



## Lenses

	Materials	Illustration	Property and Application
<b>Plano-convex</b>	BK7 UVFS CaF <sub>2</sub>		Positive focus length. Most suitable where one conjugate is more than five times the other, e.g. in sensor application or for use with near collimated light.
<b>Double-convex</b>	BK7 UVFS CaF <sub>2</sub>		Most suitable where the conjugates are on opposite sides of the lenses and the ratio of the distances is less than 5:1, e.g. as simple image relay components.
<b>Plano-concave</b>	BK7 UVFS CaF <sub>2</sub>		Negative lens with the form most suitable where one conjugates is more than five times the other, e.g. producing divergent light from a collimated input beam.
<b>Double-concave</b>	BK7 UVFS CaF <sub>2</sub>		Negative lens with the form most suited to producing diverging light or a virtual image, where the input light is converging.
<b>Positive Meniscus</b>	BK7		These lenses may be used to increase the numerical aperture of a positive lens assembly, without an undue increase in the aberrations.
<b>Negative Meniscus</b>	BK7		The best lens form where one conjugates is relatively far from the lens or where both conjugates are the same size of the lens.
<b>Cylindrical</b>	BK7 UVFS		Used to provide focusing power in one section only. For illumination or detection of light from line sources. Also used to anamorphic compression of beams and images.

## Lenses's Specification for (Cylindrical Lenses)

Material:	BK7, Fused Silica, CaF <sub>2</sub>
Flatness:	$\lambda/4$ @632.8nm (x: $\lambda/2$ ; y: $2\lambda$ for Cylindrical lenses)
Diameter Tolerance:	+0.0, -0.15mm
Paraxial Focal Length:	$\pm 2\%$



Center tolerance:	3 arc minutes
Clear Aperture:	>80%
Surface Quality:	60-40 scratch and dig
Bevel:	0.25 mm x 45°