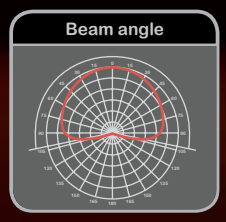
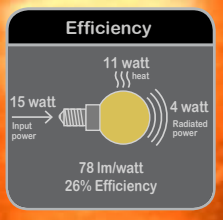
VISO SYSTEMS

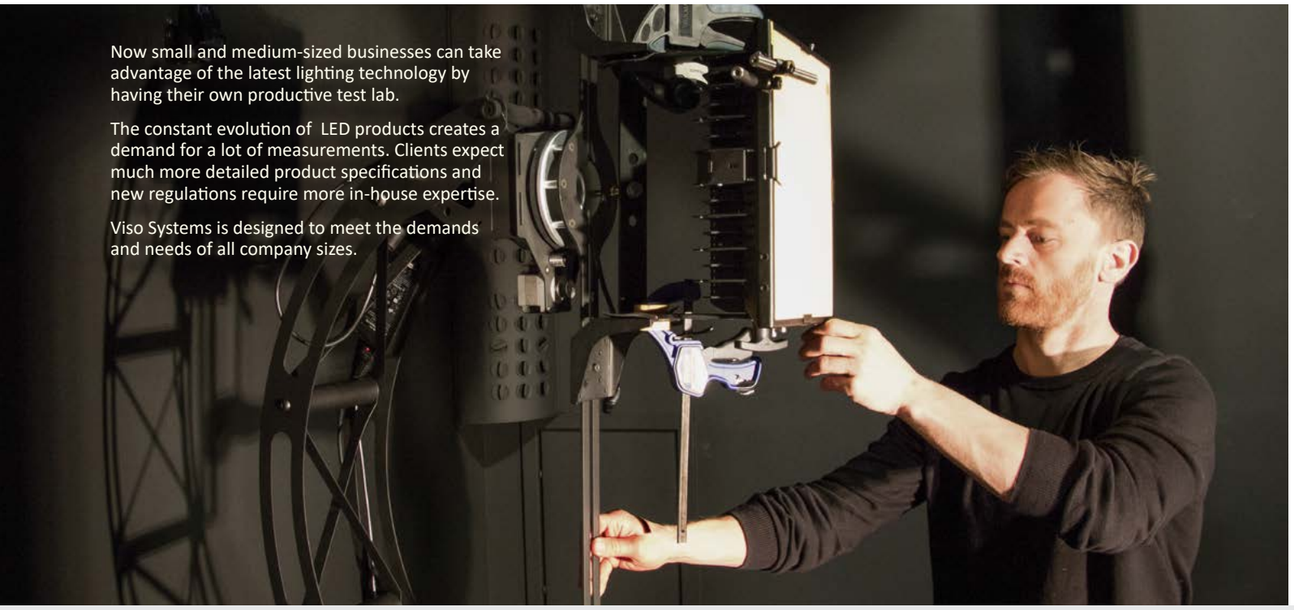
LIGHT MEASUREMENT MADE EASY





DESIGN YOUR OWN TEST LAB WITH SCANDINAVIAN EXPERTISE

From Copenhagen, Denmark, we will support you in designing and creating a productive light measurement lab. Our customers span from general, architectural, horticultural, and automotive lighting to UV lighting and more.



Now small and medium-sized businesses can take advantage of the latest lighting technology by having their own productive test lab.

The constant evolution of LED products creates a demand for a lot of measurements. Clients expect much more detailed product specifications and new regulations require more in-house expertise.

Viso Systems is designed to meet the demands and needs of all company sizes.

VISO SYSTEMS

Since 2006, Viso Systems has been at the forefront of developing and manufacturing some of the most innovative light measurement solutions in the world.

We have eliminated the need for the old integration sphere and replaced it with a single system for all testing requirements.

We eliminate the complexity of light measurement by providing smart and user software.

DESIGN

We develop and improve our products every day - and preferably in interaction with our customers. Your inputs and ideas are important to us. Close dialogue with the users ensures that our systems are always suitable for your tasks and meet new requirements.

Viso Systems equipment is suitable for many different applications, such as general lighting, horticulture and LED components. We help our clients customize equipment, installation and reports to suit specific needs.

PRODUCTION

All production and development takes place at Viso Systems headquarters and at our network of experienced suppliers.

Our products are assembled, meticulously tested and certified before shipment. Delivery time is usually only 2-3 weeks.

VISO SYSTEMS

THREE MEASUREMENT SOLUTIONS

LabSpion

For any light sources **up to 45 kg** (100 lbs).
Spectrometer sensor with built-in laser distance detector on tripod.

BaseSpion

For medium-sized light sources **up to 9 kg** (20 lbs).
Spectrometer sensor slides on table-top rail.

LightSpion

Portable measurement laboratory for small light sources **up to 4 kg (**9 lbs).
Fold-out spectrometer sensor.

ONE SOFTWARE FOR ALL

The Viso Light Inspector software is the most intuitive light measurement software solution on the market.

The software provides you with a perfect overview of all your measurement data in real-time. We know that fast measurements with smart data production is crucial for your business.

Make your IES/LDT and create fully customized reports in PDF and Excel.

Frequent updates based on customers needs.

Light Inspector

The software works with all Viso products and makes measurements easy.

LABSPION

The LabSpion® gives you the capability to measure the full range of lamps from small LED chips to very large panels and streetlight up to 45 kg (100 lbs).

The fast spectrometer sensor and a built-in power analyzer give you fast and comprehensive measurements and ensures that all data is measured quickly, making older types of equipment such as integration spheres redundant.

MEASURE IN 30 SECONDS

- Lumen
- Peak candela value
- Color temperature, CCT
- Spectrum, CRI, TM30, CQS
- Beam angle
- Detailed angular field distribution
- Power and power factor
- Lumen per watt
- Radiometrical units
- Horticultural units

... and much more

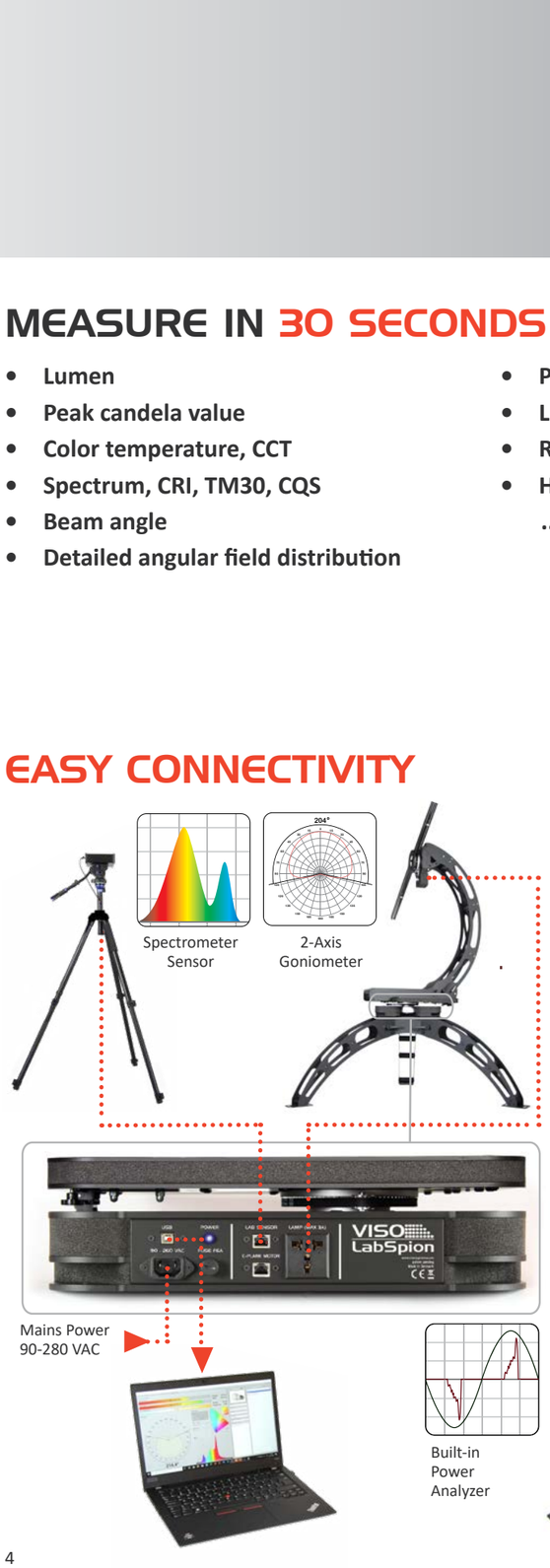
The 2-axis goniometer gives you a full 3D light distribution

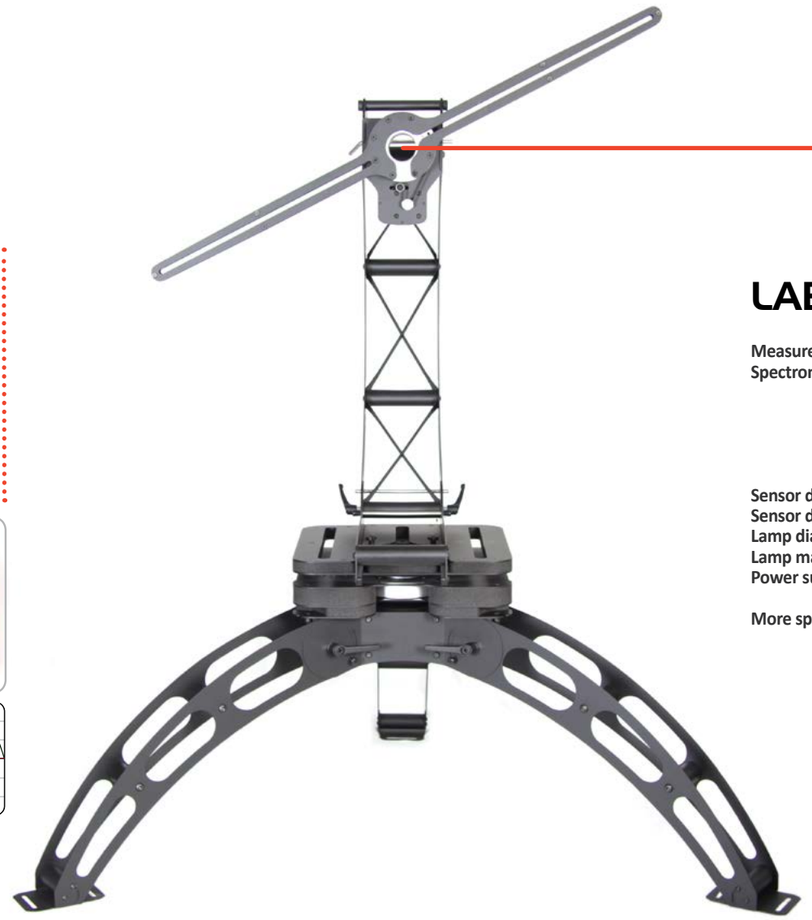
Just plug in the USB cable and everything is fully integrated

