

## Datasheet Plastic Collimator Lens CAY046

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.                                                  | 0.40       |        | --   |
| Clear Aperture CA                                     | 3.7        |        | 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                                          | 4.60       | 4.64   | mm   |
| Back Focal Length BFL (with BK7 coverglass)           | 3.18       | 3.20   | mm   |
| Free Working Distance FWD                             | 3.08       | 3.10   | mm   |
| RMS mean                                              | on axis    |        | 30   |
| RMS max. (±3σ)                                        | on axis    |        | 40   |
|                                                       |            |        |      |
| Optical Tolerance                                     | 0.1        |        | mm   |
| Field Radius                                          | 0.1        |        | mm   |
| Mechanical parameters                                 |            |        |      |
| Mounting hole diameter D <sub>mh</sub>                | Ø 7.40     |        | 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.

Revision Date: 01.11.2016

