



# **GHOLOGRAPHIC COMPANY**

## **PHOTONICS SOFTWARE**

**TracePro/ OSLO/ Optiwave / PcGrate / Coating**

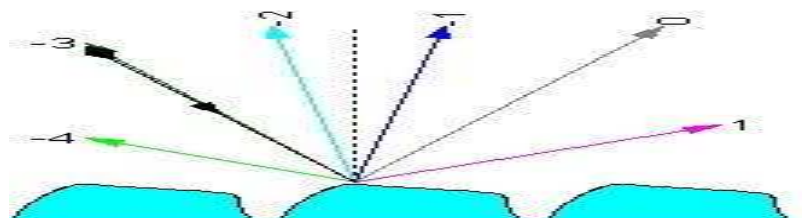
### **Benefits**

- **Easy to Use**
- **Product Quality is Improved**
- **Save Development Time**
- **Save Prototype Cost**
- **Use Unlimited No. of Years**
- **Buy / Lease Option**

## SOFTWARE



# TracePro® OSLO





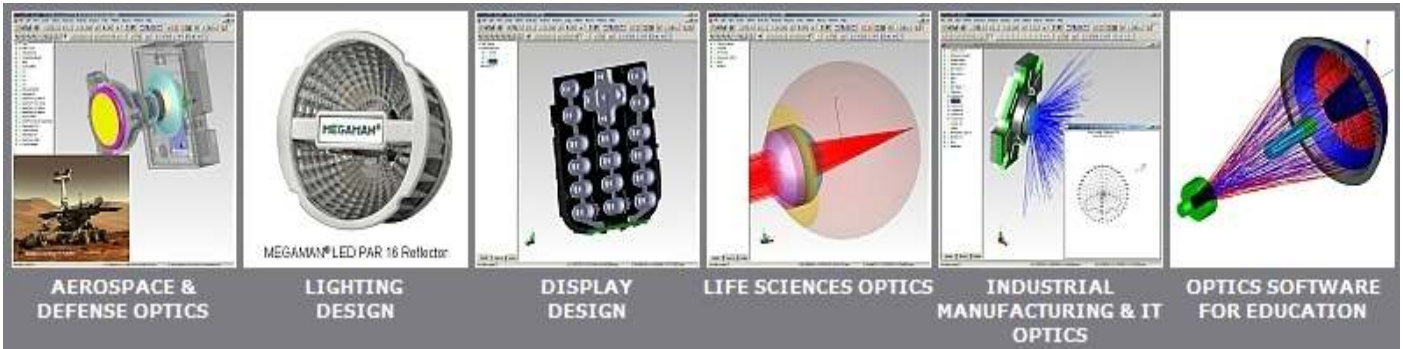
## **Table of Contents**

TracePro : Opto-Mechanical Design Software  
OSLO : Optical Design Software  
University Education Program  
ELTA : Software for Induction Heating  
LED Design Software  
General Lighting Design Software  
Automotive Lighting Design Software  
Bio-Medical Optics & Illumination Software

# TracePro : Opto-Mechanical Design Software



TracePro is the award-winning software of Lambda Research Corporation, USA for illumination design, illumination analysis, LCD backlight design, Display, OLED, Scattering analysis, optical system analysis, stray light analysis, baffle design for stray light suppression in telescopes and other optical systems, and analysis of many other types of optical systems and illumination systems.



Lambda Research Corporation offers a **Solidworks Add-in** called the **TracePro Bridge** to add optical properties to your Solidworks model. The TracePro Bridge is very useful for medium and large companies who keep all of their information in one place in their Solidworks assembly.

<http://www.lambdares.com/>

## Application Industry:

- Optics
- Solar Simulation
- LED / General Lighting
- Lighting Illumination
- Automobile lighting
- Life Science / Bio-Medical
- Display systems(OLED, Head Up Display)
- And many more.



## Application Area :

|                      |                                   |
|----------------------|-----------------------------------|
| Arc Lamps            | Fiber Optic Design                |
| Lightpipes           | Unusual Optics and Lenslet Arrays |
| Ghost Analysis       | Beam Splitter and Prism Systems   |
| Narcissus Analysis   | Illumination and Display Systems  |
| LED Systems          | Projection Systems                |
| Laser Diode Systems  | Life Sciences                     |
| IR Imaging           | LCD Projection                    |
| IR Detection Systems | Stray Light Analysis              |
| Lithography          | Conventional Optics               |
| Medical Applications |                                   |

