

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

Customizable items

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

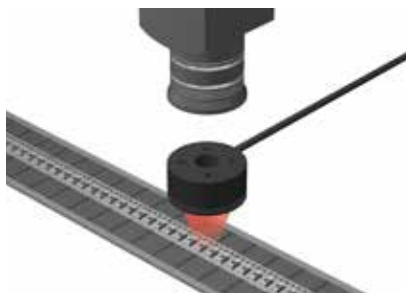
Etc.

Example configuration

LDR2-90

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.

➤ 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



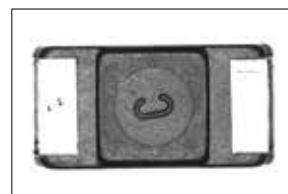
Electronic part

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)

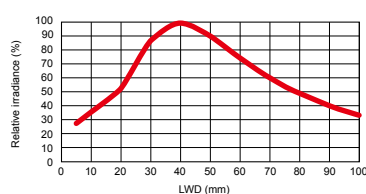
The data included is for reference only. Actual values may vary.

LDR2-50RD2

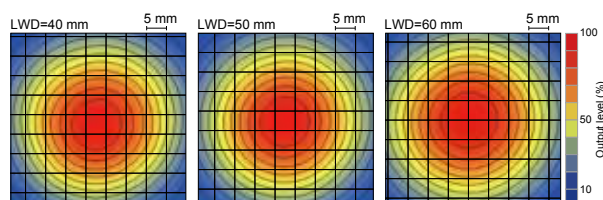
Relative irradiance graph^{*1} (LWD Characteristics)^{*2}

*1: Irradiance on the optical axis

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



Uniformity (Relative irradiance)



LDR2
LDR2-LA
LDR2-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
LNLP
LNSP2
LNSP
Coaxial Units
LNSP-FN
LN/LN-HK
LNLD
LND2
HLND
LT
LN/LNLDN
LNDG
LNIS2
LNIS
LNIS-FN
Telecentric Lens
Macro Lens

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.

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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-LDR-70*	LDR2-70
PL-LDR-90	LDR2-90
PL-LDR-120-40	LDR2-120

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

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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.295



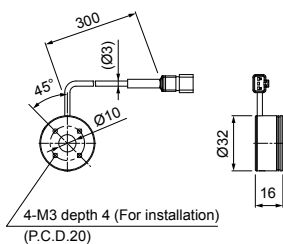
Lens attachment ring

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	

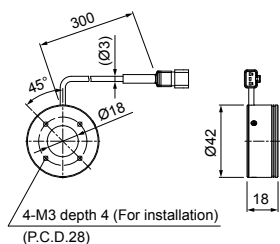
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Dimensions (mm)

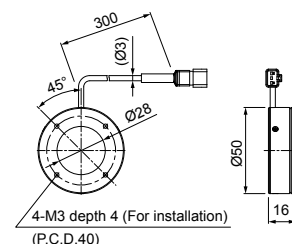
LDR2-32RD2/SW2/BL2/GR2



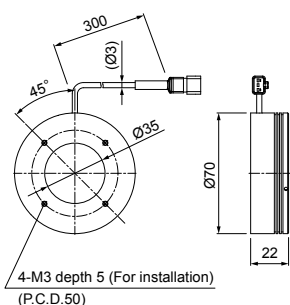
LDR2-42RD2/SW2/BL2/GR2



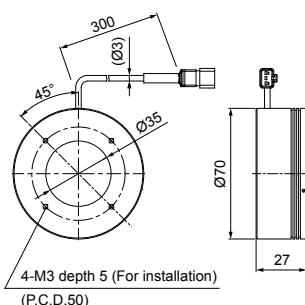
LDR2-50RD2/RD2-WD/SW2/BL2/GR2



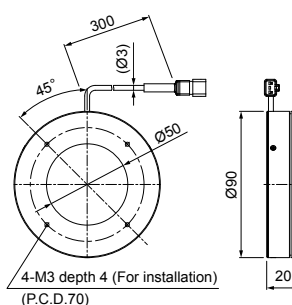
LDR2-70RD2/RD2-WD



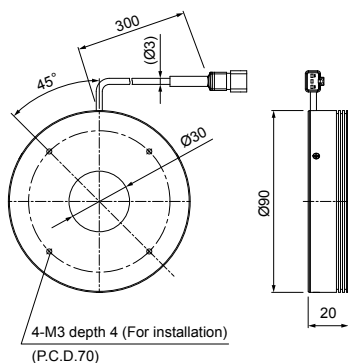
LDR2-70SW2/BL2/GR2



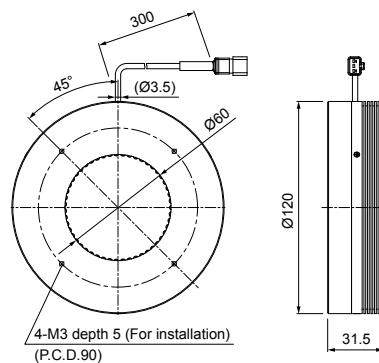
LDR2-90RD2/RD2-WD/SW2/BL2/GR2



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



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



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

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.

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