



Provides direct light from an emitting part equipped with LEDs in straight lines



Applications

Various inspections for reading text, visual inspection for damage on long and thin workpieces, damage inspection for metal with hairline finishing, light source for a line sensor camera, various inspections to detect foreign material, etc.

Rich Lineup with 144 Models

We have a lineup of 144 models, such as combinations of the size and emitting width of the emitting surface, directional characteristics, and the emitted color.

Compatible with a wide range of uses

You can freely adjust the illuminating direction and angle for use in a wide range of uses.

Bar lights allow the illumination direction and angle to be freely adjusted, enabling imaging according to the workpiece.



Illuminating image from direction A



Illuminating image from direction B



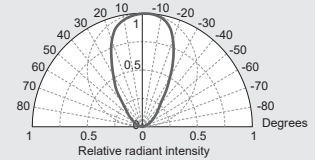
Bar Lights That Use Surface-Mounted LEDs

These are Bar Lights that use surface-mounted LEDs. We provide the narrow type, which performs convergent illumination for a narrow space, and the wide type (-WD) which illuminates a wide space.

Select the directional characteristics of a narrow type or wide type

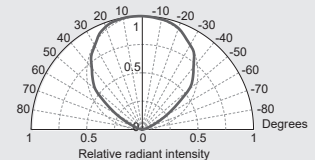
Directional characteristics of the Narrow Type (White)

Zoomed-in view of the emitting surface



Directional characteristics of the Wide Type (White)

Zoomed-in view of the emitting surface

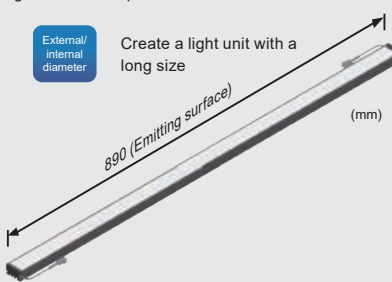


Custom Order Example

E.g.: Different shape



Create a light unit with a long size

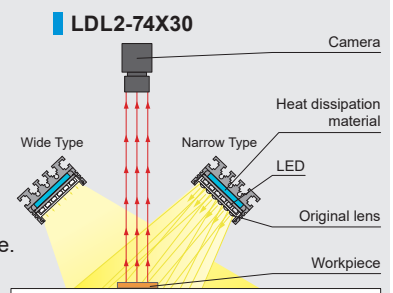


- External/internal diameter
- Wavelength/color
- Increase output
- Cable length
- Illuminating angle
- Format/material
- Connector format
- Installation/mounting

Contact us for any inquiries.

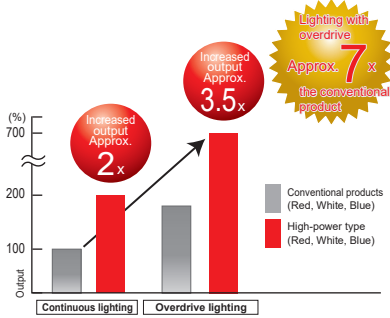
Example Configuration

Achieved light with a narrow directionality using the original lens located in front of the LEDs. Illuminates direct light from any angle.



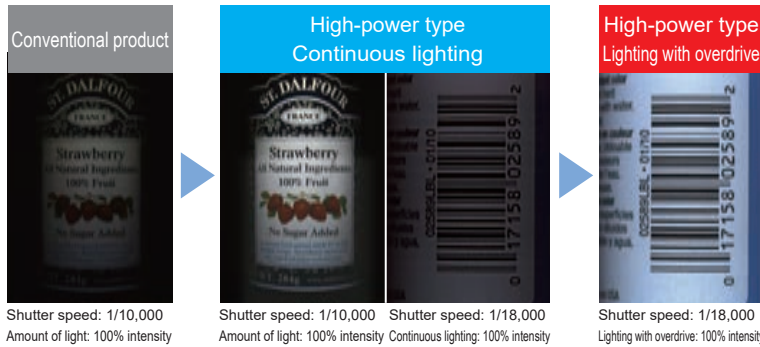
Increased Brightness and Rich Variety of Sizes

Brightness comparison



For detailed information on the overdrive, refer to P.412.

