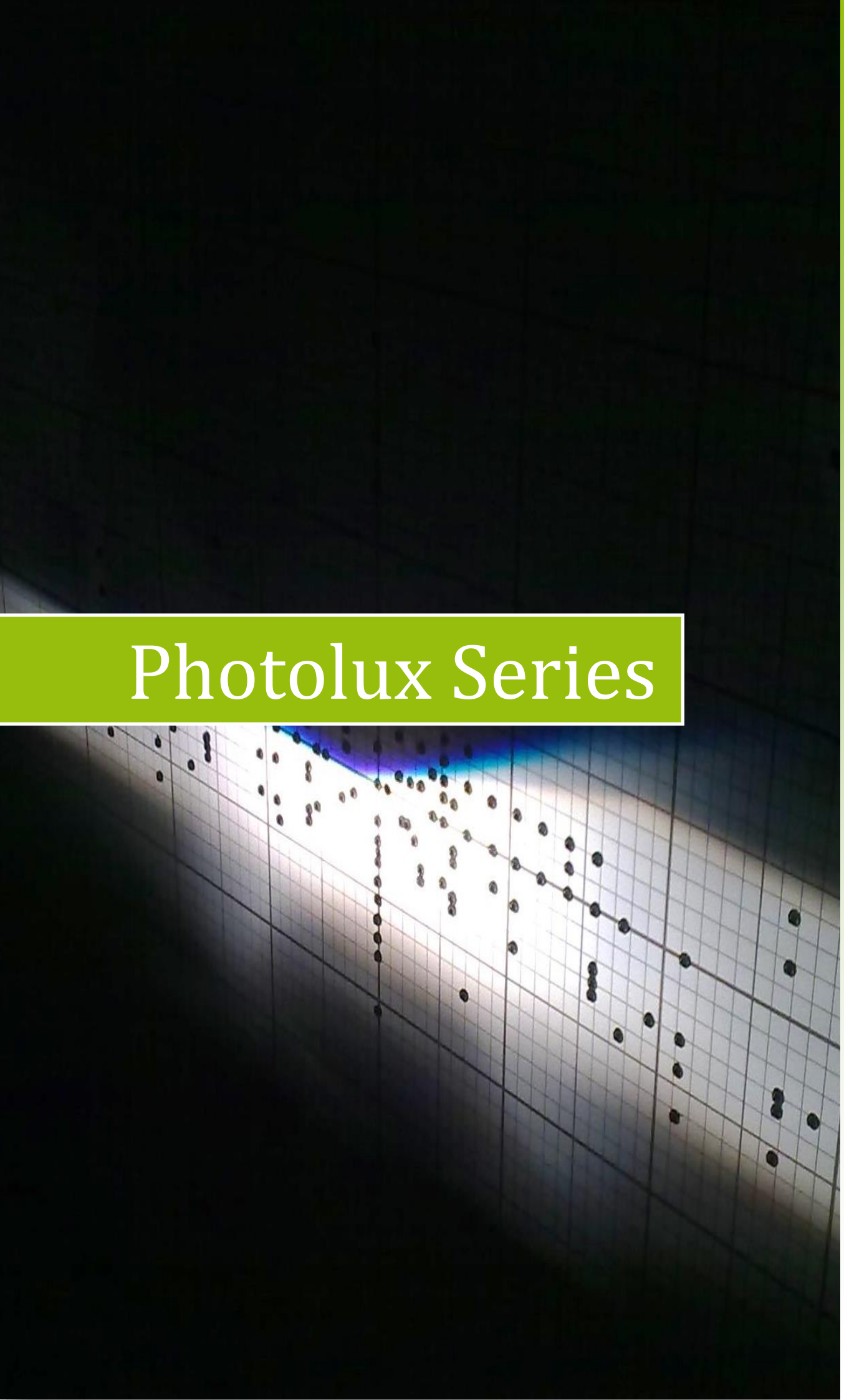
Photolux Series



PleiadesInstruments

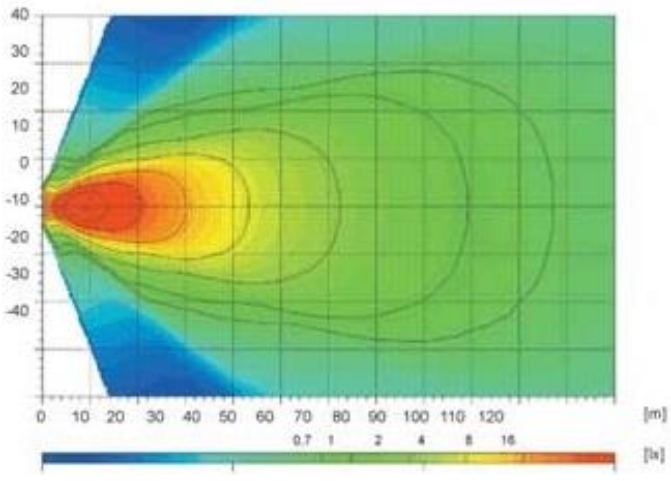
Company synopsis

Pleiades Instruments is an optoelectronic system maker, designing and manufacturing for you specific systems such as photometric measurement and customized systems. Fully competent to design high performance devices, our team can assist you in standard and specific needs.

Our devices are used round the world by automotive and general lighting industries for the development, the testing, the calibration and the production of different types of lighting products.

Photolux series products, by analyzing the spatial distribution and the photometric properties of different kinds of sources, will help you for the tests and the certification of your devices.

