

Achieves bi-directional angled illumination using an original optical design



LNIS2-300SW

**Applications**

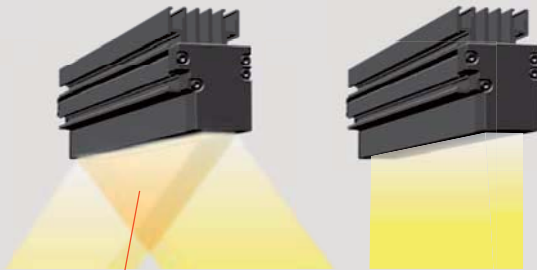
Streak inspection of sheet surfaces, scratch inspection on clear film, scratch inspection on glass panels, damage inspection on sheet metal, etc.

**Achieves Bi-Directional Angled Illumination**

The LNIS2 series is a completely new concept product that was developed to detect "moving-direction scratches," which were difficult to detect with conventional line sensor lights.

**Difference between bi-directional angled illumination and conventional illumination**

Cross angled illumination      Conventional illumination



Recommended illuminating range

**Other features**

- 1) Fan-less (Natural air cooling)
- 2) Compact design
- 3) Emitting surface 100 to 1,000 mm long (can be made in units of 100 mm)

**Applications**

**Inspection for scratches on transparent films**



**Brightness Up to 1.5x**

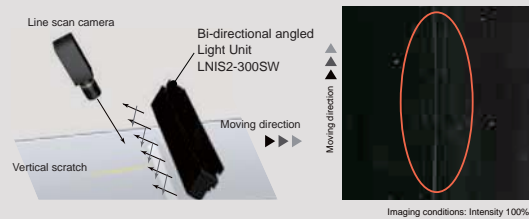
The LNIS2 series has achieved the brightness up to 1.5x that of the conventional LNIS series. This expands the range of applications.

**Higher output power than the conventional products**

**Illuminance comparison graph**



**Imaging of vertical scratches (moving-direction scratches) on film**



Emphasizes only the vertical scratch. Even if you increase the output, the background noise and brightness do not increase.

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

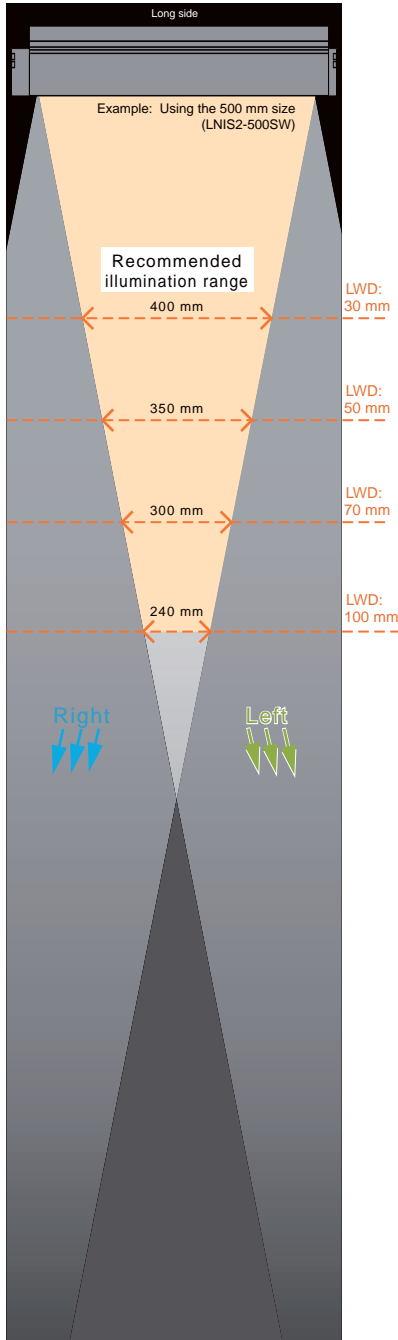
**Example Configuration**

Achieves bi-directional angled illumination using an original optical design. This is a line sensor light perfect for detecting moving-direction scratches.



