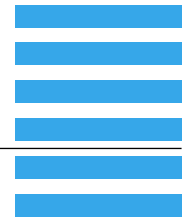


# Plano Concave Lenses



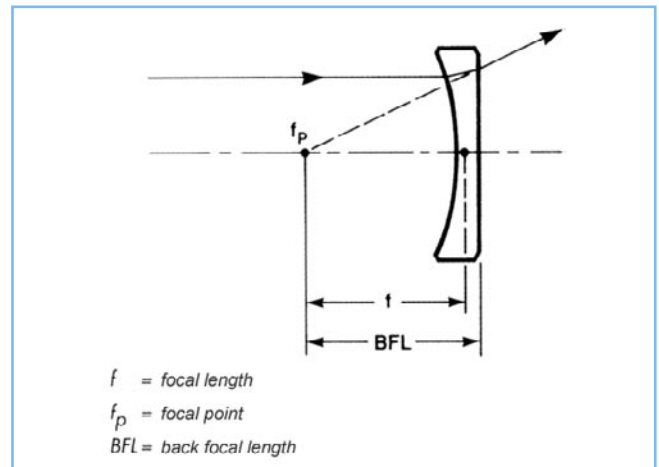
Plano concave lenses have negative focal lengths with twice the radius of curvature. They produce virtual images, which can be seen through the lens. They diverge a collimated beam and vice versa.

As with plano convex lenses spherical aberration is lowest, when the concave surface faces a collimated beam.

## Focal length at other wavelengths

The focal length changes as a function of wavelength (dispersion). To find the focal length at other wavelengths as listed below, multiply the focal length at 589 nm (listed in the ordering info) by the factor in the following table.

Wavelength (nm)	Factor	
	Quartz	Glass
190	0,81	-
250	0,90	-
488	0,99	0,989
633	1,003	1,003
850	1,013	1,014
1050	1,02	1,02
2000	1,046	1,05



Specifications		
Tolerance	diameter:	+0 mm; -0,25 mm
	focal length:	±2%
	back focal length:	±2%
Usable Aperture	95% of diameter	
Substrate	BK 7, Suprasil® 2	
Index of Refraction	BK 7:	1,5167 @ 589 nm
	Suprasil®:	1,4584 @ 589 nm
Surface Accuracy Error	1 – 2 $\lambda$	
Centration	within 1 – 2 min	

## Ordering Information

$\varnothing$ (mm)	f		Quartz		Glass	
	nominal @ 589 nm	F-Number	BFL nominal @ 589 nm	Order No.	BFL nominal @ 589 nm	Order No.
12,7	-25,1	-2	-26,5	3-42301	-26,3	3-42201
	-50,2	-4	-51,5	3-42302	-51,3	3-42202
	-75,3	-6	-76,6	3-42305	-76,4	3-42205
	-100,3	-8	-101,7	3-42308	-101,5	3-42208
25,4	-50,2	-2	-51,5	3-42300	-51,3	3-42200
	-75,3	-3	-76,6	3-42310	-76,4	3-42210
	-100,3	-4	-101,7	3-42320	-101,4	3-42220
	-150,5	-6	-151,9	3-42325	-151,4	3-42225
38,1	-75,3	-2	-76,6	3-42330	-76,3	3-42230
	-115,4	-3	-116,8	3-42332	-116,4	3-42232
	-150,5	-4	-151,9	3-42335	-151,4	3-42235
	-225,8	-6	-227,1	3-42338	-226,4	3-42238
50,8	-100,3	-2	-101,7	3-42350	-101,4	3-42250
	-150,5	-3	-151,7	3-42360	-151,3	3-42260
	-200,7	-4	-202,0	3-42365	-201,4	3-42265
	-250,8	-5	-252,2	3-42370	-251,4	3-42270