The main board easily slides out allowing a quick update

The distance is easily detected with the integrated laser

EASY CONNECTIVITY





LABSPION SPECIFICATIONS

Measurement method	**Far field, type C horizontal**
Spectrometer ranges	**VIS (standard) 360 – 830 nm**
	Also available in
	UV-VIS 200 – 830 nm
	UV-VIS-NIR 200 – 1100 nm
	VIS-NIR 360 – 1100 nm<
Sensor distance range	**70 cm –>25 m (2.3 ft –>80 ft)**
Sensor distance setup	**Manual**
Lamp diameter range	**0 – 1.5/2.0 m at 2-axis (4.9 /6.6 ft)**
Lamp maximum weight	**25 kg / 45 kg (55 lbs /99 lbs)**
Power supply input	**90 to 260 VAC, 50/60 Hz**

More specifications in page 20 – 21

LINK TO ON-LINE PRESENTATION

BASESPION

The BaseSpion® is the perfect solution for any mid-size laboratory that wants advanced light measurements in a compact system. It is the best solution for LED chips, modules, panels, downlights, bulbs and spots up to 9 kg (20 lbs).

The BaseSpion is a great tool that allows you to measure all medium-sized lighting products. The 2-axis goniometer enables the system to measure full 3D distribution fields of any light source and gives lighting professionals comprehensive IES and LDT simulation files.

COMPACT

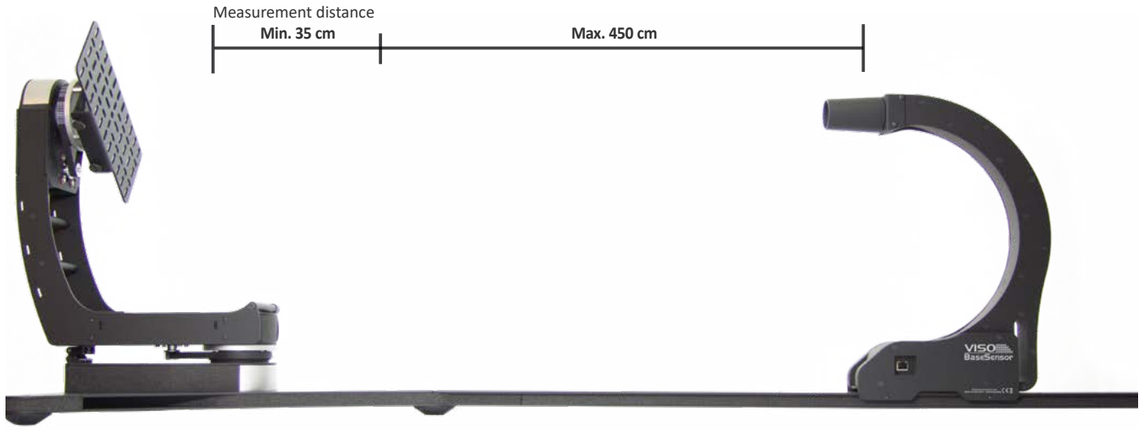
The BaseSpion is a professional laboratory table-top light measurement system. It offers fully automated multiple C-plane measurements. The design of the system makes it very flexible to work with in any lighting laboratory. The goniometer drivers and the power analyzer are all built in. Simply connect via USB to any PC and get results in just 30 seconds

LINK TO ON-LINE PRESENTATION

BASESPION SPECIFICATIONS

Measurement method	**Far field, type C horizontal**
Spectrometer range	**VIS (standard) 360 – 830 nm** Also available in UV-VIS 200 – 830 nm UV-VIS-NIR 200 – 1100 nm VIS-NIR 360 – 1100 nm
Sensor distance range	**35 cm to 450 cm (14'' – 14.7 ft)**
Sensor distance setup	**Automatic detector on rail**
Lamp diameter range	**0 – 54 cm (0 – 21.5")**
Lamp maximum weight	**9 kg (19.8 lbs)**
Power supply input	**90 to 260 VAC, 50/60 Hz**

More specifications in page 22 – 23



The universal light source bracket easily clicks onto the goniometer

Before measurement, simply slide, align and lock the light source to the center

The base lock makes it easy to align the light source with sensor

The automatic sensor positioning system ensures accurate distance

LIGHTSPION

The portable Viso LightSpion® enables you to fully measure any small light source in just 30 seconds. It measures all the photometric data and no expert knowledge is required.

The LightSpion is the only portable system in the market that includes a spectrometer sensor and a built-in power analyzer. It is a lightweight, professional measurement solution, making it easy to take it with you anywhere you go.

VISO SYSTEMS

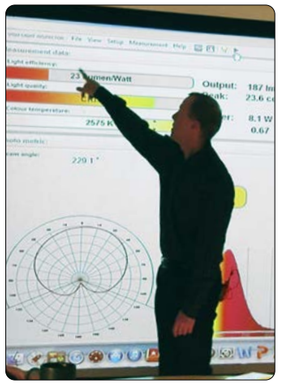
TAKE YOUR TEST LAB ANYWHERE

The LightSpion is designed to measure small, symmetrical light sources such as household lamps and LEDs.

An omni-directional reference lamp is included to enable verification of the calibration at any time.

The LightSpion includes a bracket that enables the system to measure sections of linear lamps, such as LED strips and tubes. The full length of the light source is typed into the Viso Light Inspector to provide the full photometric data.

A linear lamp bracket is included to measure long light sources, get lumen per meter or per foot.



Train your staff and students in lighting technology by bringing your test lab to any seminar or lecture. There, you can show your light measurements in real-time, providing the audience with a hands-on understanding of lighting technology.

LINK TO ON-LINE PRESENTATION

The water protected case is exceptionally lightweight (6 kg)

The built-in power analyzer gives you power information instantly

Quick and easy, the system is pre-calibrated and ready to be used

The LightSpion is operated from your own PC with Light Inspector software installed

LIGHTSPION SPECIFICATIONS

Measurement method	**Far field, type C horizontal**
Spectrometer range	**350 – 800 nm**
Sensor distance range	**66 cm (with extender 115 and 182 cm)**
Sensor distance setup	**Manual**
Lamp diameter range	**0 – 8 cm (3.15”) and with extender 22 cm (8.7”)**
Lamp maximum weight	**1 kg (2.2 lbs) and with extender 4 kg (8.8 lbs)**
Power supply input	**90 to 260 VAC, 50/60 Hz**

More specifications in page 22 – 23

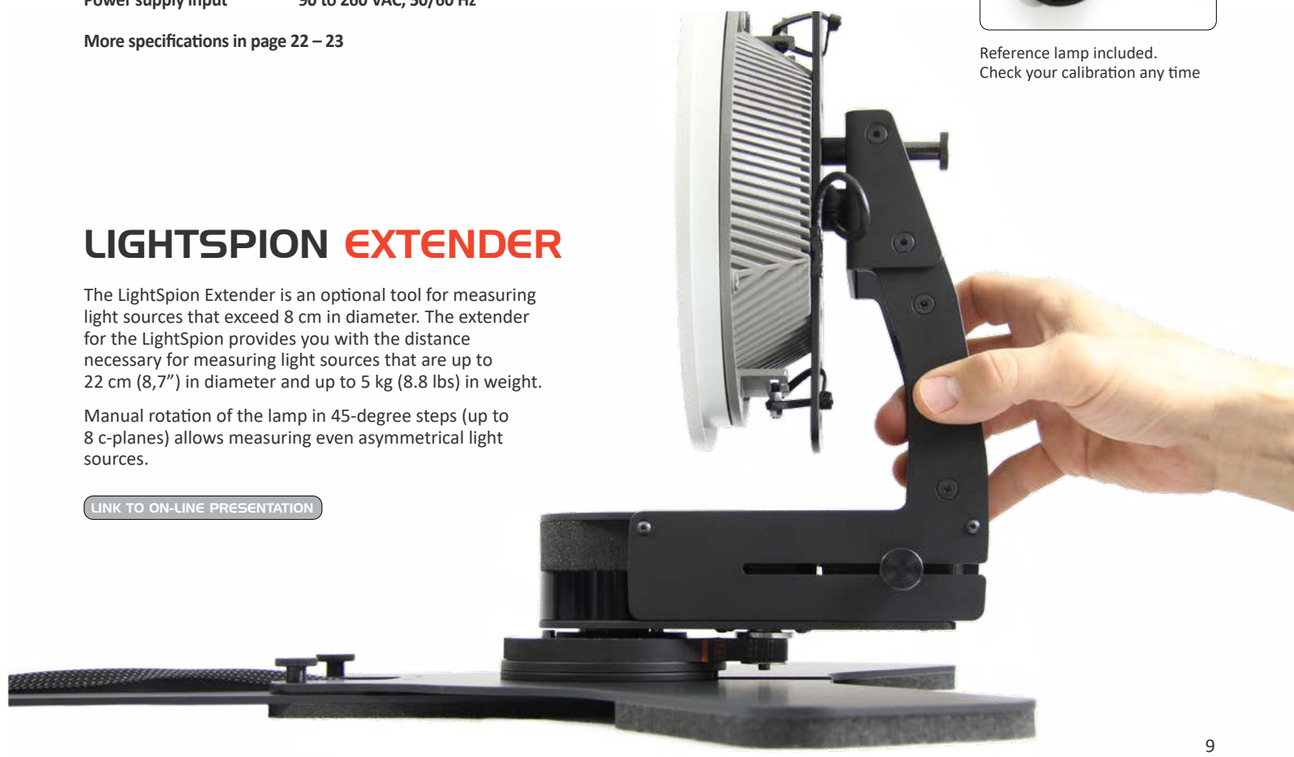
Reference lamp included.
Check your calibration any time

LIGHTSPION EXTENDER

The LightSpion Extender is an optional tool for measuring light sources that exceed 8 cm in diameter. The extender for the LightSpion provides you with the distance necessary for measuring light sources that are up to 22 cm (8,7”) in diameter and up to 5 kg (8.8 lbs) in weight.

