



ILLUMINATION

Mini Super Bright LED Linelight

RED (630NM) – MLL-006-630

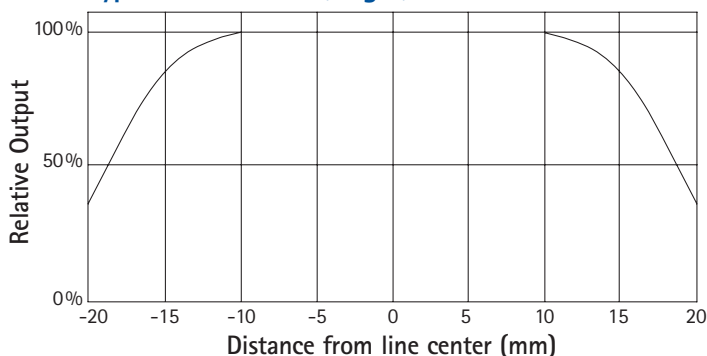
This super compact, easy to customize, chip-on-board LED line light is ideal for bar code readers, OCR, linescan systems and other applications that have very tight space constraints. The standard 630nm version has an output power density of 370W/m² at 10mm, with excellent uniformity along the length of the line and a line width of approx 1.8mm (FWHM) at this working distance. The mechanical footprint of the device is 10mm x 57mm with a recommended operating distance of 10mm to 30mm. The 1m input cable allows for easy connection to the power source away from the machine vision set up. Other wavelengths from near UV to IR are available. OEM versions available.



Optical and Electrical Characteristics (Temperature = 25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Test Conditions
Peak wavelength	λ_p	625	630	635	nm	
Spectral Width(FWHM)	$\Delta\lambda$		25		nm	
Operating Current			200		mA	Continuous operation (See Application note for pulsed current)
Forward Voltage (individual)	V_f	21.5	24	26.5	V	$I_f = 200\text{mA}$
Typical Operating Lifetime			60,000		hours	At 200mA at 25°C

Typical Line Profile (length)



Absolute Maximum Rating (Temperature = 25°C)

Parameter	Rated Value	Unit
Forward Current	300	mA
Reverse Voltage	30	V
Power Dissipation	7.0	W
Operating temperature	0 to +50	°C
Storage temperature	-20 to +60	°C

Absolute Maximum Ratings: these should not be exceeded, even momentarily, as reductions in light output power and reliability may result. In certain cases, total failure may occur.

ILLUMINATION FEATURES

Light output from the MLL is extremely uniform along the length of the line.
The angular divergence of the width of the line is 6 degrees.

Typical Illumination Characteristics of MLL-006-630

Working Distance	Line width at FWHM	Line Length at FWHM	Irradiance
10 mm	1.8 mm	36.8 mm	370 W/m ²
20 mm	3.7 mm	40.0 mm	155 W/m ²

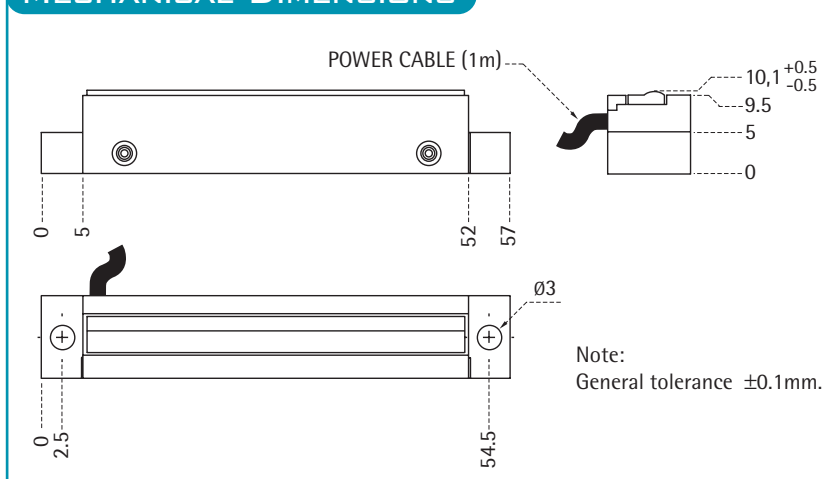
CUSTOM OPTIONS

Listed specifications are for our standard CLL unit MLL-006-630. Alternative wavelengths from UV through IR are available and custom lengths and divergence angles are available to OEM customers.

DIMENSIONS

The overall dimensions of the unit are 57.0 mm by 10.1 mm, and there are 2 x holes (M2.5 screws) for mechanical mounting. Please details in diagram below.

MECHANICAL DIMENSIONS



Drawing not to scale.

NOTES

1. Static: LEDs can be sensitive to electrostatic discharge. Observe normal antistatic handling precautions.
2. Cooling: For CW operation, or high duty cycle operation of these boards, adequate heatsinking or cooling should be provided so that the case temperature does not exceed 40°C.
3. Power Supplies: Specified limits should not be exceeded.
4. Packaging Options: Various custom packaging options are available.
5. Pulsed Operation: In pulsed operation, ensure that the maximum current pulse does not exceed 2A. As pulsed conditions vary so much, please consult with StockerYale so as to ensure that operating conditions do not prejudice the reliable operation of the modules. Application notes on pulsed operation can be found at <http://www.stockeryale.com/i/leds/lit/app001.htm>.
6. Patent Pending: StockerYale has applied for patent protection on these components.



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StockerYale operates a policy of continuous improvement, and reserves the right to change product specifications