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

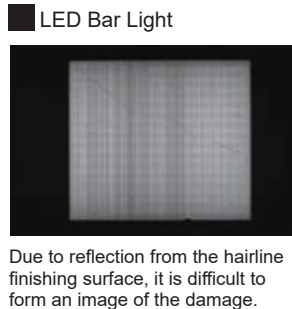


*Comparison of LDL2-74X30SW and LDL2-74X30SW2. Comparison of LDL2-74X30SW2 on continuous lighting and overdrive lighting.

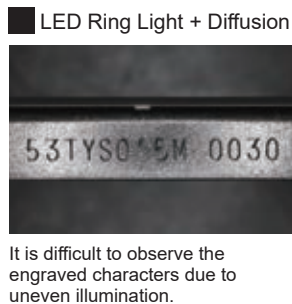
Imaging Example: Imaging of Damage in Sheet Metals (Hairline Finishing)



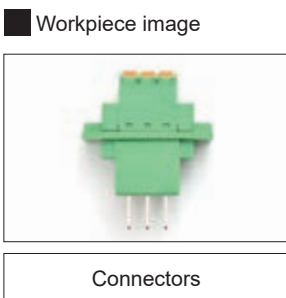
Description	Visual inspection
Workpiece	Aluminum sheets (hairline finishing)
Before the proposal	LED Bar Light
After the proposal	LDL2-74X30RD Precise illumination angle and direction
Result	Extracts only the damage



Imaging Example: Imaging Engraved Characters on Plastic Surfaces



Imaging Example: Imaging the Appearance of Connector Pins



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- Product Details
- Pricing/Quotation
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<https://www.ccs-grp.com/contact/>

LDR2	Ring (Direct)
LDR2-LA	Ring (Direct)
LDR-LA1	Ring (Direct)
SQR	Ring (Direct)
SQR-TP	Ring (Direct)
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
UV3/VL3	UV / Violet
UV	UV / Violet
LNSP-UV3-FN	UV / Violet
IR2 (Under 1000-nm Type)	Infrared
IR (Over 1000-nm Type)	Infrared
CIR	Infrared
LDF-RLS	Reference Light Source
IU	Intensity Control
HLV3	Spot, Etc.
LV	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.
SLG-150V-CCS	Spot, Etc.
PF3(A)	Spot, Etc.
LNL2	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)
LNV	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	Macro Lens
Other Products	Macro Lens
LDF-NB	Macro Lens

LDL2 Series

Refer to our website for product details.

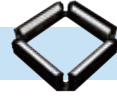


CCS LDL2

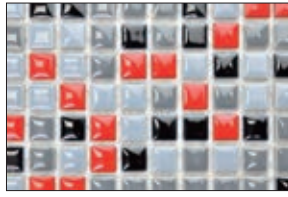
Search



Imaging Example: Imaging the Surface and Appearance of Tiles

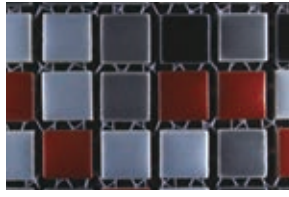


Workpiece image



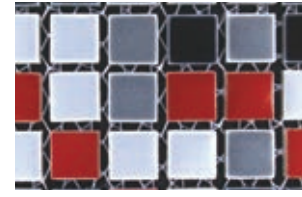
Tiles

LDL2-119X16SW2 (double use)



It is difficult to observe the surface and appearance of the tiles with a double use of the Bar Lights due to uneven illumination.

LDL2-119X16SW2 (quadruple use) + bracket



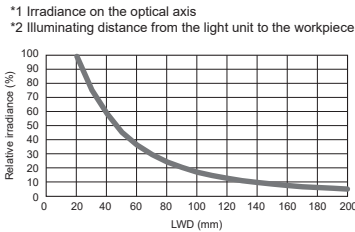
The Bar Lights which are mounted on the four sides of the bracket illuminate the surface and appearance of the tiles, so that they are captured brightly and evenly.

