Philips Competence Centre Plastics B.V.
Optical Components

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Datasheet Plastic Collimator Lens CAY046/055

These data concern a full plastic bi-aspherical 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.		0.37		--
Clear Aperture *CA*		3.4		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		4.60	4.64	mm
Back Focal Length *BFL (with BK7 coverglass)*		3.18	3.20	mm
Free Working Distance *FWD*		2.98	3.00	mm
RMS mean	on axis	30		mλ
RMS max. (±3σ)	on axis	40		mλ
Optical Tolerance		0.1		mm
Field Radius		0.1		mm
Mechanical parameters				
Mounting hole diameter D_{mh}		∅ 5.50 (+ 0.03)		mm
Other parameters: see drawing				
Environmental stability				
Storage Temperature		-25 to 70		°C
Operating Temperature		5 to 65		°C

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

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

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