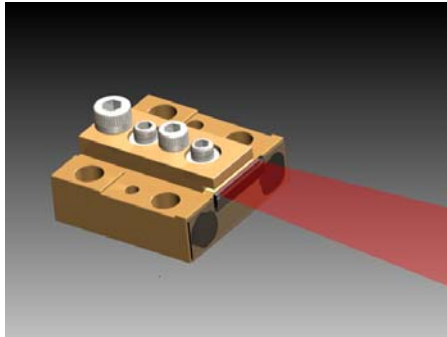


LuxxMaster® Wavelength Stabilized 40 Watt Laser Arrays for 808 nm.

Based on proprietary volume Bragg grating™ technology for stabilizing and shaping the emission spectra of high power laser diodes.



Performance

Advantage:

- $\lambda_c = \pm 0.5 \text{ nm}$
- Line Width $< 0.5 \text{ nm}$ (FWHM)
- Temp. Drift = $0.01 \text{ nm}/^\circ\text{C}$
- $> 90\%$ Power locked

Advantages:

- Simple and compact
- Economical
- Lowers "Red Shift"
- Collimated Beam

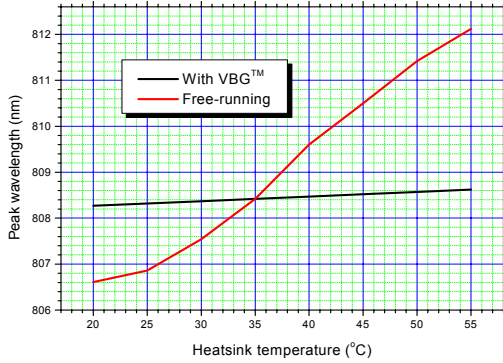
Applications:

- DPSS Lasers
- Sensing
- Spectroscopy
- Medical
- Military

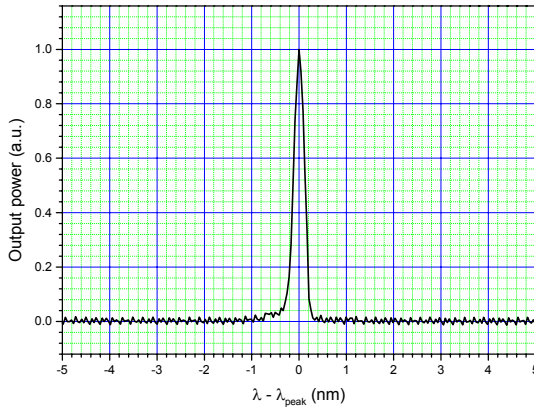
Optical and Operational Specifications

Parameter	Symbol	Condition	Min.	Typical	Max.	Units
Output Power	P_o	25°C		40		W
Center Wavelength	λ_c			808		nm
Center Wavelength Tolerance				± 0.3	± 0.5	nm
Operating Current	I_o	@ P_o		43		A
Operating Voltage	V_o	@ P_o		1.9		V
Conversion Efficiency $P_o/(I_o V_o)$				40		%
Threshold Current	I_{th}			8		A
Series Resistance	R_s			5		mΩ
FWHM				< 0.5		nm
Wavelength Drift Over Temperature				0.01		nm/°C
Slope Efficiency	SE	25°C		1.1		W/A
Horizontal Divergence Angle (//)	HFF	FWHM, P_o			10	degree
Vertical Divergence Angle (^)	VFF	FWHM, P_o		< 1		degree
Laser Emitter Width	W_E			150		μm
Number of Emitters				19		
Emitter Spacing				500		μm
Operating Temperature	T_o		10	25	40	°C
Storage Temperature	T_s		-40		+85	°C

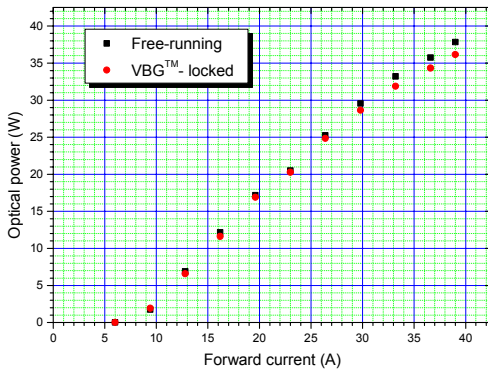
20 Watt and higher power lasers also available.



Wavelength versus Temperature



Typical Emission Spectrum



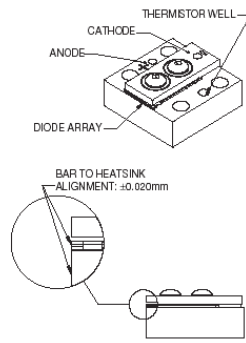
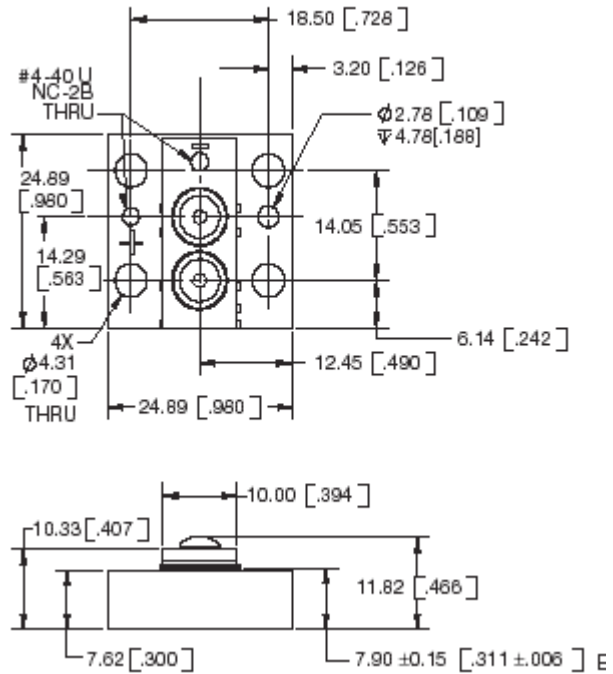
Power versus Forward Current



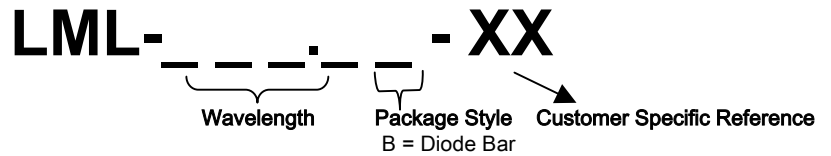
Specification Subject to Change

Dimensions

Dimensions in mm, followed by [inches].



Part Number System:



Example: LML-808.7B-XX This is a LuxxMaster® Laser with a center wavelength of 808.7 nm in a diode bar package.