

# Ring Lights

## LFR series

Refer to our website for product details.

CCS LFR

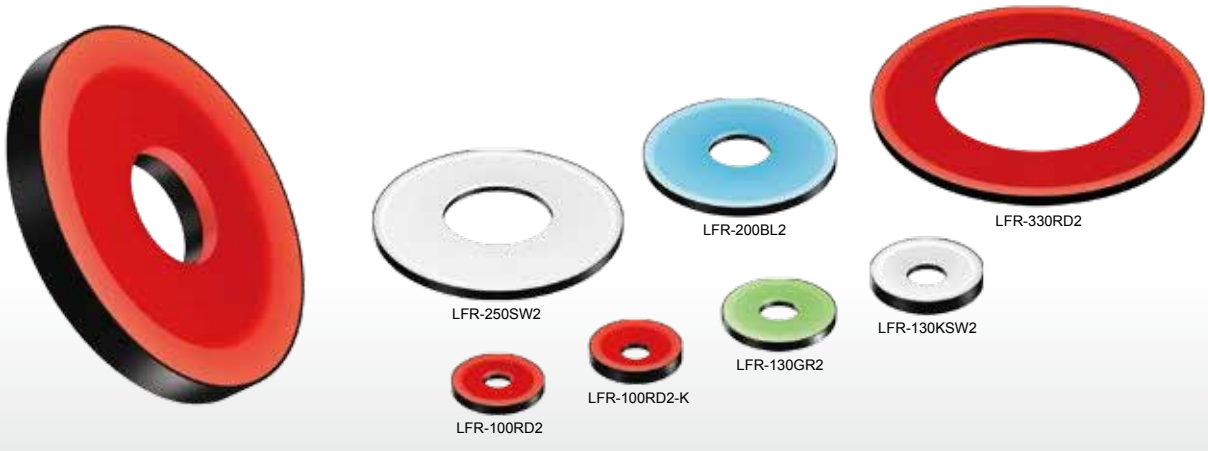
Search



You can also use your smartphone or cell phone.

For quick access.

### Diffused illumination from a flat emitting surface

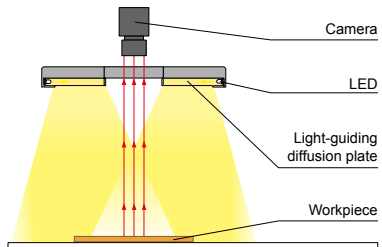


**Applications** Inspection for parts mounted on circuit boards, surface inspection for metal parts, inspection for faults on bottle tops, character recognition, text inspection, color determination inspection, etc.

### Features

LEDs embedded around a circular light-guiding diffusion plate. Uniformly diffused light is illuminated from a flat emitting surface.

#### Example configuration (LFR-100)



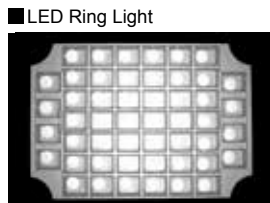
We accept custom orders. Please feel free to inquire.

- Shape modifications
- Brightness increases
- Changes in wavelength, etc.

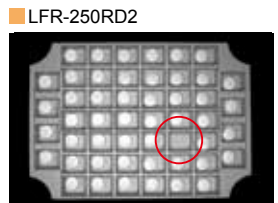
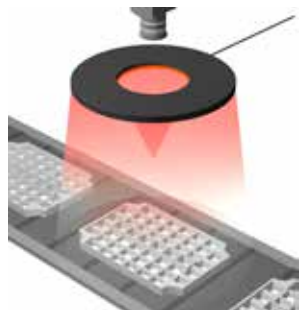
#### Imaging example: Imaging for detecting contents of a tray



Workpiece: Contents of a tray



Illuminated light converges in the center, making stable inspection difficult.



The whole thing is illuminated evenly, allowing for detection of present contents.

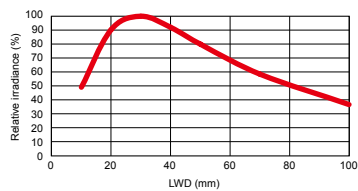
### Data: Relative irradiance graph and uniformity (Representative example)

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

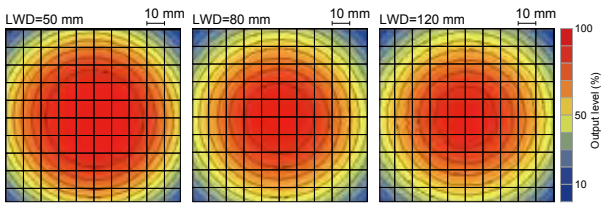
#### LFR-130RD2

##### Relative irradiance graph (LWD Characteristics)<sup>\*1</sup>

\*1: Irradiance on the optical axis  
\*2: Illuminating distance from the Light Unit to the workpiece



##### Uniformity (Relative irradiance)



- 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
- PFB2
- PFB2
- NLNP
- LNSP2
- LNSP
- Coaxial Units
- LNFP-FN
- LN/LN-HK
- LNLD
- LNLD2
- HLND
- LT
- LNVL/HLDN
- LNLDG
- LNIS
- LNIS-FN
- Telecentric Lens
- Macro Lens

