

Provides diffused light from an emitting surface equipped with LEDs in a straight line



**Applications** Mixed foreign materials inspection of rice, foreign material inspection of clear film, stain inspection of sheet steel, inspection of surface printing on paper, dimension measuring of sheet steel, etc.

➤ Can Create Up to a Maximum of 2,700 mm

Provides a Light Unit with the optimal length to meet your needs.

**Emitting surface length**

From 100 mm to 2,700 mm Can be made in units of 100 mm

**LED color**

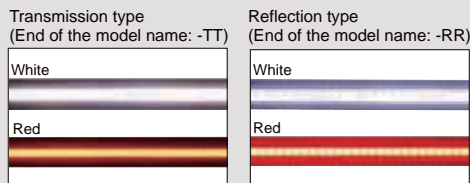
For emitted LED color, we have a lineup consisting of:

Red and White

Select your Light Unit based on the details of your inspections.

**Two types, with different diffusion plates and transmission, are available**

You can select from a uniform type perfect as transmission lighting, and a high output type perfect as reflection lighting.



➤ Applications

**Inspection for foreign material on clear films (Transmission type)**



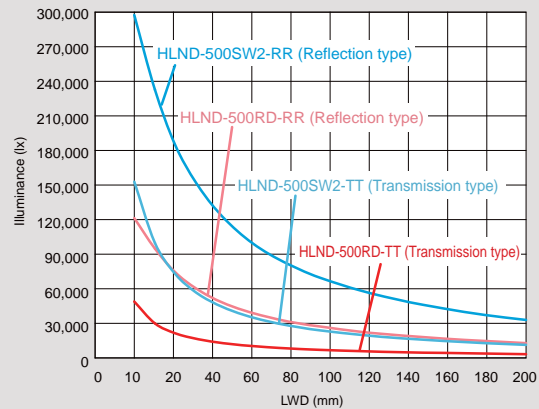
**Visual inspection of color sheet steel (Reflection type)**



➤ Uses a Unique Illumination Mechanism

We used surface-mounted LEDs and a unique illumination mechanism to achieve a high output Line Light. Two types of diffusion plates to be equipped are available. Select one to match your needs.

**Illumination comparison for the HLND series**



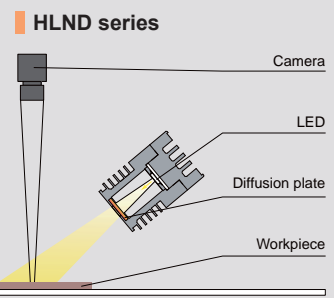
Actual measurement values at 100% intensity in each illuminating distance. Results for individual products may vary. LWD is the distance from the Light Unit to the workpiece.

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

➤ Example Configuration

LEDs are mounted on a flat circuit board. The light is transmitted through the diffusion plate and diffused light is illuminated in a line shape.

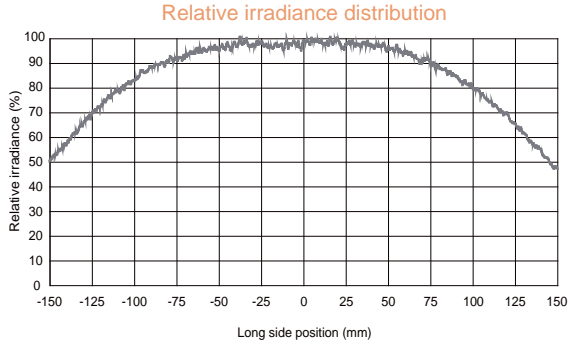
The emitting surface can be made up to 2,700 mm long.



