



PHILIPS



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.

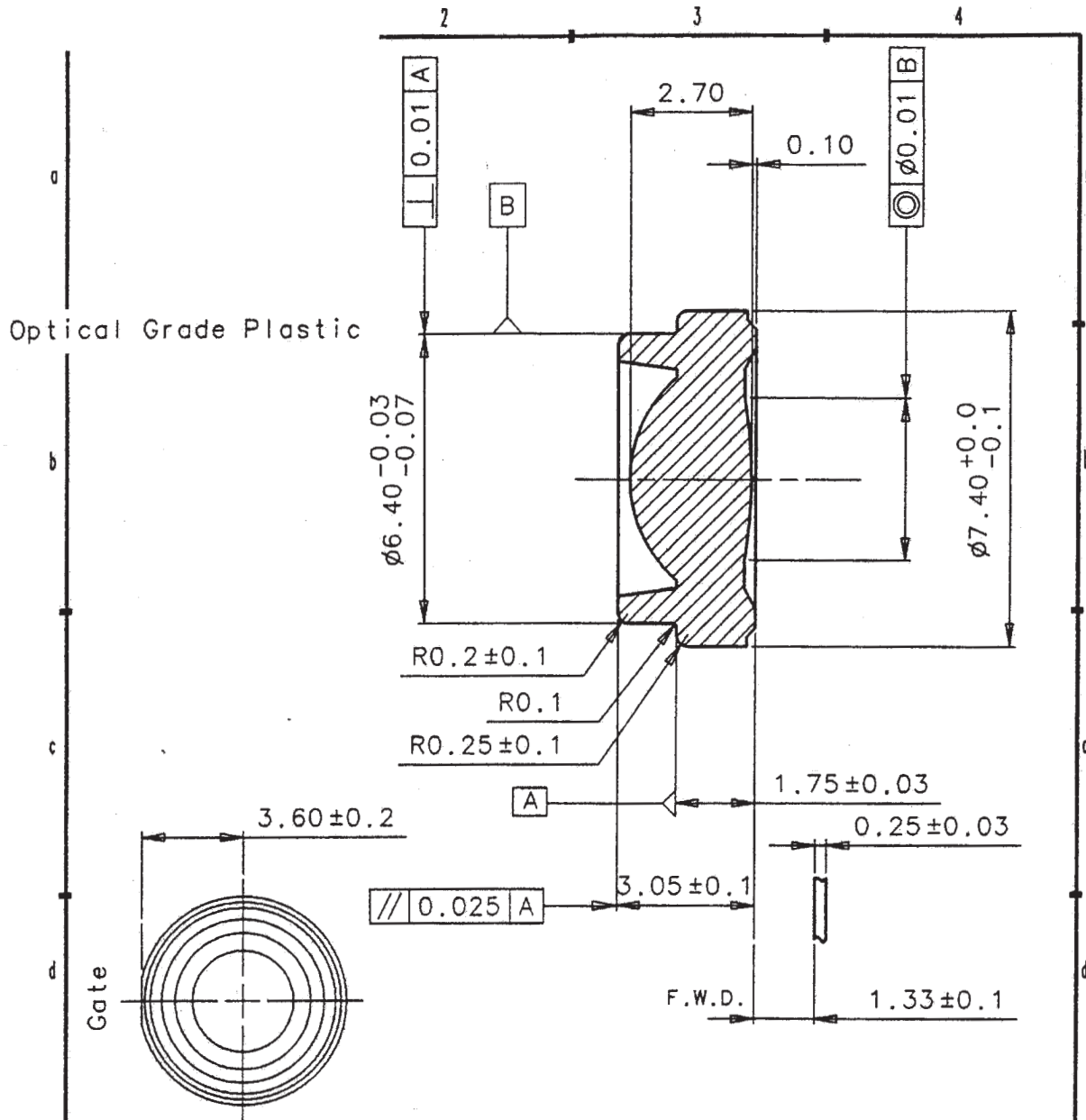
Parameters	Wavelength		Unit
	670 nm	785 nm	
Design conditions			
N.A.	0.40		--
Clear Aperture CA	2.7		mm
Designed with laser cover glass (BK7) on source side:			
Distance from source	0.55		mm
Glass thickness	0.25		mm
Optical parameters			
Focal Length	3.30	3.32	mm
Back Focal Length <i>BFL</i> (with 0.25mm 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		mλ
Field Radius	0.05		mm
Mechanical parameters			
Mounting hole diameter D_{mh}	Ø 7.40 (+ 0.03)		mm
Other parameters: see drawing			
Environmental stability			
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.



SCALE 5:1

UN-D 28 ... R _a in μm		TOLERANCES UNLESS OTHERWISE STATED TOLERANTIES TENZIJ ANDERS VERMELD		UN-D 803			
GENERAL ROUGHNESS AL GEMENE RUWHEID		UNIT EENH. mm		MATERIAL Optical Grade Plastic		ASSEMBLY NO. SAMENSTELLINGSNR.	
SCALE SCHAAL		PROJ. EUROP.		TREATMENT BEHANDELING		PATTERN NO./MODELNR.	
8:1				T.P.D. 1997-03-10		ORDER NO./ORDERNR.	
CLASS NO.		Collimating lens		5722 650 3415		QUANT. AANTAL	
		CAY033N670				1	
						1 97-10-28	
NAAM NAME		SURERS. VERV.		4		590-4	
R.d.Schipper		DAT.		95-03-10		10	
CHECK CONTR.		Property of Eigendom van		N.V. PHILIPS' GLOEILAMPENFABRIEKEN		EINDHOVEN - HOLLAND	