



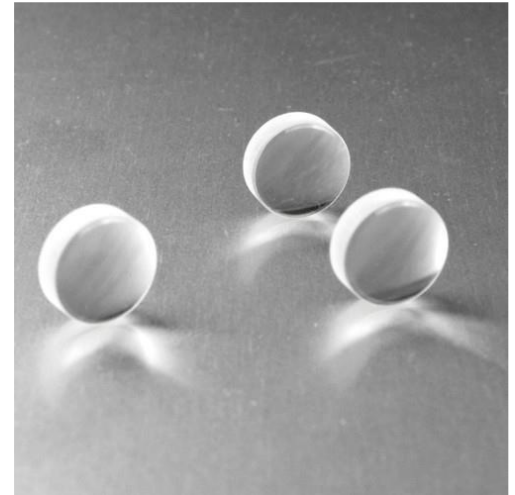
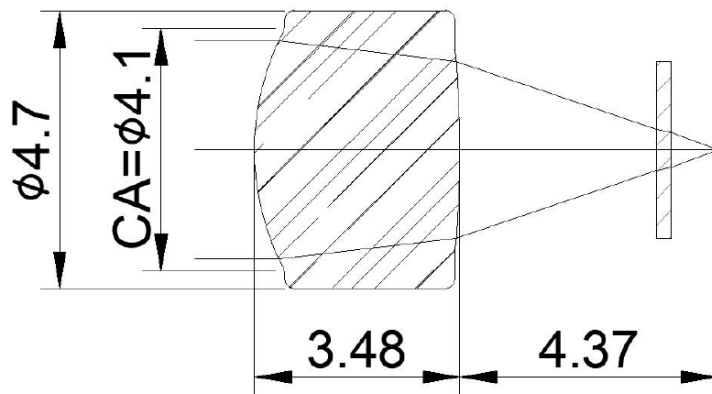
D4.7mm NA0.38 Collimating Lens

Key Parameters

Diameter=4.7mm

NA=0.38

EFL=6.16mm / BFL=4.37mm



Application

Laser Collimation / Laser Pointer / Laser Tag / Laser Sensing
Industrial Areas / Biochemical / Laser Measurement

Feature

- ◆ Aspherical Molding Glass Lens
 - For high temperature, low deformation, good reliability and abrasive resistance
- ◆ NA0.38 for divergent angle to 42 °
- ◆ General dimension size and big N.A. for bigger divergent angle collimation

Introduction

Aspherical lenses are lenses with surfaces which are not a portion of 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. We provide 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 requirements.





Specifications	
Material	N-BK7
Diameter(mm)	4.7 0/-0.02
Design Wavelength(nm)	780
Clear Aperture(mm)	3.4
EFL(mm)	6.16±1%
BFL(mm)	4.37±1%
N.A.	0.38
Center Thickness(mm)	3.48 ± 0.03
AR Coating(Optional) R<1%	400-700nm
	600-1050nm
AR Coating(Optional) R<3%	500-850nm
Decentering	< 3 mins
Wavefront Aberration	RMS <0.05 λ
Surface Quality	40/20

Technical drawing of a collimating lens showing dimensions: Diameter $\phi 4.7$, Clear Aperture $CA = \phi 4.1$, Center Thickness 3.48 , Back Focal Length 4.37 , Front Focal Length 2.88 , and a small gap of 0.08 . The lens has two curved surfaces labeled R1 and R2, and a clear aperture labeled $CA = \phi 3.4$.

Package

