High-Power Industrial Fiber Lasers

High-Power fiber lasers for rapid processing of thick metals.

The all-new nLIGHT® CFL-6000, CFL-8000, and CFL-10000 are the highest power fiber lasers available in this form factor, allowing for better utilization of your shop floor. Available as 6, 8, or 10kW models, these versatile fiber lasers are suitable for a wide range of materials processing applications.

Based on nearly two decades of high-power laser innovation, these lasers feature the latest in optical technology to improve your productivity and part quality. Designed with trusted and durable components for maximum uptime, and high operating efficiency to lower your production costs.

Key Features & Benefits

- 6, 8, and 10kW

  Delivers excellent productivity for advanced cutting and welding applications

- Back-Reflection Protection

  Hardware-based back-reflection protection allows uninterrupted processing of even the most reflective metals with no damage to the laser

- Unparalleled Serviceability

  Modular design simplifies repairs maximizing uptime

- Designed for Rugged Durability

  Ensures continuous operation in harsh manufacturing environments

- Advanced Electronics Design

  Provides faster piercing and processing of fine features with smaller heat-affected zones

- Multiple Fiber Options

  Choice of feed fiber sizes from 50-200µm enables a diverse range of applications

nLIGHT 6, 8, and 10kW High Power Fiber Laser Specifications

Models	CFL-6000	CFL-8000	CFL-10000
Optical Specifications			
Mode of Operation	CW / Modulated		
Polarization	Random		
Maximum Average Power, CW	6kW	8kW	10kW
Power Tunability	5 – 100%		
Power Variation, 8-Hour	≤ 1%		
Modulation Frequency	≤ 50kHz		
Rise and Fall Times	≤ 10µs		
Beam Quality	100µm fiber ≤ 5mm-mrad 200µm fiber ≤ 11mm-mrad		
Wavelength	1070 ± 10nm		
Electrical Specifications			
Supply Voltage	380 – 480VAC 3P+PE, 50/60Hz		
Control Interfaces, Standard	External hardware control, analog power control, analog monitors, Ethernet control, GUI, and API		
Control Interfaces, Optional	EtherCAT, EtherNet/IP, DeviceNet, Profinet, Profibus		
Mechanical Specifications			
Dimensions, W × D × H	1010 × 800 × 560mm		
Optical Fiber	10, 20, 30m, QBH connector standard		
Cooling Method	Water		
Environmental Specifications			
Operating Temperature[1]	+10 to +40°C		
Storage Temperature	-10 to +60°C		
Relative Humidity	10 to 80%		

[1] Non-condensing or with use of CDA.

nLIGHT continually improves its products to provide customers outstanding quality and reliability. The information contained herein is subject to change without notice. nLIGHT, Inc. shall not be liable for technical or editorial errors or omissions contained herein. Warranties are set forth in express warranty statements accompanying products. Nothing herein should be construed as constituting an additional warranty. For details, please contact your nLIGHT sales representative.

sales@nlight.net | www.nlight.net