Data: Relative Irradiance Graph/Uniformity (Representative Example)

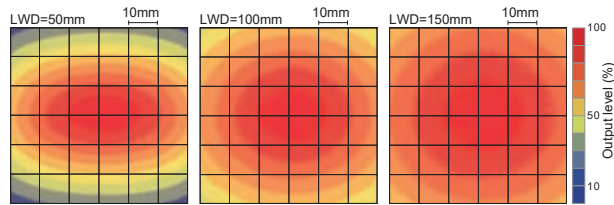
The data included is for reference only. Actual values may vary.

LDL2-74X30SW2(A) (Narrow type)

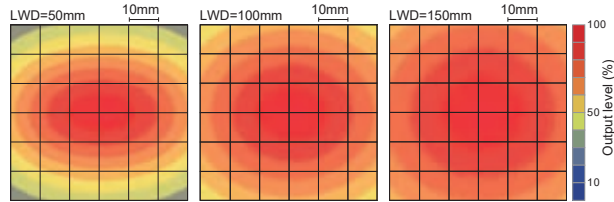
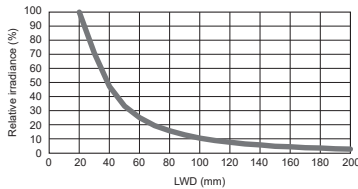
Relative irradiance graph*1
(LWD characteristics)*2



Uniformity (Relative irradiance)



LDL2-74X30SW2-WD(A) (Wide type)



LED Properties

Spectral distribution

Lens filters suitable for each wavelength are available. For details about the lens filter, refer to P.371.

Directional characteristics

Be sure to read the User Manual included with the product before use and observe cautionary information. The data included is for reference only. Actual values may vary.

