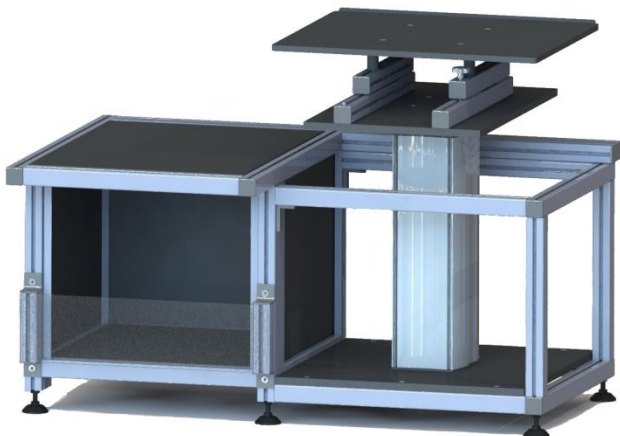
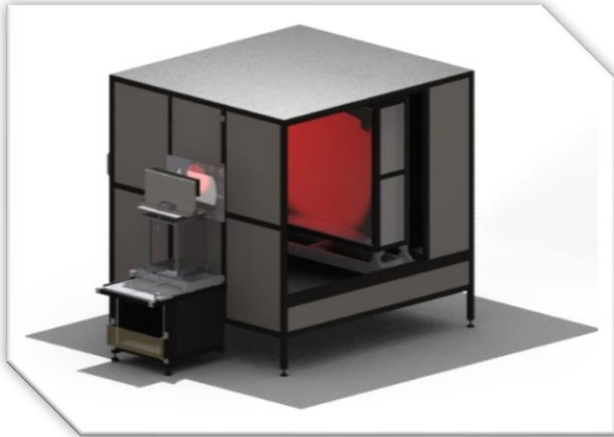


Cutoff Measurement System



Company synopsis

Pleiades Instruments is an optoelectronic system maker, designing and manufacturing for you specific systems such as photometric measurement and customized systems. Designing high performance devices, our team assists you in standard and specific need.



Our devices are used by automotive and general lighting industry for the development, the testing, the calibration and the production of different types of products such as rear or head lamps.

Goniophotometers and Multicells systems, by analyzing the spatial distribution and the photometric properties of different kinds of sources, will help you for the certification of your devices, according to many different standards (SAE, ECE, Japan, ERAI, GB) on 10 or 25 meters distance.

Regulations and Standards



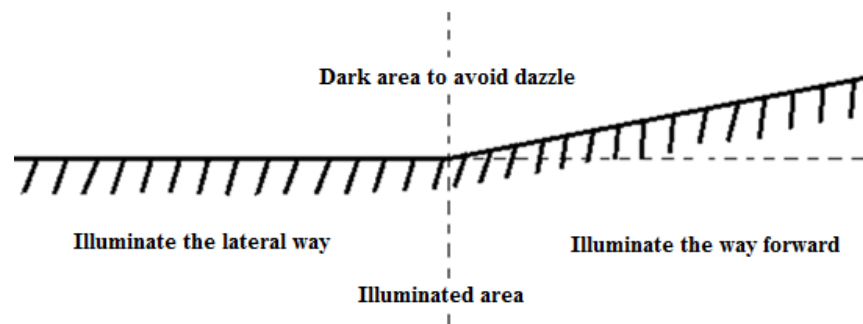
Regulations and standards impose conditions on the spatial repartition but also on the spectral components of lamps. For instance, ECE regulation imposes new headlamps to emit a white light.

Manufacturers of automotive lighting systems need testing and qualifying tools throughout the development and manufacture of their products. To do so, they need measurements using one or several photometric sensors and mobile elements to do specific evaluations.

Our goniophotometers have been developed to make the characterization of many kinds of products, precise and easy at the same time.

