



Automotive

Datasheet Plastic Collimator Lens CAX183

These data concern a full plastic aspherical plano-convex 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.	0.12		--	
Clear Aperture CA	4.3		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	18.15	18.33	mm	
Back Focal Length <i>BFL</i> (with 0.25mm laserglass)	17.51	17.69	mm	
Free Working Distance <i>FWD</i>	16.30	16.48	mm	
<i>RMS</i> mean	on axis total		25	mλ
			30	mλ
<i>RMS</i> max. ($\pm 3\sigma$)	on axis total		35	mλ
			35	mλ
Optical Tolerance	0.1		mm	
Field Radius	0.3		mm	
Mechanical parameters				
Mounting hole diameter D_{mh}	Ø 6.28		mm	
Other parameters: see drawing				
Environmental stability				
Storage Temperature	-25 to 100		°C	
Operating Temperature	-10 to 75		°C	

General Data:
 Transmission [%]: 90
 Lens Material: Polycarbonate

Specifications subject to change without notice.
 Zemax cataloguefile available.