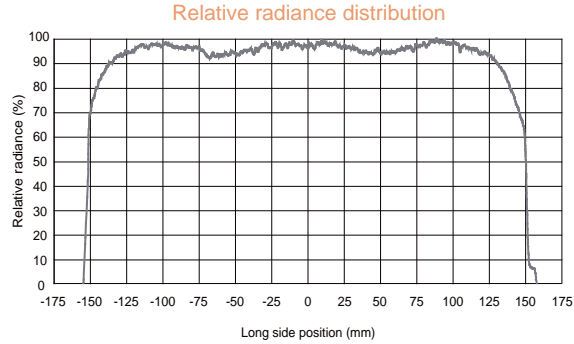
**Data** (Representative Example)

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

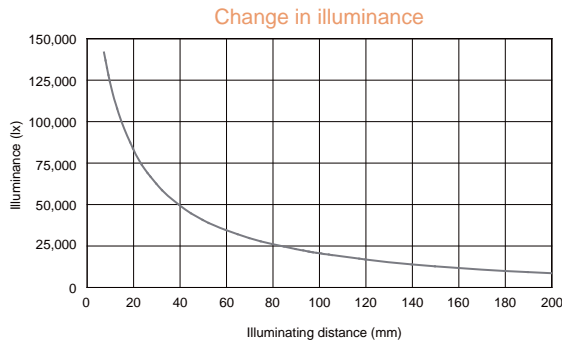
**HLND-300SW2-TT (Transmission type)**



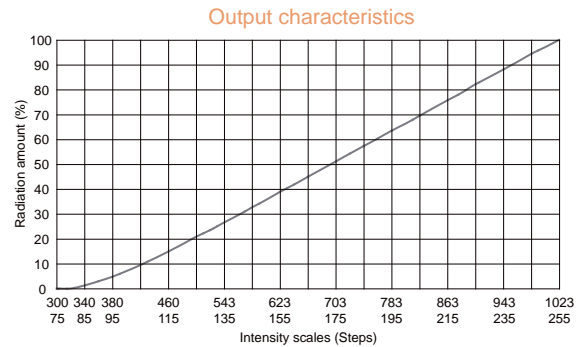
Actual measurement values at 100% intensity in 100 mm illuminating distance. Results for individual products may vary.



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

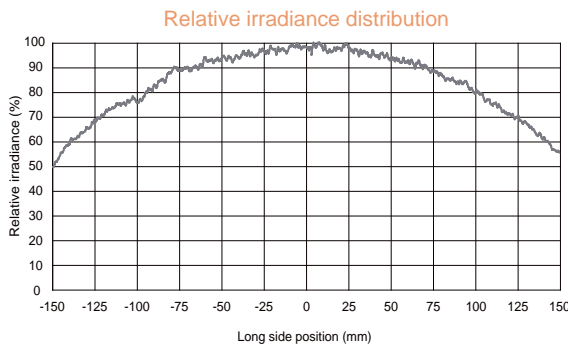


Actual measurement values at 100% intensity in each illuminating distance. Results for individual products may vary.

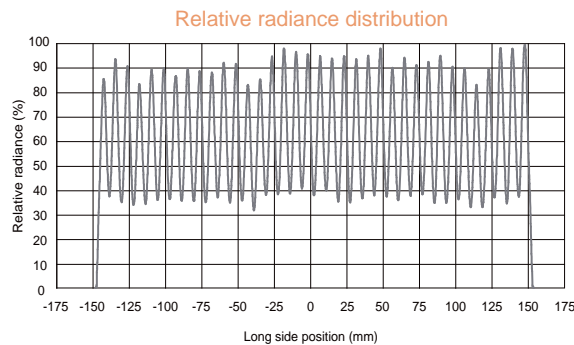


Actual measurement values using the Analog Control Unit PSB4-30024-PEI. Results for individual products may vary. Data obtained when output voltage range is 12 to 24 V.

