



Knight Optical supplies a wide range of precision optical components tailored for laser applications, including laser-grade mirrors, lenses, beamsplitters, and windows.

We understand the critical nature of laser systems, which is why our components are manufactured to meet tight specifications such as high surface quality, tight tolerances, and excellent flatness. With advanced metrology and stringent quality control, we ensure every product delivers optimal performance and reliability in demanding laser environments.

APPLICATIONS

- Laser machining
- Material characterisation
- LiDAR & remote sensing
- Diagnostics & surgery

TESTING & CERTIFICATION

- ISO 9001/AS9100 certified
- Certified class 100/1000 cleans rooms
- IAD e-beam & IBS coating chambers for high LDT coatings.
- Automated ultrasonic clean line with HEPA filtered drying booth
- LDT testing capabilities



TYPICAL OPTICS

LASER LENSES

Knight Optical supplies precision laser lenses - including meniscus, biconvex, and aspheric types - manufactured from laser-grade materials such as fused silica, N-BK7, calcium fluoride (CaF_2), and zinc selenide (ZnSe). Engineered for minimal wavefront distortion and low scatter, our lenses deliver high beam quality for laser focusing, collimating, and beam shaping across a range of wavelengths.



LASER MIRRORS

Knight Optical provides high-precision laser mirrors with high reflectivity, low absorption, and excellent surface quality. Designed for beam control in high-power systems, our mirrors are available with a range of coatings and substrates for beam steering and optical resonators.



Contact our technical sales team to learn more about how our product solutions can meet your custom requirements.



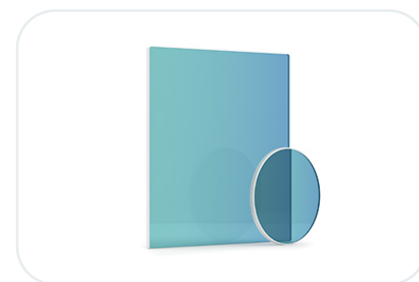
LASER FILTERS

Knight Optical supplies laserline filters for precise wavelength control, including bandpass, longpass, shortpass, notch, and neutral density types. Designed for high transmission and sharp cut-offs, our filters meet tight tolerances for reliable use in high-power, wavelength-critical laser systems.



LASER BEAMSPLITTERS

Knight Optical supplies precision laser beamsplitters including polarising, non-polarising, and plate beamsplitters. Our beamsplitters ensure reliable performance with tight tolerances and high LDTs. We also offer harmonic separators for isolating specific laser wavelengths ideal for multi-wavelength and high-power laser systems.



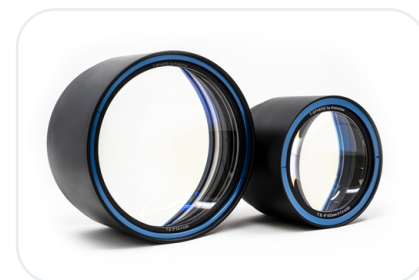
LASER WINDOWS

Knight Optical supplies high-performance windows made from materials such as fused silica and N-BK7, offering excellent surface flatness, low scatter, and high laser damage thresholds. Designed to protect laser systems without affecting beam quality, our windows are available with precision anti-reflective (AR) coatings for specific laser wavelengths.



LASER BEAM EXPANDERS & OPTICAL ASSEMBLIES

Knight Optical provides precision laser beam expanders and custom optical assemblies for laser systems. Our beam expanders enhance collimation and reduce divergence, whilst our custom optical assemblies - integrating lenses, mirrors, filters, and more - are engineered to tight tolerances for high-accuracy performance.



SHEAR-PLATE COLLIMATION TESTER

Knight Optical supplies precision shear plates for laser beam collimation and wavefront analysis. Made from high-quality optical glass, our shear plates offer accurate interference pattern generation, ideal for aligning and testing collimated laser beams in high-power and wavelength-critical applications.



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