LightTools Illumination Optimization

Increase Your Engineering Productivity

Features at a Glance

- Automatically improves illumination system performance based on the criteria that you specify, such as uniformity and maximum energy on a specified area
- Can significantly shorten your design cycle, providing optimal solutions in a fraction of the time it would take to accomplish manually
- Allows nearly any database parameter to be varied
- Supports optimization constraints, which are the boundaries established for an allowable optimization solution
- Supports programmable variables and merit fue9ormolsor anmaxescCm .>ls 0be/MCyCe3Tnyx

of illumination systems at various stages of design

- Allows for optimization for user-defined parametric expressions, giving you the power of programming with far less effort

Overview

The LightTools®

> *"We consider the LightTools optimizer to be a groundbreaking feature that provides substantial improvements over our traditional illumination design procedures. We have designed several different light pipes using the LightTools optimizer, and were able to reduce our design cycle by one-third. We plan to use the optimizer for all our light pipe designs."*
>
> ~E.H., LightTools user at a leading Japanese consumer electronics manufacturer

Quick Convergence on the Design that Best Meets Your Goals

The LightTools Illumination Optimization feature is the first of its kind, allowing you to quickly converge on the design that best meets your goals. This fully integrated optimization tool supports Monte Carlo simulation data or ray fans/grids. A point-and-shoot ray trace updates interactively as you change the model, providing immediate feedback on the implication of each change made to the design as it progresses. This is an invaluable tool that provides ongoing insight into the relationship between the geometry and the paths of light through the geometry.

LightTools combines its superior design and analysis features with optimization algorithms specially tailored to solve illumination and stray light problems, allowing you to develop solutions previously unreachable. For example, you can optimize your system to match a target illumination distribution, maximize flux on the receiver, or meet other user-defined criteria.

Adding variables, constraints, and merit functions is easy to do from LightTools dialog boxes, using context menus displayed when