Cutoff Measurement System

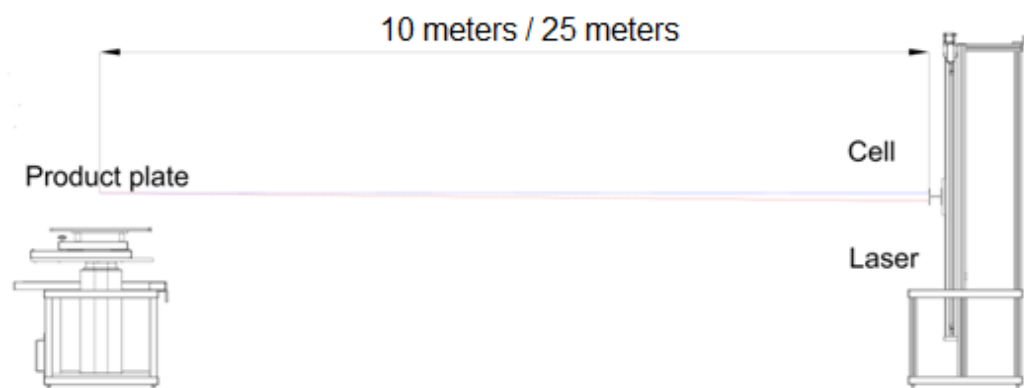
Cutoff profile



Headlamps provide a light distribution to give adequate forward and lateral illumination without dazzling other road users with excessive glare; they are specified for use whenever other vehicles are present ahead.

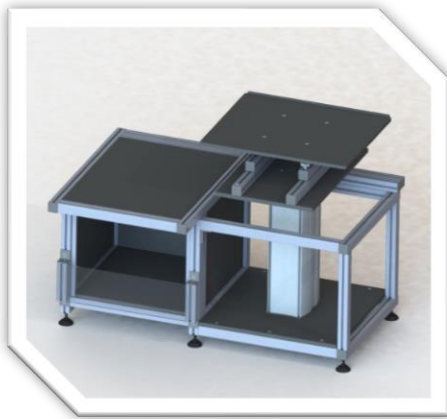
System structure

Cutoff Measurement System has been conceived and designed to measure and analyze temporal changes of cutoff position for headlamps. A cell detector, placed at 10 m (or 25m) in front of the product and moving along the vertical axis, provides information about the luminous flux emitted in a particular direction. A laser placed below the cell enables adjustment of the position of the product.



Cutoff Measurement System

Cutoff Measurement Systems with a mobile cell allow measurement and qualification of related products according to different standards (SAE, ECE and Japan) on 10m (or 25m). Thanks to this device, useful for Research and Development as well as production in the automotive lighting industry, our customers can test and certify many different products.



Our Cutoff Measurement System has many assets:

- ❖ Stand alone system.
- ❖ Large measurement range: 0 to 2750 lux
- ❖ High photometric resolution.
- ❖ High quality and repeatability of the measurements.
- ❖ Instant measurement.
- ❖ A dark photometric room required.
- ❖ Easy to use software, allowing different kinds of measures, with a large range of standards and products.
- ❖ Our devices allow tests and qualifications according to many different standards: ECE, SAE, Japan... etc.
- ❖ High quality maintenance with our reliable, timely, cost effective services for soft/hardware and our reactive after sales service.

Cutoff Measurement System characteristics:

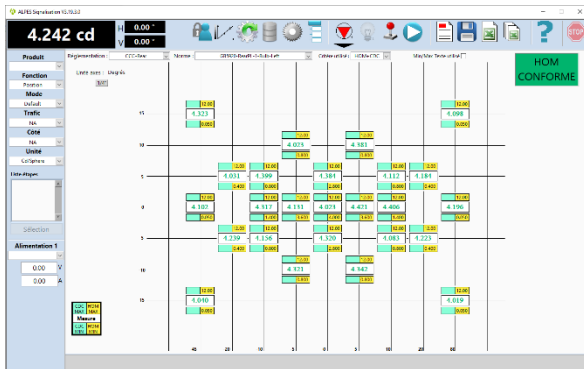
Properties	Cutoff Measurement System
Measurement cell	1 cell Photolux v4
Photometric range	2750 lux
Photometric resolution	3 digits
Display frequency	1 Hz
Measurement Mode	Continuous
Power Supply	1 power supply: 18V/20A
	Setting accuracy
	1 μ V \pm (0,05% FS) / 0,01mA \pm (0,2% FS) 10 μ V \pm (0,1% FS) / 0,01mA \pm (0,2% FS)
Movement range	1200 mm
Measurement angle	\pm 3.4°
System weight	75kg
System Size	Height: 1.85m
	Width: 1.2m
	Length: 11.2m
Power requirements	230V/50Hz/16A
PC requirements	Processor: DualCore 2.7 GHz
	RAM: 2Go
	Software: ALPES, Pack Office