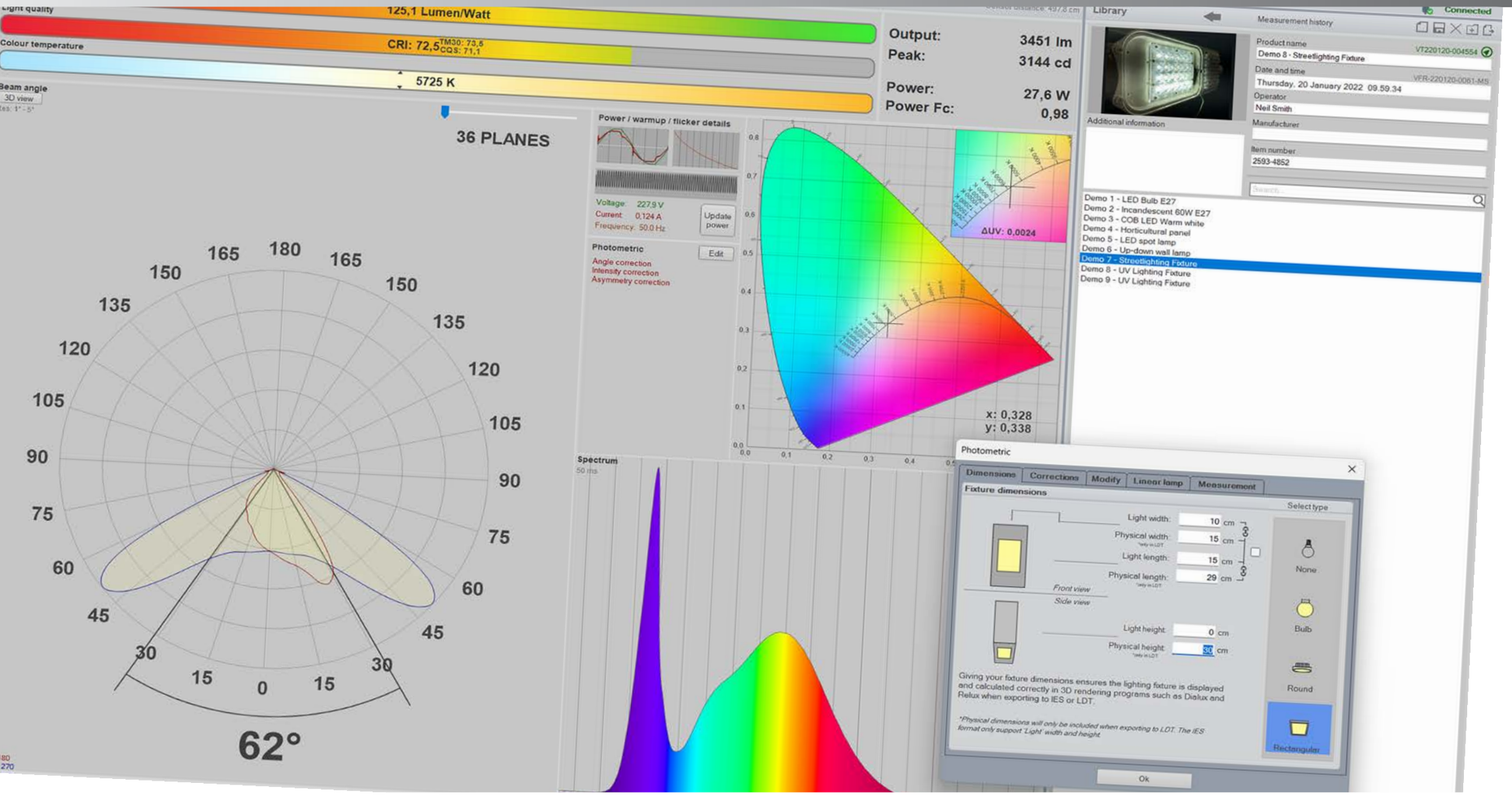
Manual rotation of the lamp in 45-degree steps (up to 8 c-planes) allows measuring even asymmetrical light sources.

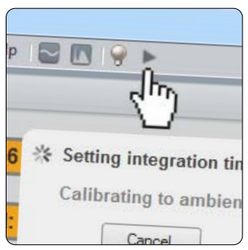
LINK TO ON-LINE PRESENTATION



LIGHT INSPECTOR SOFTWARE

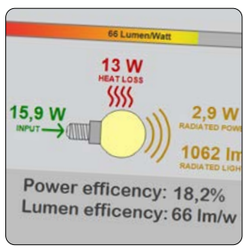
The Viso Light Inspector® is the most intuitive goniometer interface and software system on the market. It is included in all Viso Light measurement products. All measured data is shown in real-time. Photometric results are displayed graphically to give you a fast overview.



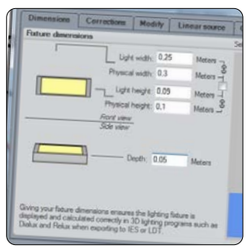


One click starts the fully automatical setup and the measurement cycle

Comprehensive color quality data results, including CRI, CQS and TM30 values



Real power efficiency can be calculated using the radiated spectral energy



Easily add dimensions to your light sources and luminous areas

THE SOFTWARE

The software gives you a great real-time overview of measurements.

The user friendly functions of the software allows you to analyze and generate your results in every detail.

The software supports various measurement styles:

- Photometric units (light for human vision)
- Radiometrical units (UV and infrared)
- Horticultural units (green house lighting)
- Dose units (for UV exposure)

PACKED WITH FEATURES

- User-friendly graphical interface
- Automatic goniometer setup
- Graphical power analyzer
- Real-time measurement data view
- Detailed angular distribution
- Add product image and description
- Make your own measurement templates
- Fully customized pdf reports - your design
- IES/LDT and lots of special exports (XLS, XML, GLDF)
- Direct export to ready-to-upload EPREL zip files
- Connect directly to MATLAB , LabVIEW, etc.
- Compatible with Windows 7, 8, 10 and 11

LINK TO ON-LINE PRESENTATION

REPORT DESIGNER

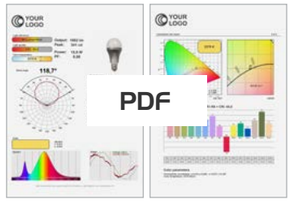
Design your report templates in your own company style. No need to cut and paste or ask any other department to customize a report for a unique look. Use Viso's Report Designer to export directly to the client or to your website in the format you desire.

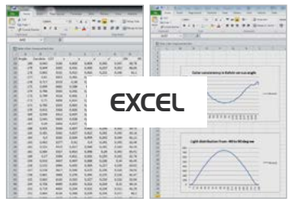
LOTS OF EXPORT OPTIONS

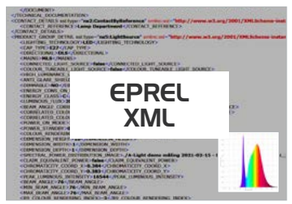
Light Inspector allows you to make several kinds of outputs - scientific and for marketing:

- Light distribution IES and LDT files (universal or custom)
- Raw data as .csv or MS Office Excel spreadsheets
- PDF standard reports
- EU: Direct export to EPREL zip file - ready to upload to the EPREL database
- Customized reports based on your own templates.
  The Light Inspector allows you to design your own PDF report templates using Microsoft Office Word as an editor. Everything you can design in MS Word, you may include - even embedded MS Excel spreadsheets or custom graphics and logos

