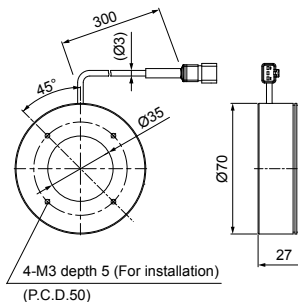
LDR2-50RD2/RD2-WD/SW2/BL2/GR2



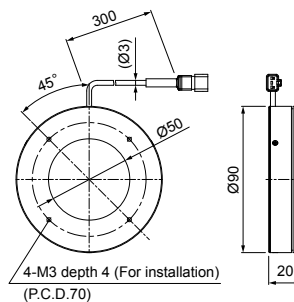
LDR2-70RD2/RD2-WD



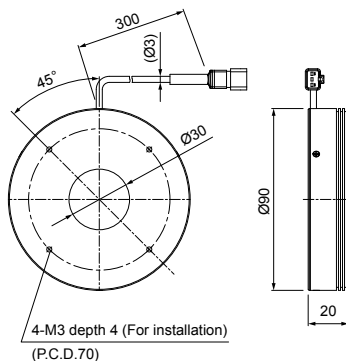
LDR2-70SW2/BL2/GR2



LDR2-90RD2/RD2-WD/SW2/BL2/GR2

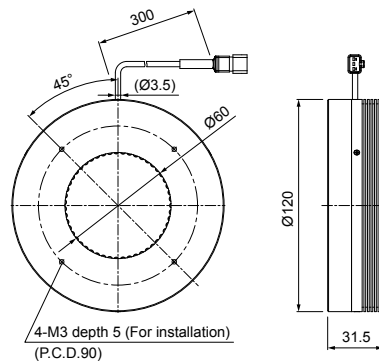


LDR2-90-30RD2/SW2/BL2/GR2



The cable diameter of LDR2-90-30SW2/BL2/GR2 is Ø3.5.

LDR2-120RD2-WD/SW2/BL2/GR2



You can change the connectors of the Light Unit cable. Choose between M12 connectors and flying leads. Refer to P.5 for details.

You can inquire using our website.

Requests for Light Unit Selection

Requests for Loan Products

Requests for Estimates

Requests for a Catalog

Product Inquiries

Other Inquiries

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