Lineup “-WD” at the end of the model name: Wide type

Emitting width	Model Name ^{*1}	Input Voltage	Power Consumption					Option	Extension Cables	Recommended Control Units	Weight	
			RD2 (Red)	SW2 ^{*2} (White)	BL2 (Blue)	GR (Green)	IR850 (Infrared)					
4 mm	LDL2-19X4□□ ^{*4}	24 V	1.3 W	1.3 W	1.1 W	—	—	Diffusion Plate Polarizing Plate Bracket ^{*6} <small>*6 Available as custom order</small>			12 g	
	LDL2-33X8□□ ^{*4}	24 V	2.6 W	2.1 W	1.5 W	0.8 W	1.3 W ^{*3}	Diffusion Plate Polarizing Plate Bracket	PD4 CC-ST-1024 ^{*9}	PD3 POD ^{*5}	20 g	
8 mm	LDL2-41X16□□(-WD)	24 V	3.8 W	3.8 W	3.8 W	1.9 W	—	FCB ^{*6} Straight Cable	PD4 CC-ST-1024 ^{*9}	PD3 POD	50 g	
	LDL2-80X16□□(-WD)	24 V	7.6 W	7.6 W	7.6 W	3.8 W	—		120 g	145 g	170 g	
16 mm	LDL2-119X16□□(-WD)	24 V	12 W	12 W	12 W	5.7 W	—		FCB-W ^{*7} 2-Branch Cable	PD4 POD ^{*5}	PD3	75 g
	LDL2-158X16□□(-WD)	24 V	16 W	16 W	16 W	7.6 W	—					95 g
	LDL2-197X16□□(-WD)	24 V	19 W	19 W	19 W	9.5 W	—					120 g
	LDL2-236X16□□(-WD)	24 V	23 W	23 W	23 W	12 W	—					145 g
	LDL2-275X16□□(-WD)	24 V	27 W	27 W	27 W	14 W	—					170 g
	LDL2-314X16□□(-WD)	24 V	31 W	31 W	31 W	16 W	—					195 g
	LDL2-353X16□□(-WD)	24 V	35 W	35 W	35 W	18 W	—					220 g
	LDL2-392X16□□(-WD)	24 V	38 W	38 W	38 W	19 W	—					245 g
	LDL2-431X16□□(-WD)	24 V	42 W	42 W	42 W	21 W	—					270 g
	LDL2-470X16□□(-WD)	24 V	46 W	46 W	46 W	23 W	—					295 g
30 mm	LDL2-509X16□□(-WD)	24 V	50 W	50 W	50 W	25 W	—	FCB-F 4-Branch Cable	PD4 POD ^{*5}	PD3	320 g	
	LDL2-26X30□□(-WD)	24 V	3.8 W	3.8 W	3.8 W	1.9 W	—				345 g	
	LDL2-50X30□□(-WD)	24 V	7.6 W	7.6 W	7.6 W	3.8 W	—				55 g	
	LDL2-74X30□□(-WD)	24 V	12 W	12 W	12 W	5.7 W	—				80 g	
	LDL2-98X30□□(-WD)	24 V	16 W	16 W	16 W	7.6 W	—				100 g	
	LDL2-122X30□□(-WD)	24 V	19 W	19 W	19 W	9.5 W	—				125 g	
	LDL2-146X30□□(-WD)	24 V	23 W	23 W	23 W	12 W	—				150 g	
	LDL2-170X30□□(-WD)	24 V	27 W	27 W	27 W	14 W	—				170 g	
	LDL2-194X30□□(-WD)	24 V	31 W	31 W	31 W	16 W	—				200 g	
	LDL2-218X30□□(-WD)	24 V	35 W	35 W	35 W	18 W	—				225 g	
30 mm	LDL2-242X30□□(-WD)	24 V	38 W	38 W	38 W	19 W	—	FCB-EL2 Straight Cable	PD4 POD ^{*5}	PD3	240 g	
	LDL2-266X30□□(-WD)	24 V	42 W	42 W	42 W	21 W	—				275 g	
	LDL2-290X30□□(-WD)	24 V	46 W	46 W	46 W	23 W	—				280 g	
	LDL2-314X30□□(-WD)	24 V	50 W	50 W	50 W	25 W	—				325 g	
	LDL2-338X30□□(-WD)	24 V	53 W	53 W	53 W	27 W	—				350 g	
	LDL2-362X30□□(-WD)	24 V	57 W	57 W	57 W	29 W	—				375 g	
	LDL2-386X30□□(-WD) ^{*3}	24 V	61 W	61 W	61 W	31 W	—				400 g	
	LDL2-410X30□□(-WD) ^{*3}	24 V	65 W	65 W	65 W	33 W	—				425 g	
	LDL2-434X30□□(-WD) ^{*3}	24 V	69 W	69 W	69 W	35 W	—				450 g	
	LDL2-458X30□□(-WD) ^{*3}	24 V	72 W	72 W	72 W	37 W	—				475 g	
30 mm	LDL2-482X30□□(-WD) ^{*3}	24 V	76 W	76 W	76 W	38 W	—	FCB-W-EL2 2-Branch Cable	PD4 POD ^{*5}	PD3	500 g	
	LDL2-506X30□□(-WD) ^{*3}	24 V	80 W	80 W	80 W	40 W	—				525 g	
30 mm								FCB-EL2 Straight Cable	PD4 POD ^{*5}	PD3	550 g	

Extension Cables ▶ P.383 Control Unit Selection Guide ▶ P.309 List of Control Unit Specifications ▶ P.311

* For the peak wavelength / correlated color temperature, refer to the spectral distribution on P.63 "LED Properties".
^{*1} □□ in the model name contains the LED color. (RD2: Red, SW2: White, BL2: Blue, GR: Green, IR860: Infrared)
^{*2} SW: (A) is added to the end of the model name only for white color. Example: LDL2-41X16SW2(A), LDL2-41X16SW2-WD(A)
^{*3} The connector is an EL connector (ELP-02V ①: + ②: brown, - blue). Please use a power supply with EL connectors when using this product.
^{*4} All LEDs of the LDL2-19X4 and LDL2-33X8 have wide type directional characteristics.
^{*5} 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>