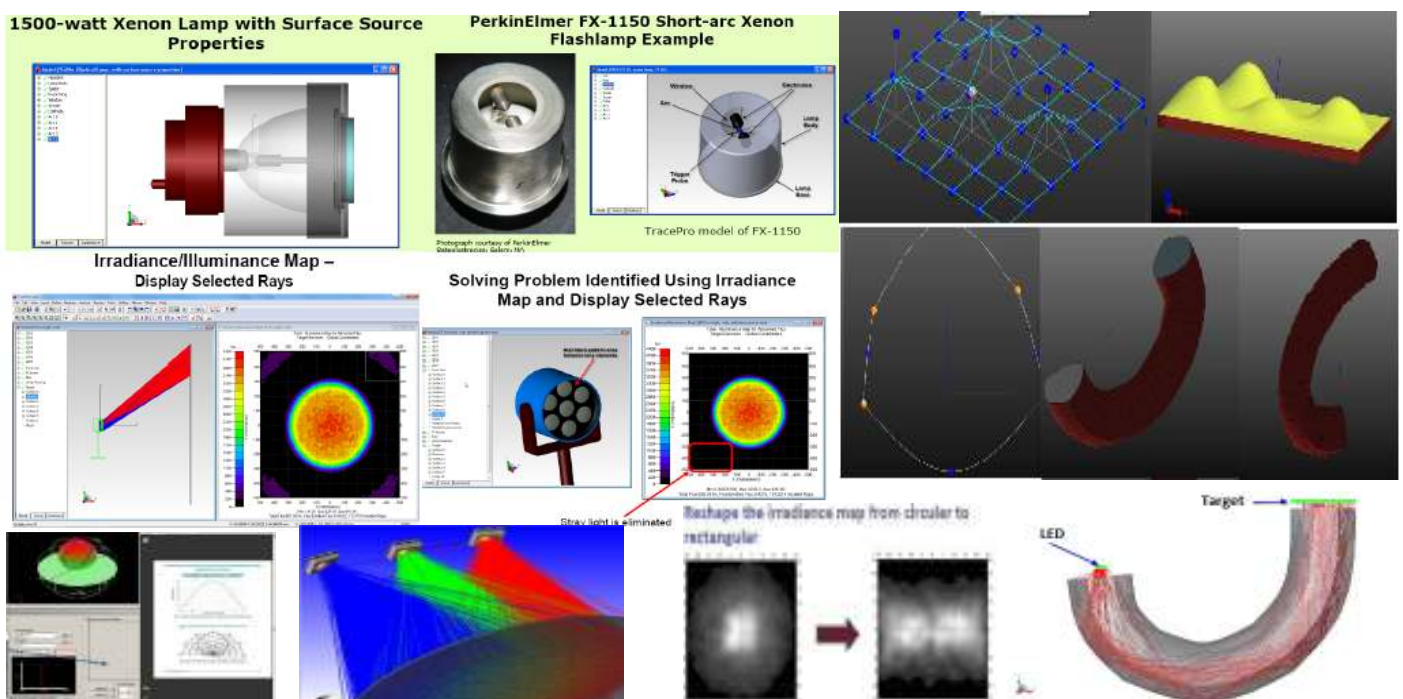


# TracePro : Opto-Mechanical Design Software



## Top 10 Reasons to Buy TracePro ONLY

1. Easiest-to-use opto-mechanical software with full CAD integration. Theoretical & Experimental Data similar (Accurate Modeling) .
2. Simple Interactive Optimizer: sketch geometry, set variables, digitize targets, optimize
3. 3D Optimization to design any FREE FORM Surface, Light Pipe, LED, Plastic Optics, Secondary Optics & many others
4. Lowest entry price for a permanent license
5. Multiple editions to fit your needs with upgrade path to help you with more complex problems
6. Our TracePro Bridge SolidWorks® add-in easily defines optical properties in your SolidWorks model.
7. Multiple utility apps to digitize source, fluorescence, and surface scatter data
8. Multiple lens design and CAD import and export options with full CAD healing functionality. RepTile algorithms to define millions of repetitive surfaces, lenses, and textures
9. Outstanding visualization capabilities with interactive ray sorting and tables for incident rays, ray histories, and flux report
10. Trace billions of rays with 64-bit support and unlimited multi-threading





# OSLO : Optical Design Software

## OSLO

OSLO is a powerful optics design program. In addition to classical lens design features, OSLO combines advanced ray tracing, analysis, and optimization methods with a high speed macro language to solve a wide variety of new problems in optics design.

