

Oblique Angled Lighting

Line Lights

LNIS-FN Series

Achieves bi-directional angled illumination using an original optical design
High output type which adopts forced air (fan)



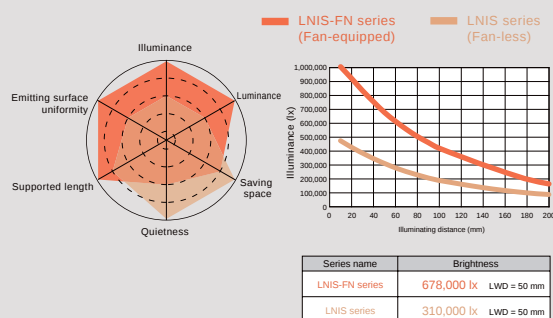
Applications

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

➤ Illuminance of 678,000 lx Using Forced Air (Fan)

This is a high-output (fan-equipped) type of the LNIS series, developed to detect moving-direction scratches such as streaks. It meets the needs of customers who require even brighter lights.

Comparison between LNIS and LNIS-FN



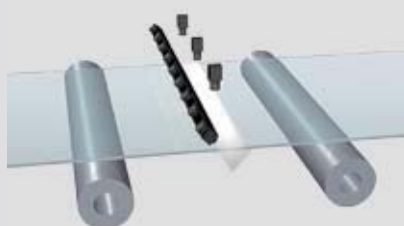
Other features

- 1) Emitting surface 100 to 1,500 mm long (can be made in units of 100 mm)
- 2) Due to the constant-current drive system, the emitting surface has uniformity higher than the LNIS series.

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

➤ Applications

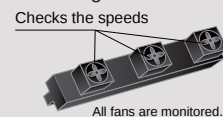
Inspection for scratches on plate glass



➤ Avoid Trouble with Error Detection

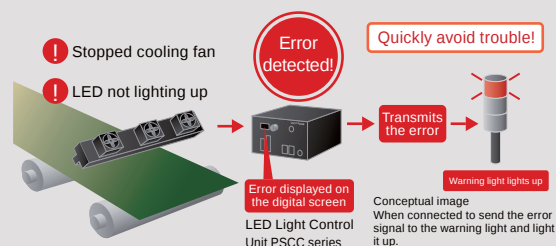
1) Error detection for cooling fans

An error is detected should a fault occur, such as insufficient speed or a stop in the cooling fans.



2) Error detection for the LEDs

Detects dead LEDs due to an open in the Light Unit circuit or a shorted LED.

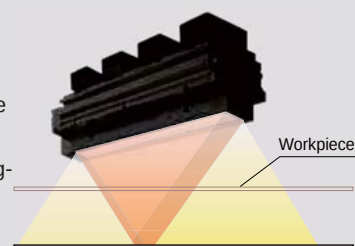


Error detection is a function included with the PSCC series, the recommended Control Units.

➤ Example Configuration

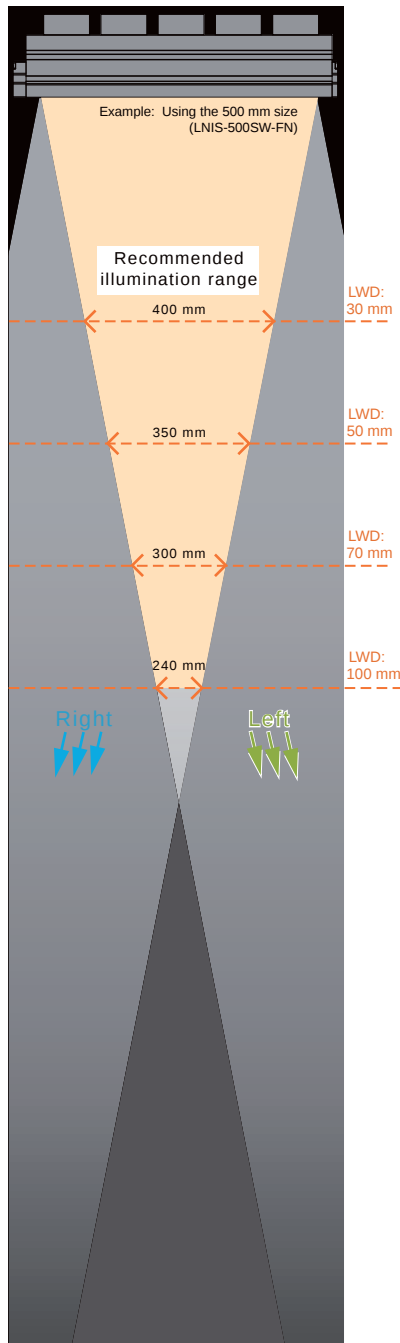
Achieves bi-directional angled illumination using an original optical design. This is a line sensor light perfect for detecting moving-direction scratches. (fan cooling type)