## Recommended Illumination Range

Light Unit in use: LNIS2-500SW

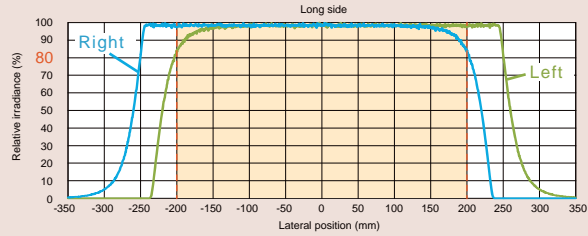


LWD is the distance from the Line Light to the workpiece.

### Graph of effective illumination range

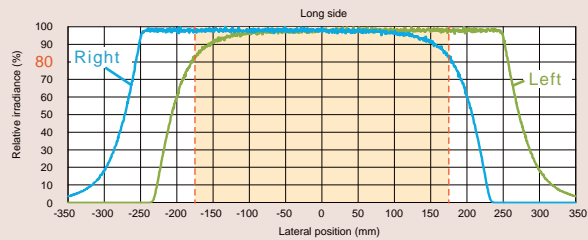
#### Illuminating distance: 30 mm

The values are based on the simulation. Actual values may vary.



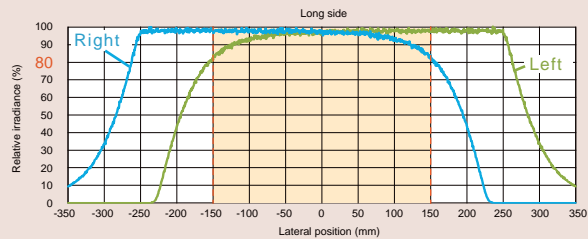
#### Illuminating distance: 50 mm

The values are based on the simulation. Actual values may vary.



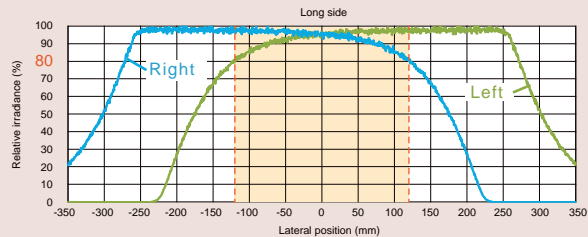
#### Illuminating distance: 70 mm

The values are based on the simulation. Actual values may vary.



#### Illuminating distance: 100 mm

The values are based on the simulation. Actual values may vary.



The section on the graph where "Left" and "Right" overlap is the section where light from the left and right sides overlaps. The recommended illumination range is the range in this overlapping section where each illuminance is ensured for 80% or higher of the peak.

These graphs are for reference only. Actual values may vary.

### Table of the recommended illumination range (Where illuminance of the left/right beam is 80% of the peak value or more.) (mm)

LWD: Illuminating distance	Emitting surface length									
	100	200	300	400	500	600	700	800	900	1,000
10	40	140	240	340	440	540	640	740	840	940
30		100	200	300	400	500	600	700	800	900
50		50	150	250	350	450	550	650	750	850
70			100	200	300	400	500	600	700	800
100			40	140	240	340	440	540	640	740

These values are based on the simulation. Actual range of the effective illumination depends on your imaging environment.

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
- Compared Lighting: MSU, MFU
- Strobe Lighting: PF
- Water-proof: HLDR-IP/HSL-PCL
- Ultraviolet Lighting: UV2, UV, LNISP-UV-FN
- Infrared Lighting: IR2
- Intensity Control: IU
- Spot Lighting, Etc.: HLV3, HLV2, LV, LSP, HFS/HFR, HL3-3M-RGB-4, HL2-3M-RGB-3W, PFB3, PFB2
- Convergent Lighting: LNLP, LN3P2, LN3P, Coaxial Units, LN3P-FN, LN/LN-HK
- Diffused Lighting: LNSD, LND2, HLND, LT, LN3
- Oblique Angled Lighting: LNDG, LNIS2, LNIS, LNIS-FN
- Lenses: Telecentric Lens, Macro Lens

