

## Light measurement made easy



ins or ≣¢€≛



	Efficiency
15 watt	11 watt ())) 4 watt Radiated power
	78 lm/watt 26% Efficiency

Flicker					
	$\wedge$		$\wedge$		$\land$
$\overline{\mathbf{v}}$		$\vee$		$\vee$	
					E

## SCANDINAVIAN EXPERTISE

Hundreds of clients worldwide use goniometer solutions from Viso Systems in Copenhagen, Denmark. Our customers are primarily in the general lighting industry as well as in horticultural lighting, automotive lighting and other specialized lighting applications.

## YOUR OWN LABORATORY

Previously, only large companies had the need and the resources to build their own laboratory.

Now times have changed, and small and medium sized companies request light measurement equipment too. Constant LED-product changes create a demand for lots of measurements – every day. Further, lighting customers expect much more detailed product specifications and legislation calls for endless checking of requirements.

Measuring solutions from Viso Systems are designed to meet the demands of both large, mid-sized and small companies that want their own laboratory. Our customers appreciate easily operated highend equipment at an attractive price.

Once your own laboratory is in place you will also enjoy:

- Faster and more focused product development.
- Building internal competences
- Professional product specifications to present to your customers

## 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.

### VISO SYSTEMS

Based in Copenhagen, Denmark, Viso Systems has developed and produced high-end light measurement equipment and controls since 2006. We supply the lighting market with

innovative light measurement and control technology that is of the highest quality and precision. We simplify the complexity of measurements and control systems by delivering intuitive user interfaces. The implementation of unique technology in our products, for example the fast spectrometer solution that replaces a photometer, puts us on the forefront of smart, fully integrated measurement solutions.

## SOFTWARE

The Viso Light Inspector software is the strongest and most intuitive light measurement software solution in the market.

The dashboard provides you with a perfect overview of your measurements - and in real-time. We know that speed of measurement and data production is crucial to your business.

Whether you just want to create LDT and IES files or you want more advanced reports, Viso Light Inspector software will provide fast and easily customized outputs.

### PRODUCTION

All production and development takes place in Viso Systems' headquarters in Copenhagen, Denmark and with our network of experienced and reliable sub-suppliers.

Our products are assembled, meticulously tested and certified before shipment. Delivery time is normally only 14 days from order.

## WHAT MAKES VISO DIFFERENT

Viso customers reported back to us that especially our software solution is market leading. Further, we focus on powerful customer service to facilitate your day-to-day laboratory work. All-in-one solutions and short delivery times makes it easy to get started.

### UNIQUE SOFTWARE

Your everyday tool is the second-to-none Light Inspector software solution. The dashboard gives you a great real-time overview of measurements. Underlying functionality allows you to analyze and download your results in much more detail



## CUSTOMIZED REPORTS

The Viso pdf report generator allows you to present all data and graphs nicely to your customers. Customize your reports to carry your logo and your selection of data, and reuse your templates again and again.



## ALL-IN-ONE

Viso solutions are all-in-one: We capture both light distributions and color data in the same measurement, hence there is no need for an integrating sphere. The system comprises all hardware - no external racks are needed.



## STRONG SUPPORT

Our worldwide network of resellers as well as head office engineers are ready to answer your questions.



## **READY TO SHIP**

Normal delivery time is only about 14 days from order. Our equipment is designed for 2-day air freight.



## **PRODUCT OVERVIEW**





### Light Inspector

The Light Inspector software works with all Viso systems and makes measurements easier than ever.

Fully graphical workflow



### LabRail

For large light sources. Spectrometer sensor with rail-mounted sensor and distance detector (standard length 12 m).

Max. 150 cm / 25 kg



### LabSpion

For large light sources. Spectrometer sensor with built-in laser distance detector on tripod.

Max. 150 cm / 25 kg



### BaseSpion

For medium-sized light sources. Spectrometer sensor on table-top rail.

Max. 54 cm / 9 kg



### **LightSpion**

Portable measurement laboratory for small light sources. Fold-out spectrometer sensor.

Max. 8 cm / 1 kg



### Extender

Extension for LightSpion increasing measuring distance up to 180 cm.

Max. 22 cm / 4 kg



### LabFlicker

Allows measurement of all contemporary flicker metrics and connects to all Viso goniometers



### Viso Accessories

Add a Cali-T50 lamp to make system calibrations.

Add a LabTemp 3-port temperature probe and measurement system for monitoring DUT temperature

## LIGHT INSPECTOR SOFTWARE

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

## THE DASHBOARD



## CLICK AND GO

- User-friendly graphical interface
- Automatic goniometer setup
- Graphical power analyzer
- Real-time measurement data
- Detailed angular distribution
- Add product image and description
- Customize pdf reports using Viso report designer
- Connect directly to MATLAB , LabVIEW, etc.
- Compatible with Windows 7, 8 and 10

One click starts the fully automatic setup and the measurement cycle



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





Using a spectrometer sensor and a built-in power analyzer, the unique Viso technology enables fast measurements and ensures that all data is measured quickly, making other equipment such as integration spheres redundant.