Change in model names

"(A)" is added to the end of SW2 model names only
 e.g. LDL2-41X16SW2 → LDL2-41X16SW2(A)
 LDL2-41X16SW2-WD → LDL2-41X16SW2-WD(A)

Reason	Impact on functions and performance
LEDs have been changed due to the discontinuation of the LEDs used.	Lower correlated color temperature (more yellow) Conventional product: 7800 K New product: 7000 K

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LDR2 LDR2-LA LDR-LA1 SQR SOR-TP	Ring (Direct)
HLDR3 HPR2 LFR LKR FPR	Ring (Convergent/Diffused)
FPQ3	Square
LDL2 LDLB HLDL3 LB	Bar
TH2 (5 types) LFL	Flat
HPD2 LDM2 LAV PDM LFXV LFX3 LFX3-PT	Dome
LFV3 LFV3-G	Coaxial
MSU MFU	Coaxial
PF	Strobe
HLDR-IP HSL-PCL UV3/VL3 UV LNSP-UV3-FN	Water- proof UV / Violet
IR2 (Under 1000-nm Type) IR (Over 1000-nm Type) CIR	Infrared
LDF-RLS	Reference Light Source
IU	Intensity Control
HLV3 LV HFS/HFR HLV3-22-4-NR HLV3-3M-RGB-4 PFBR-600SW2 PFBR-150 SLG-150V-CCS PFB3(A)	Spot, Etc.
LNLP LNSP2 Coaxial Units LNSP-FN LN/LN-HK	Line (Convergent)
LNLD LND2 LN LT LFXV (Rectangular Type) TH2 (Rectangular Type)	Line (Diffused)
LNDG LNIS2 LNIS LNIS-FN	Line (Oblique Angled)
Telecentric Lens Macro Lens	Lenses
LDF-NB	Other Products

LDL2 Series

Refer to our website for product details.

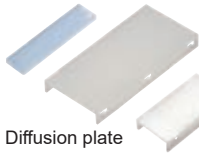


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Option

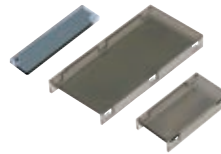


Can prevent glare, which is a problem when making images of glossy workpieces.

Diffusion plate

Model name	Applicable Light Unit (Common for all colors)
DF-LDL2-19X4	LDL2-19X4
DF-LDL2-33X8	LDL2-33X8
DF-LDL2-41X16	LDL2-41X16 (-WD)
DF-LDL2-80X16	LDL2-80X16 (-WD)
DF-LDL2-119X16	LDL2-119X16 (-WD)
DF-LDL2-158X16	LDL2-158X16 (-WD)
DF-LDL2-26X30	LDL2-26X30 (-WD)
DF-LDL2-50X30	LDL2-50X30 (-WD)
DF-LDL2-74X30	LDL2-74X30 (-WD)
DF-LDL2-98X30	LDL2-98X30 (-WD)
DF-LDL2-122X30	LDL2-122X30 (-WD)
DF-LDL2-146X30	LDL2-146X30 (-WD)
DF-LDL2-218X30	LDL2-218X30 (-WD)
DF-LDL2-266X30	LDL2-266X30 (-WD)

▶ P.375



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

Polarizing plate

Model name	Applicable Light Unit (Common for all colors)
PL-LDL2-19X4-HO	LDL2-19X4
PL-LDL2-19X4-VE	
PL-LDL2-33X8-HO	LDL2-33X8
PL-LDL2-33X8-VE	
PL-LDL2-41X16	LDL2-41X16 (-WD)
PL-LDL2-41X16-VE	
PL-LDL2-80X16	LDL2-80X16 (-WD)
PL-LDL2-80X16-VE	
PL-LDL2-119X16	LDL2-119X16 (-WD)
PL-LDL2-119X16-VE	
PL-LDL2-158X16	LDL2-158X16 (-WD)
PL-LDL2-158X16-VE	

▶ P.377

There are two kinds of polarizing plates: the HO and the VE. For details, refer to P. 377.

