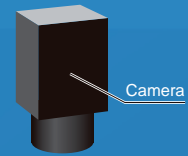


LED Light Units for Line Sensors

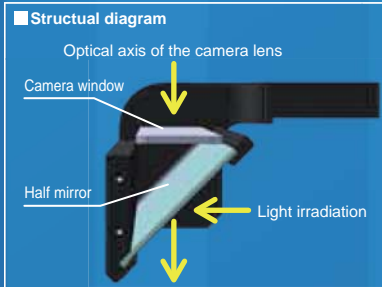
Coaxial Unit for LNSP Series

CU-LNSP Series



Coaxial light from the same axis as a camera lens enables imaging without shadow.

High power coaxial light realized!
A total length of up to 500 mm is supported.



Application Examples

■ Inspecting electronic parts on the PCB

■ Imaging by V-shaped reflection; with the LNSP Light Unit alone

Transportation direction ↑

The camera angle is not perpendicular to the transportation direction, so objects with surface irregularities such as electronic parts on the PCB make blind spots. The range of inspection is limited.

The slit between electronic parts is captured dark. The appearance inspection is not valid.

15 degrees 15 degrees

LNSP

PCB

Electronic part

Transportation direction ←

Camera angle

Irradiation angle

Makes blind spots

■ Imaging by coaxial irradiation; with the CU-LNSP mounted on the LNSP Light Unit

Transportation direction ↑

The camera angle is perpendicular to the transportation direction, so the range of inspection is not affected by objects with surface irregularities on the PCB.

The slit between electronic parts is captured bright. The appearance inspection is valid.

CU-LNSP

LNSP

PCB

Electronic part

Transportation direction ←

Camera angle

Irradiation angle

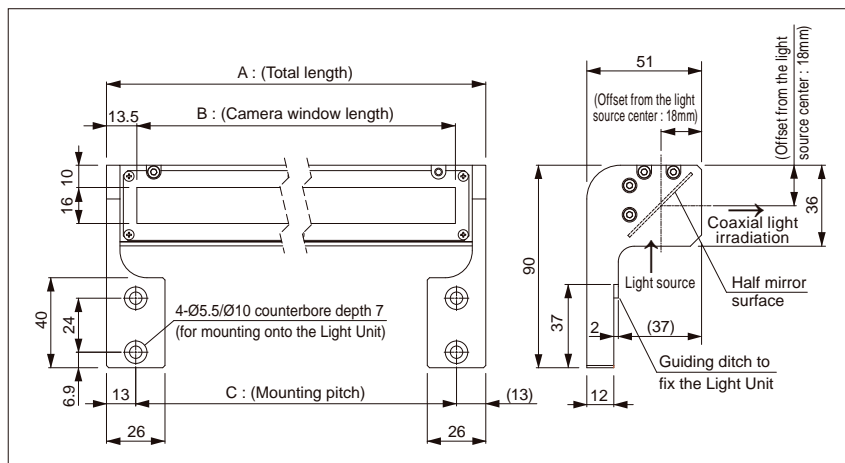
Eliminates blind spots

Specifications

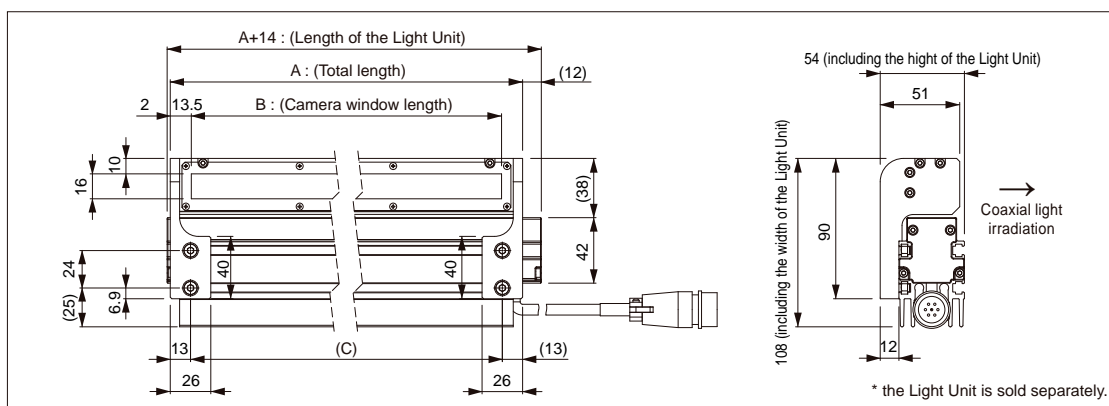
Direct number	Model	A: Total length	B: Camera window length	C: Mounting pitch	Weight (max.)	Applicable model
5000177	CU-LNSP-100-GL	112 mm	85 mm	86 mm	250 g	LNSP-100SW
5000178	CU-LNSP-200-GL	212 mm	185 mm	186 mm	350 g	LNSP-200SW
5000179	CU-LNSP-300-GL	312 mm	285 mm	286 mm	450 g	LNSP-300SW
5000180	CU-LNSP-400-GL	412 mm	385 mm	386 mm	550 g	LNSP-400SW
5000181	CU-LNSP-500-GL	512 mm	485 mm	486 mm	650 g	LNSP-500SW

Operating environment	Temperature: 0 to 40°C, Humidity: 20 to 85%RH (with no condensation)
Storage environment	Temperature: -20 to 60°C, Humidity: 20 to 85%RH (with no condensation)
Environmental regulations	RoHS compliant
Case material	Aluminum alloy, Glass
Accessories	Mounting nuts(M5) x4, Mounting screws(M5) x4

Dimensional Diagrams (mm)



Dimensional Diagrams when mounted on the Light Unit (mm)



Total weight when mounted on the Light Unit (max.)	
CU-LNSP-100-GL + LNSP-100SW	680 g
CU-LNSP-200-GL + LNSP-200SW	1,110 g
CU-LNSP-300-GL + LNSP-300SW	1,540 g
CU-LNSP-400-GL + LNSP-400SW	1,970 g
CU-LNSP-500-GL + LNSP-500SW	2,390 g

Custom-Made Coaxial Units

Custom-Made Coaxial Unit supports the following products. Please contact a CCS sales representative.

LT Series

* Supports only the custom-made LT Series that has the emitting surface width of 10 mm.



Unique optics achieve the twin goals of high uniformity and high luminance. They enable highly precise inspections, and can also be used for high-speed scan rates.

LNSP-FN Series



Power enhanced model of the LNSP Series. Forced cooling (air-cooling with fan) was adopted. High brightness of 900,000 lx was achieved for LWD of 50 mm.

LN-HK-STK Series



Cylindrical lenses enable the radiation of focused line light. You can change the position of the Lens Unit on the end to flexibly set the radiated light focal distance or width.

● CCS, LNSP and LIGHTING SOLUTION are registered trademarks or trademarks of CCS, Inc.

Caution

- To ensure proper and safe use of the product, please read the Instruction Guide completely before using the product.
- For product improvement, specifications and designs are subject to change without notice.
- The examples of workpiece imaging in this brochure are intended as a guide to help you choose your own products. Please check the functions and requirements of your equipment when making your selections. In addition, the sample workpieces that are used are processed by us and do not represent the original quality and performance.