

Datasheet Plastic Collimator Lens CAY046/055

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			
N.A.	0.37		--
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
Optical parameters			
Focal Length	4.60	4.64	mm
Back Focal Length <i>BFL</i> (with BK7 coverglass)	3.18	3.20	mm
Free Working Distance <i>FWD</i>	2.98	3.00	mm
<i>RMS</i> mean	on axis		30
<i>RMS</i> max. ($\pm 3\sigma$)	on axis		40
<i>RMS</i> max. ($\pm 3\sigma$)	on axis		40
<i>RMS</i> max. ($\pm 3\sigma$)	on axis		40
Optical Tolerance	0.1		mm
Field Radius	0.1		mm
Mechanical parameters			
Mounting hole diameter D_{mh}	$\varnothing 5.50 (+ 0.03)$		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.

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