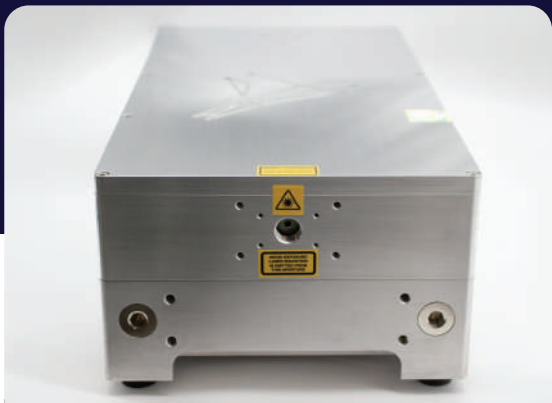
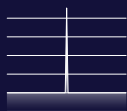


# SKYLARK 349

SINGLE FREQUENCY CW DPSS UV LASER



## Key features



**Narrow linewidth**  
 $\leq 500$  kHz



**Low power noise**  
 $\leq 0.3$  % RMS



**Stable wavelength**  
 $\pm 0.2$  pm over 8 hours



**Stable output power**  
 $\leq 2.0$  % over 8 hours

Scan to view specifications  
& product downloads



## Laser specifications

### Output beam parameters

Output power	up to 400 mW
Wavelength	349 nm
Spectral bandwidth	$\leq 500$ kHz
Spatial mode	TEM <sub>00</sub>
Spectral stability	$\pm 0.2$ pm (over 8 hours)
Coherence length	$> 100$ m
Output power stability	$\leq 2.0$ % (over 8 hours)
Output power noise	$\leq 0.3$ % RMS (10 Hz - 10 MHz)
Beam divergence	1.0 mrad, diffraction limited
Beam diameter at output aperture	1.0 - 1.5 mm
Beam pointing stability	$\leq 5$ $\mu$ rad/ $^{\circ}$ C

### Environmental conditions

Ambient temperature range	18 - 30 $^{\circ}$ C
Laser head interface stability	$\pm 1.5$ $^{\circ}$ C
Storage	0 - 50 $^{\circ}$ C
Humidity	0 - 50 %, non-condensing

## What do our customers say about Skylark 349 CW DPSS single frequency lasers?

"An excellent replacement for an Argon or HeCd laser: emission is spectrally pure, efficiency is much better, it provides better longevity with cheaper maintenance, and it is much smaller."

SEMICONDUCTOR INSPECTION CUSTOMER

"The Skylark 349 laser delivers clean excitation at 3.55 eV and is an excellent replacement for an Argon laser at 351 nm."

INTERFERENCE LITHOGRAPHY CUSTOMER

"The Skylark 349 DPSS laser performs exceptionally well, maintaining high stability in beam alignment, power, and profile, all critical for achieving precision in interference lithography."

GRATING FABRICATION RESEARCHER

**Reveal** the unseen,  
**detect** the imperceptible,  
**measure** the unknown.



## Skylark DPSS laser system overview

### Dimensions

Laser head (L x W x H) 425 x 200 x 123 mm

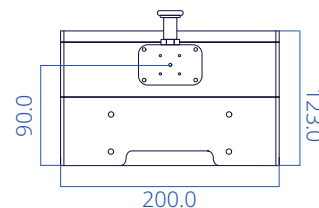
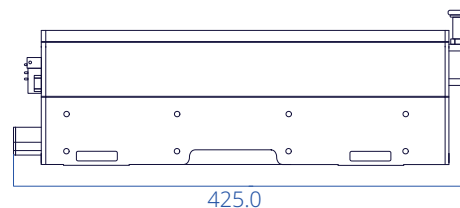
Beam height 90.0 mm

### Laser control

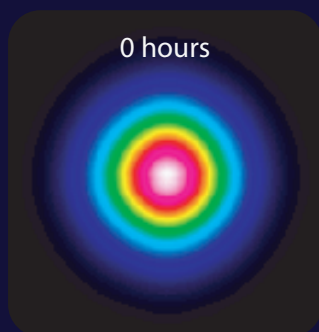
Control interface Web-based GUI

Control connectivity Ethernet (TCP/IP) + digital I/O

Safety features Interlock, mechanical shutter

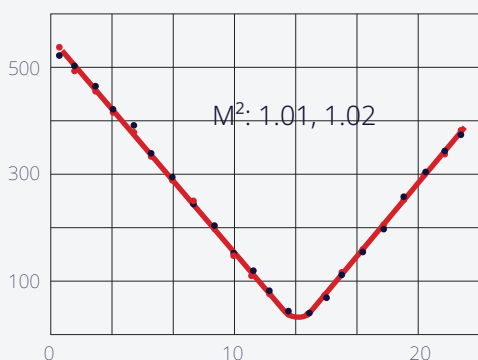


## Beam profile

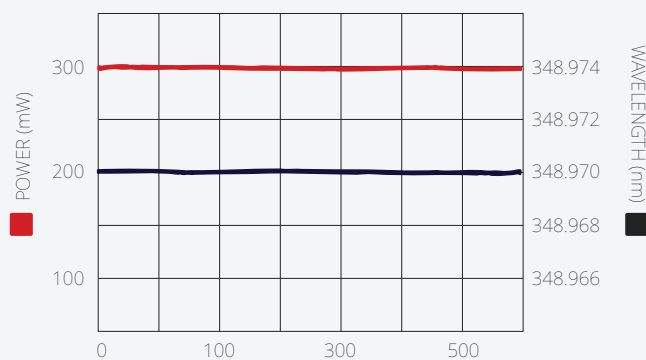


Ellipticity	97.5%
Minor ellipse diameter (13.5%)	1476.5 $\mu\text{m}$
Major ellipse diameter (13.5%)	1514.0 $\mu\text{m}$
Beam width (4-sigma) X	1514.2 $\mu\text{m}$
Beam width (4-sigma) Y	1553.8 $\mu\text{m}$
Beam width clip X (13.5%)	1517.9 $\mu\text{m}$
Beam width clip Y (13.5%)	1541.9 $\mu\text{m}$

## Test data



$M^2 < 1.03$



Mode-hop free stability over 500+ hours