

## Automotive

**Datasheet Plastic Collimator Lens CAY046-037N670<sup>1</sup>**

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
<b>Design conditions (670 nm)</b>					
N.A.	0.40				--
Clear Aperture (Exit Pupil)	3.7				mm
Clear Aperture (Entrance Pupil)	2.8				mm
<b>Optical parameters</b>					
	<b>Wavelength</b>				nm
	<b>546</b>	<b>632</b>	<b>670</b>	<b>780</b>	
Effective Focal Length <sup>1)</sup>	4.55	4.59	4.60	4.62	mm
Back Focal Length <sup>1)</sup>	3.04	3.08	3.10	3.12	mm
Free Working Distance <sup>1)</sup>	2.94	2.98	3.00	3.02	mm
RMS mean <sup>1)</sup>	36	31	30	25	mλ
RMS max. ( $\pm 3\sigma$ ) <sup>1)</sup>	49	42	40	34	mλ
Field Radius	0.10				mm
1) Remark: without 4 mm SF11 glass or 1.25 mm BK7 glass					
1) Optical Tolerance	+/- 0.10				mm
<b>Mechanical parameters</b>					
Mounting hole diameter $D_{mh}$	$\varnothing$ 7.40 (+/- 0.02)				mm
Lens Thickness	2.70				mm
Optical Eccentricity	< 30				μm
<b>Environmental stability</b>					
Storage Temperature	-10 to 70				°C
Operating Temperature	5 to 65				°C

<b>General Data:</b>	
Transmission [%]:	> 90 (non coated)
Lens Material:	PMMA

<sup>1</sup> Specifications subject to change without notice.

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