

## Spherical Lenses

Cylindrical Lenses

Lens Kits

Achromatic Doublets

Multi-Element

Micro Optics

Mirrors

Prisms

Substrates &amp; Windows

Beamsplitters

Polarizers

Filter &amp; Apertures

**BK-7 Plano Concave Lenses**

- Simple general use negative lenses
- Focal lengths from -15 to -200mm
- Diameters from 10.0 to 50.8mm
- Optional Anti-Reflection coatings available
- For additional sizes see Micro Optics

These simple negative lenses have many uses. Alone they form a virtual image of a distant object or collimated light source. Used in combination with other optics they reduce the power of the system. Sharp edges which are common in negative lenses are removed by beveling in order to reduce the likelihood of chipping. BK7 lenses are offered uncoated or with our A55 broadband visible (425-675nm) Anti-Reflection coating. In addition, a wide range of standard Anti-Reflection coatings for other wavelengths are available upon request.

**Specifications & Tolerances**Focal length:  $\pm 1\%$ Thickness:  $\pm 0.15\text{mm}$ 

Material: BK7 grade A

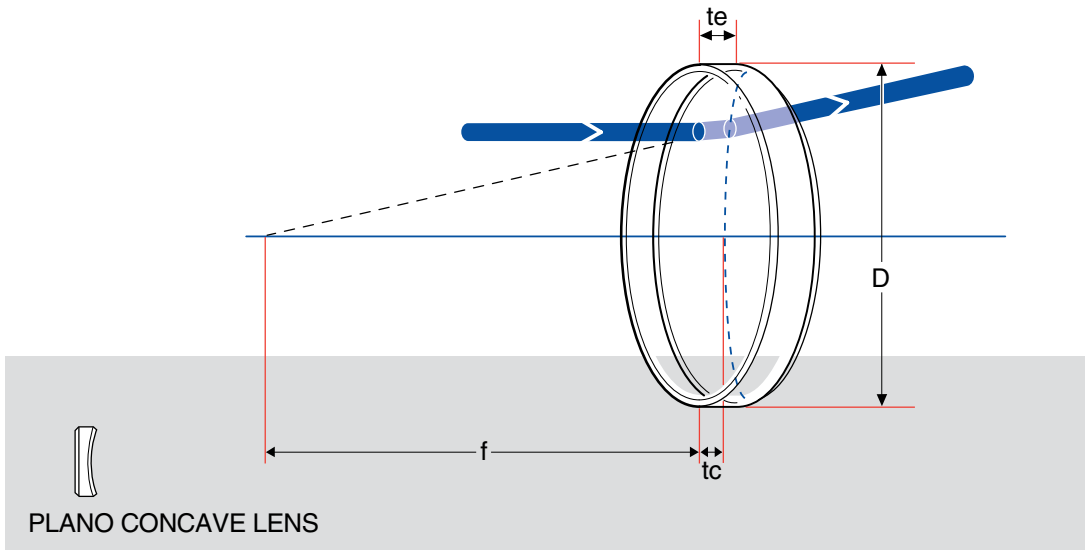
Clear aperture:  $>90\%$ 

Design wavelength: 546.1nm

Diameter:  $+0, -0.1\text{mm}$ Centration:  $\leq 1\text{arcmin}$ 

Surface quality: 20-10

Coating: Optional broadband Anti-Reflection 425-675nm



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## BK-7 Plano Concave Lenses

