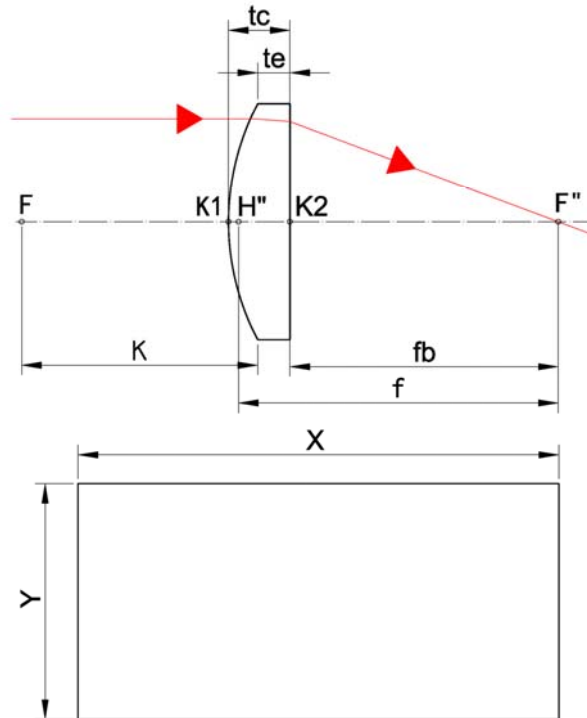


BK7 Plano-Convex Cylindrical Lens



Plano-convex cylindrical lenses are ideal for applications requiring magnification in one dimension. While spherical lenses act symmetrically in two dimensions on an incident ray, cylindrical lenses act in the same manner but only in one dimension. A typical application is to use a pair of cylindrical lenses to provide anamorphic shaping of a beam. A pair of positive cylindrical lenses can be used to collimate and circularize the output of a laser diode. Another application possibility would be to use a single lens to focus a diverging beam onto a detector array. To minimize the introduction of spherical aberrations, collimated light should be incident on the curved surface when focusing it to a line, and light from a line source should be incident on the plano surface when collimating.

Specification:

Material.....BK7,UVFS
 Dimension Tolerance..... $\pm 0.1\text{mm}$
 Thickness Tolerance..... $\pm 0.2\text{mm}$
 Design Wavelength.....587.6nm
 Centration..... < 3 arc min.
 Clear Aperture..... $> 90\%$
 Surface Quality.....60-40
 Paraxial Focal Length..... $f \pm 2\%$
 Coating.....No Coating

P/N	f	X	Y	t_c	t_e	K_2H''	f_b	K	Material
40101	4	12.5	3.2	1.8	1	41.2	2.8	4.8	BK7
40102	8	12.5	7	3.8	1.9	42.5	5.5	9.9	BK7
40103	10	12.5	9	3.8	1.2	42.5	7.5	12.6	BK7
40104	6.35	25	6	2.95	1	42	4.4	8.3	BK7
40105	12.7	25	11	4	1	42.6	10.1	15.7	BK7

P/N	f	X	Y	t _c	t _e	K ₂ H''	f _b	K	Material
40106	19	25	16	5.1	1	43.4	15.6	23.1	BK7
40107	22.2	20	12.5	5.75	3.9	43.8	18.4	24.1	BK7
40108	25.4	60	22	7	1	44.6	20.8	31.4	BK7
40109	38.1	60	26	6.9	2	44.6	33.5	43	BK7
40110	40	60	15	5.75	4.3	43.8	36.2	41.4	BK7
40111	50	60	26	5.5	2	43.6	46.4	53.5	BK7
40112	60	60	20	5.75	4.1	43.8	56.2	61.7	BK7
40113	76.2	60	26	4.2	2	42.8	73.4	78.4	BK7
40114	80	60	30	5.75	2.9	43.8	76.2	82.8	BK7
40115	100	60	50	8.89	2.4	45.9	94.1	106.4	BK7
40116	150	60	50	5.75	1.6	43.8	146.2	154.1	BK7
40117	200	60	50	6.35	3.3	44.2	195.8	203.1	BK7
40118	250	60	50	5.4	3	43.6	252.4	252.4	BK7
40119	300	60	50	6	4	44	296	302	BK7
40120	4	12.5	3.2	1.8	0.9	41.2	2.8	4.9	UVFS
40121	8	12.5	6.5	3.8	1.9	42.6	5.4	10	UVFS
40122	10	12.5	8	3.8	1.5	42.6	7.4	12.3	UVFS
40123	12.7	25	10	3.84	1	42.63	10	15.5	UVFS
40124	19	25	15	5.28	1	43.62	15.4	23.3	UVFS
40125	25	60	15	4.79	2	43.29	21.7	27.8	UVFS
40126	40	60	26	7.4	2	45.08	34.9	45.4	UVFS
40127	50	60	26	6.04	2	44.14	45.9	54	UVFS
40128	76.2	60	26	4.51	2	43.09	73.1	78.7	UVFS
40129	100	60	26	3.88	2	42.66	97.3	101.9	UVFS
40130	200	60	26	3.93	3	42.69	197.3	200	UVFS
40131	300	60	26	3.62	3	42.48	297.5	300.6	UVFS

- Dimension unit:mm
- Other sizes and coatings are available upon request.