

Datasheet Plastic Collimator Lens CAY046-74-2

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	
Design conditions			
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
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>	3.08	3.10	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}	$\varnothing 7.40 (+ 0.03)$		mm
Other parameters: see drawing	2024-001-0102		
Environmental stability			
Storage Temperature	-25 to 70		°C
Operating Temperature	5 to 65		°C

General Data:

Transmission [%]: > 90

Lens Material: Acrylic

PMMA [8N]

Specifications subject to change without notice.
Zemax cataloguefile available.