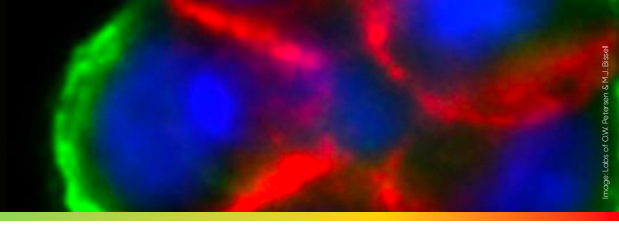
89 NORTH®
Illuminate Today: Transform Tomorrow™

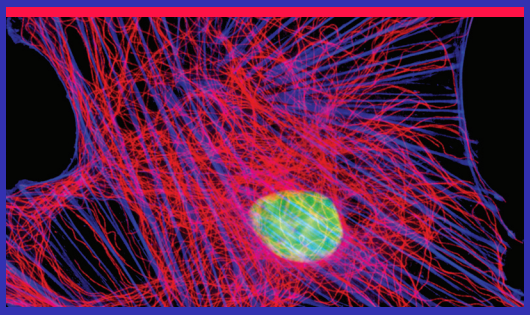


LDI

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

	405nm	445nm	470nm	488nm	520nm	528nm	555nm	577nm	640nm	730nm
LDI-4	300		1000				1000		400	
LDI-5-488-577	450			1000				700	900	850
LDI-7	300	1000	1000		500	500	1000		400	
LDI-NIR	450	1000	1000		500		1000		900	850
LDI-PRIME⁺	150			800			600		300	
LDI-4-488-SF*	150			200			200		150	

⁺PRIME⁺ unit is a single 400µm core fiber optic output
**SF is small fiber version with a 100µm core fiber optic output*

22+ models available today
Option to combine multiple LDIs into single output

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LDI
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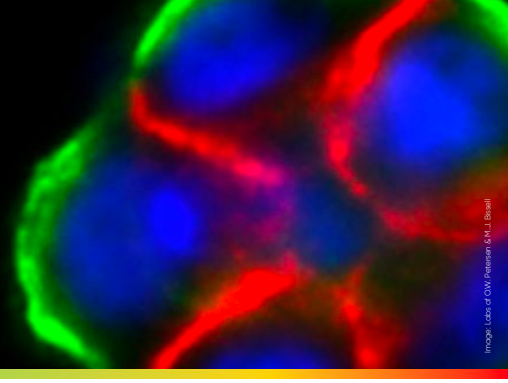
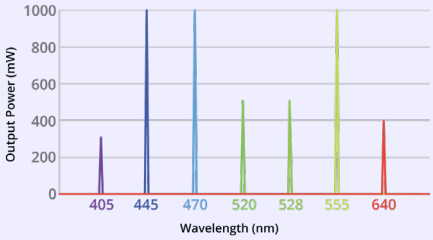
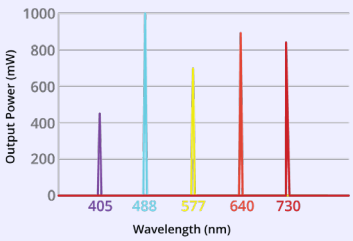


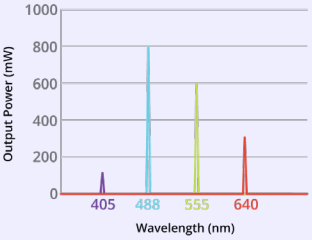
LDI-7 Output Spectra



LDI-5-488-577 Output Spectra



LDI-PRIME⁺ Output Spectra



SPECIFICATIONS

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

1. Measured at 100% intensity, 23°C ± 2°C
2. Standard Deviation relative to the mean power measurements, measured at 100% intensity, 23°C ± 2°C
3. Measured at 100% intensity, 50% duty cycle
4. Recommended output fiber is 400 µm, 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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