

Structured light (STL)

LS-STL series · Custom lights · 3 models

LED structured light projector that can replace laser positioning, giving clear edges, uniform luminance and fine lines. It accepts any 2/3" sensor C-mount lens, focus is adjustable without an adapter ring, and the pattern can be customized.

Features

- Can replace laser positioning: clear edge, uniform luminance, exquisite line
- Thin LED projection line with clear, uniform edge, no scattering or diffraction
- Matches all 2/3" sensor C-mount lenses
- Adjustable focus, no adapter ring needed
- Pattern customized (line, cross, stripe, grid, spot, spiral, round stripe)
- Customizable: heat dissipation method, colour & colour temperature, cable length, installation method

Applications

- 3D reconstruction and analysis
- Mechanical calibration
- Visualization and mapping
- Electronic component dimension measurement
- Coplanarity
- Height measurement
- Volume measurement



Colours

R	620-630 nm
G	525-530 nm
B	465-470 nm
W	6600 K

Common specifications

Peak wavelength / colour temperature	Red 620-630 nm, Green 525-530 nm, Blue 465-470 nm, White 6600 K (colour temperature)
Lens mount	C-mount, 2/3" sensor lenses; thread M24 x 0.5P
Body diameter (mm)	42 (33.7 / 20 steps)
Mounting	4-M3 depth 5 (STL10: 4-M3 depth 6)
Recommended lenses (C-mount 2/3" 5 MP)	LS-1224-5MP f12 F2.4; LS-1624-5MP f16 F2.4; LS-2516-5MP f25 F1.6; LS-3524-5MP f35 F2.4; LS-5024-5MP f50 F2.4 (details on catalog page 163)
Pattern options	Line (width 0.05 mm, length 7.5 mm); Cross (width 0.05 mm, length 7.5 mm); Stripe (width 0.05 mm, gap 0.75 mm); Grid (width 0.05 mm, gap 0.75 mm); Spot (dia. 0.05 mm, gap 0.75 mm); Spiral (width 0.05 mm, gap 0.15 mm); Round stripe (width 0.05 mm, gap 0.73 mm)
Grid chip customization	Photo-etching pattern precision 2 µm, edge acutance 1.4 µm, soda-lime glass base, chrome outer surface; pattern must fit in an 11 mm dia. circle (8.8 x 6.6 mm or 7.78 x 7.78 mm)
Cable	500 mm
Operating environment	Temperature 0-50 °C, humidity 20-85% (non-condensing)
Life-span	50000 h (to 50% of factory-default luminance)
Extension cable options	PVC extension cable (flexible, bend and heat resistant, for use inside equipment); high-flexibility extension cable (harder and more abrasion resistant than PVC, for drag-chain production lines)
UV / IR	UV & IR light can be customized as required

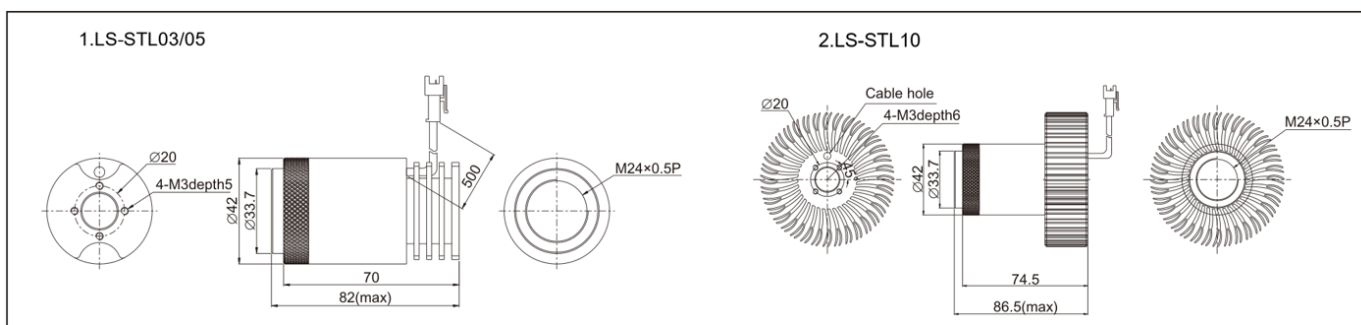
Ordering code: LS-STL<power>--<R/G/B/W/IR/UV>

Models

Model	Power (W)	Weight (g)	Adapted controller	Drawing no.	Length (mm)	Heat sink
LS-STL03 colours: R, G, B, W	3	191	LS-2ACC700	1	70 (82 max)	-
LS-STL05 colours: W	5	200	LS-2ACC1500	1	70 (82 max)	-
LS-STL10 colours: W	10	288	LS-2ACC2500	2	74.5 (86.5 max)	finned radial heat sink, cable hole

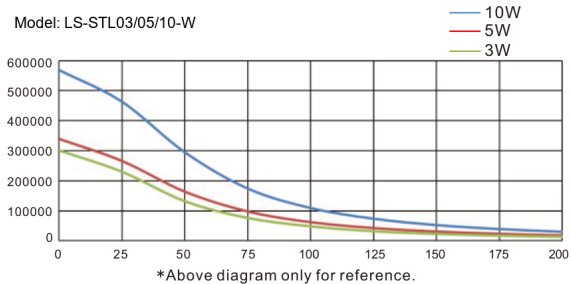
More values per model (Common model) are on each product page.

Dimensions



Performance

Illumination property diagram



LED projection line

Generating laser line

Thin LED projection line, clear and uniformly edge, no scattering and diffraction.

Product views