Regulations and Standards



In many fields, regulations and standards impose conditions on the spatial repartition but also on the spectral components of lamps. For instance in automotive lighting industry, ECE and SAE regulations now impose headlamps to emit a white light.

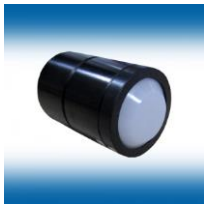
Manufacturers of automotive and general lighting systems need testing and qualifying tools throughout the development and manufacture of their products.

Photolux

Thanks to many years of experience, around the world, in the field of automotive lighting, Pleiades Instruments has developed the **Photolux series**: a range of configurable and high precision photometers.

Photolux is a photometric acquisition system, allowing illuminance measurement. All channels can be independently and geometrically configured. This equipment is delivered with a fully applicable software or/and software drivers.

Especially designed for our lighting industry customers, this high precision photometer is as convenient for laboratory use as for production control. It can be used in different fields such as automotive lighting, street lighting, light manufacturing, medical applications… **Photolux** is a **fully configurable** solution as: measurement mode and configuration can be chosen to meet your specific needs.

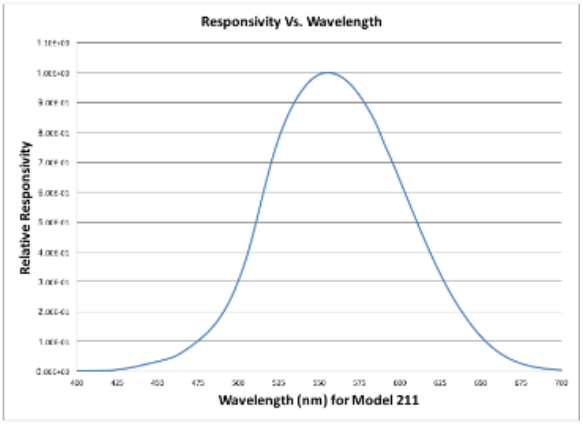


Photocurrent delivered by sensors is amplified by a precision amplification module and converted into voltage. The voltage is proportional to the illuminance of the sensors. It is then converted into numerical data thanks to National Instruments DAQ and transfered to a computer or a smartphone.

All datas are transferred thanks to an ethernet connexion.

. **Sensors caracteristics:**

Our high performance Si sensors have been especially designed to have a sensitivity spectral response characteristic similar to the human eye. Removable Cosine Receptor



λ_p	555 nm
CIE V(λ)	F'1<3%
Active area	1 cm²
Minimum Range	10 mLux

Photolux is compatible with Windows OS.

Specifications

All our products are tested and carefully calibrated with standard product certified by a certification body.

The photopic filter used on our sensors are designed to match the luminosity function V(λ) determinated by the CIE in 1924 and representing the usual light sensitivity of the human eyes. Luminosity in UV and IR is as reduced as possible.

Channel number	1
Measurement Mode	3 Modes : Continuous, Blinking, PWM
Photometric	3 digits or 10^{-3} lux
Acquisition frequency	50 kHz *Simultaneous measurement*
Photometric range	*From 10 mlux to 45 000 Lux*
Connectivity	Ethernet
PC information *(if needed)*	Processor: DualCore 2.7 GHz
	RAM: 2Go
	Software: Photolux Software/ALPES Software
	230V/50Hz/2A or 110V/60Hz/2A

The system is delivered with a BNC cable to connect the cell to the electronic board depending on customer needs. The communication between Photolux and computer is realized thanks to an Ethernet communication

Software

The system is delivered with a specific software in Labview in order to communicate with the computer and read measurement datas.

Additionaly an SDK is delivered in different programming langage (C, C++, Labview) in the aim that the customer can develop his own application.

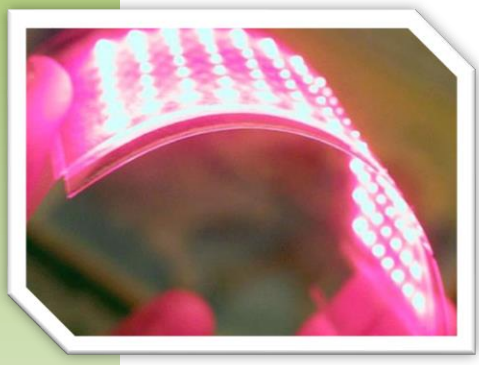
A calibration in Illuminance is delivered with the system in order to realize directly a photometric measurement.

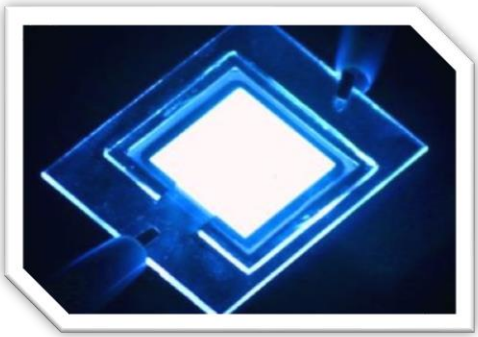
This calibration is realized thanks to a reference system calibrated in an laboratory certified ISO17025.

Applications

The Photolux series is a versatile tool products for many applications in many different fields:

R&D control of the spatial distribution of different light sources
R&D control of the intensity of different light sources
Creation and study of specific inside or outside lighting atmosphere
Light pollution measurement
OLED emission control
Light manufacturing
Medical application





General Lighting Industry
Automotive Lighting Industry
Biomedical lighting industry
Outside or Inside Lighting development
Urban lighting control
Environment and light pollution measurement
Light sources research (OLED…)

For more information on the **Photolux series** please contact us at *contact@pleiades-instruments.com*

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