

# UV FUSED SILICA CYLINDRICAL PLANO CONCAVE LENSES

Cylindrical plano concave lenses produce linear images and are used for application which require to control a beam in one dimension only. Synthetic fused silica is well suited for UV applications and provides excellent thermal characteristics because of lower coefficient of thermal expansion than BK7.

The cylindrical lenses are more difficult to manufacture than spherical lenses. We polish these lenses carefully by selecting materials (striae, bubbles, inclusions, and homogeneity) and paying attention to dispersion (digs, scratches, and glosses).

Uncoated and coated with broadband multilayer AR coatings for visible are available.

## Standard Specifications:

Optical Material:	UV grade Fused Silica
Diameter Tolerance:	+0.0, -0.1mm
Design Wavelength:	546.10nm
Design Index:	1.46008±0.00005
Paraxial Focal Length:	±2%
Centration:	5 arc minutes
Clear Aperture:	>85%
Surface Quality:	60-40 scratch and dig
Surface Figure:	X: $\lambda/2$ , Y: $2\lambda$
Bevel:	<0.25mm X 45°
Coating:	available upon request

## Standard UV Fused Silica Cylindrical Plano-Concave Lenses

EFL(mm)	L(mm)	H(mm)	Radius(mm)	Tc(mm)	Te(mm)	Product Number
-8.0	11.0	7.2	-3.67	2.0	4.9	UQT-CLFN0301
-10.0	14.0	9.0	-4.59	2.0	5.6	UQT-CLFN0302
-12.7	15.0	10.0	-5.82	2.00	4.8	UQT-CLFN0303
-25.0	15.0	10.0	-11.46	2.00	3.1	UQT-CLFN0304
-25.0	23.0	15.0	-11.46	2.00	4.8	UQT-CLFN0305
-25.0	30.0	20.0	-11.46	2.00	7.8	UQT-CLFN0306
-25.4	33.0	23.0	-11.65	2.00	9.7	UQT-CLFN0307
-30.0	30.0	20.0	-13.75	2.00	6.3	UQT-CLFN0308
-75.0	30.0	20.0	-34.39	2.00	3.5	UQT-CLFN0309
-100.0	45.0	30.0	-45.85	3.00	5.5	UQT-CLFN0310
-500.0	45.0	30.0	-229.23	3.00	3.5	UQT-CLFN0311

Please Contact [ultiQuest](#) for other dimensions in prototype and production quantities.

### NOTES!

- ➔ Focal lengths of these lenses change as the shifts of refractive indexes of the material according to wavelength. (In the short wavelength range, the refractive index is higher and the focal length is shorter. In the long wavelength range, the

refractive index is lower and the focal length is longer.)

- ➔ The edge thicknesses are theoretical values not including chamfer.
- ➔ Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.