

High Precision Polished Aspheric Lenses

AGL-E/AGL-G

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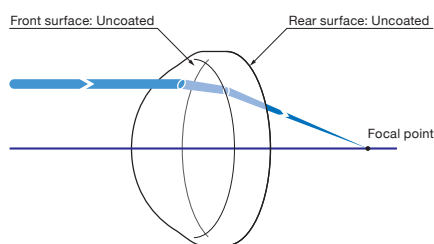
These precision polished aspheric lenses can condense the collimated light into the range of diffraction limited.

These lenses are ideally suited for collimating the LD emitted light or focusing the collimated light into the optical fiber.

- High numerical apertures for effective light condensing.
- Surface irregularity of convex surface is less than $0.1\mu\text{m}$ for AGL-EA/AGL-GA series and less than $0.5\mu\text{m}$ for AGL-EB/AGL-GB series.

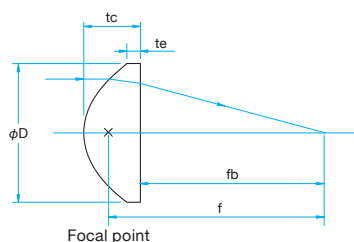


Schematic



Outline Drawing

(in mm)



- Tolerance
- Diameter $\phi D_{\pm 0.1}$
- Thickness $t_{c \pm 0.1}$
- Focal length $\pm 1\%$

Specifications

Material	S-LAH64
Refractive Index	1.792 (546.1nm), 1.777 (780nm)
Abbe number ν_d	47.37
Rear surface form	Plano
Centration	$< 3'$
Coating	Uncoated
Clear aperture	90% of diameter
Surface Quality (Scratch-Dig)	60-40

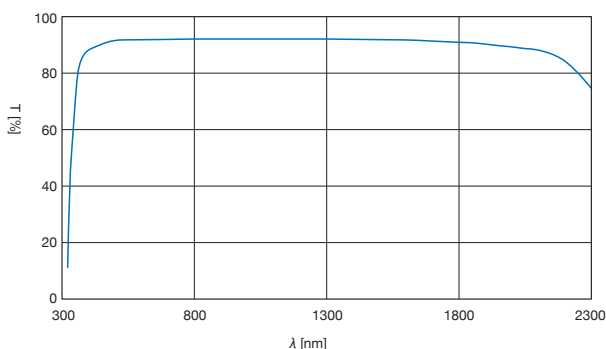
Guide

- High precision polished aspheric lens with anti-reflection coating on are available upon request.
- To mount the high precision polished aspheric lenses, fixed lens holders (LHF-S, LHA) are available.
- [WEB Reference](#) [Catalog Code](#) W4015, [WEB Reference](#) [Catalog Code](#) W4020
- Contact our Sales Division with your request for custom focal length, diameter and NA not listed on our website or in the catalog.

Attention

- There is a direction to put a light in the High precision polished aspheric lens. Please make sure to put the incident parallel light from the convex side.
- If it reversed, the spherical aberration is deteriorated and the focused spot becomes large.
- If the light other than the design wavelength is focused, the focal spot may not reach a diffraction limit due to a residual aberration.
- Since a high precision polished aspheric lens is not chromatically corrected, the focal length (back focal length) will change depending on the wavelength.
- Since there is no anti-reflection coating on the lens, by the reflection loss of the front surface and the back surface, the transmittance is 90% or less.