LNIS-FN series



Recommended Illumination Range

Light Unit in use: LNIS-500SW-FN

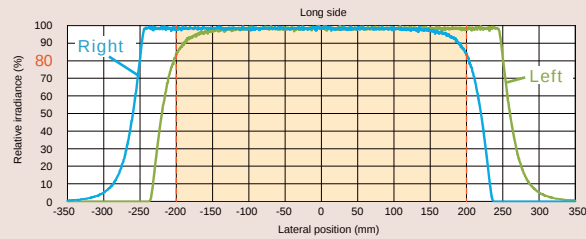


LWD is the distance from the Line Light to the workpiece.

Graph of effective illumination range

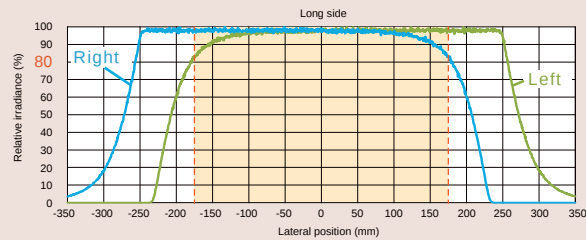
Illuminating distance: 30 mm

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



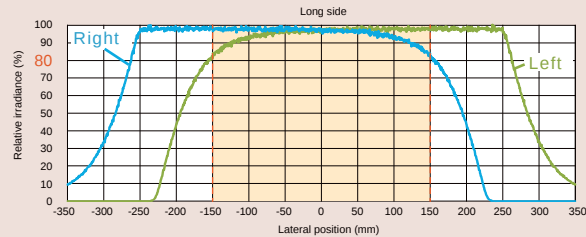
Illuminating distance: 50 mm

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



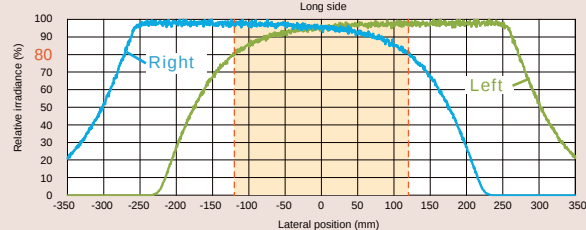
Illuminating distance: 70 mm

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	1,100	1,200	1,300	1,400	1,500
10	40	140	240	340	440	540	640	740	840	940	1,040	1,140	1,240	1,340	1,440
30		100	200	300	400	500	600	700	800	900	1,000	1,100	1,200	1,300	1,400
50		50	150	250	350	450	550	650	750	850	950	1,050	1,150	1,250	1,350
70			100	200	300	400	500	600	700	800	900	1,000	1,100	1,200	1,300
100			40	140	240	340	440	540	640	740	840	940	1,040	1,140	1,240