UNCOATED

AR COATED  
425-675nm

D (mm)	f (mm)	te (mm)	tc (mm)	fb (mm)	r (mm)	Centration (arcmin)	Price	PRODUCT NUMBER	Price	PRODUCT NUMBER
10.0	-15.0	3.8	2.0	-16.3	7.79	≤ 1		015-0040		015-0040-A55
10.0	-20.0	3.3	2.0	-21.3	10.38	≤ 1		015-0050		015-0050-A55
10.0	-25.0	3.0	2.0	-26.3	12.98	≤ 1		015-0060		015-0060-A55
10.0	-30.0	2.8	2.0	-31.3	15.57	≤ 1		015-0061		015-0061-A55
10.0	-40.0	2.6	2.0	-41.3	20.76	≤ 1		015-0062		015-0062-A55
10.0	-50.0	2.5	2.0	-51.3	25.95	≤ 1		015-0063		015-0063-A55
10.0	-60.0	2.4	2.0	-61.3	31.14	≤ 1		015-0041		015-0041-A55
10.0	-70.0	2.3	2.0	-71.3	36.33	≤ 1		015-0042		015-0042-A55
10.0	-80.0	2.3	2.0	-81.3	41.52	≤ 1		015-0043		015-0043-A55
10.0	-90.0	2.3	2.0	-91.3	46.71	≤ 1		015-0044		015-0044-A55
10.0	-100.0	2.2	2.0	-101.3	51.90	≤ 1		015-0045		015-0045-A55
12.7	-15.0	5.3	2.0	-16.3	7.79	≤ 1		015-0065		015-0065-A55
12.7	-20.0	4.2	2.0	-21.3	10.38	≤ 1		015-0066		015-0066-A55
12.7	-25.0	3.7	2.0	-26.3	12.98	≤ 1		015-0067		015-0067-A55
12.7	-30.0	3.4	2.0	-31.3	15.57	≤ 1		015-0068		015-0068-A55
15.0	-20.0	5.2	2.0	-21.3	10.38	≤ 1		015-0070		015-0070-A55
15.0	-25.0	4.4	2.0	-26.3	12.98	≤ 1		015-0080		015-0080-A55
15.0	-30.0	3.9	2.0	-31.3	15.57	≤ 1		015-0090		015-0090-A55
15.0	-40.0	3.4	2.0	-41.3	20.76	≤ 1		015-0095		015-0095-A55
15.0	-50.0	3.1	2.0	-51.3	25.95	≤ 1		015-0105		015-0105-A55
15.0	-60.0	2.9	2.0	-61.3	31.14	≤ 1		015-0106		015-0106-A55
15.0	-70.0	2.8	2.0	-71.3	36.33	≤ 1		015-0107		015-0107-A55
15.0	-80.0	2.7	2.0	-81.3	41.52	≤ 1		015-0104		015-0104-A55
15.0	-90.0	2.6	2.0	-91.3	46.71	≤ 1		015-0108		015-0108-A55
15.0	-100.0	2.5	2.0	-101.3	51.90	≤ 1		015-0109		015-0109-A55
20.0	-25.0	6.7	2.0	-26.3	12.98	≤ 1		015-0110		015-0110-A55
20.0	-30.0	5.6	2.0	-31.3	15.57	≤ 1		015-0120		015-0120-A55
20.0	-40.0	4.6	2.0	-41.3	20.76	≤ 1		015-0130		015-0130-A55
20.0	-50.0	4.0	2.0	-51.3	25.95	≤ 1		015-0140		015-0140-A55
20.0	-60.0	3.6	2.0	-61.3	31.14	≤ 1		015-0142		015-0142-A55
20.0	-70.0	3.4	2.0	-71.3	36.33	≤ 1		015-0144		015-0144-A55
20.0	-80.0	3.2	2.0	-81.3	41.52	≤ 1		015-0146		015-0146-A55
20.0	-90.0	3.1	2.0	-91.3	46.71	≤ 1		015-0147		015-0147-A55
20.0	-100.0	3.0	2.0	-101.3	51.90	≤ 1		015-0148		015-0148-A55
20.0	-120.0	2.8	2.0	-121.3	62.28	≤ 1		015-0149		015-0149-A55
20.0	-150.0	2.6	2.0	-151.3	77.85	≤ 1		015-0150		015-0150-A55
25.0	-30.0	8.3	2.0	-31.3	15.57	≤ 1		015-0160		015-0160-A55
25.0	-35.0	7.0	2.0	-36.3	18.17	≤ 1		015-0161		015-0161-A55
25.0	-40.0	6.2	2.0	-41.3	20.76	≤ 1		015-0165		015-0165-A55
25.0	-50.0	5.2	2.0	-51.3	25.95	≤ 1		015-0170		015-0170-A55
25.0	-60.0	4.6	2.0	-61.3	31.14	≤ 1		015-0175		015-0175-A55
25.0	-70.0	4.2	2.0	-71.3	36.33	≤ 1		015-0180		015-0180-A55
25.0	-80.0	3.9	2.0	-81.3	41.52	≤ 1		015-0190		015-0190-A55
25.0	-90.0	3.7	2.0	-91.3	46.71	≤ 1		015-0205		015-0205-A55
25.0	-100.0	3.5	2.0	-101.3	51.90	≤ 1		015-0220		015-0220-A55
25.0	-120.0	3.3	2.0	-121.3	62.28	≤ 1		015-0225		015-0225-A55
25.0	-150.0	3.0	2.0	-151.3	77.85	≤ 1		015-0230		015-0230-A55
25.0	-170.0	3.0	2.0	-171.3	88.23	≤ 1		015-0235		015-0235-A55
25.0	-200.0	2.8	2.0	-201.3	103.80	≤ 1		015-0240		015-0240-A55
25.4	-30.0	8.6	2.0	-31.3	15.57	≤ 1		015-0270		015-0270-A55
25.4	-40.0	6.3	2.0	-41.3	20.76	≤ 1		015-0275		015-0275-A55
25.4	-50.0	5.3	2.0	-51.3	25.95	≤ 1		015-0280		015-0280-A55
25.4	-60.0	4.7	2.0	-61.3	31.14	≤ 1		015-0282		015-0282-A55
25.4	-70.0	4.3	2.0	-71.3	36.33	≤ 1		015-0285		015-0285-A55
25.4	-80.0	4.0	2.0	-81.3	41.52	≤ 1		015-0290		015-0290-A55

