

Automotive

Datasheet Plastic Collimator Lens CAX100¹

These data concern a full plastic a-spherical lens. It is 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					Unit
Design conditions (670 nm)					
N.A.	0.2				--
Clear Aperture (Exit Pupil)	4.1				mm
Clear Aperture (Entrance Pupil)	3.9				mm
Optical parameters					
	Wavelength				nm
	546	632	670	780	
Effective Focal Length ¹⁾	9.78	9.93	9.97	10.07	mm
Back Focal Length ¹⁾	8.98	9.12	9.17	9.26	mm
Free Working Distance ¹⁾	8.25	8.39	8.44	8.53	mm
RMS mean ¹⁾	28	33	35	41	mλ
	on axis				
RMS max. ($\pm 3\sigma$) ¹⁾	65	75	80	93	mλ
	on axis				
Field Radius	0.2				mm
1) Remark: without 4 mm SF11 glass or 1.25 mm BK7 glass					
1) Optical Tolerance	+/- 0.10				mm
Mechanical parameters					
Mounting hole diameter D_{mh}	\varnothing 6.28 (+/- 0.02)				mm
Lens Thickness	1.25				mm
Optical Eccentricity	< 30				μm
Environmental stability					
Storage Temperature	0 to 65				°C
Operating Temperature	0 to 65				°C
General Data:					
Transmission [%]:	> 90 (non coated)				
Lens Material:	POLYCARB				

¹ Specifications subject to change without notice. Values for Entrance Pupil side see figure

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