luca'rayset

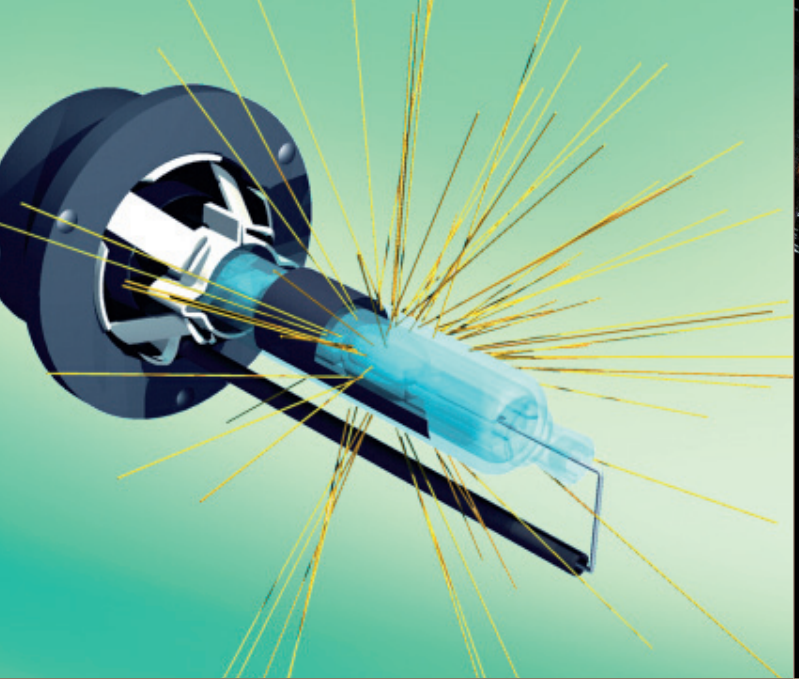
Ray data for a precise simulation of optical systems

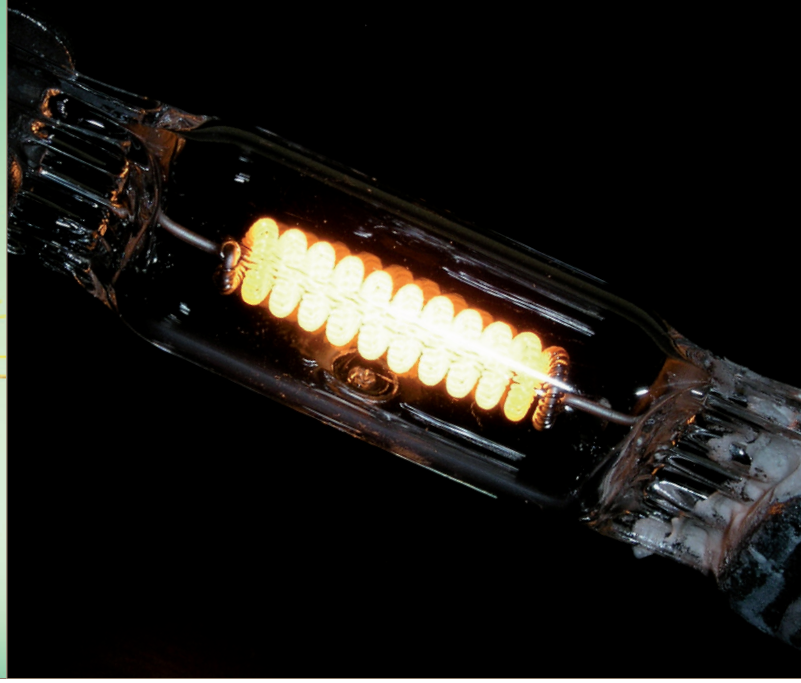
The luca'rayset ray data enable a close-to-reality simulation of optical systems. The ray data result from several thousand luminance measurements around the light source. They are available in monochromatic and polychromatic raysets. All points of origin of the rays lie directly on the bounding geometry of the light source, thus providing that the ray data can be used universally - even in tiny geometries - correctly. The bounding geometry of the light source as well as a detailed documentation of the measuring conditions and the position of the light source within the global coordinate system are included in the delivery.

The light source measurements are carried out on high-precision near-field goniophotometers with at least 12Bit digitalization depth of the measuring camera. At each position the measuring camera is adjusted based on the actual luminance situation at that moment. The precise measurement is guaranteed by the use of 2pi half solid angle goniometer and 4pi full solid angle goniometer. Thus a top-quality ray data file comprising all areas of the light source is insured that enables a close-to-reality simulation of optical systems.

opsira

www.opsira.com/lucarayset





Rayset data

luca'raymaker software is delivered free of charge together with every ray data set or is available on the Internet. It enables the conversion of the data available in the original opsira format into the different data formats for several optic simulation programs. luca'raymaker enables the generation of sub-raysets with an arbitrary number of rays.

- ASAP™
- CODE V®
- FRED
- LightTools®
- LucidShape
- OpTaliX
- OptiCAD
- OptisWorks
- Photopia
- SimuLux
- SPEOS ™
- SPEOS CAA V5
- TracePro
- ZEMAX®

Specifications

Dynamics standard	12 Bit / 18 Bit[*1]
Angular resolution	1,5° (up to 0,01° possible with narrow angle emitting light sources)
Number of luminance measurements	about 10.000
Spectral weighting	high-quality V(λ)-adjustment of the measuring camera RGB or any polychromatic ray data files are available as well

Scope of supply

Standard number of rays	20 million
Extended number of rays	≥ 50 million
CAD data of the bounding geometry of the light source	
Documentation	

[*1] 14, 16 or 18 Bit in the HighDyn mode by multiple exposure.

Typical values of a standard configuration. Changes are possible depending on the system configuration. Variations to the technical data may occur due to the permanent improvement and development of our measurement systems. We do not assume any juristic responsibility or liability whatsoever for such variations or misprints. The General Terms and Conditions of Trade of the opsira GmbH are valid. luca'rayset · E · V00193114 · © opsira GmbH · www.koellekunter.de