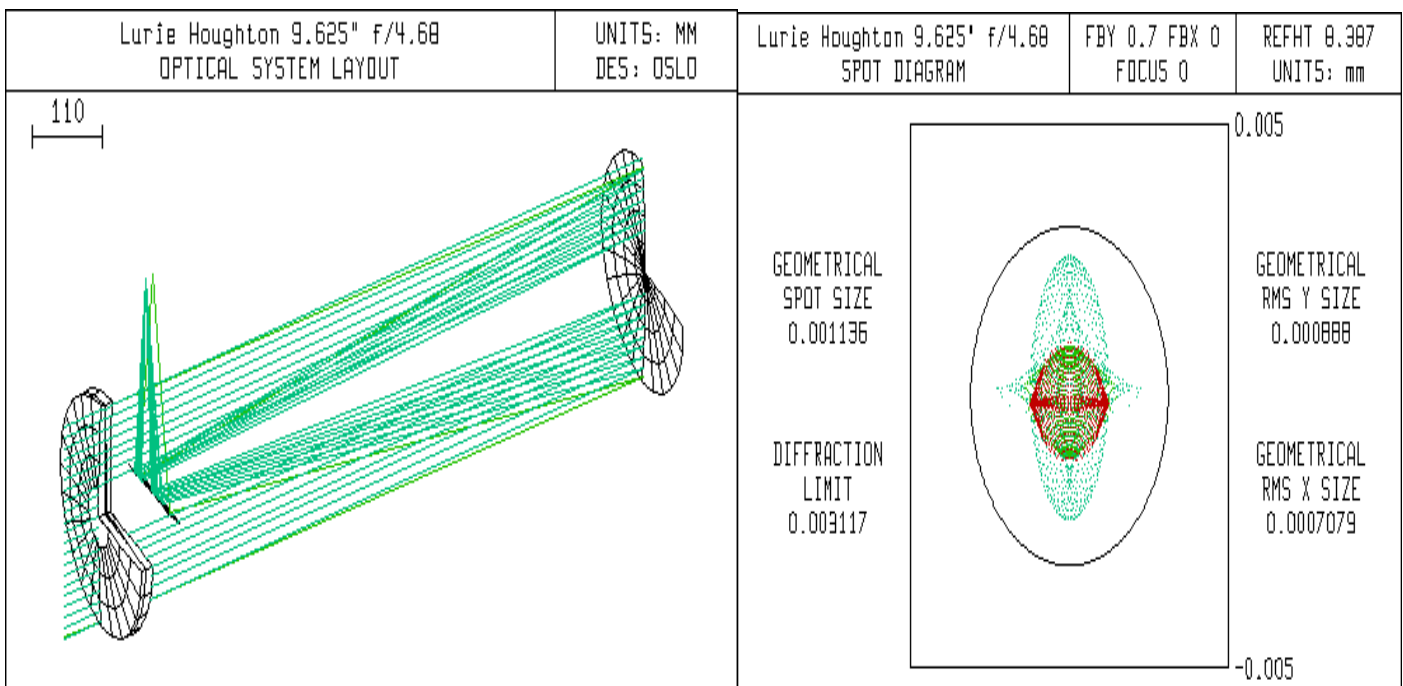
### Different Editions of OSLO

OSLO lens design software is available in three levels called **OSLO Premium** , **OSLO Standard** and **OSLO Light** . The features in each edition is a subset of the features found in the next highest edition. Each edition is a full-featured program that can help you design superior systems. A free edition (OSLO-EDU) is available limited to 10 surfaces.

### Permanent License Price

| Permanent license With One year Support | Fixed license | Network license |
|-----------------------------------------|---------------|-----------------|
| OSLO Premium Edition                    | \$3,500       | \$4,000         |
| OSLO Standard Edition                   | \$2,500       | \$3,000         |
| OSLO Light Edition                      | \$1,250       |                 |

| IMAGING SYSTEMS                                                                                                                | LASER SYSTEMS                                                                                                         | NONIMAGING OPTICS                                                                                                     | VISUAL SYSTEMS                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Photolithography<br>Optical Metrology<br>Laboratory Instruments<br>Optical Testing<br>Spectrographs<br>Astronomical Telescopes | <b>LASER SYSTEMS</b><br>Fiber Couplers<br>Laser Focusing<br>Collimators<br>Scanners<br>Cavity Design<br>Beam Delivery | Illumination Systems<br>Interferometers<br>Solar Collectors<br>Faceted Reflectors<br>Condensors<br>Light Concentrator | Microscopes<br>Telescopes<br>Refractometers<br>Low Vision Aids<br>Endoscopes<br>Virtual Reality<br>Night Vision |





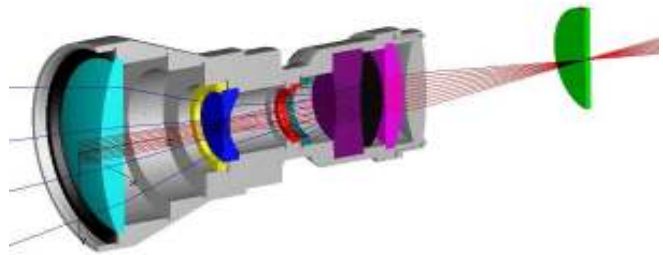
# OSLO : Optical Design Software

# OSLO

## What types of optical systems can I design using OSLO?

OSLO can be used to design almost any optical system that involves propagating light waves. The following are some typical examples of systems that can be designed using OSLO:

- Conventional Lenses
- Zoom Lenses
- Gaussian Beam/Laser Cavities
- Fiber Coupling Optics
- Illumination Systems
- Non-Sequential Propagation Systems
- Polarization-Sensitive Optics
- High-Resolution Imaging Systems



Also, systems with gradient index surfaces, aspherics, diffractive surfaces and holograms, lens arrays, interferometric deformations etc.

OSLO's major features include:

Lens and Material Databases  
Special Surface Data  
Zoom and Multiconfiguration Systems  
Arrays and Non-Sequential Groups  
Special Apertures  
Tolerance and Element Data  
Polarization and Thin Film Coatings  
Ray tracing  
Diffraction and Partial Coherence  
Optimization Methods  
Tolerance Analysis  
Lasers, Fibers, and Gaussian Beams  
Illumination Analysis  
Perfect Lenses and Eikonals  
Vignetting Analysis  
Footprint Analysis  
Spot Diagram  
Wavefront Analysis  
Point Spread Function  
Modulation Transfer Function  
Energy Distribution  
Monte Carlo Analysis

Ghost Images  
Narcissus Analysis  
Polarization Ray Trace  
Non-Sequential Ray Trace  
Gaussian Beam Analysis  
Partial Coherence Analysis  
Fiber Coupling  
OSLO imports files from the following programs: CodeV, GENII, Sigma, Zemax  
OSLO files export to CAD programs  
Append data files from commercial interferometers to any surface for advanced simulation and tolerancing.  
Support for Radiant Imaging data files  
Fast Optimization  
Standard Surface  
Cylindrical Surface  
Lenslet Array  
Diffractive Surfaces  
User Defined Surfaces  
Interferogram Files  
Aspheric Surfaces  
Gradient Index Surfaces



# University Education Program

## TracePro University Program

We are pleased that you are considering using TracePro as a teaching tool in your classroom environment. We have created a TracePro Educational Program with the goal of promoting optics education. We have officially named our program the TracePro University Program because we have found that our software appeals primarily to educators at the university level. However anyone teaching an advanced science class is welcomed to join.