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

LNIS-FN Series

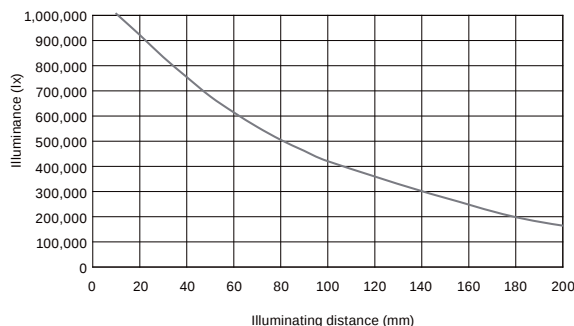


Data (Representative Example)

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

LNIS-400SW-FN

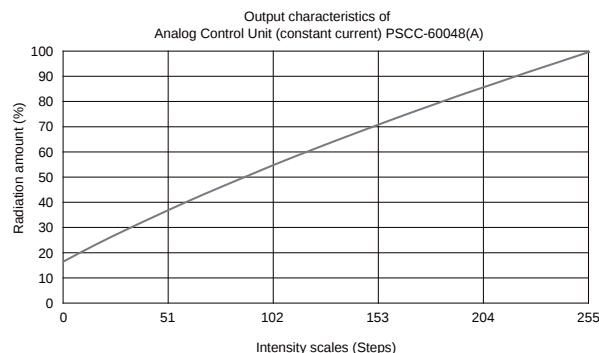
Change in illuminance



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

LNIS-1500SW-FN

Graph of the correlation between intensity and output



Actual measurement values using the Analog Control Unit PSCC-60048(A). Results for individual products may vary.

Lineup

Model name	LED color	Power consumption* (including fans)		Correlated color temperature	Extension cables	Recommended Control Units	Weight
		June 2017 or earlier	July 2017 or later				
LNIS-100SW-FN	White	41 W	41 W	5,800 K	QCBM QCB	PSCC-30048(A) PSCC-60048(A)	900 g
LNIS-200SW-FN		81 W	82 W				1,400 g
LNIS-300SW-FN		117 W	118 W				1,900 g
LNIS-400SW-FN		157 W	158 W				2,400 g
LNIS-500SW-FN		192 W	194 W				2,900 g
LNIS-600SW-FN		233 W	235 W		QCB	PSCC-60048(A)	3,400 g
LNIS-700SW-FN		268 W	270 W				3,900 g
LNIS-800SW-FN		309 W	311 W				4,400 g
LNIS-900SW-FN		345 W	348 W				4,900 g
LNIS-1000SW-FN		384 W	387 W				5,500 g
LNIS-1100SW-FN		425 W	428 W		QCB	PSCC-60048(A)	6,000 g
LNIS-1200SW-FN		460 W	464 W				6,500 g
LNIS-1300SW-FN		501 W	504 W				7,000 g
LNIS-1400SW-FN		536 W	540 W				7,500 g
LNIS-1500SW-FN		576 W	581 W				8,000 g

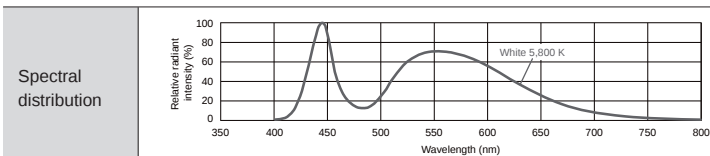
* The power consumption varies according to the production data. Refer to the power consumption given by the label tag of the product.

PSCC Series Product Page ▶ P.293

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/UV, etc.) and size changes. Inquire at your sales representative for details.

LED Properties



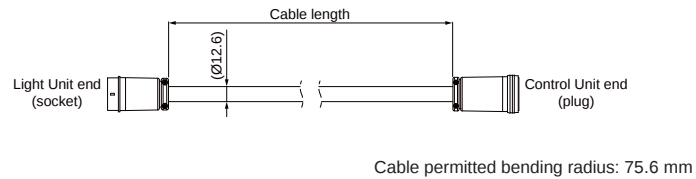
Be sure to read the "Instruction Guide" included with the product before use and follow the safety precautions upon use. The data included is for reference only. Actual values may vary.

