

Low-angle Ring Lights

LDR2-LA series

Refer to our website for product details.

CCS LDR2-LA

Search



You can also use your smartphone or cell phone.

For quick access.

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

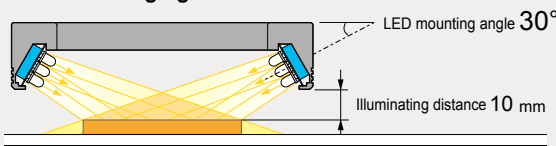
Applications

Inspection for engraving, damage, or stains on metal surfaces; edge extraction; inspection for foreign material mixed with 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: Exterior imaging of a coin



LDR2-90RD2
Edge extraction is difficult with illumination from a high angle.

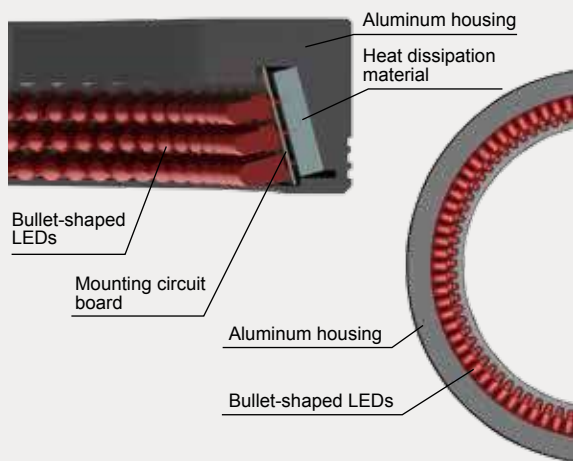


LDR2-100RD2-LA
Illuminating from a low angle allows for imaging that emphasizes the edges.

Illuminates 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 orders

Please contact your CCS sales representative.

E.g.: Different shape

External/internal diameter

Create a Light Unit with a large size



Customizable items

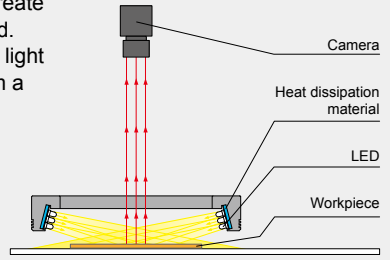
- External/internal diameter
- Wavelength/Color
- Increase output
- Cable length
- Illuminating angle
- Format/material
- Connector format
- Installation/mounting

Etc.

Example configuration

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

LDR2-132-LA



LDR2	Direct Lighting
LDR2-LA	Direct Lighting
LDR-LA1	Direct Lighting
SQR	Direct Lighting
SQR-TP	Direct Lighting
HPR2	Diffused Lighting
LFR	Diffused Lighting
LKR	Diffused Lighting
FPR	Diffused Lighting
FPQ2	Diffused Lighting
LDL2	Diffused Lighting
LDLB	Diffused Lighting
HLDL2	Diffused Lighting
HL	Direct Lighting
TH2 (5 types)	Direct Lighting
TH	Direct Lighting
LFL	Direct Lighting
HPD2	Direct Lighting
LDM2	Direct Lighting
LAV	Direct Lighting
PDM	Direct Lighting
LFX3	Direct Lighting
LFX3-PT	Direct Lighting
LFX2	Direct Lighting
LFV3	Direct Lighting
MSU	Colimated Lighting
MFU	Colimated Lighting
PF	Stroke Lighting
HLDL-IP/ IQ/HSL-PCL	Water-proof
UV2	Ultraviolet Lighting
UV	Ultraviolet Lighting
LNSP-UV-FN	Ultraviolet Lighting
IR2	Infrared Lighting
IU	Intensify 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/HLDN	Diffused Lighting
LNDG	Oblique Angled Lighting
LNIS2	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/>

