Creating Today's Innovative Solutions

TracePro

The ability to take an idea and create an outstanding design that is manufacturable. The program's simple, intuitive interface and short learning curve creates a user-friendly design environment for designers and engineers of all disciplines.

TracePro has enabled display product innovation and research discovery.

TracePro's SolidWorks add-in the TracePro Bridge for SolidWorks, ensures data and design documentation integrity by sharing a single model between Solidworks and TracePro.

TracePro is highly differentiated from other optical design software solutions with its accuracy and ease of use.

Lambda Research Corporation

TracePro

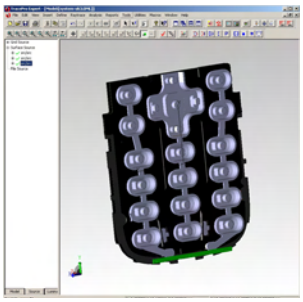
Software for Designing Backlights and Simulating Displays

Display Design

The development of optical systems, sources and components involves adherence to various system performance criteria and constraints including spatial and angular light output distribution, uniformity, intensity, and spectral characteristics. Achieving these criteria quickly with a manufacturable and cost effective design requires modeling software that is powerful, easy-to-use and accurate. TracePro, renowned in the scientific community for the accuracy of its simulations, offers engineers and scientists the confidence that the performance of the finished products will concur with the simulated design without costly prototype iterations.

TracePro

TracePro is a comprehensive, versatile software tool for modeling the propagation of light in imaging and non-imaging opto-mechanical display systems. Models are created by importing from a lens design program, or a CAD program or by directly creating the solid geometry in TracePro. Source rays propagate through the model with portions of the flux of each ray allocated for absorption, specular reflection and transmission, fluorescence and scattering.



Free Trial Offer!

For a 30 Day Trial Offer Visit
www.lambdares.com/trials

From the model, analyze:

- Light distributions in illumination and imaging systems
- Stray light, scattered light and aperture diffractions
- Throughput, loss, or system transmittance
- Flux or power absorbed by surfaces and bulk media
- Polarization effects
- Fluorescence effects of phosphors
- Birefringence effects
- CIE Plots

Breadth of Applications

- Projection & Flat Panel Displays
- Liquid Crystal Displays (LCDs)
- Plasma Displays
- Field Emission Displays (FEDs)
- Organic LED Displays (OLEDs)
- Electroluminescent Displays
- 3-D Displays
- Flexible Displays
- Head-Up Displays
- Digital Signage
- Consumer Electronics
- Aviation and Navigation
- Medical Imaging
- Backlights
- LEDs and Fluorescent Lamps
- Light Pipes
- Brightness Enhancing Films
- Dichronic and Hot Mirror Filters

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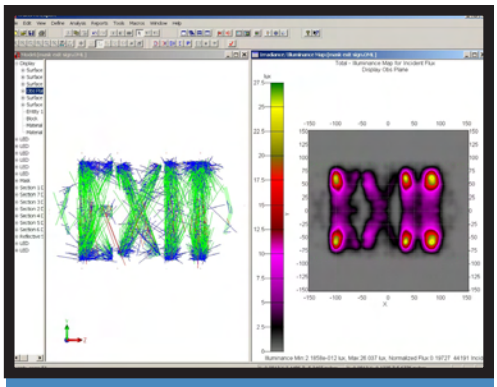

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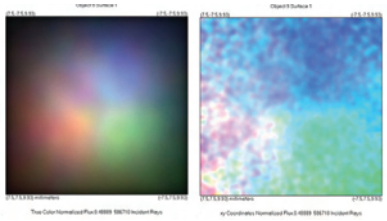
Polarization
Model and analyze polarization effects using Stokes vectors and Mueller matrices specifying incident angle, wavelength and temperature.

Thin Films
Model thin film stacks for cold mirrors and dichroic filters.

Thermal Loading
Model temperature dependence in material properties and determine thermal loading through radiative heat transfer.

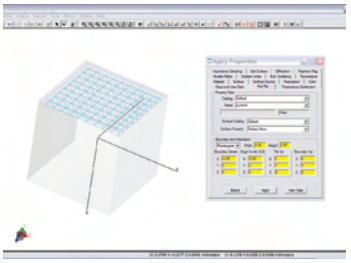
Birefringence
Model effects of birefringence and heat.



Chromaticity
Display output plots of ray traces in multiple color coordinates – CIE, RGB and True Color.

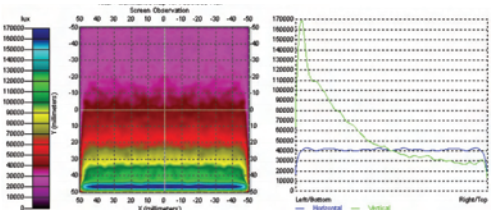
RepTile™
Quickly model and ray trace surfaces with random or periodic arrays of repeated structures such as Brightness Enhancing Films or scattering features in a light guide.

3D Textures for RepTile
Quickly create and optimize complex pattern geometries including those where spatial position and size vary randomly.



Irradiance and Candela Maps
Analyze power incident or absorbed by a surface in both position and angular space.

Fluorescence in Phosphors
Model fluorescence of white light LED phosphors by importing absorption and emission curves, extinction coefficients, quantum efficiency and concentration. TracePro calculates excitation efficiency, path length, absorbance & absorption and propagates emission rays through the model. Analyze light distribution and fluorescence effects at any point in the opto-mechanical system.



Phosphors in White Light LEDs

Maintenance & Support

Sustain the competitive advantage that TracePro delivers with an Annual Maintenance and Support Subscription. TracePro's ongoing innovations are provided throughout the year in software downloads that include a variety of updates and enhancements.

Training Classes

Training classes assist current and prospective users with their optical design and analysis challenges. Explore the power and versatility of TracePro, maximize the investment, and draw on the technical expertise and industry-specific knowledge of TracePro instructors.

Webinars & Videos

Lambda Research engineers are now posting webinars and videos on key topics to help you better use TracePro. Visit our webinar and videos section from our home page to view the latest presentations.

TracePro BRIDGE For SolidWorks®

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