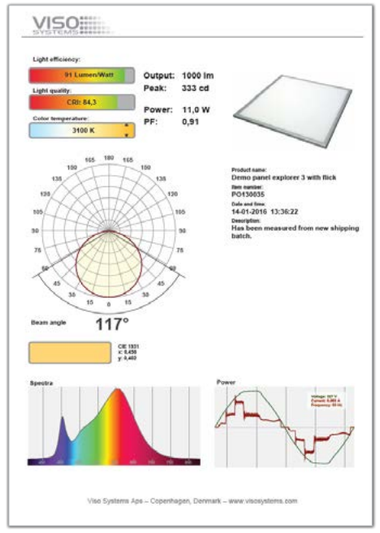
EXPORT TO

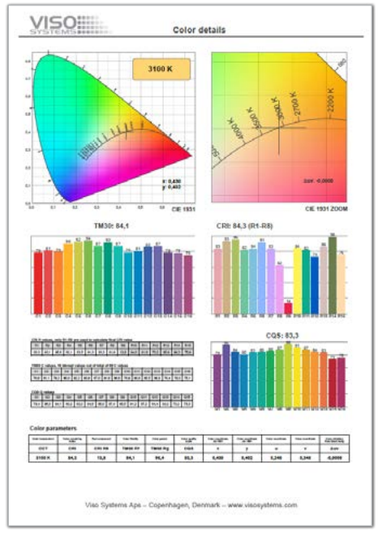


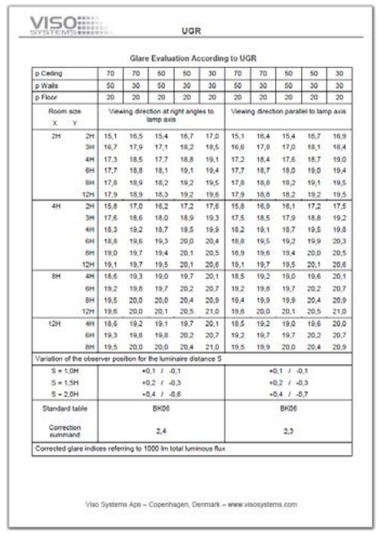




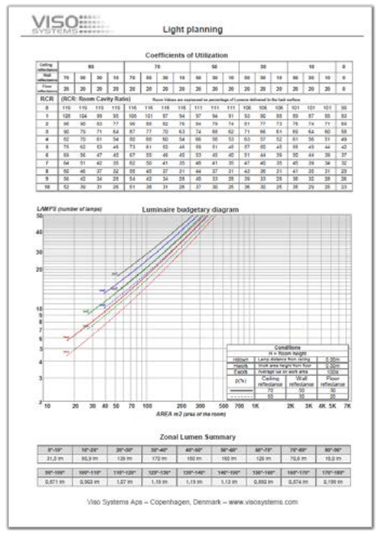
PDF REPORT DESIGNER

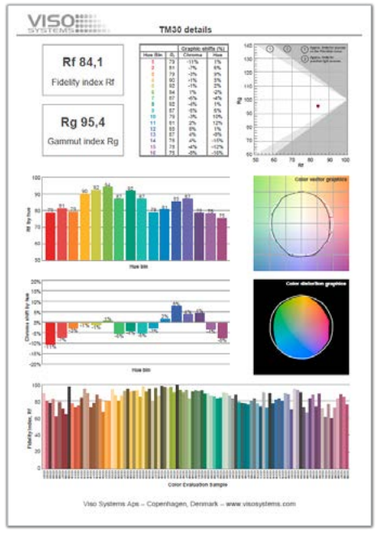


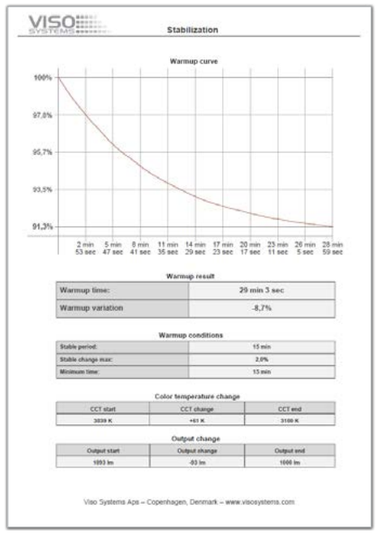


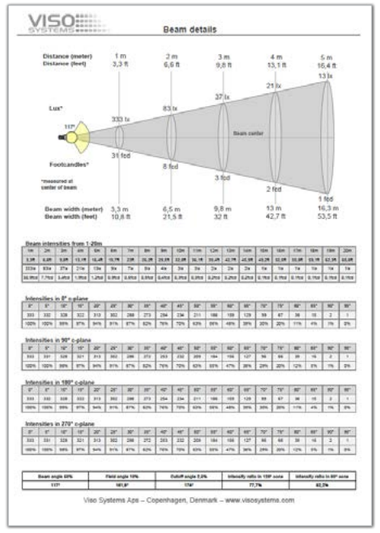


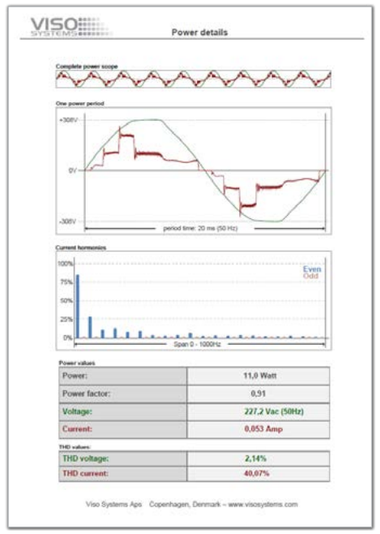
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room size X	Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	15,1	16,5	15,4	16,7	17,0	15,1	16,4	15,4	16,7	16,9
	3H	16,7	17,9	17,1	18,2	18,5	16,6	17,8	17,0	18,1	18,4
	4H	17,3	18,5	17,7	18,8	19,1	17,2	18,4	17,6	18,7	19,0
	6H	17,7	18,8	18,1	19,1	19,4	17,7	18,7	18,0	19,0	19,4
	8H	17,8	18,9	18,2	19,2	19,5	17,8	18,8	18,2	19,1	19,5
	12H	17,9	18,9	18,3	19,2	19,6	17,9	18,8	18,2	19,2	19,5
4H	2H	15,8	17,0	16,2	17,2	17,6	15,8	16,9	16,1	17,2	17,5
	3H	17,6	18,6	18,0	18,9	19,3	17,5	18,5	17,9	18,8	19,2
	4H	18,3	19,2	18,7	19,5	19,9	18,2	19,1	18,7	19,5	19,8
	6H	18,8	19,6	19,3	20,0	20,4	18,8	19,5	19,2	19,9	20,3
	8H	19,0	19,7	19,4	20,1	20,5	18,9	19,6	19,4	20,0	20,5
	12H	19,1	19,7	19,5	20,1	20,6	19,1	19,7	19,5	20,1	20,6
8H	4H	18,6	19,3	19,0	19,7	20,1	18,5	19,2	19,0	19,6	20,1
	6H	19,2	19,8	19,7	20,2	20,7	19,2	19,8	19,7	20,2	20,7
	8H	19,5	20,0	20,0	20,4	20,9	19,4	19,9	19,9	20,4	20,9
	12H	19,6	20,0	20,1	20,5	21,0	19,6	20,0	20,1	20,5	21,0
12H	4H	18,6	19,2	19,1	19,7	20,1	18,5	19,2	19,0	19,6	20,0
	6H	19,3	19,8	19,8	20,2	20,7	19,2	19,7	19,7	20,2	20,7
	8H	19,5	20,0	20,0	20,4	21,0	19,5	19,9	20,0	20,4	20,9
Variation of the observer position for the luminaire distance S											
S = 1,0H		+0,1 / -0,1					+0,1 / -0,1				
S = 1,5H		+0,2 / -0,3					+0,2 / -0,3				
S = 2,0H		+0,4 / -0,6					+0,4 / -0,7				
Standard table		BK06					BK06				
Correction summand		2,4					2,3				
Corrected glare indices referring to 1000 lm total luminous flux											

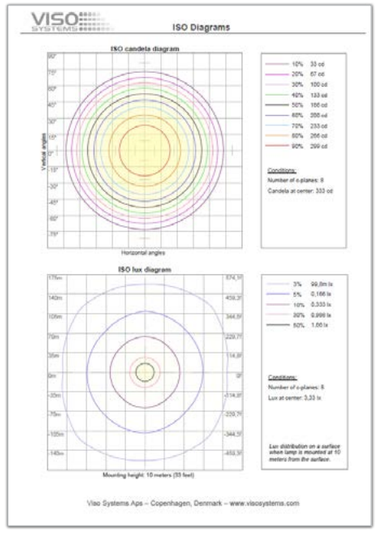


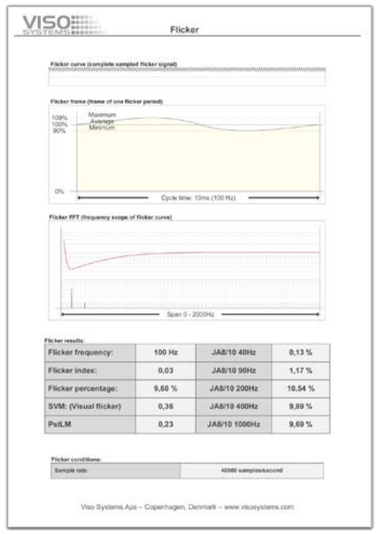


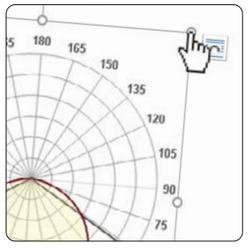




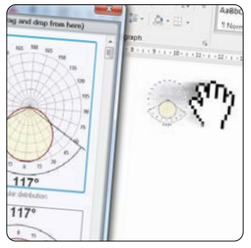




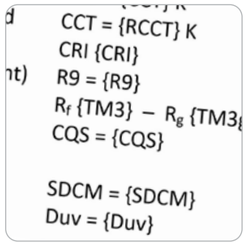




Simply add, move and/or resize any photometric data diagram (vector graphics)



Extensive library of diagrams with any photometric data just drag and drop



Use keywords to place photometric values anywhere and create tables

An unlimited number of PDF templates can be saved and selected with preview

LabFlicker

LabFlicker® is the first flicker measurement instrument to integrate seamlessly with your light measurement system, making it simpler than ever to collect all photometric data into your reporting automatically.

RESULTS

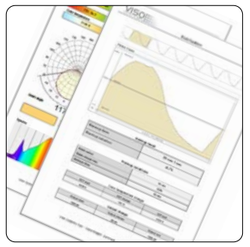
SVM, PstLM
Percent FlickerW
Flicker index
Flicker frequency
MP (Assist)
JA8/10 (Title 24)

LINK TO ON-LINE PRESENTATION

Connects directly to your PC via USB allowing for a fast, real-time preview

OLED display gives live flicker results during measurement

An ultra-fast 350.000 samples/ sec photo sensor gives you precise data



Seamless integration with Viso pdf-reporting: All photometrics in one output

LabRail

The unique LabRail® system together with LabSpion goniometer is a complete light measurement solution. Setting the sensor distance has never been easier

LABRAIL PROVIDES PERFECT ALIGNMENT

The LabRail system combines your full-size LabSpion goniometer with a rail-based sensor system.

A 12 m (39.4 ft) rail is standard - but both shorter and longer rails are available. The rail assembly is suspended from the ceiling in the laboratory.

Sensor movement along the rail is motorized. The sensor distance can be optimized for all sized light sources.

Owners of LabSpion systems may replace the standard tripod arrangement with the LabRail upgrade kit.