Typical Transmittance Data T: Transmission



Specifications								
Part Number	Designwav- length [nm]	Diameter φD [mm]	Focal length f [mm]	Back focal length fb [mm]	NA	Edge thickness te [mm]	Center thickness tc [mm]	Surface irregularity of convex surface [μm]
AGL-10-EA-08P	546.1	φ10	8	5.91	0.54	1.82	3.9	< 0.1
AGL-10-EA-10P	546.1	φ10	10	7.77	0.44	2.37	4.0	< 0.1
AGL-15-EA-12P	546.1	φ15	12	8.93	0.54	2.38	5.5	< 0.1
AGL-20-EA-15P	546.1	φ20	15	11.10	0.55	2.54	7.0	< 0.1
AGL-20-EA-18P	546.1	φ20	18	13.93	0.51	3.65	7.3	< 0.1
AGL-25-EA-20P	546.1	φ25	20	15.64	0.57	2.68	7.85	< 0.1
AGL-25-EA-24P	546.1	φ25	24	19.63	0.49	3.60	7.85	< 0.1
AGL-30-EA-24P	546.1	φ30	24	18.99	0.56	2.80	9.0	< 0.1
AGL-40-EA-30P	546.1	φ40	30	22.47	0.60	4.59	13.5	< 0.1
AGL-50-EA-38P	546.1	φ50	38	28.51	0.60	6.03	17.0	< 0.1
AGL-10-EB-08P	546.1	φ10	8	5.91	0.54	1.82	3.9	< 0.5
AGL-10-EB-10P	546.1	φ10	10	7.77	0.44	2.37	4.0	< 0.5
AGL-15-EB-12P	546.1	φ15	12	8.93	0.54	2.38	5.5	< 0.5
AGL-20-EB-15P	546.1	φ20	15	11.10	0.55	2.54	7.0	< 0.5
AGL-20-EB-18P	546.1	φ20	18	13.93	0.51	3.65	7.3	< 0.5
AGL-25-EB-20P	546.1	φ25	20	15.64	0.57	2.68	7.85	< 0.5
AGL-25-EB-24P	546.1	φ25	24	19.63	0.49	3.60	7.85	< 0.5
AGL-30-EB-24P	546.1	φ30	24	18.99	0.56	2.80	9.0	< 0.5
AGL-40-EB-30P	546.1	φ40	30	22.47	0.60	4.59	13.5	< 0.5
AGL-50-EB-38P	546.1	φ50	38	28.51	0.60	6.03	17.0	< 0.5
AGL-10-GA-08P	780	φ10	8	5.89	0.54	1.76	3.9	< 0.1
AGL-10-GA-10P	780	φ10	10	7.75	0.44	2.33	4.0	< 0.1
AGL-15-GA-12P	780	φ15	12	8.91	0.54	2.31	5.5	< 0.1
AGL-20-GA-15P	780	φ20	15	11.07	0.61	2.43	7.0	< 0.1
AGL-20-GA-18P	780	φ20	18	13.89	0.51	3.57	7.3	< 0.1
AGL-25-GA-20P	780	φ25	20	15.59	0.58	2.54	7.85	< 0.1
AGL-25-GA-24P	780	φ25	24	19.58	0.49	3.51	7.85	< 0.1
AGL-30-GA-24P	780	φ30	24	18.94	0.56	2.65	9.0	< 0.1
AGL-40-GA-30P	780	φ40	30	22.40	0.61	4.38	13.5	< 0.1
AGL-50-GA-38P	780	φ50	38	28.43	0.61	5.76	17.0	< 0.1
AGL-10-GB-08P	780	φ10	8	5.89	0.54	1.76	3.9	< 0.5
AGL-10-GB-10P	780	φ10	10	7.75	0.44	2.30	4.0	< 0.5
AGL-15-GB-12P	780	φ15	12	8.91	0.54	2.31	5.5	< 0.5
AGL-20-GB-15P	780	φ20	15	11.07	0.61	2.43	7.0	< 0.5
AGL-20-GB-18P	780	φ20	18	13.89	0.51	3.57	7.3	< 0.5
AGL-25-GB-20P	780	φ25	20	15.59	0.58	2.57	7.85	< 0.5
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AGL-40-GB-30P	780	φ40	30	22.40	0.61	4.38	13.5	< 0.5
AGL-50-GB-38P	780	φ50	38	28.43	0.61	5.76	17.0	< 0.5

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