

## Automotive

**Datasheet Plastic Collimator Lens CAY046-034N670<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.		0.37				--
Clear Aperture (Exit Pupil)		3.4				mm
Clear Aperture (Entrance Pupil)		2.6				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	9.87	4.60	4.62	mm
Back Focal Length <sup>1)</sup>		3.04	8.46	3.09	3.12	mm
Free Working Distance <sup>1)</sup>		2.84	2.85	2.89	2.92	mm
RMS mean <sup>1)</sup>	on axis	36	31	30	25	mλ
RMS max. ( $\pm 3\sigma$ ) <sup>1)</sup>	on axis	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						
		$\pm 0.10$				mm
<b>Mechanical parameters</b>						
Mounting hole diameter $D_{mh}$		$\varnothing 5.50 (+ 0.03)$				mm
Lens Thickness		2.70				mm
Optical Eccentricity		$< 30$				$\mu m$
<b>Environmental stability</b>						
Storage Temperature		-25 to 70				$^{\circ}C$
Operating Temperature		5 to 65				$^{\circ}C$

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

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

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