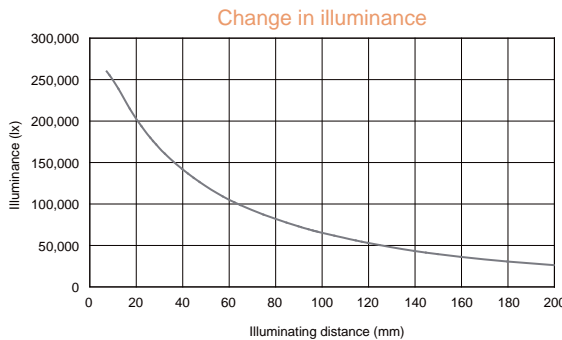
**HLND-300SW2-RR (Reflection type)**



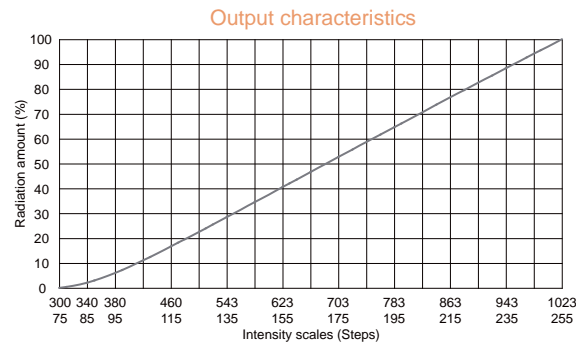
Actual measurement values at 100% intensity in 100 mm illuminating distance. Results for individual products may vary.



Actual measurement values at 100% intensity in 100 mm illuminating distance. Results for individual products may vary.



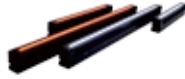
Actual measurement values at 100% intensity in each illuminating distance. Results for individual products may vary.



Actual measurement values using the Analog Control Unit PSB4-30024-PEI. Results for individual products may vary. Data obtained when output voltage range is 12 to 24 V.

Direct Lighting	LDR2 LDR2-LA LDR-LA1 SQR SQR-TP
Diffused Lighting	HPR2 LFR LKR FPR FPQ2
Direct Lighting	LDL2 LDLB HLDL2 HL
Diffused Lighting	TH2 (5 types) TH LFL HPD2 LDM2 LAV PDM LFX3 LFX3-PT LFV3
Collimated Lighting	MSU MFU
Strobe Lighting	PF
Water-proof Lighting	HLDR-IP/ HSL-PCL
Ultraviolet Lighting	UV2 UV LNSP-UV-FN
Infrared Intensity Control Lighting	IR2 IU
Spot Lighting, Etc.	HLV3 HLV2 LV LSP HFS/HFR HLV3-NR HLV3-3M-RGB-4 HLV2-NR HLV2-3M-RGB-3W PFBR PFB3 PFB2
Convergent Lighting	LNLP LNSP2 LNSP Coaxial Units LNSP-FN LN/LN-HK
Diffused Lighting	LNSD LND2 HLND LT LNV
Oblique-Angled Lighting	LNDG LNS2 LNSIS LNSIS-FN
Lenses	Telecentric Lens Macro Lens

# HLND Series

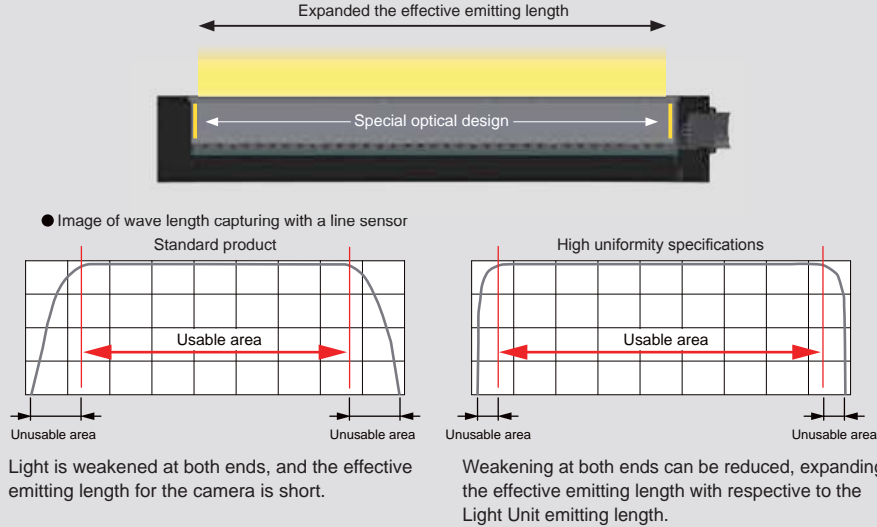


## Custom Order

Please contact your sales representative.

