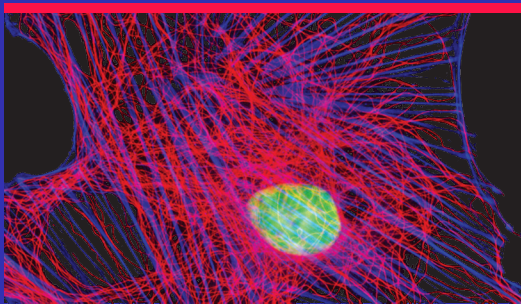


# LDI

## HIGH-PERFORMANCE LASER DIODE ILLUMINATOR

### OVERVIEW

The LDI is a multiline, solid-state laser illuminator offering up to 1000mW of output power per laser line via a multimode fiber at the price of a low power LED light engine. With feedback controlled output stability and up to a 100:1 linear dynamic range, the LDI is the ideal light source for quantitative imaging, ratiometric imaging, and more repeatable optogenetics experiments. There is no user alignment, and it is easy to use and maintain.



### APPLICATIONS

- Spinning Disk Confocal Microscopy
- Super Resolution SIM Imaging
- PALM/STORM
- Optogenetics with DLPs or Multiport Illuminator
- Photoactivation/Photoconversion/FRAP
- FRAP with SLM or Multiport Illuminator
- Spatial Biology

### LDI FAMILY PRODUCT LINE OVERVIEW

We offer a full range of LDI products, including laser lines at 488nm, 577nm, and into the NIR. Other laser lines are available upon request.

	405nm	445nm	470nm	488nm	520nm	528nm	555nm	577nm	640nm	730nm
<b>LDI-4 Series</b>	300		1000	1000			1000	700	400	
<b>LDI-5 Series</b>	450		1000	1000			1000	700	900	850
<b>LDI-7 Series</b>	300	1000	1000	1000	500	500	1000	700	400	
<b>LDI-NIR</b>	450	1000	1000	1000	500		1000	700	900	850
<b>LDI-PRIME*</b>	150			800			600		350	

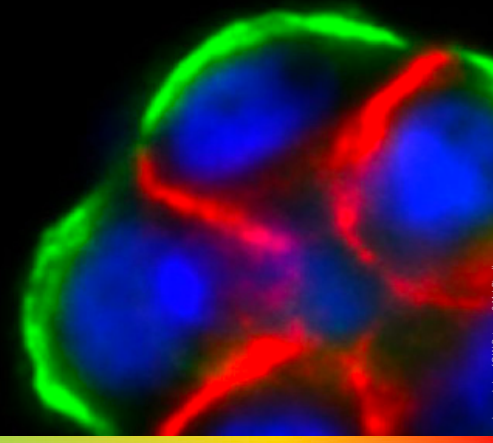
Units shown in the interior of the table above are milliwatts (mW)  
 \*PRIME unit is a single 400µm core fiber optic output

20+ models available today. Small fiber options available.  
 Option to combine multiple LDIs into single output.

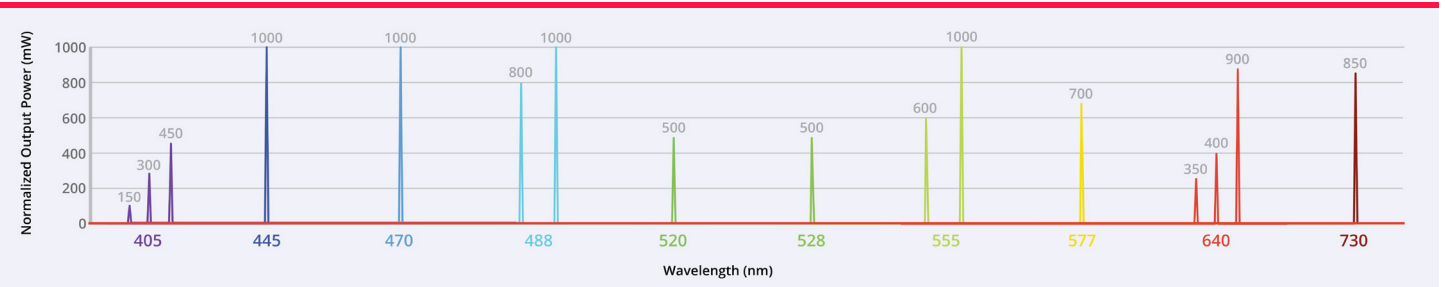
Table above is from WC#01-\*01661 Rev A

# LDi

## HIGH-PERFORMANCE LASER DIODE ILLUMINATOR



### LDI FAMILY OUTPUT SPECTRA OPTIONS



### SPECIFICATIONS

<b>Source Type</b>	Laser Diodes										
<b>Lifetime</b>	20,000 hrs – 2 year warranty										
<b>Laser Line (nm)</b>	405	445	470	488	520	528	555	577	640	730	
<b>Width; Average FWHM (nm)</b>	1.1	1.0	1.1	1.8	3.1	2.6	0.4	0.4	1.5	1.2	
<b>Centroid Wavelength Range (nm) <sup>1</sup></b>	397-408	438-450	463-470	482-494	514-523	526-535	552-557	574-580	632-644	722-738	
<b>Continuous Wave Stability <sup>2</sup></b>	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	< 1%	
<b>Max Rise Time <sup>1</sup></b>	< 10 $\mu$ s	< 10 $\mu$ s	< 10 $\mu$ s	< 10 $\mu$ s	< 10 $\mu$ s	< 10 $\mu$ s	< 2 ms	< 2 ms	< 10 $\mu$ s	< 10 $\mu$ s	
<b>Max On/Off Frequency (Hz) <sup>3</sup></b>	> 1000	> 1000	> 1000	> 1000	> 1000	> 1000	100	100	> 1000	> 1000	
<b>Output Options</b>	optical fiber <sup>4</sup>										
<b>Control Options</b>	TTL (>2.3 V) Analog (0-5 V) USB-DSP (virtual COM port) – SDK available upon request										
<b>Safety</b>	Interlocked housing Safety interlock Key interlock IEC 60825 compliant										
<b>Dimensions</b>	12.5" x 9.2" x 5.75", 318mm x 234mm x 146mm										
<b>Weight</b>	~9 lbs										
<b>Operating Temperature</b>	15-30° C										
<b>Storage Temperature</b>	-18-50° C										
<b>Humidity</b>	< 80% non-condensing										
<b>Voltage</b>	90-220 V AC, 50-60 Hz										
<b>Fuse</b>	None										

1. Measured at 100% intensity, 23°C  $\pm$  2°C

2. Typical CW stability value, calculation based on QUAREP LiMi WG 1 Illumination stability measurement at 100% intensity, 23°C  $\pm$  2°C

3. Measured at 100% intensity, 50% duty cycle

4. Recommended output fiber for the standard dual output LDI is a 400  $\mu$ m, 0.39 NA bifurcated fiber.

#### DANGER - LASER RADIATION. AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION CLASS 4 LASER PRODUCT

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