Direct Lighting

- LDR2
- LDR2-LA
- LDR-LA1
- SQR
- SQR-TP

Diffused Lighting

- HPR2
- LFR
- LKR
- FPR
- FPQ2

Direct Lighting

- LDL2
- LDLB
- HLDL2
- HL

TH2 (5 types)

- TH
- LFL
- HPD2

Diffused Lighting

- LDM2
- LAV
- PDM
- LFX3
- LFX3-PT
- LFX2
- LFV3

Colimated Lighting

- MSU
- MFU

Strobe Lighting

- PF

Water-proof Lighting

- HLDR-IP/IQ/HSL-PCL

Ultraviolet Lighting

- UV2
- UV
- LNSP-UV-FN

Infrared Lighting

- IR2

Intensity Control

- IU

Spot Lighting, Etc.

- HLV2
- LV
- LSP
- HFS/HFR
- HLV2-NR
- HLV2-3M-RGB-3W
- PFBR
- PFB2

Convergent Lighting

- LNLP
- LNSP2
- LNSP
- Coaxial Units
- LNSP-FN
- LN/LN-HK

Diffused Lighting

- LNLD
- LNLD2
- HLND
- LT
- LN/V/HLDN

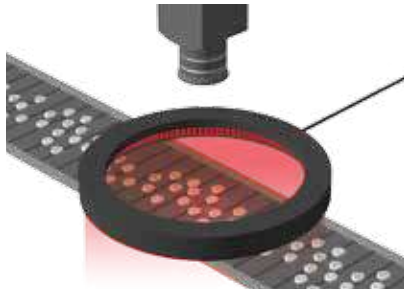
Oblique-Angled Lighting

- LNLDG
- LNIS2
- LNIS
- LNIS-FN

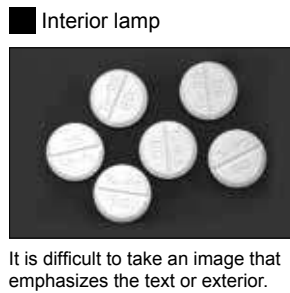
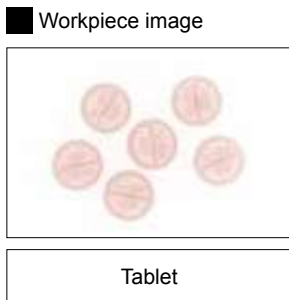
Lenses

- Telecentric Lens
- Macro Lens

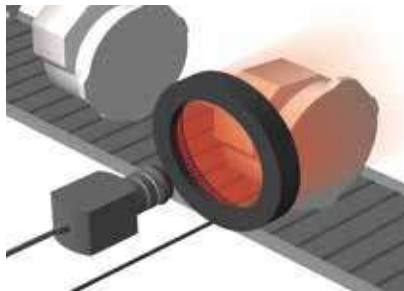
Imaging example : Text on tablets, exterior imaging



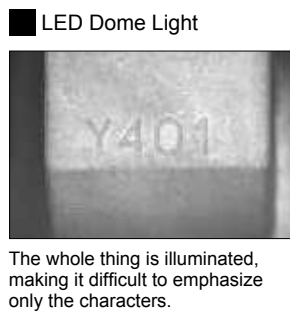
Description	Text, visual inspection
Workpiece	Tablet
Conventional lighting	Interior lamp
New lighting	LDR2-170RD2-LA
Result	Emphasizes text and edge of the exterior



Imaging example : Imaging of engraved text on a metal block (stain finishing)



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

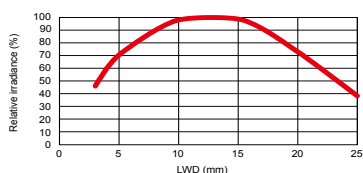


Data: Relative irradiance graph and uniformity (Representative example)

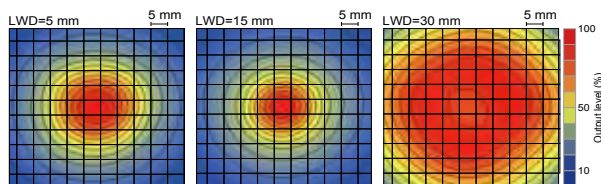
The data included is for reference only. Actual values may vary.

