

## Datasheet Plastic Collimator Lens CAY046/055

VIAOPTIC Part No 099-099-001-007

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		Unit
	670 nm	785 nm	
<b>Design conditions</b>			
N.A.	0.35		--
Clear Aperture CA	3.4		mm
Designed with laser cover glass (BK7) on source side:			
Distance from source	0.55		mm
Glass thickness	0.25		mm
<b>Optical parameters</b>			
Focal Length	4.60	4.64	mm
Back Focal Length <i>BFL</i>	3.09	3.12	mm
Back Focal Length <i>BFL</i> (with BK7 coverglass)	3.18	3.20	mm
Free Working Distance <i>FWD</i>	2.89	2.92	mm
Free Working Distance <i>FWD</i> (with BK7 coverglass)	2.98	3.00	mm
<i>RMS</i> mean	on axis	30	mλ
<i>RMS</i> max. (±3σ)	on axis	40	mλ
Optical Tolerance	0.1		mm
Field Radius	0.1		mm
<b>Mechanical parameters</b>			
Mounting hole diameter <i>D</i> <sub>mh</sub>	Ø 5.50		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.