GO ANYWHERE IN 5 SECONDS

- **Repositioning the sensor in only 5 seconds**
- **Perfect alignment every time**
- **No cables**
- **Free up your floor space**
- **Automatic positioning**
- **Suspension from ceiling**

The integrated laser measures the distance to the light source automatically

LINK TO ON-LINE PRESENTATION

SPECIFICATIONS

Sensor distance range	**35 cm (14") to 12,000 cm (39.4 ft) (standard)**
Sensor distance setup	**Automatic**
Power supply input	**90 to 260 VAC, 50/60 Hz**

More specifications in page 21

ORIGINAL VISO ACCESORIES

LabPower

STEADY AC FEED AND POWER DATA

Viso LabPower is a combined AC power supply and power analyzer that complies with light measurements standards (IES LM-79 and CIE S 025).

LabPower is a dedicated Viso AC power supply and power analyzer. It has full integration with any Viso light measurement system. It has a versatile max. 250 W output range 90-270 VAC / 50-60 Hz.

It removes all mains voltage fluctuations throughout the measurement and provides low harmonic distortion and no resonance artefacts from advanced regulation loops.

LabPower has a real-time readout on built-in display. Further it has an optional remote sensing feature for optimal accuracy.

LINK TO ON-LINE PRESENTATION

LabAnalyzer

KEEPS TRACK OF YOUR POWER CONSUMPTION

Viso LabAnalyzer is an advanced AC and DC power analyzer that complies with light measurements standards (IES LM-79 and CIE S 025). LabPower fully integrates with your Viso light measurement system and software, and facilitates remote sensing

LabAnalyzer keeps track of your power consumption in every detail. It is both easy to install and to use, and provides precise power measurements for both AC and DC. The internal display includes advanced harmonics analysis, power graphics, power factor and displacement factor. Get all results directly into your light measurement file through the USB connection.

It has a versatile measurement range (up to 100 kHz, 2-270V AC/DC, up to around 2000 W), and a sample rate of 2 mio samples per second.

LINK TO ON-LINE PRESENTATION

Sensor upgrades

EXPAND YOUR MEASUREMENT RANGE

BaseSensor and LabSensor model II can both be fitted with detectors that go beyond the visible spectrum - in UV light down to 200 nm, and in near infrared up to 1100 nm. To comply with EPREL, measurements down to 250 nm are needed.

Your existing VIS system (360-830 nm) can be upgraded to:

- LabSensor / BaseSensor UV-VIS (200-850 nm)
- LabSensor / BaseSensor UV-VIS-NIR (200-1100 nm)
- LabSensor / BaseSensor VIS-NIR (360-1100 nm)

All Viso BaseSpion and LabSpion systems contain high end Ibsen Photonics FREEDOM with custom Viso high sensitive transmission grating. Viso UV sensors have advanced straylight correction.

LINK TO ON-LINE PRESENTATION

LabAnalyzer w/sensor sync

FOR STROBING LIGHT SOURCES

All the same features a LabAnalyzer but with a unique system that allows your Viso light measurement system to measure strobing light sources while they are strobing.

The revolutionary LabAnalyzer w/ sensor sync synchronises LabSensors/BaseSensors with measured power pulses. This makes it possible to make accurate 3D measurement of a light source that is continuously flashing.

The system measures the details of the flash waveform, peak voltage, amps, and intensity, period length, number of flashes per period, flash lengths and interval lenghts etc. This is done by syncronizing the sensor integration time with the power readings.

LINK TO ON-LINE PRESENTATION

ORIGINAL VISO ACCESORIES

LabDisc

REMOVES STRAYLIGHT

LabDisc is an accessory to Viso LabSpion and BaseSpion light measurement systems. This adjustable baffle reduces straylight errors to a minimum by restricting your sensor's field of view.

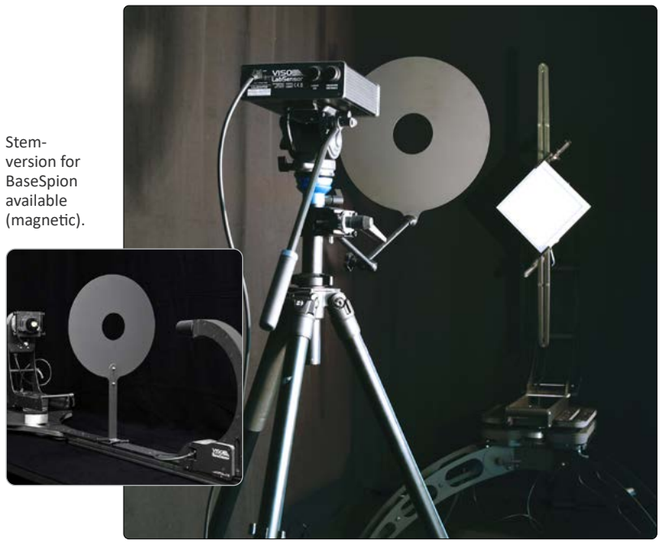
The perfect darkroom does not exist. Although all lab surfaces are black, a small amount of light is always reflected.

This stray light can reach your sensor and interfere with your result. Therefore, it is important to avoid stray light from lab surfaces.

LabDisc removes all stray light from side walls, ceiling and floor. In addition, LabDisc reduces stray light from the rear wall to a minimum.

LINK TO ON-LINE PRESENTATION

Stem-version for BaseSpion available (magnetic).



LightInterface

CONTROLS YOUR LAMP DURING MEASUREMENT

Many light sources are dimmable or color tunable. LightInterface allows the Light Inspector software to communicate with your device driver in all common protocols (DMX, DALI2, and 0-10V).

Measure your light source in a specific setting, or create special tuning protocol with several settings with the LightInspector software.

With LightInterface, you can control your light sources throughout your measurement cycle, set up special measurement protocols, and save several measurements of the same light source to special files. Product launch in 2023.

Plot your dimmer and tunable color curves.

LabTemp

RECORDS TEMPERATURE THE EASY WAY

Measure and record your device temperature and ambient temperature in your lab. LabTemp is a hub with one internal and three standard external temperature probes. LabTemp connects to Viso LabSpion and BaseSpion.

The LabTemp hub is attached to the goniometer with strong permanent magnets. The internal sensor captures ambient temperature data on any Viso BaseSpion and LabSpion while measuring light. The external probes can capture the temperature in specific points of interest. It is easy to install and use. No extra software, no extra power supply and no extra data cables.Ambient temperature control is mandatory in CIE S 025/E:2015 guidelines

LINK TO ON-LINE PRESENTATION

LabTarget

PERFECT AND FAST ALIGNMENT

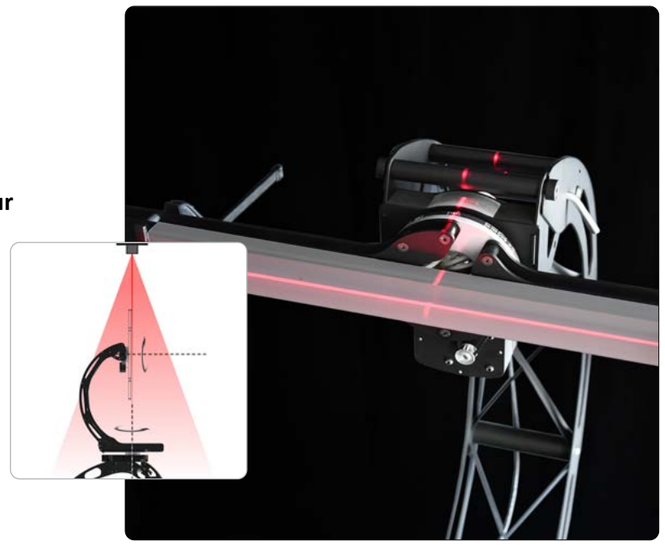
LabTarget is a Viso LabSpion and BaseSpion accessory. This vertical, cross-beam laser is mounted in the ceiling above your goniometer and makes it simple to align your light source perfectly with the rotational center.

LabTarget is the first vertical, double-plane laser level on the market. Install the LabTarget above your Viso LabSpion or BaseSpion light measurement systems and make light source alignment easier than ever.

The laser beam is on when your light measurement system is on, and turns off automatically during measurements

LabTarget is included in Vis LabRail.

LINK TO ON-LINE PRESENTATION



ORIGINAL VISO LIGHT SOURCES

Labarazzi

UNIQUE FLICKER GENERATOR

Labarazzi is a special tunable light source that can generate flicker, i.e. temporal light artifacts. Use Labarazzi for calibrating flicker testers, for testing the flicker immunity of cameras and for teaching and demonstration.

Viso Systems Labarazzi is the only commercially available TLA generator in the world. Labarazzi is a professional laboratory and demo light source that generates precise temporal light artifacts (TLA). The Labarazzi includes a 1100 lumen LED light source.

The Labarazzi offers 26 preset flicker signals with different waveform, frequency, percent flicker, duty cycle, modulation depth, PstLM and SVM. Design custom TLA waveforms with the Light Inspector.

LINK TO ON-LINE PRESENTATION

Cali-T50

REFERENCE LAMP (VIS)

Get your own custom calibration lamp. The Cali-T50 is dedicated to VIS and VIS-NIR sensors (wavelength range 360-1100 nm).

The Cali-T50 is a tungsten irradiance reference lamp with an auto ramp-up power supply. This reference lamp can be used to recalibrate/verify your calibration at any time without the need for external support. It is easily mounted in the center bracket of the LabSpion or BaseSpion. The Cali-T50 is included in LabSpion VIS/VIS-NIR. All CALI-T50/ CALI-DT300 light sources are traceable to PTB 2302 Blackbody radiator - the PTB national primary standard for spectral irradiance calibration lamps.

LINK TO ON-LINE PRESENTATION

REF-800

FAST CALIBRATION CHECKUP

This lamp can be used to regularly check that your calibration still holds. The set consists of a COB LED on a large heat sink and a dedicated driver. The REF-800 is charaterized using your particular sensor with every factory (re)calibration.

This special Viso reference light source (Reference 800) is included in all new Viso light measurement systems. The purpose for supplying this item is to facilitate quick tests of whether the spectrometer properties have drifted, indicating that recalibration is needed. With The REF-800 you avoid wearing on your calibration lamp such as CALI-T50.

