

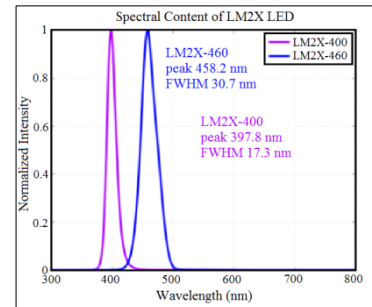
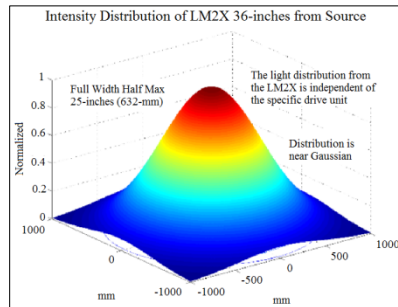
Lifetime 2-inch Water-Cooled LED Light Source

(Product ID: LM2XX-XXX, PUL2XX)

The lifetime 2-inch, water-cooled LED light source provides uniform, stable illumination for pressure and temperature sensitive paint measurements. The system is overdriven and designed for lifetime acquisition systems by connecting to the PUL2XX driver box (module for lifetime). Because it is overdriven, the duty-cycle is limited to 5%. Operation is controlled by applying a TTL voltage to the external BNC on the PUL2XX module. The maximum pulse width is limited to 1- μ s. A governor circuit in the PUL2XX prevents the system from exceeding 5% duty cycle, which could damage the LED. The light distribution from the unit is approximately Gaussian for distance greater than 18-inches [45-cm] from the source. The units are available in 400-nm and 460-nm packages, however, other wavelengths are available upon request. This unit surpasses the performance of the 2-inch, air-cooled overdriven system as it offers a significant increase in power (~2 times that of an 2-inch, air-cooled overdriven system). Maximum input pressure to the control box is 90 psi. An external water source is required to cool the LED module. The control box contains a flow meter and safety circuit to shut off power to the LED if the flow rate is too low or the LED approaches overheat temperatures.

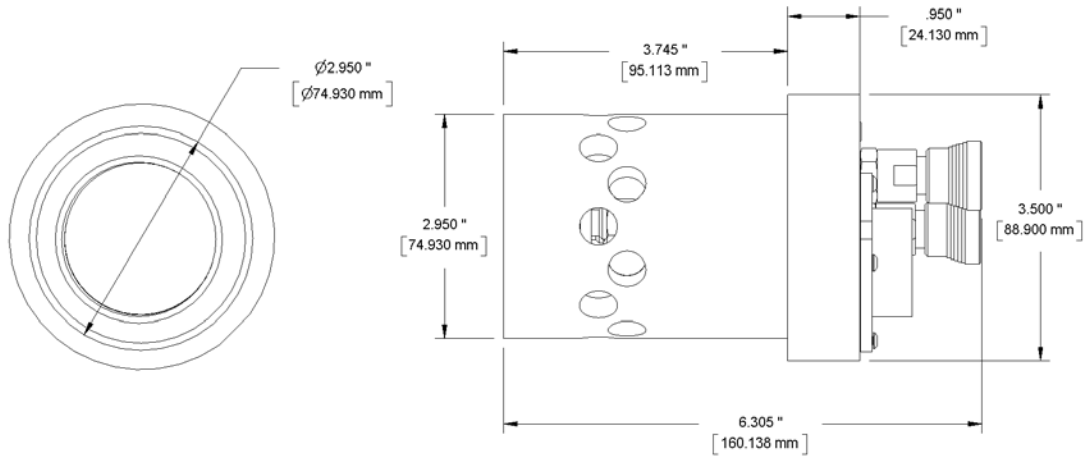


Ordering information: LM2XX-XXX (LED head with umbilical. -XXX denotes wavelength). PUL2XX (Overdriven control box and driver with power supply).

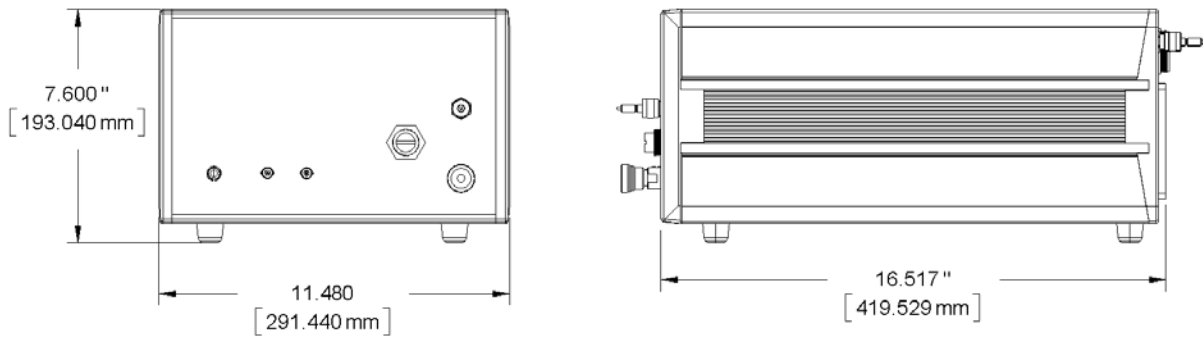


SPECIFICATIONS

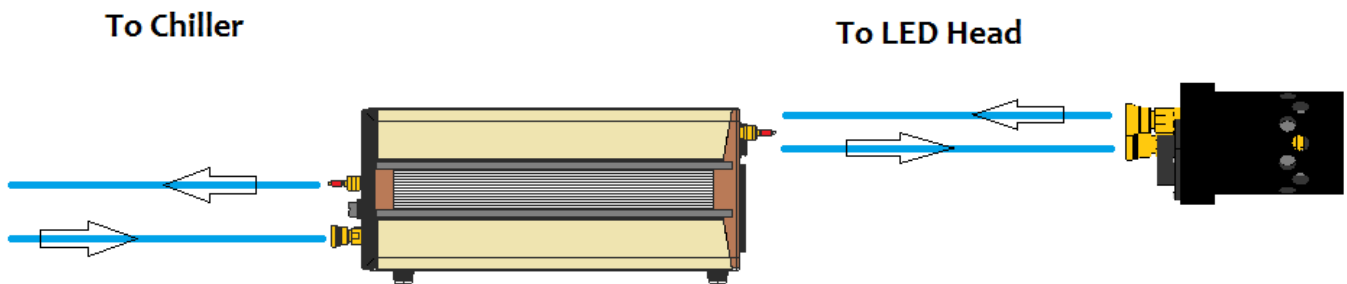
Optical Power	1.6-2.4 W @ 5% duty factor
Input	110-240 VAC, 50-60 Hz
Stability	~0.1 % per hour after warmup
Wavelength	400-nm, 460-nm
Rise time (10% - 90%)	< 300-ns
Fall time (90% - 10%)	< 125-ns
Maximum Duty Cycle	5%
Operating Temperature	-10°C to 60°C
FWHM	+/- 18-nm
Umbilical Cable	10-ft (3.3m) / 20-ft (6.6m)
Warranty	1 Year
ECCN	EAR99



LED Head (LM2XX-XXX)



Lifetime LED Control Box and Power Supply (PUL2XX)



Water Connection Schematic