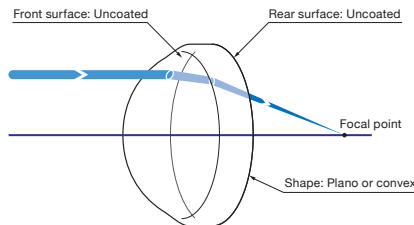


Aspheric condenser lens is a single lens for collection and condensing, which the radius of curvature of one side is changed according to the height from the optical axis to minimize spherical aberration. The other side is plano or convex.

- These lenses can condense light at a short focal length superior to what can be achieved with spherical lenses.
- Since these lenses are molded polished from B270-Superwhite, complex shapes that cannot be polished can be easily manufactured.
- These lenses are designed for the use at infinite conjugate ratios and focal lengths are designed at 587.6nm (yellow helium line [d]).

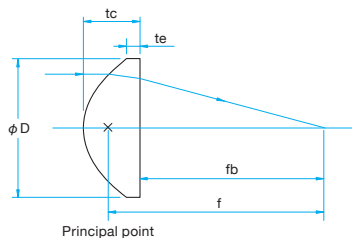


Schematic



Outline Drawing

(in mm)



- Tolerance Diameter $\phi D \pm 0.5$
- Thickness $t_c \pm 0.5$
- Focal length $\pm 7\%$

Specifications

Material	B270 [®] ($n_d=1.523$)
Shape	Front surface: Aspherical Rear surface: Plano or Convex
Coating	Uncoated
Maximum operating temperature	170°C
Surface Quality (Scratch-Dig)	80-50

Guide

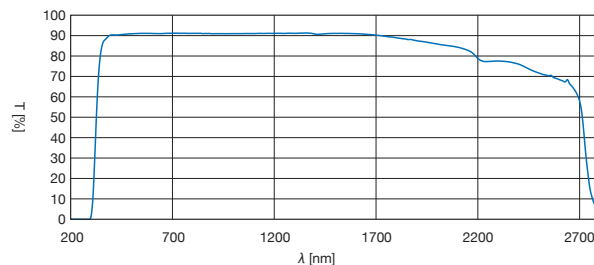
- ▶ Please contact our Sales Division for Aspheric Condenser Lenses with anti-reflection coating.
- ▶ B270[®] is a registered trademark of SCHOTT AG Inc.

Attention

- ▶ When the parallel light is incident from the rear (side of plane or large spherical curvature), spherical aberration will not condense into a large point.
- ▶ Aspheric condenser lens is used as an illumination light source. It is not aberration-free for laser focusing.
- ▶ Transmission losses due to reflection off the front and rear surfaces of the lens can be minimized by coating the surfaces. Consult our Sales Division for anti-reflection coatings suitable for your application.

Typical Transmittance Data

T: Transmission



Specifications

Part Number	Diameter ϕD [mm]	Focal length ^{*2} f [mm]	Back focal length ^{*2} fb [mm]	NA ^{*1} ($D/2 \times 0.8/f$)	Thickness of the edge te [mm]	Thickness of the center ^{*2} tc [mm]	Rear surface
AGL-12-8.5P	$\phi 12$	8.5	5.8	0.56	1.6	5.5	Convex
AGL-12-10.5P	$\phi 12$	10.5	8.2	0.46	1.1	3.5	Plano
AGL-18-12P	$\phi 18$	12	6.9	0.60	3.3	8.8	Convex
AGL-18-15.5P	$\phi 18$	15.5	10.8	0.46	3.0	7.0	Plano
AGL-19-17P	$\phi 19$	17	12.4	0.45	1.8	7.0	Plano
AGL-24-18P	$\phi 24$	18	11.4	0.53	2.0	10.0	Plano
AGL-25-20P	$\phi 25$	20	15.1	0.50	1.2	7.5	Plano
AGL-30-23.5P	$\phi 30$	23.5	14.3	0.51	3.8	14.0	Plano
AGL-30-26.5P	$\phi 30$	26.5	19.3	0.45	3.0	11.0	Plano
AGL-32.5-23.5P	$\phi 32.5$	23.5	15.1	0.55	2.5	14.0	Convex
AGL-38-34.5P	$\phi 38$	34.5	26.6	0.44	1.5	12.0	Plano
AGL-50-39P	$\phi 50$	39	25.5	0.51	2.8	20.5	Plano
AGL-50-50P	$\phi 50$	50	40.6	0.40	2.5	14.4	Convex

*1 NA is calculated using 80% of the outer diameter of the lens.

*2 Since this is a molding lens, therefore, it typically only can be used for illumination purpose.

Compatible Optic Mounts

LHF-20S, -25S, -30S, -50S / LHA-25, 60 / SLH-25, -50 / MLH-15