

## Datasheet Plastic Collimator Lens CA Y046

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>			
<i>N.A.</i>	0.40		--
Clear Aperture <i>CA</i>	3.7		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	4.60	4.64	mm
Back Focal Length <i>BFL</i> ( <i>with BK7 coverglass</i> )	3.18	3.20	mm
Free Working Distance <i>FWD</i>	3.08	3.10	mm
<i>RMS</i> mean		30	mλ
<i>RMS</i> max. ( $\pm 3\sigma$ )		40	mλ
Optical Tolerance	0.1		mm
Field Radius	0.1		mm
<b>Mechanical parameters</b>			
Mounting hole diameter $D_{mh}$	Ø 7.40 (+ 0.03)		mm
Other parameters: see drawing			
<b>Environmental stability</b>			
Storage Temperature	-25 to 70		°C
Operating Temperature	5 to 65		°C

### Visual inspection specification

Surface 1 (over CA = Ø 3.7 mm)

Acc. ISO 10110/7-5/1 x 0.16

Surface 2 (over CA = Ø 3.7 mm)

Acc. ISO 10110/7-5/1 x 0.16

### General Data:

Transmission [%]: 90

Lens Material: Acrylic

Specifications subject to change without notice.  
Zemax cataloguefile available.



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