

© Photo: Markus-Steur.de

## General Description:

## | Advanced Optical Solutions |

Lens array with cross-oriented cylindrical lenses on both sides.  
Top hat profiles with high homogeneity can be generated in both dimensions.

Specification Data	Unit	Value	Product No.
Material		Fused Silica	
Length (L)	mm	20.0 ± 0.1	
Width (W)	mm	20.0 ± 0.1	
Thickness (T)	mm	2.0 ± 0.1	
Clear aperture	mm <sup>2</sup>	18.0 x 18.0	
Surface quality @ 633 nm		λ/4 (typically)	
Refractive index n	@ 248 nm	1.509	
	@ 532 nm	1.461	
	@ 1064 nm	1.449	
Pitch (P)	mm	0.8	
Radius	mm	4.35 ± 0.13	ZLA000509
	mm	8.70 ± 0.26	ZLA000243
	mm	11.1 ± 0.33	ZLA000507
	mm	16.7 ± 0.50	ZLA000486
	mm	24.4 ± 0.73	ZLA000488
	mm	48.0 ± 1.4	ZLA000229
	mm	78.0 ± 2.3	ZLA000230
	mm	105.0 ± 3.2	ZLA000511
Transmission (without coating)	%	> 90	

## Overview Effective Focal Length for Different Wavelength

Product No.	Unit	@ 248 nm	@ 532 nm	@ 1064 nm
ZLA000509	mm	8.55 ± 0.26	9.44 ± 0.28	9.67 ± 0.29
ZLA000243	mm	17.1 ± 0.51	18.9 ± 0.57	19.4 ± 0.58
ZLA000507	mm	21.8 ± 0.65	24.1 ± 0.72	24.7 ± 0.74
ZLA000486	mm	32.8 ± 0.98	36.3 ± 1.09	37.1 ± 1.11
ZLA000488	mm	48.0 ± 1.4	53.0 ± 1.6	54.3 ± 1.6
ZLA000229	mm	94.4 ± 2.8	104.2 ± 3.1	106.8 ± 3.2
ZLA000230	mm	153.4 ± 4.6	169.3 ± 5.1	173.5 ± 5.2
ZLA000511	mm	206.5 ± 6.2	227.9 ± 6.8	233.5 ± 7.0

## Numerical Aperture of the Homogenizer for Different Wavelength [p/(2f)]

Product No.	@ 248 nm	@ 532 nm	@ 1064 nm
ZLA000509	0.0468	0.0424	0.0414
ZLA000243	0.0234	0.0212	0.0206
ZLA000507	0.0183	0.0166	0.0162
ZLA000486	0.0122	0.0110	0.0108
ZLA000488	0.0083	0.0075	0.0074
ZLA000229	0.0042	0.0038	0.0037
ZLA000230	0.0026	0.0024	0.0023
ZLA000511	0.0019	0.0018	0.0017

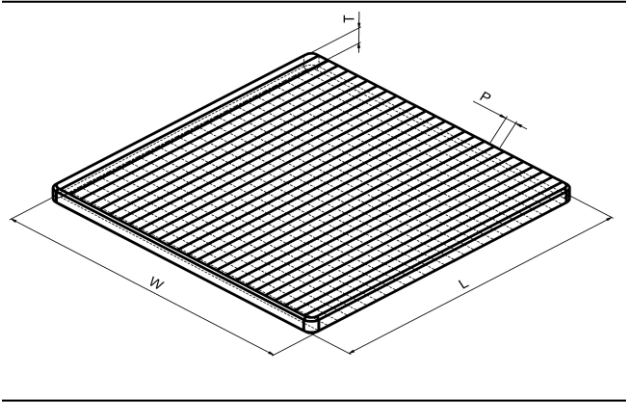
**On request**

AR coating

Customized size

Holder

Single-sided structure only



**RoHS compliant**  
2002/95/EG

Copyright © 2011 LIMO GmbH. All rights reserved. All LIMO products are patent pending. Subject to change without notice.

Version May 16, 2019

LIMO GmbH | Bookenburgweg 4-8 | 44319 Dortmund, Germany  
Phone: +49 231 22 24 1 - 0 | Fax: +49 231 22 24 1 - 140 | [www.limo.de](http://www.limo.de) | [info@limo.de](mailto:info@limo.de)