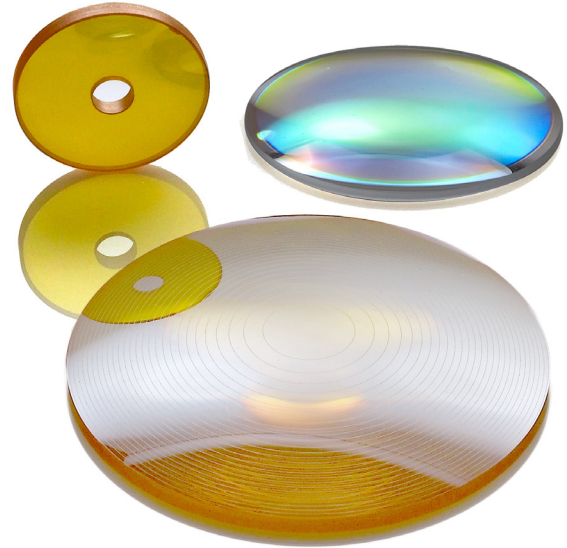




High Performance Visible and Infrared Aspheric Lenses

These CaF₂, ZnSe and ZnS aspheric lenses are intended for demanding applications that require broadband or multispectral operation from the visible through the infrared, such as military rangefinding and target designation. They offer a unique combination of benefits including high surface accuracy to achieve small focused spot sizes and low surface roughness for minimal scatter and loss. They also feature sophisticated, multi-layer thin film coatings that deliver multispectral performance, high laser damage threshold, and are produced with a densified structure to yield exceptional environmental stability. And because these advantages can be maintained even with unusually thin lens profiles, these aspheres can deliver important weight advantages for man portable, field and airborne applications.



These optics are produced utilizing single point diamond turning technology which enables highly accurate reproduction of virtually any rotationally symmetric aspheric shape. In addition, REO can also employ diamond turning to create a surface diffractive phase profile, enabling more sophisticated functionality, such as achromatization of single element lenses. REO also has extensive capabilities for machining lenses to yield both centered and off-center through holes or to achieve shapes other than circular.

REO specializes in the production of custom optics, and employs a broad range of coating and fabrication technologies to deliver high performance, cost competitive components in large volume. Since all our products are built to meet the exact needs of customers, the following specifications represent typical values for this class of optics, but are by no means the limit of what we can accomplish

Typical Specifications

Diameter Range	6 mm – 200 mm
Wavelength Range	
CaF ₂	150 nm – 8 μm
ZnS	450 nm – 14 μm
ZnSe	550 nm - 18 μm
Surface Roughness	
CaF ₂	50 Å rms
ZnS, ZnSe	40 Å rms
Surface Accuracy (@ 632 nm)	λ/4
Surface Quality	20-10
Clear Aperture	90%