Model name	Applicable Light Unit (Common for all colors)
PL-LDL2-26X30	LDL2-26X30 (-WD)
PL-LDL2-26X30-VE	
PL-LDL2-50X30	LDL2-50X30 (-WD)
PL-LDL2-50X30-VE	
PL-LDL2-74X30	LDL2-74X30 (-WD)
PL-LDL2-74X30-VE	
PL-LDL2-98X30	LDL2-98X30 (-WD)
PL-LDL2-98X30-VE	
PL-LDL2-122X30	LDL2-122X30 (-WD)
PL-LDL2-122X30-VE	
PL-LDL2-146X30	LDL2-146X30 (-WD)
PL-LDL2-146X30-VE	
PL-LDL2-218X30	LDL2-218X30 (-WD)
PL-LDL2-218X30-VE	
PL-LDL2-266X30	LDL2-266X30 (-WD)
PL-LDL2-266X30-VE	



Protects the emitting part of the light unit.

Not intended to protect against dust or water.

Protective plate

Model name	Applicable Light Unit (Common for all colors)
CV-LDL2-41X16	LDL2-41X16 (-WD)
CV-LDL2-80X16	LDL2-80X16 (-WD)
CV-LDL2-119X16	LDL2-119X16 (-WD)
CV-LDL2-158X16	LDL2-158X16 (-WD)
CV-LDL2-26X30	LDL2-26X30 (-WD)
CV-LDL2-50X30	LDL2-50X30 (-WD)
CV-LDL2-74X30	LDL2-74X30 (-WD)
CV-LDL2-98X30	LDL2-98X30 (-WD)
CV-LDL2-122X30	LDL2-122X30 (-WD)
CV-LDL2-146X30	LDL2-146X30 (-WD)
CV-LDL2-218X30	LDL2-218X30 (-WD)
CV-LDL2-266X30	LDL2-266X30 (-WD)

Not applicable for the LDL2-19X4 and LDL2-33X8 Series.

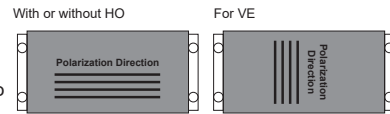
▶ P.380

When the model number ends with or without HO

As shown in the figure, the polarization direction is **horizontal** with respect to the long side of the polarizing plate.

When the model number ends with VE

As shown in the figure, the polarization direction is **perpendicular** with respect to the long side of the polarizing plate.



Refer to the Technical Guide Page for polarization. ▶ P.413



You can freely adjust the illuminating angle when affixing the Bar Light. Various kinds of illumination are possible depending on the affixing method, such as illumination from two or four directions.

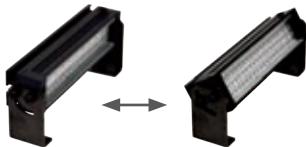
Bracket

Model name	Note
BK-LDL2	Angle adjustment bracket common for the LDL2 Series (x2)

Not applicable for the LDL2-19X4 and LDL2-33X8 Series.

▶ P.381

Usage example of the BK-LDL2



Adjustable illuminating angle between 0 to 90°



You can freely adjust the illuminating angle when affixing the Bar Light. Various kinds of illumination are possible depending on the affixing method, such as illumination from two or four directions.

Bracket

Model name	Note
BK-LDQ2-33X8	Bracket that can install four of the Bar Lights.

▶ P.381

We accept custom orders for the brackets that are applicable for the following products. Contact your CCS sales representative for details.

Applicable Light Unit	BK-LDQ2
LDL2-19X4	Bracket that can install four Bar Lights. (Custom orders)
LDL2-26X30	
LDL2-50X30	



You can freely adjust the illuminating angle when affixing the Bar Light. Various kinds of illumination are possible depending on the affixing method, such as illumination from two or four directions.