E.g.: Usable area expansion (Special optical design on both sides of the housing)

Result: Keeps weakening on both sides of the Light Unit housing to a minimum, expanding the effective emitting length.



## Lineup

Model name	LED color	Power consumption	Peak wavelength / correlated color temperature	Extension cables	Recommended Control Units	Weight
HLND-100SW2-TT	White	10 W	6,500 K	FCB-1.25SQ-ME7 FCB-20-2.0SQ-ME7	PSB4-30024-PEI	520 g
HLND-200SW2-TT		20 W				840 g
HLND-300SW2-TT		30 W				1,160 g
HLND-400SW2-TT		40 W				1,480 g
HLND-500SW2-TT		50 W				1,800 g
HLND-600SW2-TT		60 W				2,120 g
HLND-700SW2-TT		71 W				2,440 g
HLND-800SW2-TT		81 W				2,760 g
HLND-900SW2-TT		91 W				3,080 g
HLND-1000SW2-TT		89 W				3,400 g
HLND-1100SW2-TT		98 W				3,720 g
HLND-1200SW2-TT		107 W				4,040 g
HLND-1300SW2-TT		115 W				4,360 g
HLND-1400SW2-TT		124 W				4,680 g
HLND-1500SW2-TT		133 W				5,000 g
HLND-1600SW2-TT		142 W				5,320 g
HLND-1700SW2-TT		151 W				5,640 g
HLND-1800SW2-TT		160 W				5,960 g
HLND-1900SW2-TT		169 W				6,280 g
HLND-2000SW2-TT		178 W				6,600 g
HLND-2100SW2-TT		186 W				6,920 g
HLND-2200SW2-TT		195 W				7,240 g
HLND-2300SW2-TT		204 W				7,560 g
HLND-2400SW2-TT		213 W				7,880 g
HLND-2500SW2-TT		222 W				8,200 g
HLND-2600SW2-TT		231 W				8,520 g
HLND-2700SW2-TT		240 W				8,840 g

PSB4-30024-PEI Product Page ▶ P.295

The emitting surface is available in sizes of 100 mm units. For details about other sizes, inquire with your sales representative. In addition, we accept custom orders, such as changes to the LED color (blue/IR/UV, etc.) and size changes. Inquire at your sales representative for details.

Various technical documents available.

- PDF Drawings
- DXF Drawings
- Product Brochures
- Instruction Guides
- 3D CAD
- Data Sheets
- Imaging Examples
- Digital Catalogs

