

## Datasheet Plastic Collimator Lens CAY033/040

### VIAOPTIC Part No 099-099-001-004

These data concern a full plastic bi-aspherical lens. It is specified for use as a collimator in combination with a diode laser. It can be mounted by use of glue or spring-loaded. Mechanical lock-mounting is not advisable because of possible distortions.

Parameters	Wavelength 670 nm	Unit
<b>Design conditions</b>		
<i>N.A.</i>	0.38	--
Clear Aperture <i>CA</i>	2.5	mm
Designed with laser cover glass ( <i>BK7</i> ) on source side:		
Distance from source	0.55	mm
Glass thickness	0.25	mm
<b>Optical parameters</b>		
Focal Length	3.30	mm
Back Focal Length <i>BFL</i>	1.99	mm
Back Focal Length <i>BFL (with laserglass)</i>	2.08	mm
Free Working Distance <i>FWD</i>	1.84	mm
Free Working Distance <i>FWD (with laserglass)</i>	1.93	mm
<i>RMS</i> mean		
	on axis	30
	total	
<i>RMS</i> max. ( $\pm 3\sigma$ )		
	on axis	40
	total	65
Optical Tolerance	0.1	mm
Field Radius	0.05	mm
<b>Mechanical parameters</b>		
Mounting hole diameter <i>D<sub>mh</sub></i>	Ø 4.0	mm
Other parameters: see drawing		
<b>Environmental stability</b>		
Storage Temperature	-25 to 70	°C
Operating Temperature	5 to 65	°C

General Data:  
 Transmission [%]: 90  
 Lens Material: Acrylic

Specifications subject to change without notice.  
 Zemax catalogue file available.