# LNIS2 Series

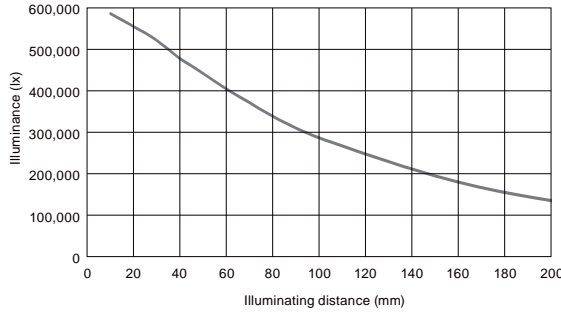


## Data (Representative Example)

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

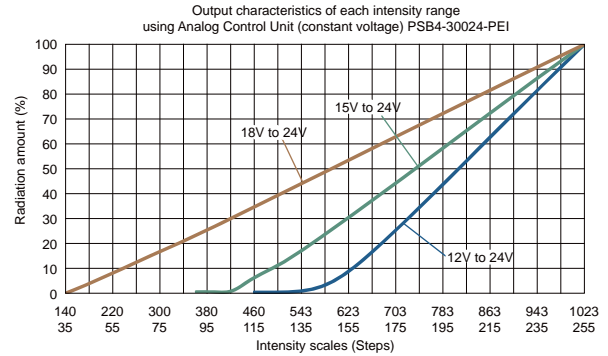
### LNIS2-500SW

#### Change in illuminance



Actual measurement values at the center of the emitting surface, 100% intensity. Results for individual products may vary.

#### Graph of the correlation between intensity and output



Actual measurement values using Analog Control Unit PSB4-30024-PEI. Results for individual products may vary.

Measured in each voltage range because the Analog Control Unit PSB4-30024-PEI has a switching function for the lower limit of output voltage.

### LNIS2-400SW

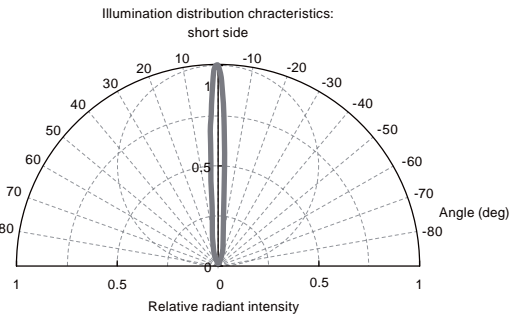
#### Characteristics of the illumination distribution

Measuring direction: long side

Measuring direction: short side



These graphs are for reference only. Actual values may vary.



## Lineup

Model name	LED color	Power consumption	Correlated color temperature	Extension cables	Recommended Control Units	Weight
LNIS2-100SW	White	24 V / 18 W	6,500 K	FCB-EL2	PSB4-30024-PEI PD3-10024-8"	400 g
LNIS2-200SW		24 V / 35 W				700 g
LNIS2-300SW		24 V / 52 W				1,000 g
LNIS2-400SW		24 V / 69 W				1,300 g
LNIS2-500SW		24 V / 86 W				1,600 g
LNIS2-600SW		24 V / 103 W		1,900 g		
LNIS2-700SW		24 V / 120 W		2,200 g		
LNIS2-800SW		24 V / 138 W		2,500 g		
LNIS2-900SW		24 V / 155 W		2,800 g		
LNIS2-1000SW		24 V / 172 W		3,100 g		

Custom products with a PWM frequency of 500 kHz are available for Digital Control Unit PD3 series. Please contact your sales representative for details.

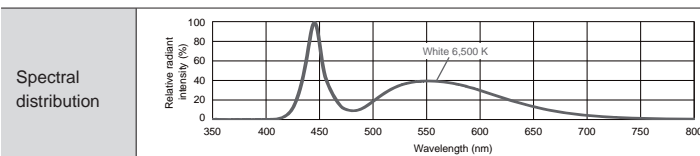
[Extension Cables ▶ P.308](#)

[List of Control Unit Specifications ▶ P.253](#)

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 (red/blue/IR, etc.) and size changes. Inquire at your sales representative for details.

## LED Properties



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.

Various technical documents available.

