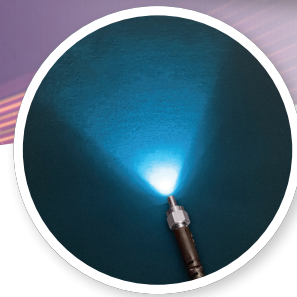




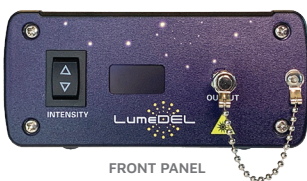
Model **N490** [Visible]

# NewDEL™ VIS Fiber-coupled LED

*Meticulously engineered photonic tools built to advance the goals of our customers, whether they are forging new paths in scientific discovery or implementing an ongoing project.*



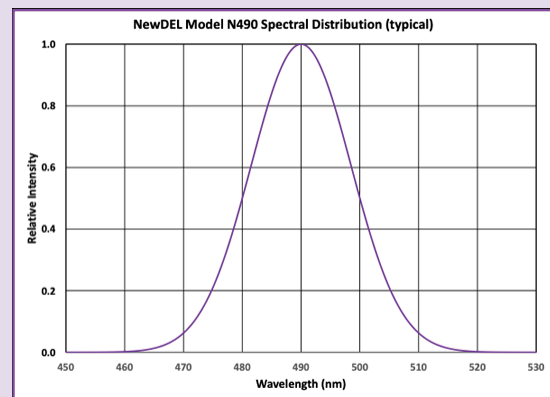
The NewDEL™ VIS fiber-coupled LED product group encompasses eight narrowband sources with center wavelengths ranging from 425 nm to 680 nm. The collection includes phosphor-coated green and amber LEDs to address the so-called green gap problem – the lack of a high efficacy semiconductor materials system for the green-yellow spectral region.



FRONT PANEL



REAR PANEL

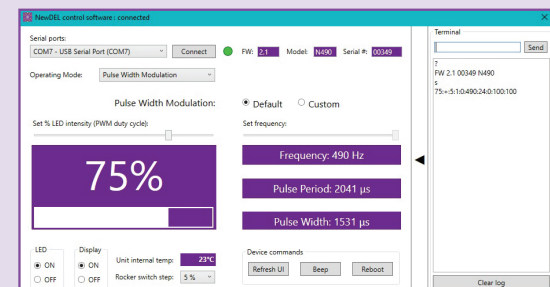


## SPECIFICATIONS

- Central wavelength: **490 nm**
- FWHM: 20 nm
- Recommended fiber patch cable: **FP63P**, High-NA, Plastic Optical Fiber, NA 0.63
  - Optical power emitted (typical maximum): **100 mW**
- SMA905 connector (FC option upon request)

## APPLICATIONS

- Fluorescence excitation of FITC, CY2, Alexa Fluor 488, Fluorescein
- Carbohydrate contents in biological samples and cell viability in a culture (absorbance assays)
- Blue light therapy (circadian rhythms)
- Optogenetics activation of the fast response opsin ChETA



SOFTWARE INTERFACE



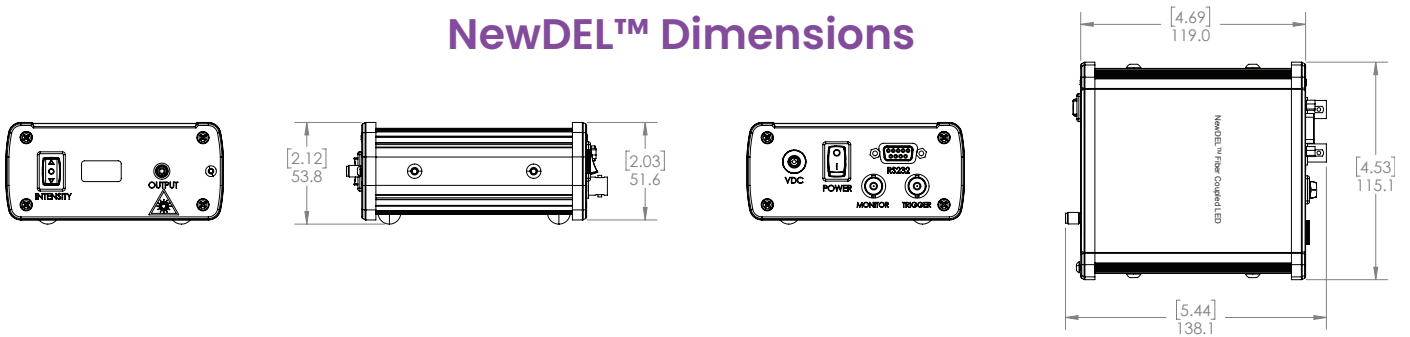
500 N. Commercial St.  
Suite 502E  
Manchester, NH 03101



P: +1 603.802.2242  
F: +1 603.802.2245

info@lumedel.com  
www.lumedel.com

## NewDEL™ Dimensions



## NewDEL™ Specifications

<b>Optical coupling</b>	SMA 905 type connector for multi-mode optical fibers with core diameters up to 1000 $\mu\text{m}$ (FC connector optional)
<b>Optical output power (typical)</b>	<b>100 mW</b>
<b>Wavelength range</b>	<b>490 nm</b>
<b>Operating modes - Pulse Width Modulation</b>	Default 490Hz Custom (user set) 1-500Hz
<b>Operating modes - Internal Trigger</b>	Set Pulse Delay 10ms – 32s Set Pulse Duration 10ms – 32s
<b>Operating modes - External Trigger</b>	LED output controlled by 0-5V TTL
<b>Serial Interface</b>	RS-232, DB-9 female Converter cable RS-232 to USB-A (FTDI) is included
<b>Trigger connector</b>	Optically isolated BNC, 50 Ohms for External Trigger mode Cable not included
<b>Monitor connector</b>	BNC, 50 Ohms for reading PWM or pulse waveform Cable not included
<b>Manual operation</b>	Front panel intensity switch for Pulse Width Modulation mode Step size set by software; 1, 2, 4, 5, or 10 percent
<b>Remote Operation - Software</b>	Windows based GUI, available by download
<b>Remote Operation - Programmability</b>	Serial commands are provided to control a unit and query its status using a terminal program or other suitable programming systems
<b>Front Panel Display</b>	Passive Matrix OLED, can be deactivated through software % PWM Intensity or trigger operating mode with frequency
<b>Thermal management</b>	Passive cooling via conduction Internal temperature sensor/monitor readable by software
<b>Power supply</b>	Universal AC/DC Wall adapter, 90 to 264VAC at 47 to 63Hz input 12V 12W output, 1.5 m cord length, DOE VI Efficiency, Class B EMI, Safety Approvals: cUL/UL, RCM, CB, CE (international socket blade options)
<b>Dimensions/Weight</b>	4.7 x 4.5 x 2.0 in (119.1 x 115.1 x 51.6 mm) / 1.1 lbs (0.5 kg)

## Peripherals & Accessories

