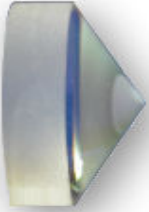
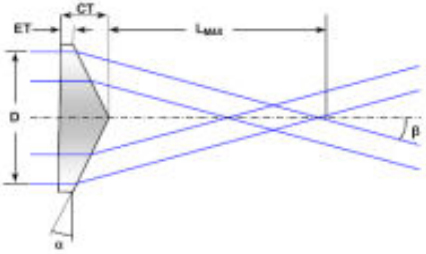


## axicons

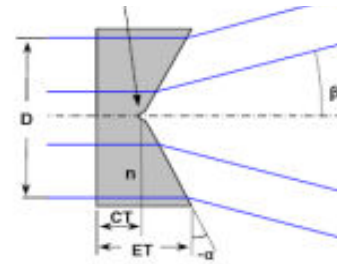
Axicons are optical components with at least one conical surface. It is possible to have different combinations of concave or convex conical surfaces on one side with plano or spherical surfaces on the other side, i.e., plano-convex, plano-concave, double convex, etc.

Optical axicons are optical components with a conical surface on one side and plan or spherical surface on the other side. They are made of optically transparent or filter materials with polished opposite sides, ground edges and chamfers. An axicon made up of conical and flat surface produces a line image along the axis from a point light source. On the other hand, an axicon made up of conical and spherical surfaces focus parallel beam into a ring on a given distance. The conical surface can be concave or convex depending of the axicon angle. Different coatings can be applied on the polished sides of axicons. The convex conical surface can be used as a mirror axicon.

Axicons are used to transform laser beams into infinite focus beams or to focus collimated beam into a ring. They later can be used for laser material processing.

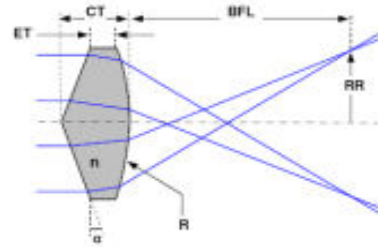
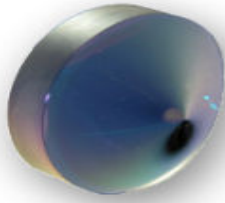
WEBCODE:		D148-xxx				
LENS DRAWING						
						
SPECIFICATIONS	SYMBOL	VALUE				
Lens Type		PLANO-CONVEX				
Material		FUSED SILICA BK7				
Operating Wavelength	$\lambda$	400 – 1600 nm				
Available base angle	$\alpha$	0.5°	1.0°	5°	10°	25°
Available diameter	$\Phi$	10.0 mm	25.4 mm	50.8 mm		
Diameter tolerance	$\Delta\Phi$	+ 0.0 / - 0.1 mm				
Central Thickness	CT	function of base angle and diameter				
Conic Irregularities		< 2.0 $\mu\text{m}$ P-V				
Flatness (plano side)		$\lambda / 4$				
AR coating	AR	2S-VIS : broad band 2 side AR coating @ 600 – 900 nm 2S-NIR : broad band 2 side AR coating @ 750 – 1100 nm				
Note		other custom base angle and AR coating are available upon request				

LENS DRAWING



SPECIFICATIONS	SYMBOL	VALUE
Lens Type		PLANO-CONCAVE
Material		FUSED SILICA BK7
Operating Wavelength	$\lambda$	400 – 1600 nm
Available base angle	$\alpha$	-0.5°   -1.0°   -5°   -10°   -25°
Available diameter	$\Phi$	10.0 mm   25.4 mm   50.8 mm
Diameter tolerance	$\Delta\Phi$	+ 0.0 / - 0.1 mm
Central Thickness	CT	function of base angle and diameter
Conic Irregularities		< 4.0 $\mu\text{m}$ P-V
Flatness (plano side)		$\lambda / 4$
AR coating	AR	2S-VIS : broad band 2 side AR coating @ 600 – 900 nm 2S-NIR : broad band 2 side AR coating @ 750 – 1100 nm
Note		other custom base angle and AR coating are available upon request

LENS DRAWING



SPECIFICATIONS	SYMBOL	VALUE
Lens Type		DOUBLE-CONVEX
Material		BK7
Operating Wavelength	$\lambda$	400 – 1600 nm
Available base angle	$\alpha$	0.5°    1.0°    5°    10°    25°
Available focal length	EFL	25 to 2000 mm
Available diameter	$\Phi$	10.0 mm    25.4 mm    50.8 mm
Diameter tolerance	$\Delta\Phi$	+ 0.0 / - 0.1 mm
Central Thickness	CT	function of base angle and diameter
Conic Irregularities		< 2.0 $\mu\text{m}$ P-V
Radius tolerance	$\Delta R$	+/- 3%
Radius irregularities		$\lambda / 4$
AR coating	AR	2S-VIS : broad band 2 side AR coating @ 600 – 900 nm 2S-NIR : broad band 2 side AR coating @ 750 – 1100 nm
Note		other custom diameter and custom AR coating are available upon request