

Collimator Lens ($\Phi 3.0$)

Key Parameters

EFL=4.5mm

N.A.=0.32

Introduction

Aspherical lenses are lenses with surfaces which are not a portion of a sphere. Aspherical lenses are more superior in many applications than conventional lenses. One well designed aspherical lens can have the same or better performance than multiple spherical lenses. Therefore it reduces the number of lenses in one optical system and makes system lighter and more compact. Nowadays, by advanced high technology of production, aspherical lens has been successfully made in large quantity and meanwhile the cost is competitive against conventional high grade optical system. Egismos provides various kinds of aspherical lenses. This document shows the specification of lens used in laser collimating. Besides the off-the-shelf lenses, customized lenses are also feasible based on customer's requirement.

Specifications	
Material	D-ZK3
Diameter(mm)	3.0+0/-0.03
Design Wavelength(nm)	633
Clear Aperture(mm)	2.7
EFL(mm)	4.5±1%
BFL(mm)	3.46±1%
N.A.	0.32
Center Thickness(mm)	1.78±0.03
AR Coating(Optional) R<1%	400-700nm
	500-850nm
Decentering	< 3 mins
Surface Quality	40/20

The technical drawing shows a cross-section of the lens. The left surface is a concave asphere with radius R1. The right surface is a convex asphere with radius R2. The total thickness of the lens is 1.78 mm. The diameter of the lens is 3.00 mm. The clear aperture (CA) is 2.70 mm. The distance from the center of the lens to the right surface is 1.38 mm.

Note:

AR 400~700nm for O1-CO-3.0-4.5-B

AR 500~850nm for O1-CO-3.0-4.5-C