## Lineup

	Model name	LED color	Power consumption	Peak wavelength / correlated color temperature	Extension cables	Recommended Control Units	Weight
Transmission type	HLND-100RD-TT	Red	4.8 W	624 nm	FCB-1.25SQ-ME7 FCB-20-2.0SQ-ME7	PSB4-30024-PEI	520 g
	HLND-200RD-TT		9.6 W				840 g
	HLND-300RD-TT		14 W				1,160 g
	HLND-400RD-TT		19 W				1,480 g
	HLND-500RD-TT		24 W				1,800 g
	HLND-600RD-TT		29 W				2,120 g
	HLND-700RD-TT		34 W				2,440 g
	HLND-800RD-TT		38 W				2,760 g
	HLND-900RD-TT		43 W				3,080 g
	HLND-1000RD-TT		48 W				3,400 g
	HLND-1100RD-TT		53 W				3,720 g
	HLND-1200RD-TT		58 W				4,040 g
	HLND-1300RD-TT		62 W				4,360 g
	HLND-1400RD-TT		67 W				4,680 g
	HLND-1500RD-TT		72 W				5,000 g
	HLND-1600RD-TT		77 W				5,320 g
	HLND-1700RD-TT		82 W				5,640 g
	HLND-1800RD-TT		86 W				5,960 g
	HLND-1900RD-TT		91 W				6,280 g
	HLND-2000RD-TT		96 W				6,600 g
	HLND-2100RD-TT		101 W				6,920 g
	HLND-2200RD-TT		106 W				7,240 g
	HLND-2300RD-TT		110 W				7,560 g
	HLND-2400RD-TT		115 W				7,880 g
	HLND-2500RD-TT		120 W				8,200 g
	HLND-2600RD-TT		125 W				8,520 g
	HLND-2700RD-TT		130 W				8,840 g
Reflection type	HLND-100SW2-RR	White	10 W	6,500 K	FCB-1.25SQ-ME7 FCB-20-2.0SQ-ME7	PSB4-30024-PEI	520 g
	HLND-200SW2-RR		20 W				840 g
	HLND-300SW2-RR		30 W				1,160 g
	HLND-400SW2-RR		40 W				1,480 g
	HLND-500SW2-RR		50 W				1,800 g
	HLND-600SW2-RR		60 W				2,120 g
	HLND-700SW2-RR		71 W				2,440 g
	HLND-800SW2-RR		81 W				2,760 g
	HLND-900SW2-RR		91 W				3,080 g
	HLND-1000SW2-RR		89 W				3,400 g
	HLND-1100SW2-RR		98 W				3,720 g
	HLND-1200SW2-RR		107 W				4,040 g
	HLND-1300SW2-RR		115 W				4,360 g
	HLND-1400SW2-RR		124 W				4,680 g
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	HLND-1600SW2-RR		142 W				5,320 g
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In addition, we accept custom orders, such as changes to the LED color (blue/IR/UV, etc.) and size changes. Inquire at your sales representative for details.

You can inquire using our website.

Sample Testing

Light Unit Selection

Free Product Trial

Custom Orders

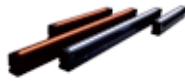
Product Details

Pricing/Quotation

Discontinued Products

Direct Lighting	LDR2 LDR2-LA LDR-LA1 SQR SQR-TP
Diffused Lighting	HPR2 LFR LKR FPR FPQ2
Direct Lighting	LDL2 LDLB HLDL2 HL
Diffused Lighting	TH2 (5 types) TH LFL HPD2 LDM2 LAV PDM LFX3 LFX3-PT LFV3
Colimated Lighting	MSU MFU
Strobe Lighting	PF
Water-proof Lighting	HLDR-IP/ HSL-PCL
Ultraviolet Lighting	UV2 UV LNSP-UV-FN
Infrared Lighting	IR2
Intensity Control	IU
Spot Lighting, Etc.	HLV3 HLV2 LV LSP HFS/HFR HLV3-NR HLV3-3M-RGB-4 HLV2-NR HLV2-3M-RGB-3W PFBR PFB3 PFB2
Convergent Lighting	LNLP LNSP2 LNSP Coaxial Units LNSP-FN LN/LN-HK
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Oblique-Angled Lighting	LNDG LNS2 LNIS LNIS-FN
Lenses	Telecentric Lens Macro Lens

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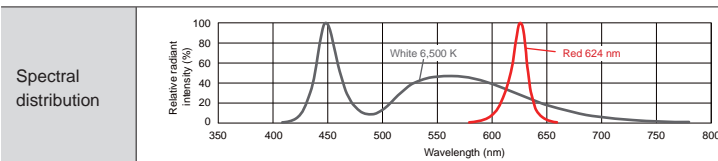
## Lineup

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HLND-600RD-RR		29 W				2,120 g
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HLND-2000RD-RR		96 W				6,600 g
HLND-2100RD-RR		101 W				6,920 g
HLND-2200RD-RR		106 W				7,240 g
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HLND-2700RD-RR		130 W				8,840 g

PSB4-30024-PEI Product Page ▶ P.295

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## LED Properties



Offers you the most suitable lens filter for each wavelength. For details about the lens filter, refer to P.299.

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.