## TracePro Bridge University Program

We are pleased that you are considering using TracePro Bridge as a teaching tool in your classroom environment. We have created a TracePro Bridge Educational Program with the goal of promoting optics education. We have officially named our program the TracePro Bridge University Program because we have found that our software appeals primarily to educators at the university level. However anyone teaching an advanced science class is welcomed to join.

## OSLO University Program

We are pleased that you are considering using OSLO as a teaching tool in your classroom environment. We have created a low cost program with the goal of promoting optics education. We have officially named our program the OSLO University Program because we have found that our software appeals primarily to educators at the university level. However anyone teaching an advanced science class is welcomed to join.

## QUALIFICATION:

To qualify for our University Program, you will be asked to:

1. **Provide a copy of your course syllabus** or course description for the courses where OSLO /TracePro/ Tracepro Bridge will be used. This could be a printed brochure or official description printed on university or department letterhead. Electronic files will also be accepted, as will HTML pages from the university web site.
2. **Return filled out and signed University Licensing and Policy statement.** The policy portion of this statement identifies the responsible party that will be using Software in the classroom and outlines our program guidelines. The licensing portion gives us an indication of how many licenses you need for the duration of the course. We offer both network and USB hardware keys under this program.
3. **At the end of the course,** submit a short report indicating how OSLO /TracePro/ Tracepro Bridge was used, suggestions for future updates and reports of bugs that were encountered. Reports typically range in length from a few paragraphs to several pages. Longer submissions are helpful to us to refine the OSLO /TracePro/ Tracepro Bridge University Program in the future. Final reports must be filed before OSLO /TracePro/ Tracepro Bridge can be renewed for any subsequent courses in the university.

**If you have any questions or wish to discuss your educational situation in more detail, please contact us.**

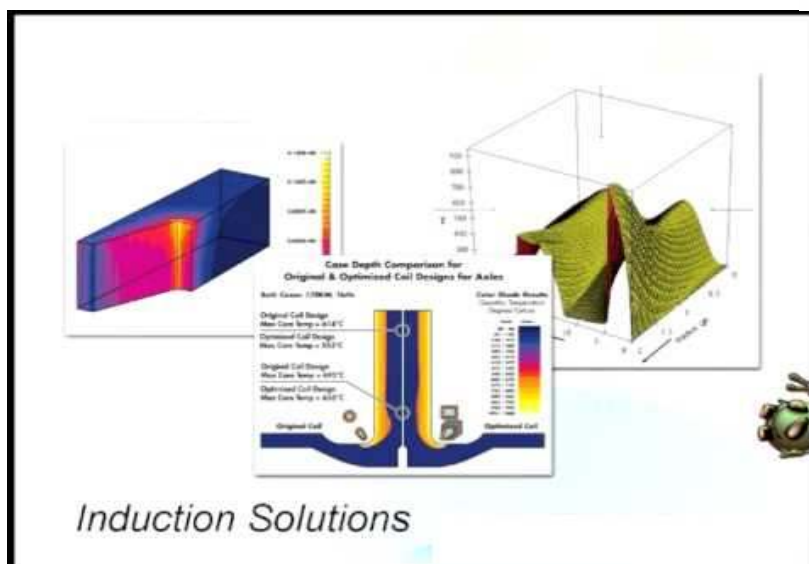
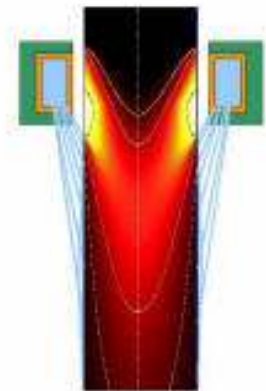
# ELTA : Software for Induction Heating

ELTA is a program for ELeCTroThermal Analysis of induction systems

- Calculations in ELTA are based on a combination of 1D Finite Element Method for closely coupled electromagnetic and thermal problems inside the work piece and analytical method for account of finite lengths of the part and induction coil. Special 2D numerical method is used for calculation of parameters inside parts with rectangular cross-section.