LINK TO ON-LINE PRESENTATION

Cali-DT300

REFERENCE LAMP (UV-VIS-NIR)

Get your own custom calibration lamp. The Cali-DT300 is dedicated to UV-VIS and UV-VIS-NIR sensors (wavelength range 200-1100 nm).

The CALI-DT300 is an irradiance reference lamp containing two calibration light sources – a deuterium lamp for UV calibration, and a tungsten lamp for visible light calibration.

This reference lamp can be used to recalibrate/verify your calibration at any time without the need for external support.

The Cali-DT300 is included in LabSpion UV-VIS/UV-VIS-NIR and BaseSpion UV-VIS/UV-VIS-NIR.

LINK TO ON-LINE PRESENTATION

TECHNICAL SPECIFICATIONS

LabSpion VIS

Standard version

LabSpion UV-VIS

As standard version

LabSpion UV-VIS-NIR

As standard version

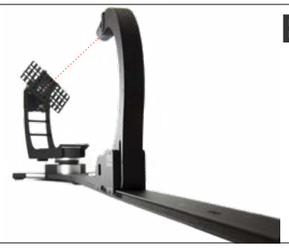
LabSpion VIS-NIR

As standard version

LabRail for LabSpion

Physical Dimensions		*As standard version*	*As standard version*	*As standard version*	
Shipping Weight	**90 kg** (198 lbs)				**35 kg** (77 lbs)
Dimensions (L x W x H)	**190 x 190 x 162.5 cm** (6.2 x 6.2 x 5.3 ft)				**25 x 25 x 160 cm** (0.8 x 0.8 x 5.3 ft)
Weight	**78 kg** (172 lbs)				**30 kg** (66 lbs)
Sensor Distance Range	**0.5 to 50 m** (1.6 to 160 ft)-				**0.5 to 12 m** (1.6 to 39.4 ft)
Sensor Distance	**≥ Light Source Length x 10 (Min. x 8)**				**Standard up to 12 m** (39,4 ft) **(can be extended)**
Sensor Distance Set-Up	**Laser Range Finder, ±2 mm**				**Laser Range Finder, Automatical, ±2 mm**
Light Source Diameter Range	**0 – 1.5 m** (0 – 4.92 ft) **@ 2-Axis**				
Light Source Diameter Range, High Tower	**0 – 2.0 m** (0 – 6.56 ft) **(@ 2-Axis**				
Light Source (DUT) Maximum Weight	**25 kg** (55 lbs)				
Light Source (DUT) Maximum Weight, Enforced	**45 kg** (99 lbs)				
Electrical Specifications		*As standard version*	*As standard version*	*As standard version*	
Power Supply Input	**90 – 260 VAC, 50/60 Hz**				**90 – 260 VAC, 50/60 Hz**
Power Analyzer Voltage Range	**90 – 260 VAC < ±0.5 V**				
Power Analyzer Current Range	**0 – 3 A (Average ±0.5 mA)**				
Power Analyzer Power Range @ 230 V	**0 – 600 W (Average: ±0.1 W)**				
Power Analyzer Power Range @ 110 V	**0 – 300 W (Average: ±0.1W)**				
Power Analyzer Sample Rate	**70,000 Samples/sec**				
Photometric Specifications					*As preferred LabSpion version*
Measurement Method	**Far Field**	**Far Field**	**Far Field**	**Far Field**	
Illuminance, Lux at Sensor (Equal to cd @ 1 m)	**0.20 – 200,000 lux <±2,5%**	**0.40 – 400,000 <±2,5% lux**	**0.40 – 400,000 <±2,5% lux**	**0.40 – 400,000 <±2,5% lux**	
Max intensity @ 1.0 m	**0.2 – 200,000 cd <± 2,5%**	**0.40 – 400,000 cd <± 2,5%**	**As UV-VIS version**	**As UV-VIS version**	
Max intensity @ 20.0 m	**80 – 80,000,000 cd <± 2,5%**	**160 – 160,000,000 cd <± 2,5%**			
Flux Range, Min. Distance (Lambertian Distribution)	**0.63 – 630,000 lm @ 1.0 m**	Radiated spectral energy In W/nm Irradiance in µW/cm² or W/m² (all directions)			
Flux Range, Max. Distance (Lambertian Distribution)	**250 – 250,000,000 lm @ 20.0 m**	3D UV-VIS radiation field			
Flux accuracy	**VIS ±4 %**	**VIS ±4%, UVA/B ±5%, UVC ±6.5%**	**NIR ±4%, VIS ±4%, UVA/B ±5%, UVC ±6.5%**	**VIS ±4%, NIR ±4%**	
Color Temperature Range	**1,000 K – 10,000 K < ±35 K**	**1,000 K – 10,000 K < ±35 K**	**1,000 K – 10,000 K < ±35 K**	**1,000 K – 10,000 K < ±35 K**	
Color Rendering Index	**Up to 100 < ±0.7**	**Up to 100 < ±0.7**	**Up to 100 < ±0.7**	**Up to 100 < ±0.7**	
Resolution, Standard	**5 Degrees/Step (Auto-Detect)**	**5 Degrees/Step (Auto-Detect)**	**5 Degrees/Step (Auto-Detect)**	**5 Degrees/Step (Auto-Detect)**	
Resolution, Highest	**0.1 Degrees/Step (Auto-Detect)**	**0.1 Degrees/Step (Auto-Detect)**	**0.1 Degrees/Step (Auto-Detect)**	**0.1 Degrees/Step (Auto-Detect)**	
Number of c-planes	**2 – 72 (max. 144) automatical**	**2 – 72 (max. 144) automatical**	**2 – 72 (max. 144) automatical**	**2 – 72 (max. 144) automatical**	
Spectrometer Type	**Ibsen Photonics FREEDOM**	**Ibsen Photonics FREEDOM**	**Ibsen Photonics FREEDOM**	**Ibsen Photonics FREEDOM**	
Custom Viso	**(High Sensitive Transmission Grating)**	**(High Sensitive Transmission Grating)**	**(High Sensitive Transmission Grating)**	**(High Sensitive Transmission Grating)**	
Spectrometer Range	**360 – 830 nm (1024 pixels)**	**200 – 850 nm (2048 pixels)**	**200 – 1100 nm (2048 pixels)**	**360 – 1100 nm (2048 pixels)**	
Spectrometer Detector	**Hamamatsu S11639-01**	**Hamamatsu S11639-01**	**Hamamatsu S11639-01**	**Hamamatsu S11639-01**	
Calibration	**Fully Calibrated Plug-and-Play Solution**	**Fully Calibrated Plug-and-Play Solution**	**Fully Calibrated Plug-and-Play Solution**	**Fully Calibrated Plug-and-Play Solution**	
Re-calibration	**Min. Every Two Years**	**MIn. Every Two Years**	**MIn. Every Two Years**	**MIn. Every Two Years**	