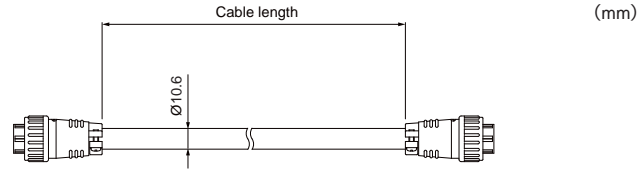
- LDR2
- LDR2-LA
- LDR-LA1
- SQR
- SQR-TP
- HPR2
- LFR
- LKR
- FPR
- FQ2
- LDL2
- LDLB
- HDL2
- HL
- TH2 (5 types)
- TH
- LFL
- HPD2
- DM2
- LAV
- PDM
- LFX3
- LFX3-PT
- LFV3
- MSU
- MFU
- PF
- HLDR-IP/
- HSL-PCL
- UV2
- UV
- LNSP-UV-FN
- IR2
- IU
- HLV3
- HLV2
- LV
- LSP
- HFS/HFR
- HLV3-NR
- HLV3-3M-RGB-4
- HLV2-NR
- HLV2-3M-RGB-3W
- PFBR
- PFB3
- PFB2
- LNL
- LNSP2
- LNSP
- Coaxial Units
- LNSP-FN
- LN/LN-HK
- LNSD
- LND2
- HLND
- LT
- LNV
- LNDG
- LNIS2
- LNIS
- LNIS-FN
- Telecentric Lens
- Macro Lens

## Extension Cables

Necessary when connecting the Light Unit to the recommended Control Unit, PSB4-30024-PEI.

### FCB-1.25SQ-ME7

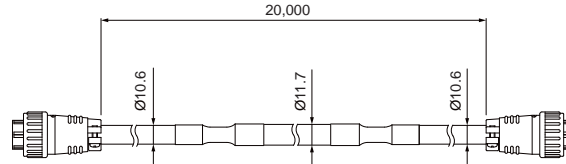
Model name	Cable length	Weight
FCB-2-1.25SQ-ME7	2 m	430 g
FCB-3-1.25SQ-ME7	3 m	580 g
FCB-5-1.25SQ-ME7	5 m	1,000 g
FCB-10-1.25SQ-ME7	10 m	2,000 g



Cable permitted bending radius: 63.6 mm

### FCB-20-2.0SQ-ME7

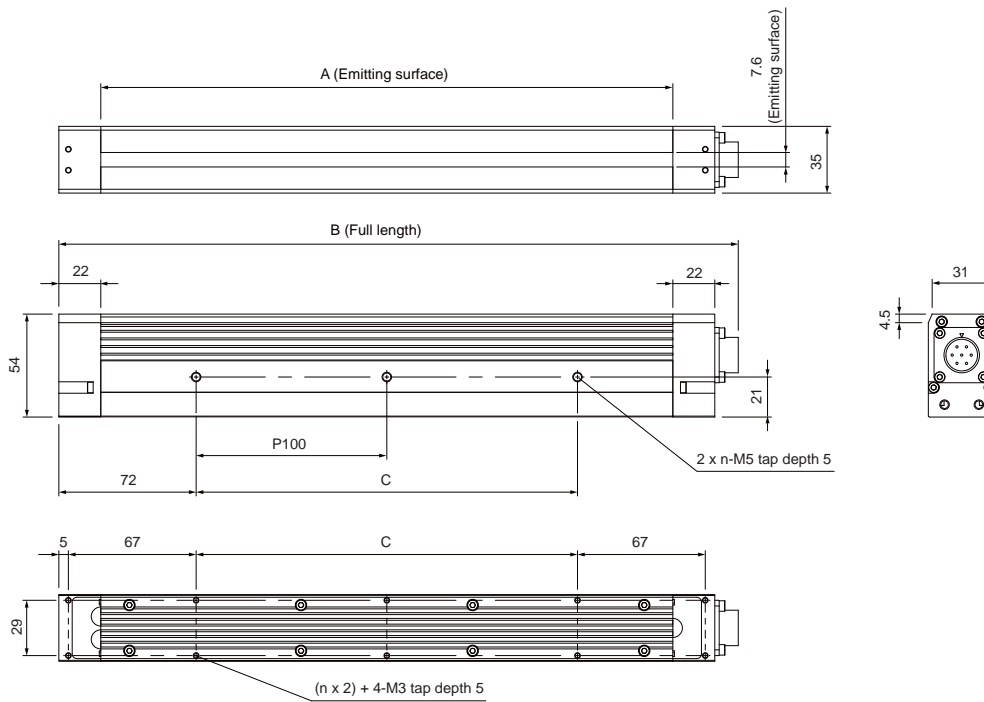
Model name	Cable length	Weight
FCB-20-2.0SQ-ME7	20 m	5,000 g