## ELTA Software Features

- User friendly interface with very fast solver
- Electromagnetic + Thermal
- Axisymmetrical (OD & ID) & plane-parallel geometries
- Module for simulating single- and multi-turn internal coils
- Possibility to simulate power supplying circuit (busswork, parallel or series capacitors, matching transformer)
- Possibility to simulate multi-stage processes such as part hardening and tempering in different positions
- Database with non-linear properties of materials and quenching media
- Option of automatic frequency variation during the process of heating
- Multiple graphs and color map for presentation of the results
- Automatic report generation according to selected or created by user templates



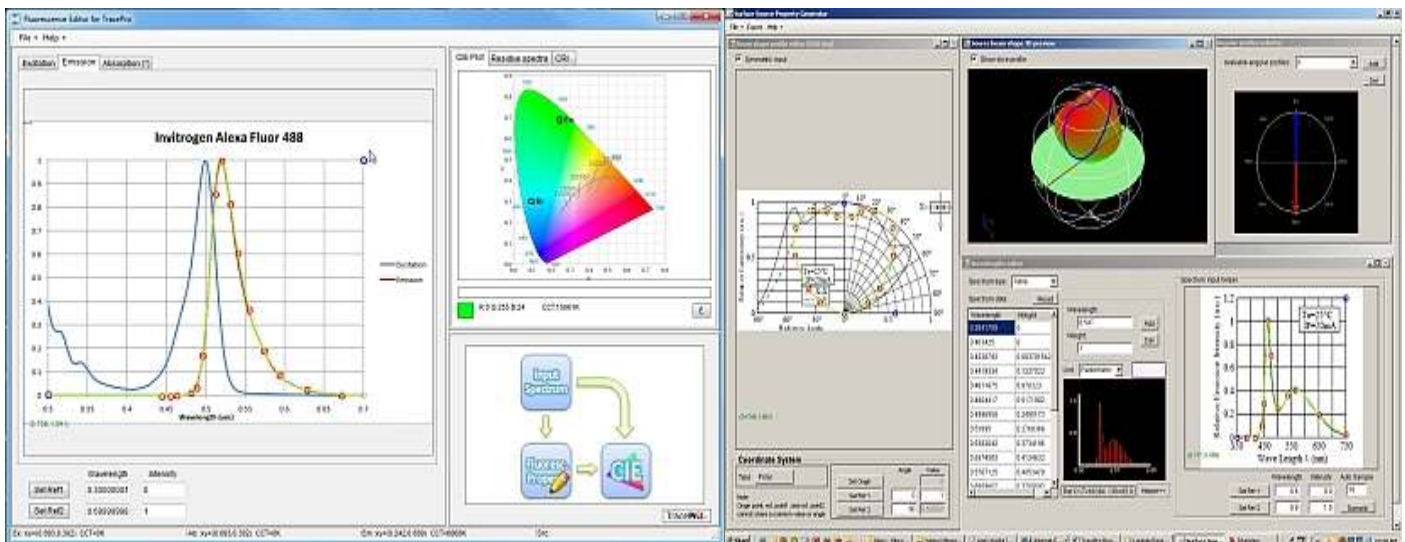
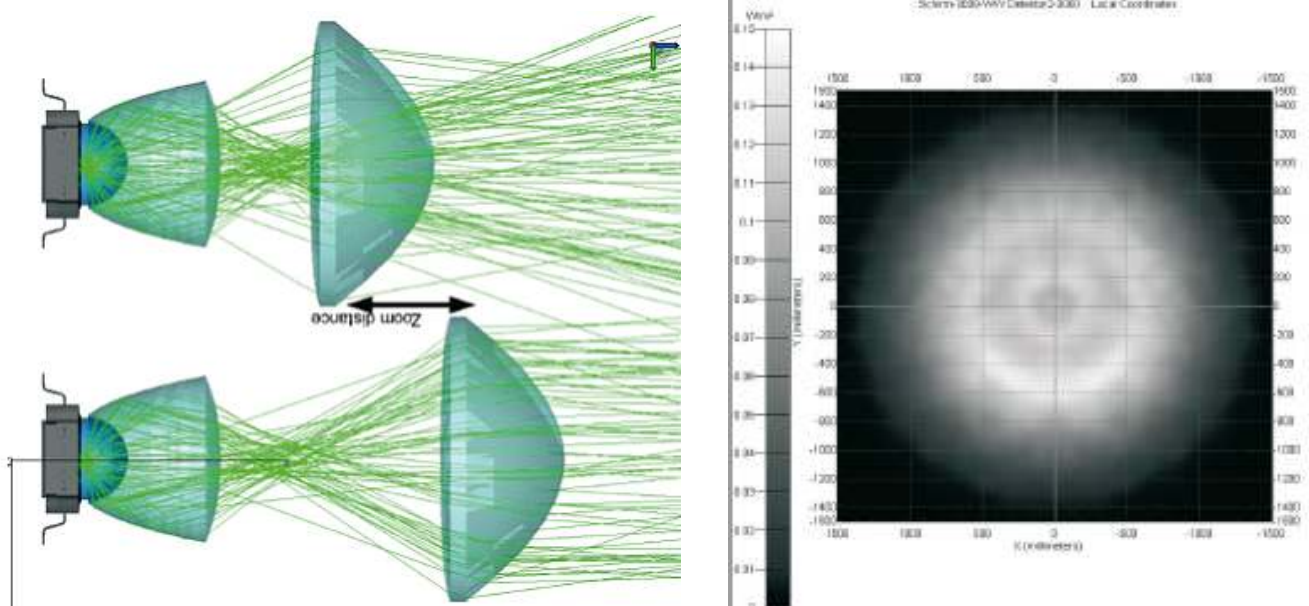
# LED System Design Software



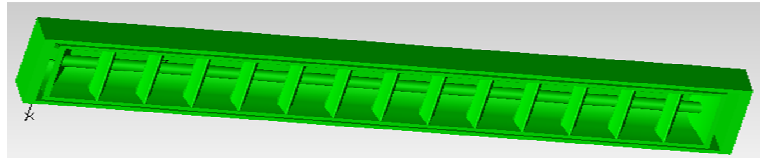
TracePro 7.2 is the latest release of Lambda's award-winning illumination and optical analysis software.