TECHNICAL SPECIFICATIONS



BaseSpion VIS

Standard Version

BaseSpion UV-VIS

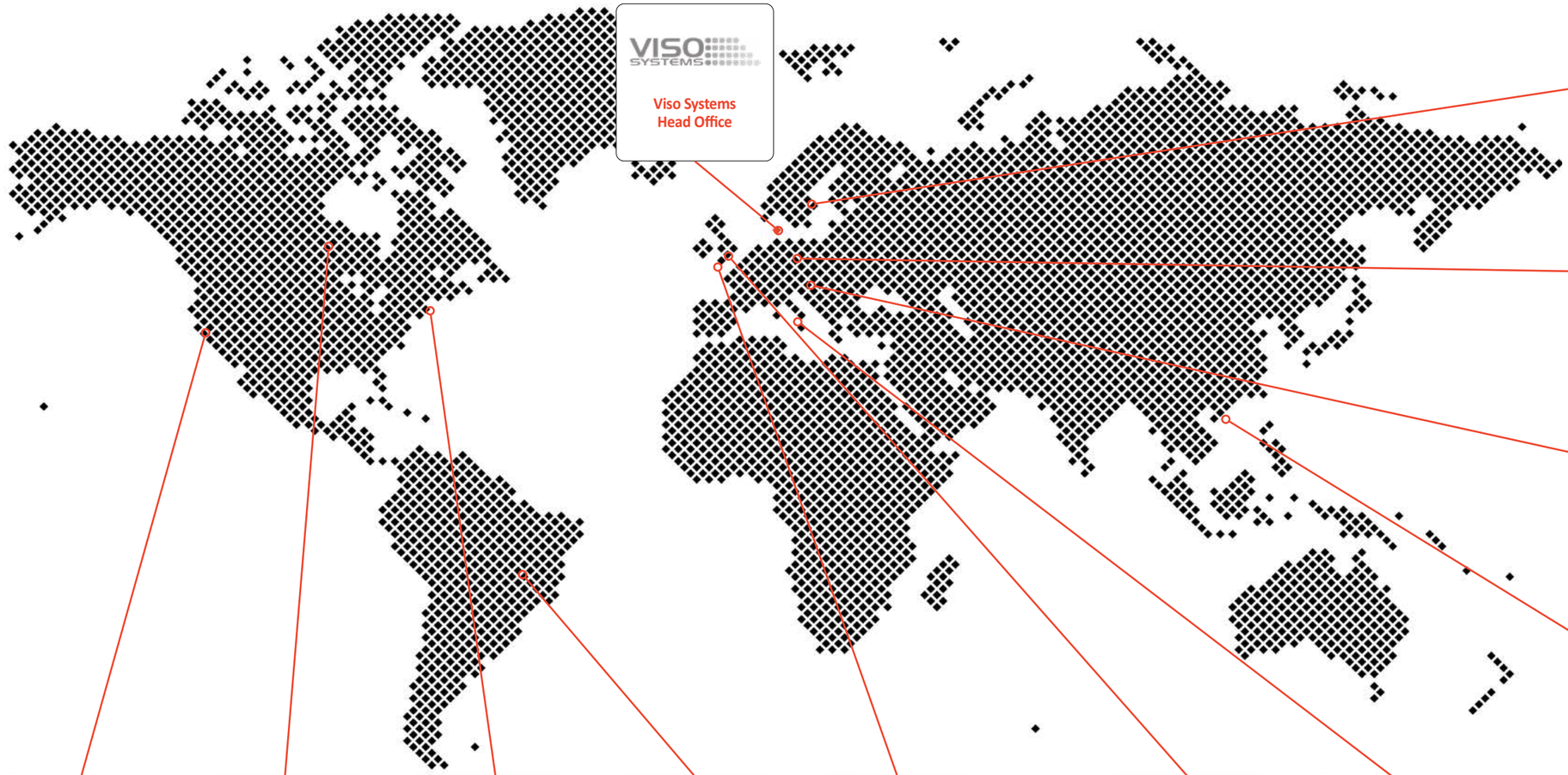
LightSpion

Extender for LightSpion

	BaseSpion VIS	BaseSpion UV-VIS	BaseSpion UV-VIS-NIR	BaseSpion VIS-NIR	LightSpion	Extender for LightSpion
Physical Dimensions		*As standard version*	*As standard version*	*As standard version*		
Shipping Weight	**42 kg** (93 lbs)				**7 kg** (15.4 lbs)	**9 kg**
Dimensions (L x W x H)	**205-500 x 56 x 55 cm** (6.7-16.4 x 2 x ft)				**43x11.5x33.5 cm** (17.1x4.5x33.5")	**100 x 36 x 21 cm**
Weight	**38 kg** (84 lbs)				**6 kg** (13.2 lbs)	**7 kg**
Sensor Distance Range	**0.35 – 4.5 m** (1.15 – 14.8 ft)				**66 cm** (26"), **fixed**	**66, 115 and 182 cm**
Sensor Distance	**≥ Light Source Length x 10 (Min. x 8)**				**Fixed**	**Fixed (Three Settings)**
Sensor Distance Set-Up	**Automatic Detector on Sensor Rail**				**-**	**Manual input**
Light Source Diameter Range	**0 - 54 cm** (1.8 ft)				**0 – 8 cm** (3.15") **@ single-axis**	**0 - 22 cm**
Light Source (DUT) Maximum Weight	**9 kg** (19.8 lbs)				**1 kg**	**4 kg**
Electrical Specifications		*As standard version*	*As standard version*	*As standard version*		
Power Supply Input	**90 – 260 VAC, 50/60 Hz**				**90 - 260 VAC, 50/60 Hz**	
Power Analyzer Voltage Range	**90 – 260 VAC < ±0.5 V**				**90 - 260 VAC < ±0.5 V**	
Power Analyzer Current Range	**0 – 3 A (Average ±0.5 mA)**				**0 – 3 A (Average ±0.5 mA)**	
Power Analyzer Power Range @ 230 V	**0 – 600 W (Average: ±0.1 W)**				**0 – 600 W (Average: ±0.1 W)**	
Power Analyzer Power Range @ 110 V	**0 – 300 W (Average: ±0.1W)**				**0 – 300 W (Average: ±0.1W)**	
Power Analyzer Sample Rate	**70,000 Samples/sec**				**70,000 Samples/sec**	
Photometric Specifications						
Measurement Method	**Far Field**	**Far Field**	**Far Field**	**Far Field**	**Far Field**	
Illuminance Range, Lux at Sensor @ 1 m	**0.2 – 200,000 <±2,5% lux**	**0.40 – 400,000 <±2,5% lux**	**0.20 – 200,000 <±2,5% lux**	**0.20 – 200,000 <±2,5% lux**	**10 - 10,000 lux**	
Intensity Range, Min. Distance	**0.0245 – 24,500 cd <±2,5% @ 0.35 m**	**0.050 – 29,000 cd <±2,5% @ 0.35 m**	**As UV-VIS version**	**As UV-VIS version**	**0.5 – 50,000 candela ±4% @ 66 cm**	
Intensity Range, Max. Distance	**4 – 4,050,000 cd <±2,5% @ 4.50 m**	**8 – 8,100,000 cd <±2,5% @ 4.50 m**				
Flux Range, Min. Distance (Lambertian Distribution)	**0.08 – 75,000 lm @ 0.35 m**	Radiated spectral energy In W/nm Irradiance in µW/cm² or W/m² (all directions)			**10 - 50,000 lm @ 66 cm** (3.15")	
Flux Range, Max. Distance (Lambertian Distribution)	**12.7 – 12,700,000 lm @ 4.50 m**	3D UV-VIS radiation field				
Flux accuracy	**VIS ±4 %**	**VIS ±4%** **UVA/B ±5%, UVC ±6.5%**	**NIR ±4%, VIS ±4%,** **UVA/B ±5%, UVC ±6.5%**	**VIS ±4%, NIR ±4%**	**LED ±4%, other types ±7.8%**	
Color Temperature Range	**1,000 K – 10,000 K < ±35 K**	**1,000 K – 10,000 K < ±35 K**	**1,000 K – 10,000 K < ±35 K**	**1,000 K – 10,000 K < ±35 K**	**1,000 K – 10,000 K < ±35 K**	
Color Rendering Index	**Up to 100 < ±0.7**	**Up to 100 < ±0.7**	**Up to 100 < ±0.7**	**Up to 100 < ±0.7**	**Up to 100 < ±0,7**	
Resolution, Standard	**5 Degrees/Step (Auto-Detect)**	**5 Degrees/Step (Auto-Detect)**	**5 Degrees/Step (Auto-Detect)**	**5 Degrees/Step (Auto-Detect)**	**7.5 Degrees/Step (Auto-Detect)**	**7.5 Deg./Step (Auto-Detect)**
Resolution, Highest	**0.1 Degrees/Step (Auto-Detect)**	**0.1 Degrees/Step (Auto-Detect)**	**0.1 Degrees/Step (Auto-Detect)**	**0.1 Degrees/Step (Auto-Detect)**	**0.1 Degrees/Step**	**0.1 Degrees/Step**
Number of c-planes	**2 – 72 (max. 144) automatical**	**2 – 72 (max. 144) automatical**	**2 – 72 (max. 144)**	**2 – 72 (max. 144)**	**2 (standard) – 8 (manual)**	**2-8**
Spectrometer Type	**Ibsen Photonics FREEDOM**	**Ibsen Photonics FREEDOM**	**Ibsen Photonics FREEDOM**	**Ibsen Photonics FREEDOM**	**STS Ocean Optics**	
Custom Viso	**(High Sensitive Transmission Grating)**	**(High Sensitive Transmission Grating)**	**(High Sensitive Transm. Grating)**	**(High Sensitive Transm. Grating)**		
Spectrometer Range	**360 - 830 nm (1024 pixels)**	**200 - 850 nm (2048 pixels)**	**200 - 1100 nm (2048 pixels)**	**360 - 1100 nm (2048 pixels)**		
Spectrometer Detector	**Hamamatsu S11639-01**	**Hamamatsu S11639-01**	**Hamamatsu S11639-01**	**Hamamatsu S11639-01**	**Panavision ELIS-1024**	
Calibration	**Fully Calibrated Plug-and-Play Solution**	**Fully Calibrated Plug-and-Play Solution**	**Fully Calibrated Plug-and-Play**	**Fully Calibrated Plug-and-Play**	**Fully Calibrated Plug and Play**	
Re-calibration	**Every Two Years**	**Every Two Years**	**Every Two Years**	**Every Two Years**	**Every Two Years**	

AROUND THE WORLD

**The Viso measurement solutions are being used by hundreds of customers around the world.
Below is reference to a few of our customers including their experience using the systems.
You can read the full customer reviews on www.visosystems.com/review**



Matt Samuel
LEDRABrands, USA

- The LabSpion allows us to create our own IES files, that are published on our website
- Before we outsourced ALL of our photometric testing, which was a costly and time consuming process
- We use Viso daily to assist with product development

Daniel Silverstein
Liteline, Canada

- With the LabSpion we now measure more than a dozen fixtures per week
- Colour versus angle is very helpful and a unique feature
- Reduced cost from using external labs means the system was paid back in less than 1 year

Carlton Jones
Fraen, USA

- Since 2018, LabSpion has produced hundreds of accurate measurements for us
- The LabSpion just works. Durable, easy to use, accurate, and versatile
- We can design, prototype, test, tool, mold our complex plastic lenses and reflectors better, faster and cheaper.

Martin Nähr
Stella, Brazil

- The LabSpion makes it possible to quickly compare our products for both quality control and for competitive purposes
- Fast product comparisons have improved our sales process

Daniel Mahdavi
Orluna, UK

- The LightSpion system saves us waiting 2-4 weeks for IES files from an external lab
- With our own system we can run thermal improvements, beam shape improvements, and LED selection
- R&D is faster and we are able to prototype accurately

Matthew Earnshaw
ACDC, UK

- With the LightSpion + Extender we can now turn around any measurement in few minutes
- Before we had to ship our fixtures and pay £300 per measurement
- The system was paid back in 1-2 weeks, due to quantity of measurements

Matteo Botner
Botlighting, Italy

- After developing an internal test facility, we have been much quicker and more effective in selecting materials and partners
- Customers appreciate that the company has the right instruments for R&D.
This has improved our reputation in the market

Håkan Jordanson
Nokalux, Sweden

- LabSpion has reduced our measurement time significantly to an average of 8 minutes per fixture
- Before we paid €800 for a measurement at a external lab
- The quality of our lighting fixtures has increased as we can test faster

Stephan Meyer
Korona , Germany

- The use of LED technology required us to do much more measurements to maintain development schedules
- The LightSpion + Extender also made it possible for us develop solution of specialized high-end projects
- Before, it took two weeks to get a single measurement done by an external lab and would cost €650

Robert Francij
Molto Luce, Austria

- With LabSpion we are faster in the engineering phase, so we are able to bring the products to market more quickly
- We primarily use the system for measuring prototypes, i.e. efficiency of reflectors

John Cheung
Retc, Hong Kong

- BaseSpion and LabSpion allows us measure 50 lamps per week
- Viso help us to save time so we can focus on quality aspects
- The system was paid back in less than one year

Read all of the full reviews on www.visosystems.com/review

CUSTOMER SUPPORT

Installation takes less than two hours and you will be able to use your equipment from day one. As you work more with light measurements, questions will probably arrive. Viso Systems take pride in assisting you as fast as possible.

