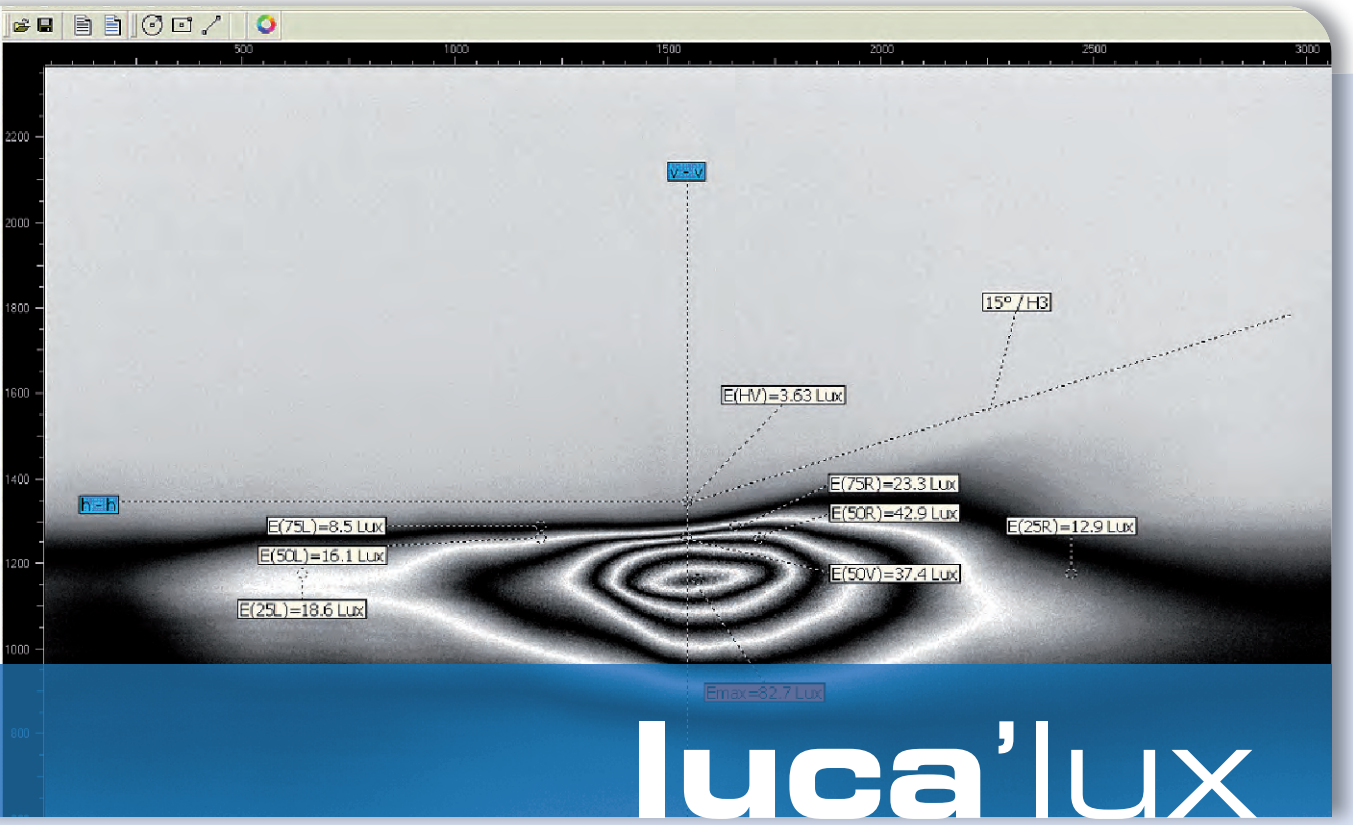


luca'lux

OTS

luca system add-on

for speedy measurement of illuminance and luminous intensity distributions

The system add-on luca'lux expands the luca system by a fast and easy measurement of illuminance and respectively of illuminance distributions.

In this connection the luminaire or optical system illuminates a diffusely scattering measuring face. Reflecting or transmitting measuring screens are available and can be used. The software provides a comfortable assistant (calibration wizard) calibrating the system with respect to a traceable transfer standard.

The complete illuminance distribution measurement of a luminaire or, e.g. an automobile headlamp is then carried out within only a few seconds.

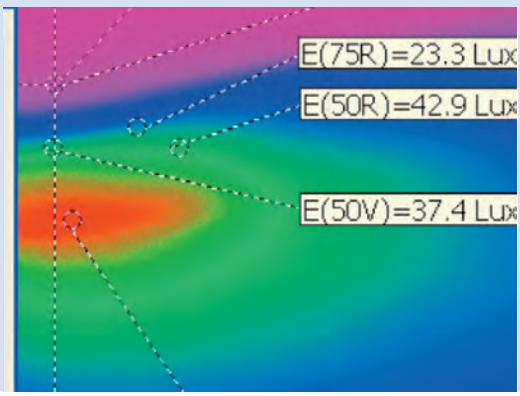
Predefined evaluation masks enable a complete analysis regarding the desired ECE or SAE standard. The background colouring shows at once whether all test points lie within the prescribed area or whether some values do not meet the standard.

Any further evaluation masks or test points can be defined by the user.

The system is operable within measuring distances of 5 m to 25 m. The conversion of smaller measuring distances to the 25 m distance is easily done.

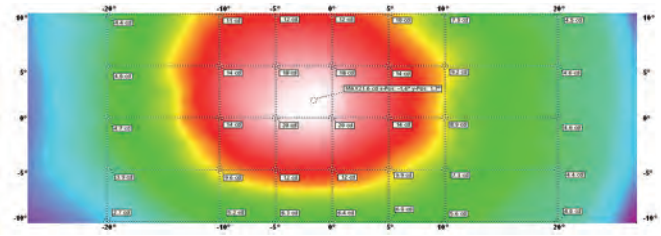
When measuring tail lamps the measurement is transformed from spatial coordinates to angle space, which enables a direct evaluation of the luminous intensity as a function of the emission angle. As a matter of course, a speedy analysis regarding the respective standards is possible.

Efficiency degrees are specified by integrating arbitrary areas of the measurement to define the luminous flux.



opsira controlling light

Measurement example: Tail lamp



The measured illuminance distribution is converted directly into the luminous intensity distribution and tested by the respective ECE regulation.
Additionally, by means of the system extension luca'color you can measure the spatially resolved chromaticity coordinates distribution.

Measurement example: Medical lamp

The measurement can be carried out from any skew angles. The luca'lux measuring algorithm provides the geometrical equalization of the measured scene and directly delivers the evaluation of the illuminance distribution according to DIN EN 60601-2-41.
luca'remote helps to completely automate, i.e. remote control test runs and integrate into given test conditions.

Measuring screens

For the reflection measurement different materials with special scattering characteristics, depending on the screen size, are available.
For transmission measurement we use an especially designed composite material showing excellent Lambertian scattering behaviour.

Specifications

Measuring range of illuminance:	0,01 Lux to 1 MLux[1]
Measuring range of luminous intensity:	0,05 cd to 1 Mcd[1]
Measuring dynamics:	12 Bit / 18 Bit[2]
Measuring time:	< 1 s typical[3]
Spatial resolution:	1300 x 1000 Pixel typical[4]
Measuring error:	< 1%[5]

[1] depending on measuring object, upper limit is arbitrarily scalable by means of suitable neutral density filters
[2] 14, 16 or 18 Bit in the HighDyn mode by multiple exposure
[3] 0,1 ms to 60 s possible
[4] further measurement resolutions possible
[5] variation from calibration transfer standard

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.

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