

**Datasheet Plastic Diffractive Lens CDW042/52**  
**VIAOPTIC Part No 099-099-001-008**

These data concern a full plastic a-spherical diffractive 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 670 nm	Unit
<b>Design conditions</b>		
<i>N.A.</i>	0.25	--
Clear Aperture <i>CA</i>	2.1	mm
Designed with laser cover glass ( <i>BK7</i> ) on source side:		
Distance from source	0.55	mm
Glass thickness	0.25	mm
<b>Optical parameters</b>		
Focal Length	4.24	mm
Back Focal Length <i>BFL</i>	3.57	mm
Free Working Distance <i>FWD</i>	3.08	mm
<i>RMS</i> mean	on axis	40
<i>RMS</i> max. ( $\pm 3\sigma$ )	on axis	50
<i>RMS</i> max. ( $\pm 3\sigma$ )		mλ
Optical Tolerance	0.1	mm
Field Radius	0.1	mm
<b>Mechanical parameters</b>		
Mounting hole diameter $D_{mh}$	Ø 5.20	mm
Other parameters: see drawing		
<b>Environmental stability</b>		
Storage Temperature	< 90	°C
Operating Temperature	-20 to 80	°C

General Data: Transmission [%]: 90 (670 nm) Lens Material: COP
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Specifications subject to change without notice.