GETTING FAST ANSWERS

- Call your local distributor
- Call Viso Systems' head office
- Send us an email - info@visosystems.com
- Check the online Viso Q&A section at www.visosystems.com/q
- Check the most up-to-date manuals at www.visosystems.com/support

EU ECODESIGN

DIRECT EXPORT TO EPREL ZIP FILES

All Viso measurement systems allow you to extract EPREL data via the Light Inspector software and the included EPREL zip file generator.

Viso software automatically generates your zip-files – ready for upload. Pick a measurement, add a little data in the dialog window, and generate the zip-file with a single click.

This is a unique Viso software feature.

CONTACT

Our worldwide network of partners will be able to support you with any questions you might have. We look forward to assisting you.

VISO SYSTEMS

HEAD OFFICE

Viso Systems (Copenhagen office)
Vesterbrogade 12, 1.
1620 Copenhagen V
Denmark

CVR: DK 29690391
Tel. +45 36991882
Mail: sales@visosystems.com

EUROPE AND MIDDLE EAST

Germany, Austria and Switzerland
Acal BFi Germany GmbH
Oppelner Straße 5
82194 Gröbenzell
Germany
Tel.: +49 (0) 8142 6520 0
Email: sales-de@acalbfi.de

United Kingdom
ACAL BFi UK Ltd.
3 The Business Centre
Molly Millars Lane, Wokingham
Berkshire RG41 2EY
United Kingdom
Tel: +44(0) 07443 815 827
Email: tom.letowski@acalbfi.co.uk

France
Acal BFi France SAS
1 allée de la Chartreuse
91080 Evry-Courcouronnes
France.Tel: +33 (0) 1 60 79 59 00
Email: sales-fr@acalbfi.fr

Netherlands, Belgium and Luxemburg
Laser 2000 Benelux C.V.
Voorbancken 13a
3645 GV Vinkeveen
The Netherlands
Tel: +31-(0)297-266191
info@laser2000.nl

Italy
Acal BFi Italy SCL
Via Cascina Venina n.20
20090 Assago
Milan
Italy
Tel: +39 (0) 253 5831
Email: sales-it@acalbfi.it

Estonia, Latvia and Lithuania
UAB "Mikros Makros"
Verkių g. 30B-211
LT-08221 Vilnius, Lithuania
Tel: +375 29 6477774
Email: viki@mikros.lt

Czech Republic and Slovakia
Safibra, s.r.o.
Černokostelecká 1621
251 01 Říčany
Czech Republic
Tel: + 420 323 601 615
Email: safibra@safibra.cz

Greece
Alfatec Single Member P.C
Kanari Str. 3 153 44 Gerakas
Athens
Greece
Tel: +30 2106047635, +30 2106049695
Email: sales@alfatec.gr

Turkey
TD Elektronics
Akçaburgaz Mahallesi 3080. Sokak No:5
34522 Esenyurt
Istanbul, Türkiye
Tel: +90 212 444 2733
Email: info@tdelektronik.com

Israel
Nisko Technologies Ltd.
Communication, Test & Measurement Division
Tel: +972-50-7679537
Email: shai@nisko-tech.com

AMERICAS

USA
Viso Systems HQ
Vesterbrogade 12, 1.
1620 Copenhagen V
Denmark
Email: sales@visosystems.com

Local Contacts
Aaron Wood (Midwest, Florida) - Cell: 407-212-1210
Fatima Mercado (West-Coast) - Cell: 310-529-9358
Tripp Roberts (Southwest) - Cell: 770-331-3501
Matt Muhr (Northeast) - Cell: 610-390-0302

Argentina
RGB Lighting Systems S.A.
Camarones 1562
[C1416ECD] Ciudad Autónoma de Buenos Aires
Argentina
Tel: +54 11 4581-0044
Email: info@rgbls.com

Canada, Central America, South America except Argentina
Viso Systems HQ
Vesterbrogade 12, 1.
1620 Copenhagen V
Denmark
Email: sales@visosystems.com

ASIA

China (Hong Kong)
MPHK Group Ltd.
Att: Peter Chan
12/F New Lee Wah Centre,
88 Tokwawan Road, Kowloon, Hong Kong
Tel: +852 2264 1500
Email: sales@mphkg.com.hk

China (Bijing)
Titan Electro-Optics(Hong Kong)Co., Ltd. Beijing Office
Add: Room 1701-1706, The Gate Tower B, No. 19,
Zhongguancun Avenue,
Haidian District, Beijing 100080, China
Tel: +8610 6263 4840
Email: sales@teo.com.cn

China (Shanghai)
Titan Electro-Optics(Hong Kong)Co., Ltd. Shanghai
Room 0909-0916, No. 501 Wuning Road, Shanghai
200063, China
Tel: +86 21 6222 7575
Email: sales-sh@teo.com.cn

China (Shenzhen)
Titan Electro-Optics(Hong Kong)Co., Ltd. Shenzhen
Room 1106, Building B, Meilong Road,Minzhi
Street,Shenzhen,Guangdong 518131,China
Tel: +86 755 8320 5020
Email: sales-sz@teo.com.cn

India, Sri Lanka, Bangladesh, Nepal, Myanmar and Bhutan
Precision Components
Att: Mr. Rajiv Gupta
3B/8, RAMESH NAGAR, NEW DELHI
Tel: +91-11-25467625
Mob: +91-9837049353
Email: precision2001in@gmail.com

Japan
Optosirius Corporation
1-2-14, Akabane-nishi, Kita-ku
Tokyo 115-0055 Japan
Tel: +81-3-5963-6388
Email: yohei@optosirius.co.jp

Singapore, Malaysia, Indonesia, Thailand,
Vietnam, Philippines and Brunei
Kenda Singapore Pte Ltd.
67 Loyang Way, Singapore 508757
Tel: +65 6543-1183 Extension 112
Email: LynnNg@Kenda.net

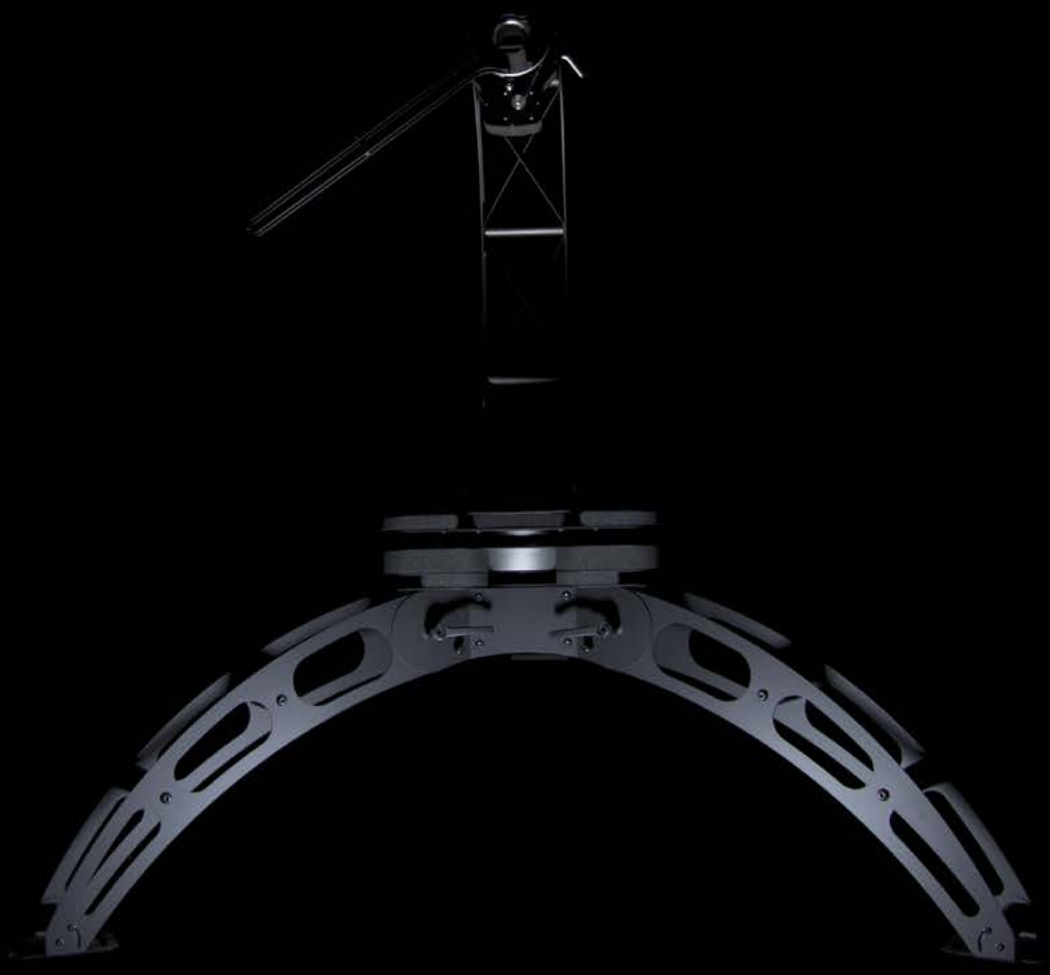
OCEANIA

Australia and New Zealand
LED TEKNIK GROUP Pty Ltd
Unit 9 12-20 James Court
Melbourne, Tottenham VIC 3012
Tel: +61 (0) 407 904336
Email: nick@ledteknik.com.au
Email: noel.duncan@visosystems.com

AFRICA

South Africa
Energywise Systems Ltd
Unit 5 Edstan Business Park
2 Ibhubesi Road
Riverhorse Valley, 4017
Durban
Tel: +27 31 764-2345 / +27 87 941-0012
Email: info@energywise.co.za

VISO SYSTEMS



WWW.VISOSYSTEMS.COM

SALES@VISOSYSTEMS.COM - TEL. +45 36991882
VISO SYSTEMS APS - COPENHAGEN - DENMARK