

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	
Design conditions			
<i>N.A.</i>		0.35	--
Clear Aperture <i>CA</i>		3.4	mm
Designed with laser cover glass (<i>BK7</i>) on source side:			
Distance from source		0.55	mm
Glass thickness		0.25	mm
Optical parameters			
Focal Length	4.60	4.64	mm
Back Focal Length <i>BFL</i>	3.09	3.12	mm
Back Focal Length <i>BFL (with BK7 coverglass)</i>	3.18	3.20	mm
Free Working Distance <i>FWD</i>	2.89	2.92	mm
Free Working Distance <i>FWD (with BK7 coverglass)</i>	2.98	3.00	mm
<i>RMS</i> mean	on axis	30	mλ
<i>RMS</i> max. ($\pm 3\sigma$)	on axis	40	mλ
Optical Tolerance		0.1	mm
Field Radius		0.1	mm
Mechanical parameters			
Mounting hole diameter D_{mh}		Ø 5.50	mm
Other parameters: see drawing			
Environmental stability			
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.