



### Features

- **Direct Nanoparticle Deposition:** Industry leading fiber deposition process
- **New LIEKKI® fiber design for superior performance:**  
 Excellent efficiency in  $\geq 3\text{kW}$  CW fiber amplifiers  
 TMI limit  $\geq 3\text{kW}$  (976nm pumped)  
 Near diffraction limited beam quality  
 Enhanced long-term power stability
- **Reliability:** Coating proven to operate up to  $150^\circ\text{C}$  and in extreme humidity
- **Compatibility:** nLIGHT passive fibers matched for minimal splice loss.
- **Support:** Detailed application material available on request.

### Applications

- Multi kW-class CW fiber lasers and amplifiers
- Advanced and Directed energy applications
- Industrial applications with requirement for near-diffraction limited beam quality

### Typical Fiber Specifications

| Fiber   |               | LIEKKI® Yb800-20/400DC (HP)    |
|---|---------------|--------------------------------|
| Optical                                       | Units         |                                |
| Peak Cladding Absorption at 976 nm (nominal)  | dB/m          | (1.7)                          |
| Cladding Absorption at 920 nm                 | dB/m          | $0.40 \pm 0.05$                |
| Mode Field Diameter at 1060 nm <sup>(1)</sup> | $\mu\text{m}$ | $17.0 \pm 1.0$                 |
| Core Numerical Aperture (real/NA)             |               | $0.060 \pm 0.004$              |
| Cladding Numerical Aperture, $\geq$           |               | 0.48                           |
| Core background loss at 1200 nm, $\leq$       | dB/km         | 13                             |
| Geometrical and mechanical                    |               |                                |
| Core Diameter                                 | $\mu\text{m}$ | $20.0 \pm 1.5$                 |
| Core Concentricity Error, $\leq$              | $\mu\text{m}$ | 1.2                            |
| Cladding Diameter (flat-to-flat)              | $\mu\text{m}$ | $400 \pm 10$                   |
| Cladding Geometry                             |               | Octagonal                      |
| Coating Diameter                              |               | $500 \pm 15$                   |
| Coating Material                              |               | Dual coated low index acrylate |
| Proof Test, $\geq$                            | kpsi          | 100                            |

<sup>(1)</sup> Near-field Mode Field Diameter