

## Datasheet Plastic Collimator Lens CAY046-55-2

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.	0.4		--
Clear Apertures CA	3.5 / 4.2		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> (with BK7 coverglass)	3.18	3.20	mm
Free Working Distance <i>FWD</i>	3.08	3.10	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
<b>Mechanical parameters</b>			
Mounting hole diameter $D_{mh}$	$\varnothing 5.50 (+ 0.03)$		mm
Other parameters:	see drawing		
<b>Environmental stability</b>			
Storage Temperature	-25 to 70		°C
Operating Temperature	5 to 65		°C

**General Data:**

Transmission [%]: &gt; 90

Lens Material: Acrylic

PMMA [8N]

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