## Lineup

End of the model name: -K: Type with angled emitting surface

Model name	LED color	Power consumption	Peak wavelength/ correlated color temperature	Options	Extension cables	Recommended Control Units	Weight
LFR-100RD2	Red	24 V / 3.6 W	630 nm	-	FCB*3 Straight Cable  FCB-W 2-branch Cable  FCB-F 4-branch Cable  FRCB Robot Cable  *3 The cables with a model name that ends with "-ME7" or "-EL2" are not included.	PD3    CC-ST-1024 PSB    POD*1	120 g
LFR-100SW2	White	24 V / 4.6 W	5,500 K				170 g
LFR-100BL2	Blue		470 nm				
LFR-100GR2	Green	525 nm	140 g				
LFR-100RD2-K	Red	24 V / 3.6 W					630 nm
LFR-100KSW2	White	24 V / 4.6 W	5,500 K				190 g
LFR-100BL2-K	Blue		470 nm				
LFR-100GR2-K	Green	24 V / 4.5 W	525 nm				250 g
LFR-130RD2	Red	24 V / 4.6 W	630 nm				
LFR-130SW2	White	24 V / 5.7 W	5,500 K				190 g
LFR-130BL2	Blue		470 nm				
LFR-130GR2	Green	525 nm	200 g				
LFR-130RD2-K	Red	24 V / 4.6 W					630 nm
LFR-130KSW2	White	24 V / 5.7 W	5,500 K				190 g
LFR-130BL2-K	Blue		470 nm				
LFR-130GR2-K	Green	525 nm	490 g				
LFR-200RD2	Red	24 V / 8.1 W					630 nm
LFR-200SW2	White	24 V / 11 W	5,500 K				1,080 g
LFR-200BL2	Blue		470 nm				
LFR-250RD2	Red	24 V / 11 W	630 nm				1,090 g
LFR-250SW2	White	24 V / 13 W	5,500 K				
LFR-250BL2	Blue		470 nm				
LFR-330RD2	Red	24 V / 14 W	630 nm				1,500 g

LED Properties: Spectral Distribution ► P.290

Extension Cables ► P.280

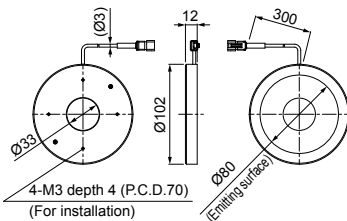
Control Unit Selection Guide ► P.229

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/rod>

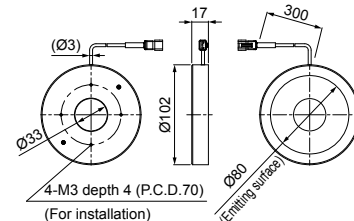
## Dimensions (mm)

LFR-100RD2/SW2/BL2/GR2



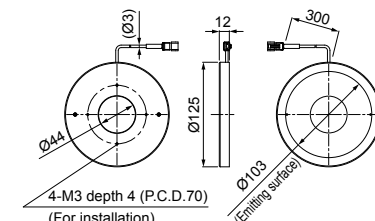
The emitting surface for the LFR-100SW2/BL2/GR2 is Ø77.

LFR-100RD2-K/KSW2/BL2-K/GR2-K

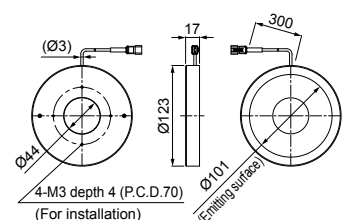


The emitting surface for the LFR-100KSW2/BL2/GR2 is Ø78.

LFR-130RD2/SW2/BL2/GR2

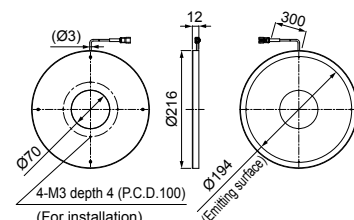


LFR-130RD2-K/KSW2/BL2-K/GR2-K



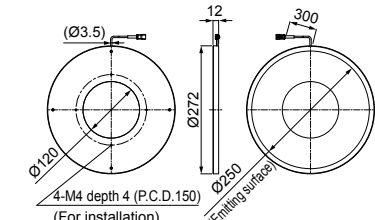
The emitting surface for the LFR-130KSW2 is Ø99.

LFR-200RD2/SW2/BL2



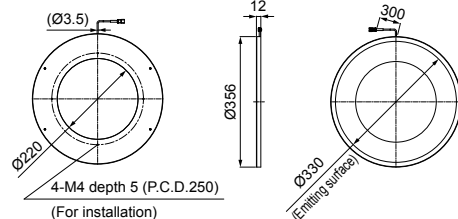
The emitting surface for the LFR-200SW2/BL2 is Ø193.

LFR-250RD2/SW2/BL2



The emitting surface for the LFR-250SW2/BL2 is Ø246.

LFR-330RD2



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/>

Direct Lighting

Diffused Lighting

Direct Lighting

Diffused Lighting

Colimated Lighting

Strobe Lighting

Water-proof

Ultraviolet Lighting

Infrared Lighting

Intensity Control

Spot Lighting, Etc.

Convergent Lighting

Diffused Lighting

Convergent Lighting

Diffused Lighting

Oblique Angled Lighting

Lenses

Lenses

Lenses

Lenses

Lenses

Lenses

LDR2  
LDR2-LA  
LDR-LA1  
SOR  
SOR-TPHPR2  
LFR  
LKR  
FPR  
FPQ2LDL2  
LDLB  
HLDL2  
HLTH2 (5 types)  
TH  
LFLHPD2  
LDM2  
LAV  
PDM  
LFX3  
LFX3-PT  
LFX2  
LFX3MSU  
MFU

PF

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

IR2

IU

HLV2  
LVLSP  
HFS/HFR  
HLV2-NR  
HLV2-3M-RGB-3W  
PFBR  
PFB2LNLP  
LNSP2  
LNSP  
Coaxial Units  
LNSP-FN  
LN/LN-HKLNSD  
LND2  
HLND  
LT  
LNV/HLDN

LNDG

LNIS  
LNIS-FNTelecentric Lens  
Macro LensTelecentric Lens  
Macro LensTelecentric Lens  
Macro LensTelecentric Lens  
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