

Collimator Lens ($\Phi 10.5$)

Key Parameters

EFL=15.18mm/N.A.=0.3

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	L-BAL42
Diameter(mm)	10.5+0/-0.03
Design Wavelength(nm)	639
Clear Aperture(mm)	8.4
EFL(mm)	15.18±1%
BFL(mm)	13.48±1%
N.A.	0.3
Center Thickness(mm)	3.00±0.03
AR Coating(Optional)	400-700nm
R<1%	600-1050nm
Decentering	< 3 mins
Surface Quality	40/20

The technical drawing shows a cross-section of the lens with a total diameter of $\Phi 10.50$ mm and a center thickness of 3.00 mm. The front surface has a radius of curvature R1 and a clear aperture (CA) of $\Phi 9.00$ mm. The back surface has a radius of curvature R2 and a clear aperture (CA) of $\Phi 8.40$ mm.

