

## Parallel Light Sheet Optics



PIV and PLIF measurements require a light sheet with well defined geometrical characteristics and intensity distribution. ILA offers a range of integrated light sheet optics that are compact, modular and simple to adjust. The parallel LS optic generates a 50mm light sheet over a long distance which can be focused down to ~1mm depending from the laser beam characteristic. By removing the first cylindrical lens, a divergent light sheet is generated. A set of cylindrical lenses to generate light sheet angles of 16, 30 and 50 degrees is included. The light sheet optic is compatible with all commercial Nd:YAG lasers with energies up to 600 mJ/pulse and especially recommended for lasers with high divergent beams due to the special collimator design.

### Features:

- Single, extendable unit
- Simple adjustment of both light sheet thickness and divergence angle
- 360 degree adjustable light sheet orientation
- Multiple light sheet thickness and angles ranges
- Mounts on articulated mirror arm
- High energy level in the light parallel light sheet over long distance
- Light volume illumination with additional collimation optics
- also in UV range capable



## Specifications

Dimensions:	<u>405 mm x Ø60 mm</u>
Weight	<u>1918 g</u>
Aperture	<u>Ø50 mm</u> (standard design)
Lenses	4 lenses, anti-reflexion coated, energy threshold 4,5 J/cm <sup>2</sup>
<u>Light sheet divergence angle</u>	Adjustable in steps 16°, 30° and 50°
Focussing Distance	Adjustable <u>100...3000 mm</u>
Min. Light Sheet Thickness(*)	0.5 mm
<u>Volume illumination</u> <u>collimation optic</u>	45 to ~50 mm diameter with additional

### Accessories

- Laser adapter mount for Nd:YAG Laser (for several models available)
- General-purpose rail-mounted clamp to fix light sheet optics position (when interfaced to the mirror arm)
- Adapter piece for mirror arm (M23x1.5)

### Options

- Different lenses for non-standard wavelength e.g. 266nm for LiF

(\*) Achievable minimum light sheet thickness is a function of the beam diameter, and therefore of the Laser model coupled to the light sheet optic.

