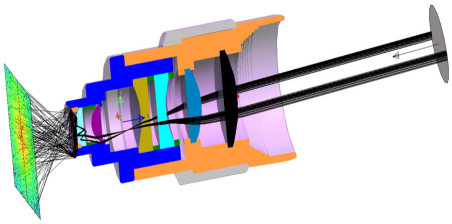
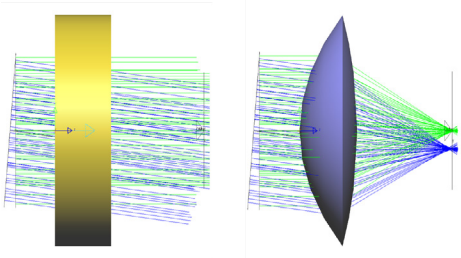
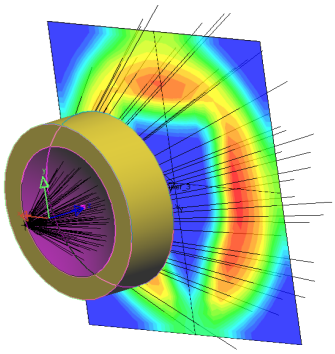
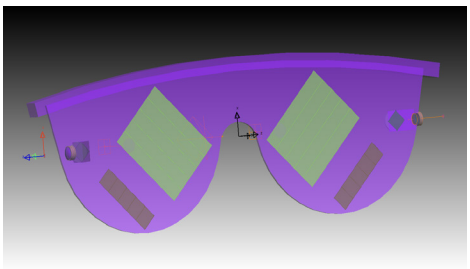
# What's New in LightTools Version 2024.03

## Upgrade Your Illumination Optics Designs









LightTools version 2024.03 provides capabilities that make LightTools a more efficient, versatile illumination analysis and design tool than ever before.

### Sequence Ray Tracing

Sequence Ray Tracing is a cutting-edge simulation method that accelerates the analysis of stray light paths by focusing on specific surface intersections, enhancing efficiency and reducing memory usage. This capability is essential for design challenges that rely on specifying paths to trace, such as stray light analysis.

### Global Optimization Engine

The innovative global optimization engine can be used to explore a broader solution space, offering a valuable addition to the local optimization engines available in previous releases. It provides an advantageous starting point for local optimization.

### Environmental Analysis

LightTools provides the capability to include temperature and pressure variations for the index of refraction, which enables you model environmental effects in CODE V and transfer the model to LightTools in an Optical System File. This feature is especially useful in assessing performance shifts in cameras, AR/VR, and high-altitude or space-borne systems due to temperature and pressure changes.

### Thin Film Enhancements

Expanded capabilities for thin film stack coatings enable you to easily modify a stack in LightTools. You can adjust the layer thicknesses, add and remove layers, add and change materials, and more.

### Improvements to Geometric Modeling

LightTools offers enhanced control over geometric modeling, allowing for the creation and manipulation of intricate shapes using grid aliases, pickups, parameters, and expressions.

For more information, please contact the Synopsys Optical Solutions team at (626) 795-9101, visit synopsys.com/optical-solutions/lighttools, or send an e-mail to optics@synopsys.com.