

## UV FS Biconcave Lenses

Catalogue number UV FS	Diameter D, mm	Focal length F, mm	Centre thickness CT, mm	Edge thickness ET, mm
114-1104	12.7	-12.5	3.7	5.8
114-1108	12.7	-25.0	2.3	3.2
114-1110	12.7	-30.0	1.3	2.5
114-1114	12.7	-50.0	2.6	3.0
114-1118	12.7	-75.0	2.7	3.0
114-1122	12.7	-100.0	2.8	3.0
114-1204	25.4	-25.0	4.2	10.2
114-1208	25.4	-50.0	4.2	6.0
114-1212	25.4	-75.0	3.8	5.0
114-1216	25.4	-100.0	3.6	4.5
114-1220	25.4	-150.0	3.9	4.5
114-1224	25.4	-200.0	3.0	3.9

Please contact us for other size, focus or precision requirements.

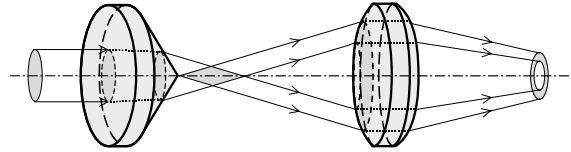
## CONICAL LENSES (AXICONS)

- Precision and standard grade axicons
- Can be made from most optical materials
- Can be supplied with AR and BBAR coatings

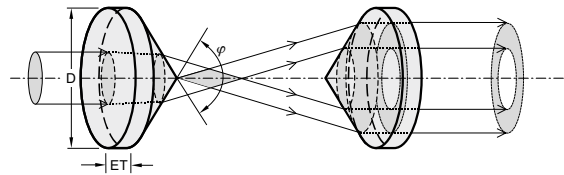
*We can supply custom cutting, edging, coating or complete fabrication if required.*

*If you cannot find your axicons needed, please send your specification or drawings for a custom quotation.*

An axicon with a spherical lens produces an annular focus.



Two axicons together produce a thick-walled hollow "pipe" of light.



## Precision Grade Plano-Convex Axicons

### SPECIFICATIONS

Material	UVFS
Surface quality	40-20 scratch & dig (MIL-PRF-13830B)
Clear aperture	90% of the diameter
Diameter tolerance	+0.00 -0.1 mm
Edge thickness	3.5 mm
Angle tolerance	±0.05° (±3 arcmin)
Surface irregularity	λ/4 @ 633 nm
Apex rounding	< Ø0.4 mm

Catalogue number	Diameter D, mm	Apex angle φ, deg
131-1240	25.4	140
131-1260	25.4	160
131-1265	25.4	165
131-1270	25.4	170
131-1275	25.4	175
131-1278	25.4	178
131-1279	25.4	179



Most of the Conical Lenses are available for fast off-the-shelf delivery. Check the availability at [www.eksmaoptics.com](http://www.eksmaoptics.com)



## HOUSING ACCESSORIES

Universal Adjustable Lens/Optics Mount  
830-0035

See page 8.47



## Standard Plano-Convex Axicons

### SPECIFICATIONS

Material	BK7, UV FS
Surface quality	60-40 scratch & dig (MIL-PRF-13830B)
Clear aperture	90% of the diameter
Diameter tolerance	+0.00 -0.12 mm
Angle tolerance	±0.5°
Surface irregularity	1 λ @ 633 nm

Catalogue number		Diameter D,	Apex angle
BK7	UV FS	mm	φ, deg
130-0240	130-1240	25.4	140
130-0260	130-1260	25.4	160
130-0265	130-1265	25.4	165
130-0270	130-1270	25.4	170
130-0275	130-1275	25.4	175
130-0278	130-1278	25.4	178
130-0360	130-1360	30.0	160
130-0365	130-1365	30.0	165
130-0370	130-1370	30.0	170

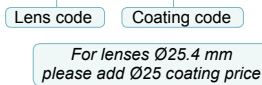
### Coated Lenses Ordering Information

Please choose relevant coating from anti-reflection coatings section (pages 1.5 - 1.6). The coating code and price should be added to the lens code and price.

#### Example:

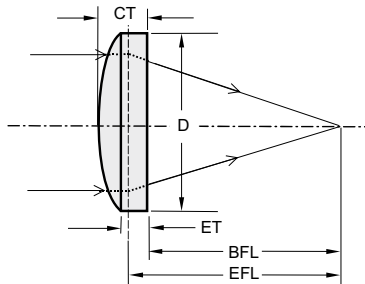
BK7 axicon Ø30 mm, apex 160°, coated AR/AR@400-700 nm, AOI=0°

Code: **130-0360 + 3217-i0**,



## PRECISION ASPHERICAL LENSES

Aspherical lenses are designed to reduce spherical aberration. Complex multi-lens systems designed for compensation of spherical aberration can often be replaced with a single aspheric lens. We can produce aspherical lenses of custom design using your drawings or specifications in our CNC lens polishing facility.



### SPECIFICATIONS

Standard material	N-BK7	[1.517]
[Refractive index]	S-LAH64	[1.788]
	UVFS	[1.453]
Design wavelength	780 nm	
Surface quality	40-20 scratch & dig (uncoated)	
Clear aperture	>90% of diameter	
Diameter tolerance	+0.0 -0.05 mm	
Bevel	0.3 mm max @ 45°	
Center thickness tolerance	≤0.05 mm	
EFL tolerance	≤0.1%	
Asphere figure error P-V	±1 μm	
Surface form deviation RMS	≤0.5 μm	

Substrate	Substrate	D, mm	EFL, mm	BFL, mm	CT, mm
116-1210	S-LAH64	12.5	10	7.6	4.3
115-1225	N-BK7	12.5	25	22.4	4.0
116-2520	S-LAH64	25.0	20	15.7	7.6
115-2550	N-BK7	25.0	50	46	6.0
117-2530	UVFS	25.4	30	24.5	8.0
117-2540	UVFS	25.4	40	35.9	6.0
117-2550	UVFS	25.4	50	46.6	5.0
117-2560	UVFS	25.4	60	56.6	5.0
116-5040	S-LAH64	50.0	40	31.3	15.5
115-5100	N-BK7	50.0	100	93.4	10.0