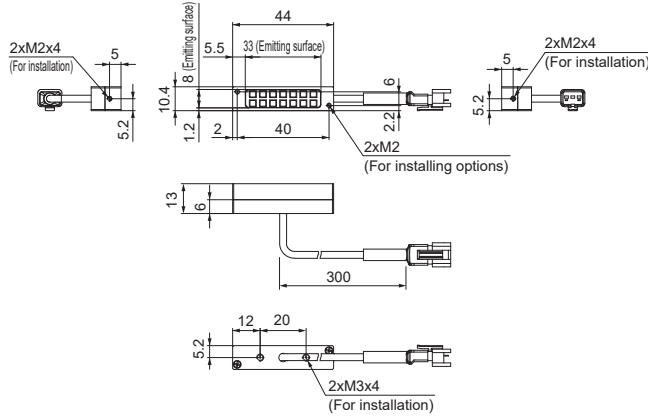
Bracket

Model name	Note
BK-LDQ2-41X16	Bracket that can install four of the Bar Lights.
BK-LDQ2-80X16	
BK-LDQ2-119X16	
BK-LDQ2-158X16	
BK-LDQ2-74X30	
BK-LDQ2-98X30	
BK-LDQ2-122X30	
BK-LDQ2-146X30	
BK-LDQ2-218X30	
BK-LDQ2-266X30	

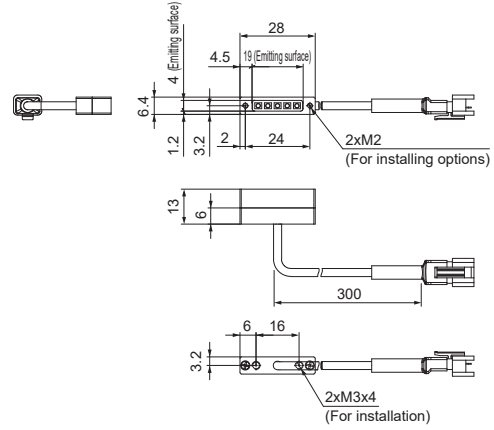
▶ P.381

Dimensions (mm)

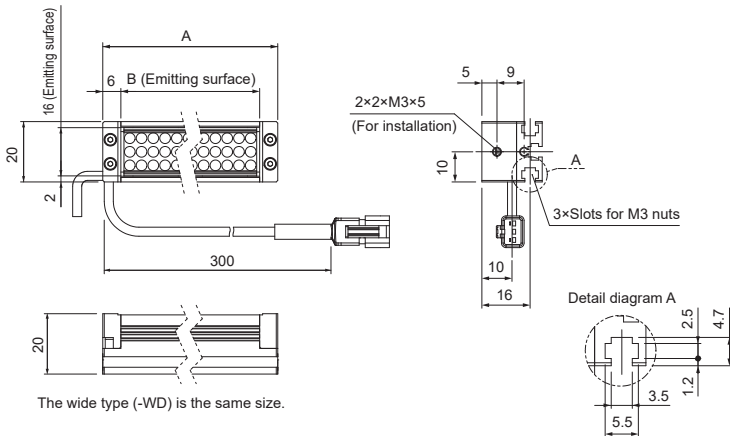
LDL2-33X8 (Common for all colors)



LDL2-19X4 (Common for all colors)

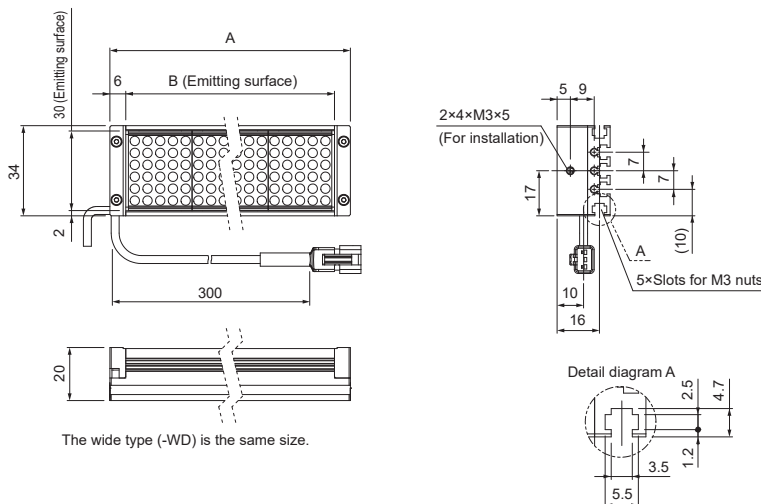


LDL2-*nnn*X16 (Common for all colors)
nnn = B (Emitting surface)