Cable permitted bending radius: 63.6 mm

The above cable permitted bending radii are reference values. Actual values may vary.

## Dimensions (mm)



Common for the transmission / reflection type	Model name (Common for all colors)	A (Emitting surface)	B (Full length)	C	n	Common for the transmission / reflection type	Model name (Common for all colors)	A (Emitting surface)	B (Full length)	C	n
	HLND-100SW/RD	100	156.3	-	1		HLND-1500SW/RD	1,500	1,556.3	1,400	15
HLND-200SW/RD	200	256.3	100	2	HLND-1600SW/RD	1,600	1,656.3	1,500	16		
HLND-300SW/RD	300	356.3	200	3	HLND-1700SW/RD	1,700	1,756.3	1,600	17		
HLND-400SW/RD	400	456.3	300	4	HLND-1800SW/RD	1,800	1,856.3	1,700	18		
HLND-500SW/RD	500	556.3	400	5	HLND-1900SW/RD	1,900	1,956.3	1,800	19		
HLND-600SW/RD	600	656.3	500	6	HLND-2000SW/RD	2,000	2,056.3	1,900	20		
HLND-700SW/RD	700	756.3	600	7	HLND-2100SW/RD	2,100	2,156.3	2,000	21		
HLND-800SW/RD	800	856.3	700	8	HLND-2200SW/RD	2,200	2,256.3	2,100	22		
HLND-900SW/RD	900	956.3	800	9	HLND-2300SW/RD	2,300	2,356.3	2,200	23		
HLND-1000SW/RD	1,000	1,056.3	900	10	HLND-2400SW/RD	2,400	2,456.3	2,300	24		
HLND-1100SW/RD	1,100	1,156.3	1,000	11	HLND-2500SW/RD	2,500	2,556.3	2,400	25		
HLND-1200SW/RD	1,200	1,256.3	1,100	12	HLND-2600SW/RD	2,600	2,656.3	2,500	26		
HLND-1300SW/RD	1,300	1,356.3	1,200	13	HLND-2700SW/RD	2,700	2,756.3	2,600	27		
HLND-1400SW/RD	1,400	1,456.3	1,300	14							

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

Diffused Lighting

- LFL
- HPD2
- LDM2
- LAV
- PDM
- LFX3
- LFX3-PT
- LFV3

Coaxial Lighting

- MSU
- MFU

Strobe Lighting

- PF

Water-proof

- HLDR-IP/ HSL-PCL

Ultraviolet Lighting

- UV2
- UV
- LNSP-UV-FN

Infrared Lighting

- IR2

Intensity Control

- IU

Spot Lighting, Etc.

- HLV3
- HLV2
- LV
- LSP
- HFS/HFR
- HLV3-NR
- HLV3-3M-RGB-4
- HLV2-NR
- HLV2-3M-RGB-3W
- PFBR
- PFB3
- PFB2

Convergent Lighting

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

Diffused Lighting

- LNSD
- LND2
- HLND
- LT
- LNV

Oblique/Angled Lighting

- LNDG
- LNIS2
- LNIS
- LNIS-FN

Lenses

- Telecentric Lens
- Macro Lens