LDR2-74RD2-LA
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-LA series



Refer to our website for product details.

CCS LDR2-LA

► Search



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For quick access.

Lineup

Model name	LED color	Power consumption	Peak wavelength/ correlated color temperature	Options	Extension cables	Recommended Control Units	Weight
LDR2-48RD2-LA	Red	24 V / 2.1 W	630 nm	Diffusion plate	FCB*2 Straight Cable	PD3 CC-ST-1024 PSB POD*1	50 g
LDR2-48SW2-LA	White		5,500 K				
LDR2-48BL2-LA	Blue	24 V / 3.1 W	470 nm				
LDR2-48GR2-LA	Green		525 nm				
LDR2-74RD2-LA	Red	24 V / 4.6 W	630 nm				
LDR2-74SW2-LA	White		5,500 K				
LDR2-74BL2-LA	Blue	24 V / 5.7 W	470 nm				
LDR2-74GR2-LA	Green		525 nm				
LDR2-100RD2-LA	Red	24 V / 9.1 W	630 nm				
LDR2-100SW2-LA	White		5,500 K				
LDR2-100BL2-LA	Blue	24 V / 12 W	470 nm				
LDR2-100GR2-LA	Green		525 nm				
LDR2-132RD2-LA	Red	24 V / 13 W	630 nm				
LDR2-132SW2-LA	White		5,500 K				
LDR2-132BL2-LA	Blue	24 V / 16 W	470 nm				
LDR2-132GR2-LA	Green		525 nm				
LDR2-170RD2-LA	Red	24 V / 18 W	630 nm				
LDR2-170SW2-LA	White		5,500 K				
LDR2-170BL2-LA	Blue	24 V / 22 W	470 nm				
LDR2-170GR2-LA	Green		525 nm				
LDR2-208RD2-LA	Red	24 V / 22 W	630 nm				
LDR2-208SW2-LA	White		5,500 K				
LDR2-208BL2-LA	Blue	24 V / 28 W	470 nm				
LDR2-208GR2-LA	Green		525 nm				

*2 The cables with a model name that ends with "-ME7" or "-EL2" are not included.

Extension Cables ► P.296 Control Unit Selection Guide ► P.243 List of Control Unit Specifications ► P.245

*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/pdf>

LED properties

Spectral distribution

CCS offers you the most suitable lens filter for each wavelength. For details about the lens filter, refer to P.287.

Directional characteristics

White LED

Blue LED

Green LED

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.

Options



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

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

► P.290

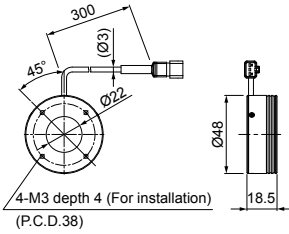
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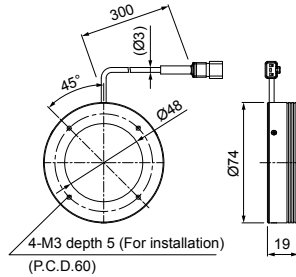
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► Dimensions (mm)