This release features the **first fully interactive 3D optimizer** specifically designed to increase productivity by giving the user complete control of the optimization process. The new 3D optimizer features a sketch utility to quickly create any 3D symmetric or asymmetric CAD geometry, interactive ray tracing for design verification, and digitization of target functions. This new optimizer drastically reduces design time, increases productivity, while at the same time giving the user complete control of the optimization process.

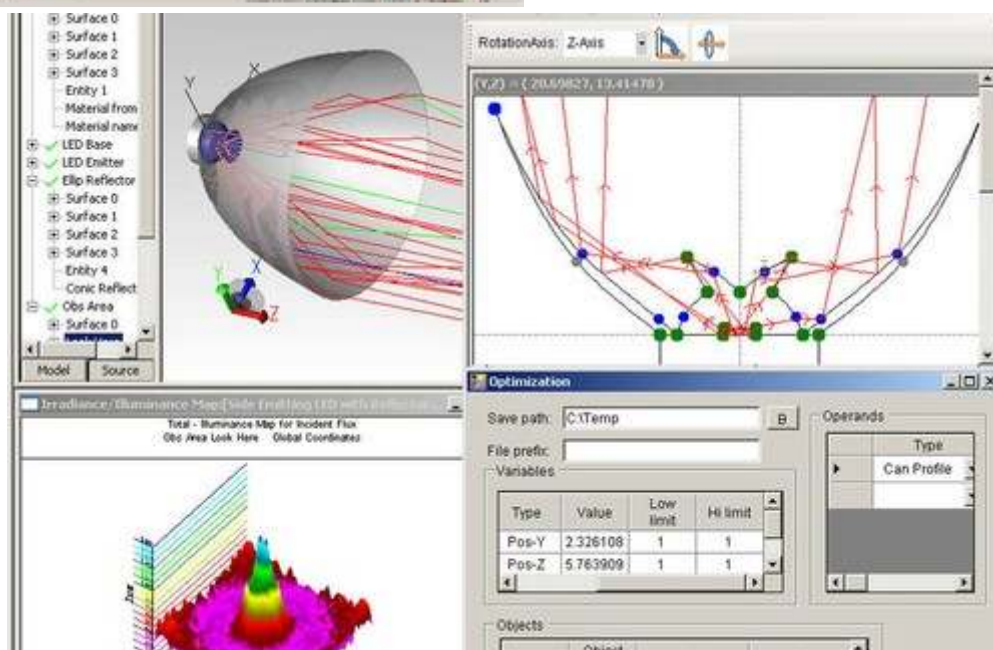
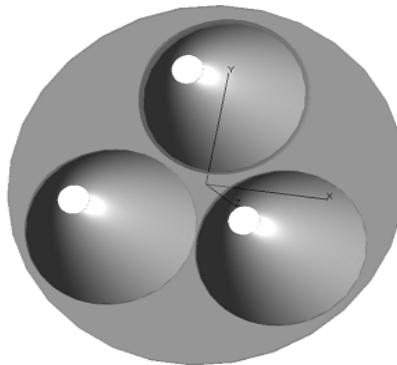
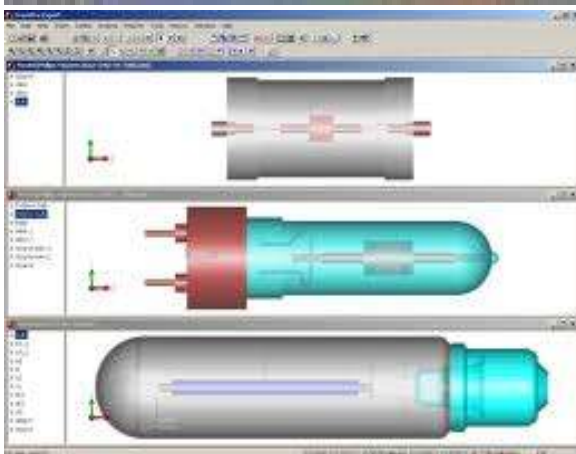
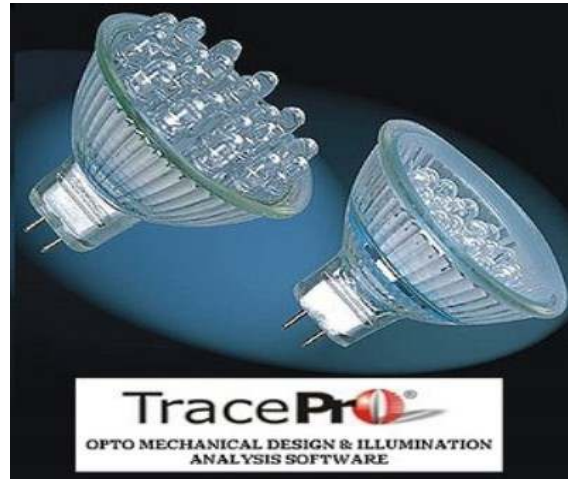
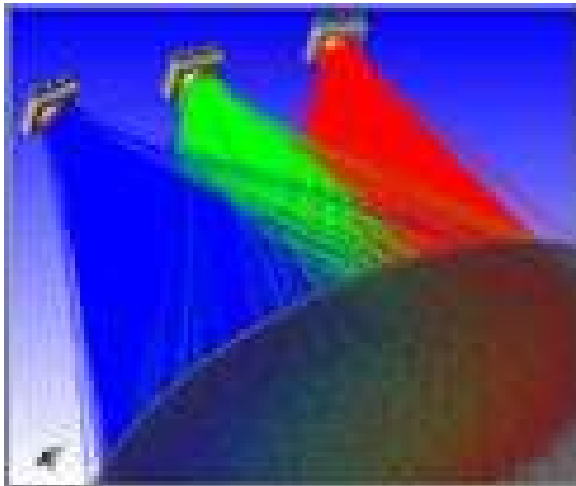
TracePro 7.0 uses multi-threaded algorithms to raytrace on all the cores in Intel or AMD multi-core CPUs. Simulations done on a Dual Quad core computer show raytracing improvement of up to 10 times over previous releases when simulating LED, lighting, display, biomedical and aerospace systems.



