

DOUBLE CONVEX BK7 ACYLINDRIC LENS

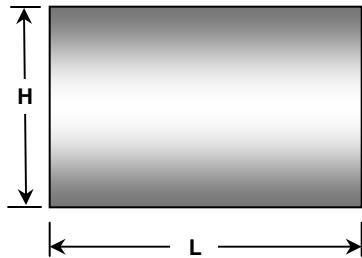
INFINITE CONJUGATES

SURFACE 1: PURE RADIUS

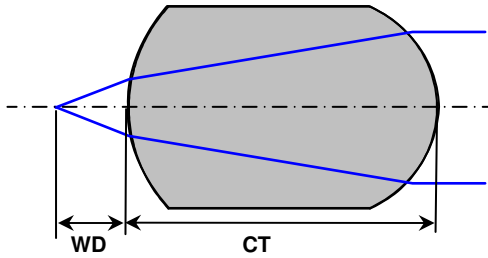
SURFACE 2: HIGH ORDER ACYLINDRIC

LENS DRAWING

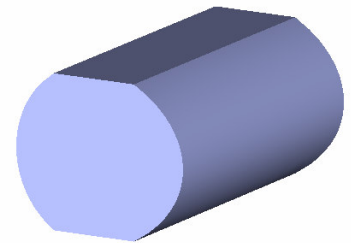
Front view



Side view



3D view



LENS DESIGN INFORMATION

Ordering Code ACL_DCX_RAC_INF_BK7_EFL_L_AR($\lambda_1 - \lambda_2$)	Paraxial data ¹		Dimensions ¹			Surfaces data ^{1,2,3}						
	EFL	WD	H	CT	L	1	2					
						R	R	CC	A ₆	A ₈	A ₁₀	
Material: BK7	Design Wavelength: $\lambda_0 =$ nm		Refractive index: $n(\lambda_0) =$			Numerical aperture: NA =						

- Units: mm
- The acylindric coefficients are given only as guidance for optical modeling. The actual surface is different, analytically designed higher order curve and gives better lenses.
- Surface 1 faces focal point

General acylinder equation:

$$surf(x) = \frac{Cx^2}{1 + \sqrt{1 - C^2(CC + 1)x^2}} + A_6x^6 + A_8x^8 + A_{10}x^{10} + \dots$$

Legend			
ACL : Acylindric lens	DCX : Double convex	FS : Fused Silica	EFL : Effective focal length
WD : Working distance	NA : Numerical aperture	H : Lens height	CT : Central thickness
L : Cylinder length	R : Radius of curvature	C = 1/R : Curvature	CC : Conic constant
Ai : General acylindric coefficients	AR($\lambda_1 - \lambda_2$) : Anti-reflection coating wavelength range		