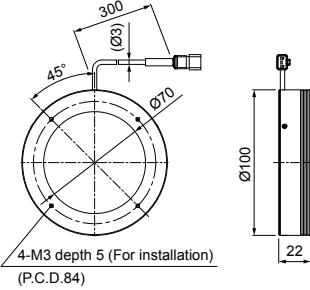
LDR2-48RD2-LA/SW2-LA/BL2-LA/GR2-LA



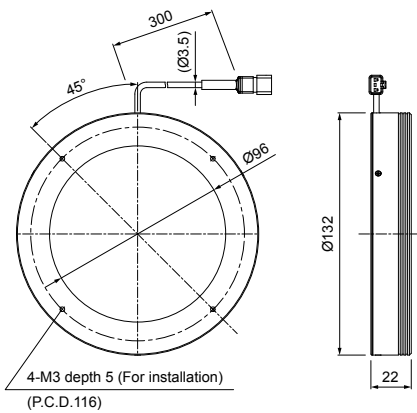
LDR2-74RD2-LA/SW2-LA/BL2-LA/GR2-LA



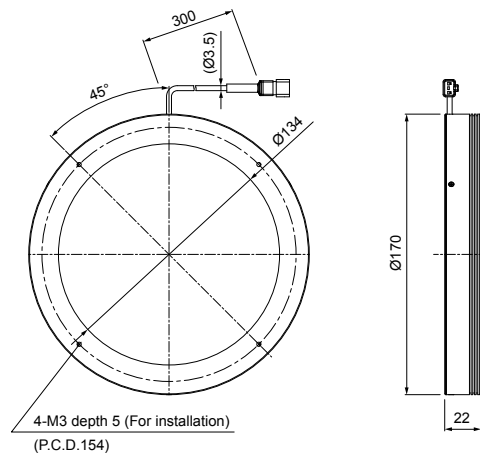
LDR2-100RD2-LA/SW2-LA/BL2-LA/GR2-LA



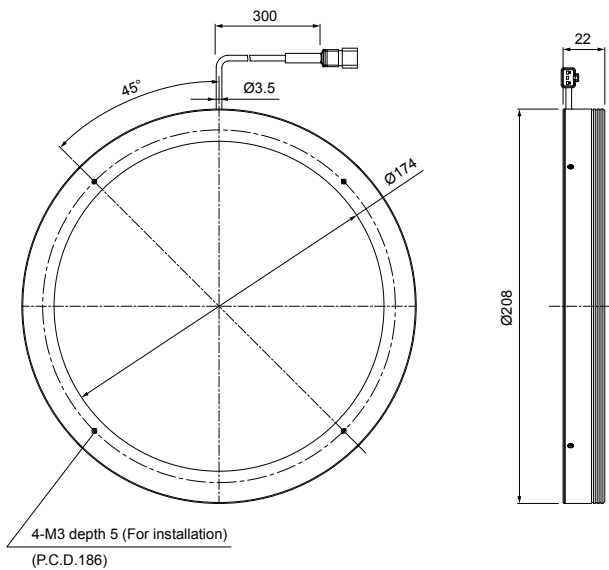
LDR2-132RD2-LA/SW2-LA/BL2-LA/GR2-LA



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.5 for details.

Direct Lighting

Diffused Lighting

Direct Lighting

Diffused Lighting

Coloured Lighting

Strobe Lighting

Water-proof Lighting

Ultraviolet Lighting

Infrared Lighting

Intensity Control

Spot Lighting, Etc.

Convergent Lighting

Diffused Lighting

Oblique-Angled Lighting

Lenses

LDR2
LDR2-LA
LDR-LA1
SQR
SQR-TPHPR2
LFR
LKR
FPR
FPQ2LDL2
LDLB
HLDL2HL
TH2 (5 types)
TH
LFL
HPD2LAV
PDM
LFX3
LFX3-PT
LFX2
LFV3MSU
MFU

PF

HLDR-IP/
IQ/HSL-PCLUV2
UV
LNSP-UV-FN

IR2

IU

HLV2
LV
LSP
HFS/HFR
HLV2-NR
HLV2-3M-RGB-3W
PFBR
PFB2LNLP
LNSP2
LNSP
Coaxial Units
LNSP-FN
LN/LN-HKLNSD
LND2
HLND
LT
LNV/HLDNLNDG
LNIS2
LNIS
LNIS-FNTelecentric Lens
Macro Lens