Applicable Light Unit	A	B
LDL2-41X16(-WD)	53	41
LDL2-80X16(-WD)	92	80
LDL2-119X16(-WD)	131	119
LDL2-158X16(-WD)	170	158
LDL2-197X16(-WD)	209	197
LDL2-236X16(-WD)	248	236
LDL2-275X16(-WD)	287	275
LDL2-314X16(-WD)	326	314
LDL2-353X16(-WD)	365	353
LDL2-392X16(-WD)	404	392
LDL2-431X16(-WD)	443	431
LDL2-470X16(-WD)	482	470
LDL2-509X16(-WD)	521	509

LDL2-*nnn*X30 (Common for all colors)
nnn = B (Emitting surface)



Applicable Light Unit	A	B
LDL2-26X30(-WD)	38	26
LDL2-50X30(-WD)	62	50
LDL2-74X30(-WD)	86	74
LDL2-98X30(-WD)	110	98
LDL2-122X30(-WD)	134	122
LDL2-146X30(-WD)	158	146
LDL2-218X30(-WD)	230	218
LDL2-266X30(-WD)	278	266
LDL2-170X30(-WD)	182	170
LDL2-194X30(-WD)	206	194
LDL2-242X30(-WD)	254	242
LDL2-290X30(-WD)	302	290
LDL2-314X30(-WD)	326	314
LDL2-338X30(-WD)	350	338
LDL2-362X30(-WD)	374	362
LDL2-386X30(-WD) ^{*1}	398	386
LDL2-410X30(-WD) ^{*1}	422	410
LDL2-434X30(-WD) ^{*1}	446	434
LDL2-458X30(-WD) ^{*1}	470	458
LDL2-482X30(-WD) ^{*1}	494	482
LDL2-506X30(-WD) ^{*1}	518	506

^{*1} EL connector (ELP-02V, 1: +Brown, 2: -Blue).
 Use the control unit which has EL connectors.

LDR2	
LDR2-LA	Ring (Direct)
LDR-LA1	Ring (Direct)
SQR	
SQR-TP	
HLDR3	
HPR2	Ring (Convergent/Diffused)
LFR	
LKR	Ring (Convergent/Diffused)
FPR	
FPQ3	Square
LDL2	Bar
LDLB	
HLDL3	
LB	
TH2 (5 types)	Flat
LFL	
HPD2	
LDM2	
LAV	Dome
PDM	
LFXV	
LFX3	
LFX3-PT	
LFV3	Coaxial
LFV3-G	Coaxial
MSU	Coaxial
MFU	Coaxial
PF	Strobe
HLDR-IP	Water-proof
HSL-PCL	Water-proof
UV3/VL3	Violet
UV	Violet
LNSP-UV3-FN	UV / Violet
IR2 (Under 1000-nm Type)	Infrared
IR (Over 1000-nm Type)	Infrared
CIR	Infrared
LDF-RLS	Reference Light Source
IU	Intensity Control
HLV3	
LV	
HFS/HFR	
HLV3-22-4-NR	Spot, Etc.
HLV3-3M-RGB-4	
PFBR-600SW2	
PFBR-150	
SLG-150V-CCS	
PFB3(A)	
LNL3	Line (Convergent)
LNSP2	Coaxial Units
LNSP-FN	Line (Convergent)
LN/LN-HK	
LNSD	Line (Diffused)
LND2	
LT	
LNV	Line (Diffused)
LFXV (Rectangular Type)	
TH2 (Rectangular Type)	
LNDG	Line (Oblique Angled)
LNIS2	
LNIS	Line (Oblique Angled)
LNIS-FN	
Telecentric Lens	
Macro Lens	
LDF-NB	Other Products

You can inquire using our website.

Sample Testing	Light Unit Selection	Free Product Trial	Custom Orders	Product Details	Pricing/Quotation	Discontinued Products
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