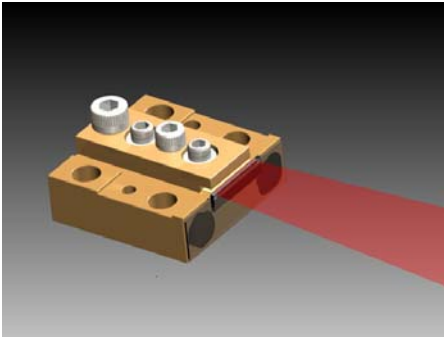


## LuxxMaster® Wavelength Stabilized 40 Watt Laser Arrays for 795.0 nm.

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 <0.5nm (FWHM)
- Temp. Drift = 0.01 nm/°C
- > 90% Power locked

### Advantages:

- Simple and compact
- Economical
- Lowers “Red Shift”
- Collimated Beam

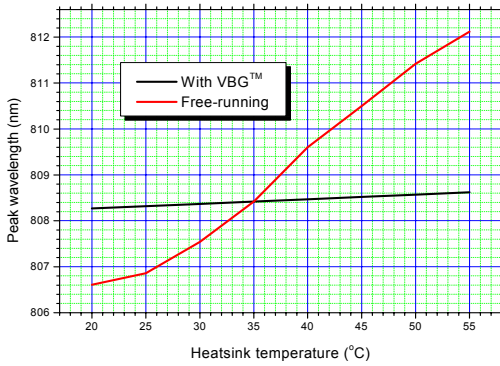
### Applications:

- DPSS Lasers
- Sensing
- Spectroscopy
- Medical
- Military

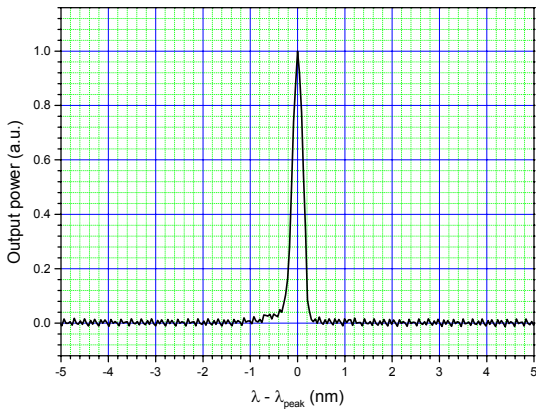
### Optical and Operational Specifications

Parameter	Symbol	Condition	Min.	Typical	Max.	Units
Output Power	$P_o$	25°C		40		W
Center Wavelength	$\lambda_c$			795		nm
Center Wavelength Tolerance				$\pm 0.3$	$\pm 0.5$	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

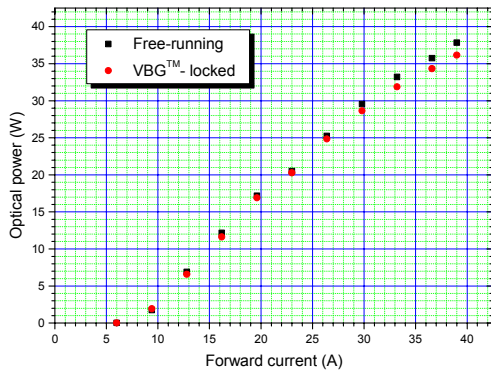
20 Watt and higher power lasers also available.



Wavelength versus Temperature



Typical Emission Spectrum



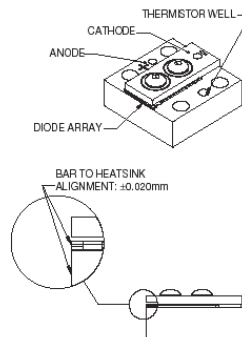
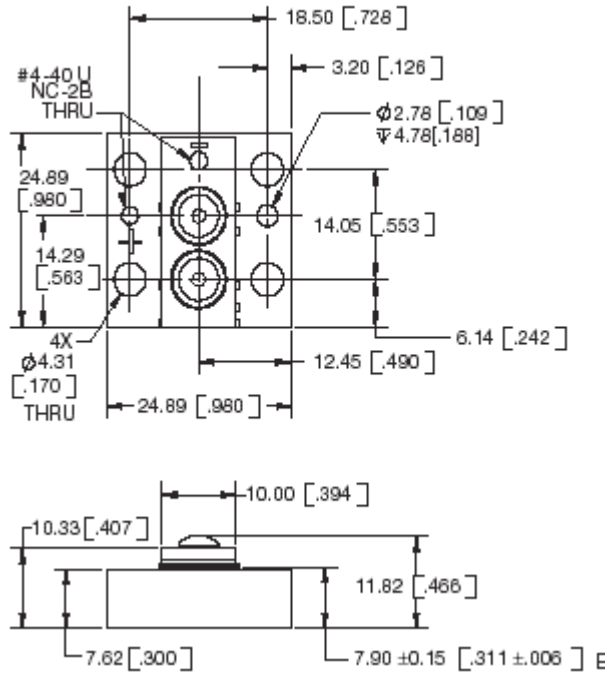
Power versus Forward Current



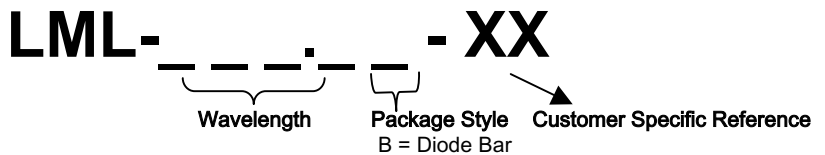
Specification Subject to Change

**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.

02/23/05 Rev. 3.