

Feature Comparison

| Imaging & afocal design | Standard | Professional | Premium |
|--|----------|--------------|---------|
| Sequential ray tracing | ✓ | ✓ | ✓ |
| 12 field points | ✓ | ✓ | ✓ |
| 50 field points (best for aspheric design) | | ✓ | ✓ |
| Over 200 field points (best for freeform design) | | | ✓ |
| Optimization | ✓ | ✓ | ✓ |
| Contrast Optimization | | ✓ | ✓ |
| Tolerancing | ✓ | ✓ | ✓ |
| Thermal analysis | ✓ | ✓ | ✓ |
| Black Box encryption | ✓ | ✓ | ✓ |
| Image quality analysis | ✓ | ✓ | ✓ |
| Image Simulation analysis | ✓ | ✓ | ✓ |
| Full-Field Aberration analysis | | ✓ | ✓ |
| Aspheric design | ✓ | ✓ | ✓ |
| Freeform optics | ✓ | ✓ | ✓ |
| Diffractive optics | ✓ | ✓ | ✓ |
| Ghost Focus Generator | ✓ | ✓ | ✓ |
| Multiple configurations | ✓ | ✓ | ✓ |
| Birefringence | | ✓ | ✓ |
| Stock Lens Matching Tool | | ✓ | ✓ |
| Programming interface | Standard | Professional | Premium |
| Zemax Programming Language | ✓ | ✓ | ✓ |
| User-configurable shortcut keys | ✓ | ✓ | ✓ |
| MATLAB interoperability | | ✓ | ✓ |
| User-defined surfaces and objects | | ✓ | ✓ |
| User-defined scatter profiles & sources | | ✓ | ✓ |
| Programmable interface (ZOS-API) * | | ✓ | ✓ |
| * only Python available for OpticStudio Online | | | |

| Lighting & illumination design | Standard | Professional | Premium |
|------------------------------------|----------|--------------|---------|
| Non-sequential ray tracing | | ✓ | ✓ |
| Geometric light sources | | ✓ | ✓ |
| Measured light sources | | ✓ | ✓ |
| Objects | | ✓ | ✓ |
| Detectors | | ✓ | ✓ |
| Optimization | | ✓ | ✓ |
| Freeform optics | | ✓ | ✓ |
| Tolerancing | | ✓ | ✓ |
| Colorimetry | | ✓ | ✓ |
| Ray splitting | | ✓ | ✓ |
| Ray scattering | | ✓ | ✓ |
| Measured source models | | | ✓ |
| Measured surface scattering models | | | ✓ |
| Roadway Lighting | | | ✓ |
| LightningTrace™ | | | ✓ |
| Source Illumination Map | | | ✓ |
| Phosphor & fluorescence modeling | | | ✓ |
| Path analysis | | | ✓ |
| Lasers & fibers | Standard | Professional | Premium |
| Gaussian beams | ✓ | ✓ | ✓ |
| Scanning systems | ✓ | ✓ | ✓ |
| Single mode fiber coupling | ✓ | ✓ | ✓ |
| Multi-mode fiber coupling | ✓ | ✓ | ✓ |
| Optimization | ✓ | ✓ | ✓ |
| Tolerancing | ✓ | ✓ | ✓ |
| Physical Optics Propagation | | ✓ | ✓ |
| M ² & beam quality | | ✓ | ✓ |

| CAD integration | Standard | Professional | Premium |
|---|----------|--------------|---------|
| Export to STEP, IGES, SAT, STL | ✓ | ✓ | ✓ |
| Import of STEP, IGES, SAT, STL | | ✓ | ✓ |
| Dynamic link to SOLIDWORKS * | | | ✓ |
| Dynamic link to Autodesk Inventor * | | | ✓ |
| Dynamic link to CREO Parametric * | | | ✓ |
| Part designer – static parts | | ✓ | ✓ |
| Part designer – dynamic parts | | | ✓ |
| * not available for OpticStudio Online | | | |
| Data libraries | Standard | Professional | Premium |
| Lens Catalog | ✓ | ✓ | ✓ |
| Materials Catalog | ✓ | ✓ | ✓ |
| Coatings Catalog | ✓ | ✓ | ✓ |
| Test Plate Lists | ✓ | ✓ | ✓ |
| Spectrum data files | | ✓ | ✓ |
| IS Scatter Catalog | | | ✓ |
| Radiant Source Models | | | ✓ |
| IES Source Models | | | ✓ |
| <p> Standard Professional Premium </p> <p>Support is available at MyZemax.com, where users have access to knowledgebase articles, community forums, and support cases.</p> | | | |