[PDF Drawings](#)

[DXF Drawings](#)

[Product Brochures](#)

[Instruction Guides](#)

[3D CAD](#)

[Data Sheets](#)

[Imaging Examples](#)

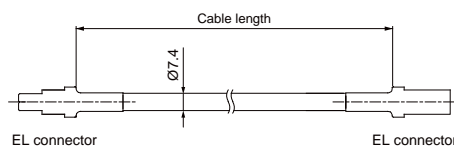
[Digital Catalogs](#)

## Extension Cables

Necessary when connecting the Light Unit to the recommended Control Unit.

### FCB-EL2

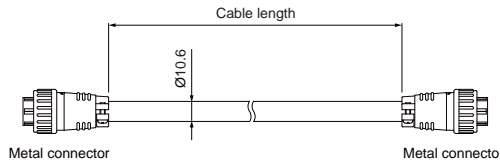
Model name	Cable length	Model name	Cable length
FCB-1-EL2	1 m	FCB-5-EL2	5 m
FCB-2-EL2	2 m	FCB-10-EL2	10 m
FCB-3-EL2	3 m	FCB-15-EL2	15 m



Cable permitted bending radius: 29.6 mm

### FCB-1.25SQ-ME7

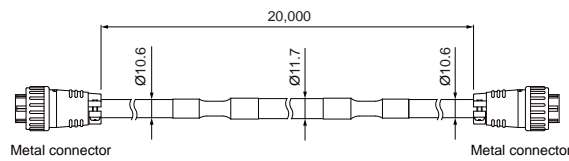
Model name	Cable length	Weight
FCB-2-1.25SQ-ME7	2 m	430 g
FCB-3-1.25SQ-ME7	3 m	580 g
FCB-5-1.25SQ-ME7	5 m	1,000 g
FCB-10-1.25SQ-ME7	10 m	2,000 g



Cable permitted bending radius: 63.6 mm

### FCB-20-2.0SQ-ME7

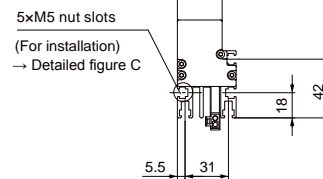
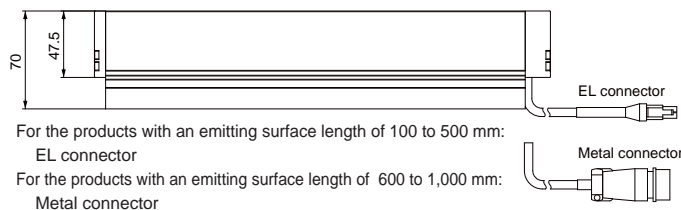
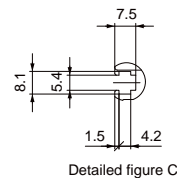
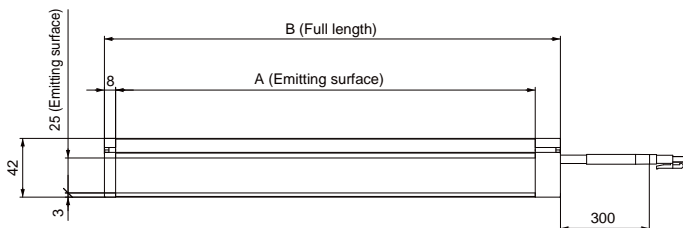
Model name	Cable length	Weight
FCB-20-2.0SQ-ME7	20 m	5,000 g



Cable permitted bending radius: 63.6 mm

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

## Dimensions (mm)



Accepts custom orders for such as the position where the light cable comes out of the case.  
Please contact your sales representative for details.

Model name	A (Emitting surface)	B (Full length)	Connector
LNIS2-100SW	100	126	EL connector
LNIS2-200SW	200	226	
LNIS2-300SW	300	326	
LNIS2-400SW	400	426	
LNIS2-500SW	500	526	

Model name	A (Emitting surface)	B (Full length)	Connector
LNIS2-600SW	600	626	Metal connector
LNIS2-700SW	700	726	
LNIS2-800SW	800	826	
LNIS2-900SW	900	926	
LNIS2-1000SW	1,000	1,026	

- 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
- 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
  - LNLD
  - LND2
  - HLND
  - LT
  - LNVD
- Oblique Angled Lighting
  - LNLDG
  - LNIS2**
  - LNIS
  - LNIS-FN
- Lenses
  - Telecentric Lens
  - Macro Lens