Extension Cables

Necessary when connecting the Light Unit to the recommended Control Unit, the PSCC series.

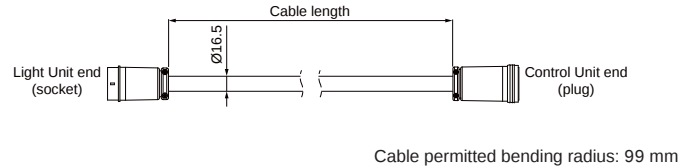
QCBM

Model name	Cable length	Weight	Applicable Control Unit
QCBM-2	2 m	800 g	PSCC-30048(A)
QCBM-3	3 m	1,000 g	
QCBM-5	5 m	1,500 g	
QCBM-10	10 m	2,700 g	
QCBM-20	20 m	5,000 g	



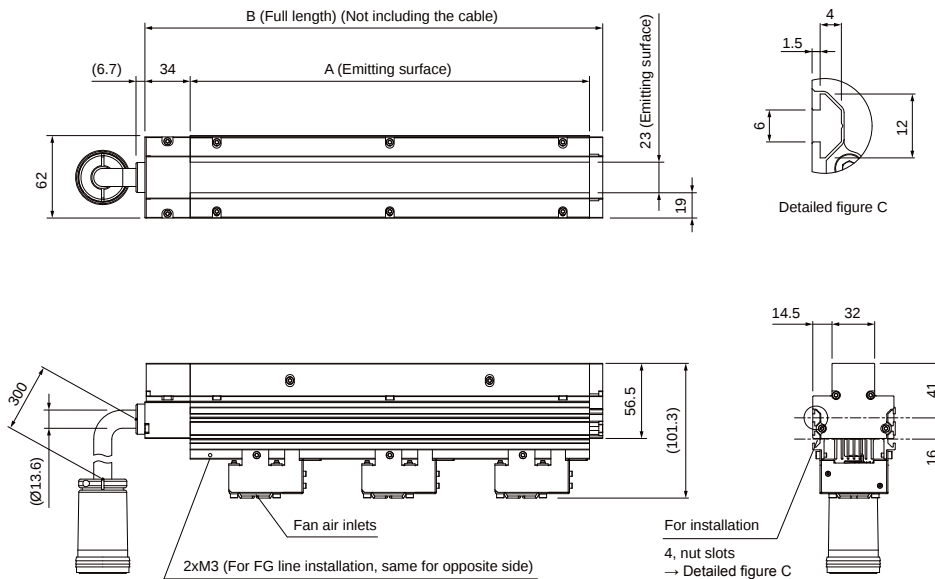
QCB

Model name	Cable length	Weight	Applicable Control Unit
QCB-2	2 m	1,100 g	PSCC-60048(A)
QCB-3	3 m	1,500 g	
QCB-5	5 m	2,400 g	
QCB-10	10 m	4,600 g	
QCB-20	20 m	8,900 g	



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

Dimensions (mm)



Model name	A (Emitting surface)	B (Full length)	Model name	A (Emitting surface)	B (Full length)
LNIS-100SW-FN	100	144	LNIS-900SW-FN	900	944
LNIS-200SW-FN	200	244	LNIS-1000SW-FN	1,000	1,044
LNIS-300SW-FN	300	344	LNIS-1100SW-FN	1,100	1,144
LNIS-400SW-FN	400	444	LNIS-1200SW-FN	1,200	1,244
LNIS-500SW-FN	500	544	LNIS-1300SW-FN	1,300	1,344
LNIS-600SW-FN	600	644	LNIS-1400SW-FN	1,400	1,444
LNIS-700SW-FN	700	744	LNIS-1500SW-FN	1,500	1,544
LNIS-800SW-FN	800	844			