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25.4	-90.0	3.8	2.0	-91.3	46.71	≤ 1		015-0295		015-0295-A55
25.4	-100.0	3.6	2.0	-101.3	51.90	≤ 1		015-0330		015-0330-A55
25.4	-150.0	3.0	2.0	-151.3	77.85	≤ 1		015-0340		015-0340-A55
25.4	-200.0	2.8	2.0	-201.3	103.80	≤ 1		015-0350		015-0350-A55
30.0	-35.0	9.9	2.0	-36.3	18.17	≤ 1		015-0375		015-0375-A55
30.0	-40.0	8.4	2.0	-41.3	20.76	≤ 1		015-0380		015-0380-A55
30.0	-50.0	6.8	2.0	-51.3	25.95	≤ 1		015-0390		015-0390-A55
30.0	-60.0	5.9	2.0	-61.3	31.14	≤ 1		015-0410		015-0410-A55
30.0	-70.0	5.2	2.0	-71.3	36.33	≤ 1		015-0420		015-0420-A55
30.0	-80.0	4.8	2.0	-81.3	41.52	≤ 1		015-0440		015-0440-A55
30.0	-90.0	4.5	2.0	-91.3	46.71	≤ 1		015-0445		015-0445-A55
30.0	-100.0	4.2	2.0	-101.3	51.90	≤ 1		015-0450		015-0450-A55
30.0	-120.0	3.8	2.0	-121.3	62.28	≤ 1		015-0460		015-0460-A55
30.0	-150.0	3.5	2.0	-151.3	77.85	≤ 1		015-0470		015-0470-A55
30.0	-170.0	3.3	2.0	-171.3	88.23	≤ 1		015-0475		015-0475-A55
30.0	-200.0	3.1	2.0	-201.3	103.80	≤ 1		015-0480		015-0480-A55
30.0	-220.0	3.0	2.0	-221.3	114.18	≤ 1		015-0482		015-0482-A55
30.0	-250.0	2.9	2.0	-251.3	129.75	≤ 1		015-0485		015-0485-A55
40.0	-50.0	11.4	2.0	-51.3	25.95	≤ 1		015-0490		015-0490-A55
40.0	-60.0	9.3	2.0	-61.3	31.14	≤ 1		015-0495		015-0495-A55
40.0	-70.0	8.0	2.0	-71.3	36.33	≤ 1		015-0505		015-0505-A55
40.0	-80.0	7.1	2.0	-81.3	41.52	≤ 1		015-0510		015-0510-A55
40.0	-100.0	6.0	2.0	-101.3	51.90	≤ 1		015-0515		015-0515-A55
50.0	-70.0	13.0	3.0	-72.0	36.33	≤ 1		015-0540		015-0540-A55
50.0	-80.0	11.4	3.0	-82.0	41.52	≤ 1		015-0550		015-0550-A55
50.0	-100.0	9.4	3.0	-102.0	51.90	≤ 1		015-0560		015-0560-A55
50.0	-120.0	8.2	3.0	-122.0	62.28	≤ 1		015-0565		015-0565-A55
50.0	-150.0	7.1	3.0	-152.0	77.85	≤ 1		015-0570		015-0570-A55
50.0	-170.0	6.6	3.0	-172.0	88.23	≤ 1		015-0575		015-0575-A55
50.0	-200.0	6.1	3.0	-202.0	103.80	≤ 1		015-0580		015-0580-A55
50.0	-220.0	5.8	3.0	-222.0	114.18	≤ 1		015-0582		015-0582-A55
50.0	-250.0	5.4	3.0	-252.0	129.75	≤ 1		015-0585		015-0585-A55
50.0	-300.0	5.0	3.0	-302.0	155.70	≤ 1		015-0590		015-0590-A55
50.8	-70.0	13.4	3.0	-72.0	36.33	≤ 1		015-0610		015-0610-A55
50.8	-80.0	11.7	3.0	-82.0	41.52	≤ 1		015-0620		015-0620-A55
50.8	-90.0	10.5	3.0	-92.0	46.71	≤ 1		015-0625		015-0625-A55
50.8	-100.0	9.6	3.0	-102.0	51.90	≤ 1		015-0630		015-0630-A55
50.8	-150.0	7.3	3.0	-152.0	77.85	≤ 1		015-0640		015-0640-A55
50.8	-200.0	6.2	3.0	-202.0	103.80	≤ 1		015-0650		015-0650-A55
50.8	-250.0	5.5	3.0	-252.0	129.75	≤ 1		015-0660		015-0660-A55
50.8	-300.0	5.1	3.0	-302.0	155.70	≤ 1		015-0670		015-0670-A55

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For other Anti-Reflection coatings append appropriate suffix (see pages 18 and 19).  
For smaller lenses see the Microlenses section. For other designs please call.