Software: ALPES

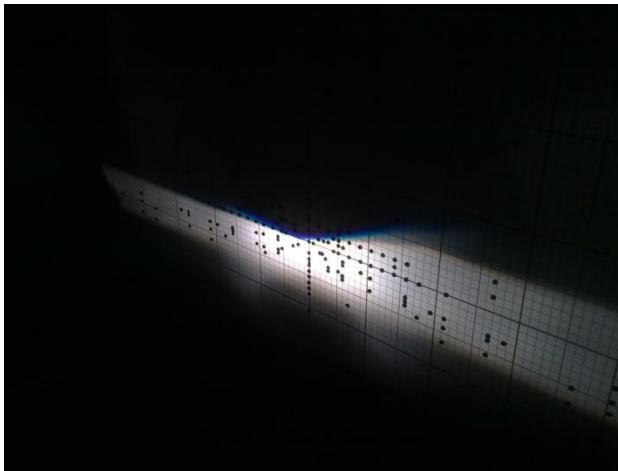
Our system is delivered with our fully applicative software called ALPES (Automotive Lighting Photometric Equipment Software). ALPES is an application used for controlling and running the photometric systems manufactured by Pleiades Instruments. It offers a user friendly and simplified user interface for operators in production mode, or a fully customizable software for administrators and Research & Development users.

ALPES is used for all the systems sold by Pleiades Instruments: goniophotometer, multi-cells, and cutoff systems and for different products: signaling and lighting.

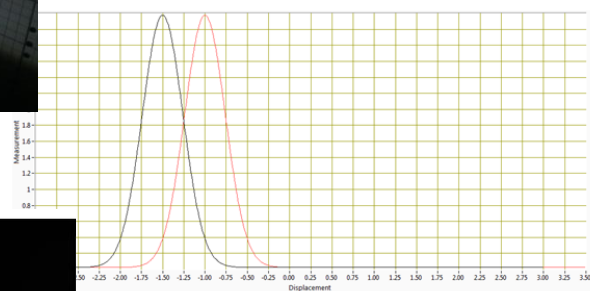


This software allows a large spectrum of measurements for complex analysis, production... A database of standards that can be tested is provided with the system. ALPES provides a report indicating if a measurement is conform to the standards. The results could be displayed by graphs which illustrates obviously the measurement.

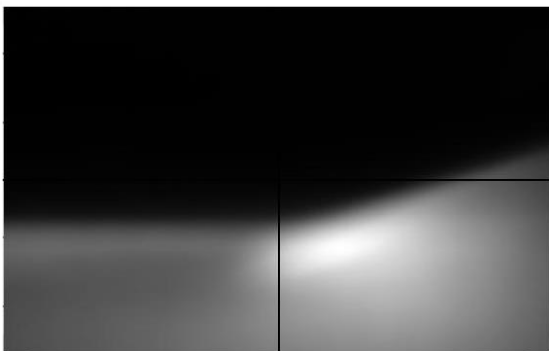
The administrator mode allows the user to prepare the measurements and to calibrate the cells if necessary; then, the operator has just to start the measurement and to analyze results.



ALPES is a very flexible software which means that it is possible for users to configure all measurements. Updates are also regularly available online.



Cutoff Sharpness Measurement





Pleiades Instruments

7 rue Antoine Polotti
38000 Grenoble, FRANCE
Phone: +33 (0)4 27 19 45 57
contact@pleiades-instruments.com
www.pleiades-instruments.com

