Knight Optical supply custom and stock precision optical components for the latest topographical LiDAR systems. These airborne LiDAR systems are used in surveying and for topographical measurements. Using the LiDAR system a Digital Terrain Model (DTM) or Digital Elevation Model (DEM) can be produced. These are typically 3D representations of a terrain’s surface. The system is typically integrated onto a plane which would then pulse a laser signal onto the terrain and dependent on the elevation of the surface, this would influence how long the pulse would return to the detector. These Airborne systems typically have protective windows which Knight Optical can provide with hydrophobic coatings and AR topcoat which allows for maximum signal return without the worry of pollution or condensation in the atmosphere.

**Front coated mirrors**
Optimized for maximum reflectivity at 1550nm or other ranges in the visible or NIR spectrum.

**Cover windows**
Designed from tough materials able to withstand impact damage as well as scratches from high grit environments, these windows protect the vital components of the LiDAR system and can be AR coated for improved transmission over LiDAR wavelengths.

**Materials span the visible and NIR spectrum and include:**
- Sapphire
- Silicon
- BK7
- Quartz
- Fused Silica
- Toughened Borosilicate

**Optical filters**
Stocked in a wide range of types and wavelengths or optimized for 1550nm.

**Lenses**
High precision, AR coated lenses in a range of materials suited for laser alignment and beam shaping in laser receiving and delivery optics.

Our state of the art Metrology and Quality Assurance department ensure that each component is individually inspected and tested to ensure it meets your exact specification.

For more information or to place an order contact our multilingual technical sales team and discover how Knight Optical’s high quality LiDAR optics and service can improve your instrumentation and supply chain experience.