# General Lighting Design Software



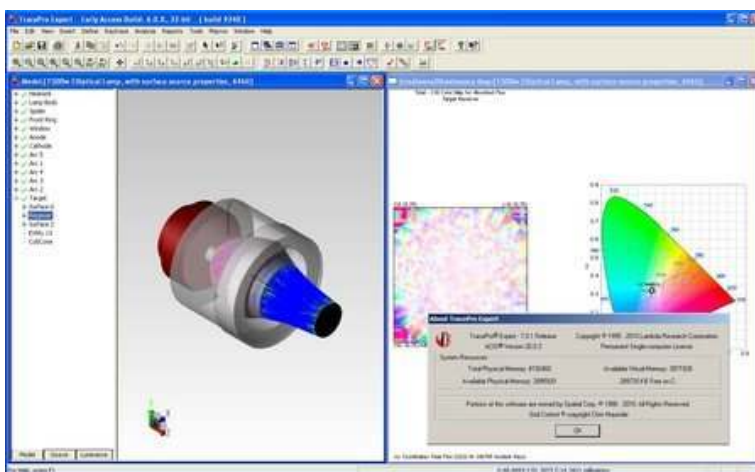
Lambda Research provides world-class Opto-Mechanical design software TracePro for luminaries design and engineering. Applications include architectural, residential and industrial lighting and specialty illumination. TracePro allows users to define and manage spectral data for each unique source and to combine different source types in a single ray trace.



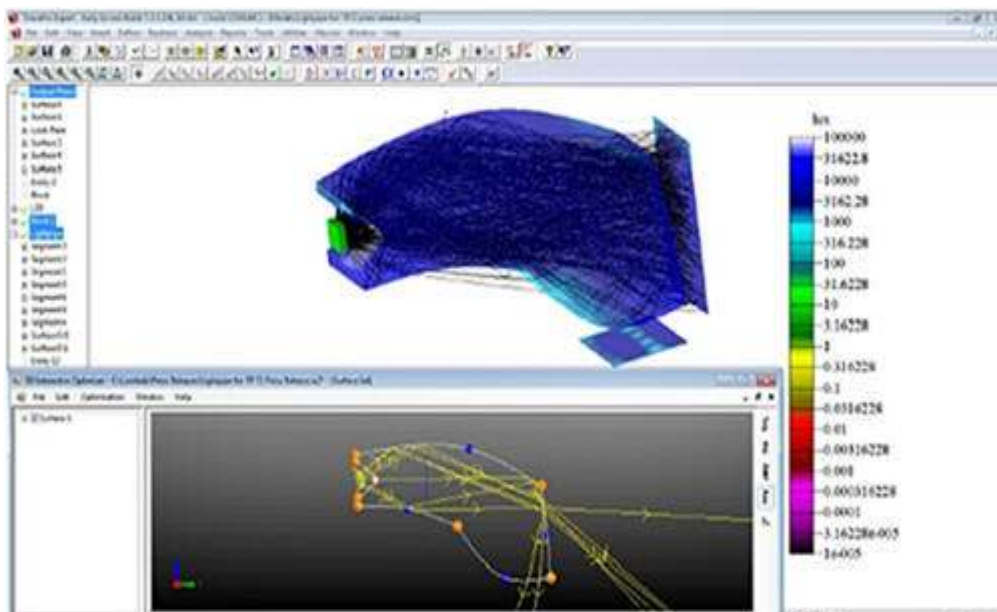
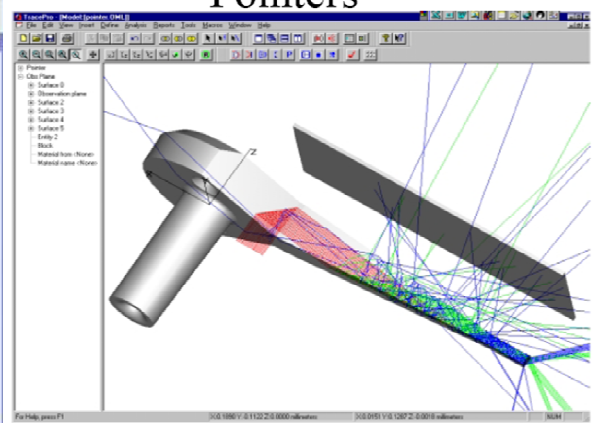
# Automotive Lighting Design Software

TracePro is used in a variety of analysis applications including: Automotive, Aerospace, Display, Lighting, Medical, Laser Component, Machine Vision and Consumer Electronics.

