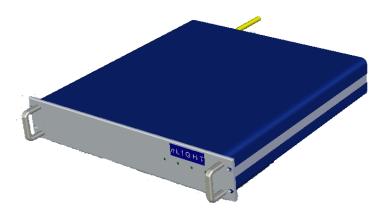
# OptoTools™ CWFL | Medium Power

# **Alpha Release**



OptoTools medium power CWFL provides a robust, high-brightness solution specifically designed for rigors of the material processing industry.

The OptoTools CWFL platform integrates the best of nLIGHT's industry-leading technologies to deliver a highly effective, medium power fiber laser solution:

- Powered by Pearl<sup>™</sup> single-emitter diode laser modules, which set the standard of excellence in high-performance, high-reliability diode lasers
- Leveraging Liekki™ fiber with proprietary Direct Nano-particle Deposition (DND) technology that provides high efficiency and minimizes photodarkening

#### **Features**

- Power up to 400W
- WPE 25%
- Powered by Pearl™ SE diode laser engine
- Liekki™ DND fiber technology
- Simple, plug and play integration
- 19" rack mountable

## **Applications**

- Cutting
- Welding
- Soldering and bonding
- Annealing
- Sintering
- Micro-machining

#### **Proven Performance**

# **Typical Device Performance**

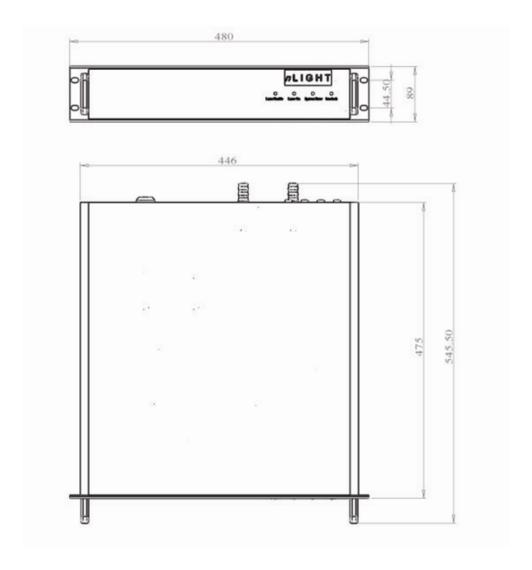
| Optical                          |       | NL-CWL-200-1085   | NL-CWL-300-1085 |
|----------------------------------|-------|---|-----------------|
| Mode of operation                |       | CW  |                 |
| Polarization                     |       | Random  |                 |
| Wavelength                       | nm    | 1085 <u>+</u> 5   |                 |
| Emission line width (FWHM)       | nm    | 5   |                 |
| Nominal output power             | W     | 200   | 300             |
| Output power range               | %     | 10-100  |                 |
| Output power stability           | %     | 1   |                 |
| Fiber length                     | m     | 3   |                 |
| Beam quality                     | $M^2$ | 1.8   |                 |
| Electrical                       |       |   |                 |
| Operating voltage                | VDC   | 34  |                 |
| Operating current                | А     | 50  |                 |
| Power consumption (at 20°C)      | W     | 1500  |                 |
| Modulation                       |       |   |                 |
| Rise/Fall time                   | μs    | >100  | <5              |
| Modulation Frequency             | kHz   | 0-5   | 0-20            |
| Duty ratio                       | %     | 0-1   | 00              |
| AC inputs available upon request |       |   |                 |
| Mechanical                       |       |   |                 |
| Dimensions                       |       | 2U  |                 |
| Output fiber connection**        |       | HighYAG LLKF  |                 |
| Output fiber length**            | m     | 5-10  |                 |
| Minimum fiber cable bend radius  | mm    | 80  |                 |
| Weight                           | kg    | 18  |                 |
| Cooling method***                |       | Conduction cooled components on non-DI water-cooled heat sink |                 |
| General condition                |       |   |                 |
| Operating temperature            | °C    | +5 to +50   |                 |
| Storage temperature              | °C    | -10 to +60  |                 |
| Cooling water temperature        | °C    | 20 <u>+</u> 5   |                 |
| Relative Humidity                | %     | 5 to 95   |                 |

<sup>\*</sup>May be customized

<sup>\*\*</sup> A non-condensing environment is required for storage and operation. Therefore, the cooling water temperature must be higher than the ambient dew point.

<sup>\*\*\*</sup>All cooling water must be drained for storage/shipping

# **Package Dimensions**



#### CFR Regulation

These components do not comply with the federal regulation (Title 21 CFR, Chapter 1, Subchapter J) as administered by the Center for Device and radiological Health. Purchaser acknowledges that their products must comply with these regulations before they can be sold to an end-use.

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### **Proven Performance**