



**Automotive**

## Datasheet Plastic Collimator Lens CAY033

These data concern a full plastic bi-aspherical lens. It is specified for use as a collimator in combination with a diode laser. The lens is AR-coated for 785 nm. 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	
<b>Design conditions</b>			
N.A.	0.40		--
Clear Aperture CA	2.7		mm
Designed with laser cover glass (BK7) on source side:			
Distance from source	0.55		mm
Glass thickness	0.25		mm
<b>Optical parameters</b>			
Focal Length	3.30	3.32	mm
Back Focal Length <i>BFL</i> (with 0.25mm laserglas)	2.08	2.10	mm
Free Working Distance <i>FWD</i>	1.98	2.00	mm
<i>RMS</i> mean	on axis		30
	total		
<i>RMS</i> max. ( $\pm 3\sigma$ )	on axis		40
	total		65
Optical Tolerance	0.1		mm
Field Radius	0.05		mm
<b>Mechanical parameters</b>			
Mounting hole diameter $D_{mh}$	$\varnothing 7.40 (+ 0.03)$		mm
Other parameters: see drawing			
<b>Environmental stability</b>			
Storage Temperature	-25 to 70		°C
Operating Temperature	5 to 65		°C

General Data:  
 Transmission: 95 % for 785 nm  
 Lens Material: Acrylic

Specifications subject to change without notice.  
 Zemax catalogue file available.