Design of application-specific lighting systems involves adherence to various system performance criteria including spatial and angular light output distribution, uniformity, intensity, and spectral characteristics - as well as aesthetic factors such as lit and unlit appearance. Achieving these criteria quickly with a manufacturable and cost effective design requires **lighting design software** that is powerful, easy-to-use and accurate. **TracePro, optical design software**, renowned in the scientific community for the accuracy of its simulations, offers lighting designers the confidence that the performance and aesthetics of finished products will concur with the simulated lighting design without costly prototype iterations.



## Pointers

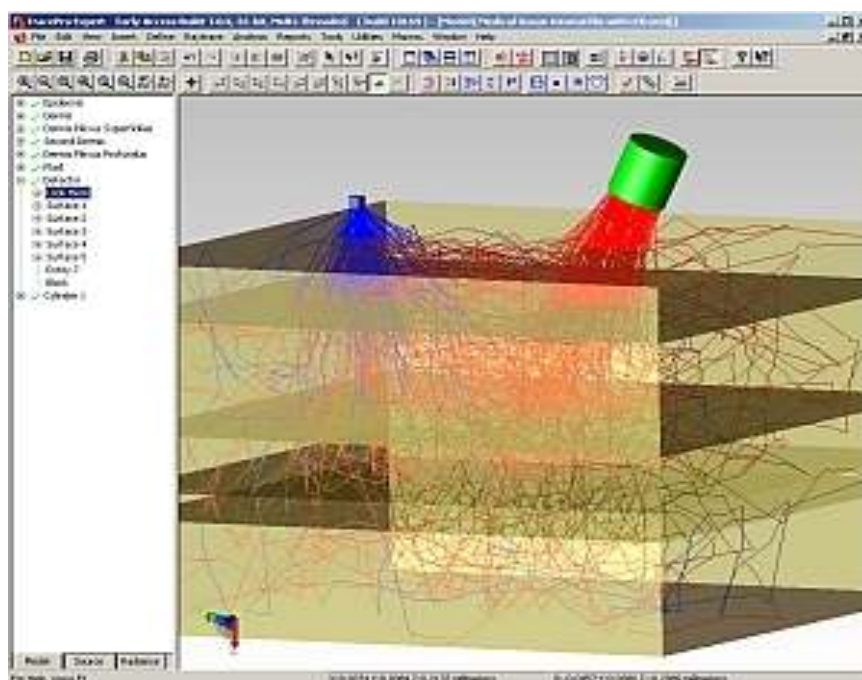
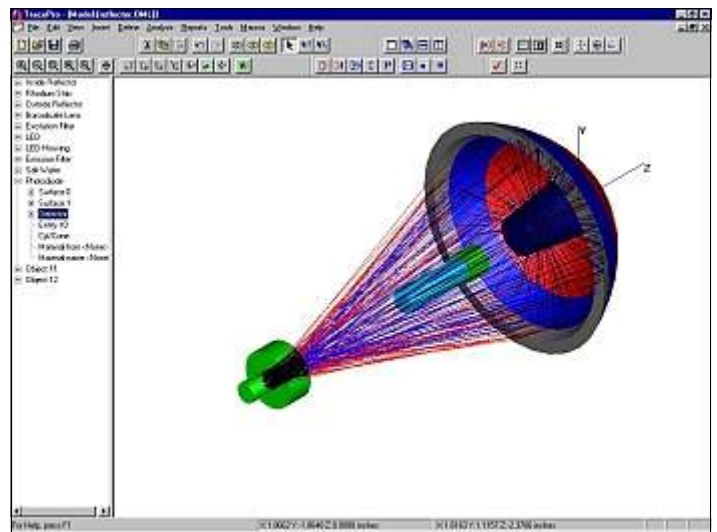


# Bio-Medical Optics & Illumination Software

TracePro is a comprehensive, versatile software tool for modeling the propagation of light in imaging and non-imaging opto-mechanical 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.

## Applications

- Fluorescence Spectroscopy
- Raman Spectroscopy
- UV, VIS, NIR, IR Spectroscopy
- Flow Cytometry
- Micro Arrays & Plate Readers
- Nucleic Acid Amplification
- Assay, Cell & Tissue Based Imaging
- Confocal Laser Scanning & Fluorescence Microscopy
- Medical Imaging & Endoscopy
- In-Vitro Diagnostics
- In-Vivo Diagnostics
- Biosensors
- Molecular Detection: Quantum Dots & Nanocrystals
- Molecular Detection: Luminescent Reporters
- Laser and LED Surgical Devices
- Laser Beam Delivery Systems for Surgical Instrumentation
- Laser Induced Fluorescence Detection (LIF)
- Fluorescence Resonance Energy Transfer (FRET)





## **GHOLOGRAPHIC COMPANY**

**Jhawar Kunj, Kotri Goverdhanpura,  
Kota,Rajasthan, INDIA - 324007**

Ph: +91-9314235320

Email: [sales@genuineholographics.com](mailto:sales@genuineholographics.com), [gholographics@gmail.com](mailto:gholographics@gmail.com)  
[www.genuineholographics.com](http://www.genuineholographics.com)