Real power efficiency can be calculated using the radiated spectral energy



Easily add dimensions to your light sources and luminous areas

Control C

## LABRAIL WITH LABSPION

The unique LabRail<sup>®</sup> system together with a LabSpion goniometer is a complete light measurement solution. The 2-axis goniometer enables the system to measure the full 3D light distribution of any light source giving lighting professionals comprehensive .ldt and .ies files.



Upgrade your LabSpion: Replace the tripod with a LabRail system



The LabRail connects to the LabSpion power analyzer with a single ethernet cable



The standard rail is 12 m long and secures optimal alignment every time



The integrated laser measures the distance to the light source automatically





The rail solution allows easy repositioning of the sensor. The sensor travels securely on the up to 16 m long rail along the optical axis. Once the light source is in place there is no need for further alignment of the sensor.

m

### PERFECT ALIGNMENT

The LabRail is the newest product from Viso Systems. The LabRail system combines a full-size goniometer with a rail-based sensor system.

12 meters (8 x 1,5 m) of 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 and sensor distance can be optimized for any size of light source.

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

### SPECIFICATIONS

Sensor distance range Sensor distance setup Power supply input

35 cm to 12,000 cm (standard) Automatic 90 to 260 VAC, 50/60 Hz

More specifications in page 18-19

## LABSPION

The LabSpion<sup>®</sup> is a complete light measurement solution ideal for all light sources from small lamps and LED chips to large panels and streetlights. The 2-axis goniometer system measures the full 3D distribution field of any light source giving lighting professionals comprehensive LDT/IES simulation files.



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





Using a spectrometer sensor and a built-in power analyzer, the unique Viso technology enables fast measurements and ensures that all data is measured quickly, making other equipment such as integration spheres redundant.



### **EASY CONNECTIVITY**



### **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

SPECIFICATIONS

Measurement method Spectrometer range Sensor distance range Sensor distance setup Lamp diameter range Lamp maximum weight Power supply input Far field, type C horizontal 360 - 830 nm 35 cm to 1,600 cm Manual 0 - 1,5 m at 2-axis 25 kg 90 to 260 VAC, 50/60 Hz

More specifications in page 18-19

## BASESPION

The BaseSpion<sup>®</sup> is a great tool for any light measurement laboratory and 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 LDT and IES simulation files.

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 center lock makes it easy to align the light source to the center of rotation



The automatic sensor positioning system ensures accurate distance





The BaseSpion is the perfect solution for any midsize laboratory that wants advanced light measurements in a compact system. It is the best solution for LED chips, modules, panels, downlights, bulbs and spots.



### **SPECIFICATIONS**

Measurement method Spectrometer range Sensor distance range Sensor distance setup Lamp diameter range Lamp maximum weight Power supply input Far field, type C horizontal 360 - 830 nm 35 cm to 450 cm Automatic detector on rail 0 - 54 cm 9 kg 90 to 260 VAC, 50/60 Hz

More specifications in page 18-19



## LIGHTSPION

The portable Viso LightSpion<sup>®</sup> enables you to fully measure any light source in just 30 seconds. It measures all the photometric data and no expert knowledge is required. The LightSpion can even be used outside of a laboratory or dark room, making it a great tool for on-site inspections and empowering your sales force.



The water protected case is exceptionally lightweight (5 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





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

### STANDARD FEATURES

The LightSpion is designed to measure small, symmetrical light sources such as household lamps and LEDs in one plane (two C-planes).

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. Full length of the light source is typed into the Viso Light Inspector to provide the full photometric data.



Reference lamp included



Linear lamp source bracket

### **SPECIFICATIONS**

Measurement method Spectrometer range Sensor distance range Sensor distance setup Lamp diameter range Lamp maximum weight Power supply input Far field, type C horizontal 350 - 800 nm 66 cm (with extender 115 and 182 cm) Manual 0 - 80 mm (with extender 220 mm) 1 kg (with extender 4 kg) 90 to 260 VAC, 50/60 Hz

More specifications in page 18-19

### **OPTIONAL: EXTENDER**

The LightSpion Extender<sup>®</sup> is an excellent 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 in diameter and up to 5 kg in weight.

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

## LABFLICKER

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



The LabFlicker connects directly to the Light Inspector software giving you a live preview of your flicker signal. The smart signal processing algorithm frames and calculates your flicker data in real-time. The LabFlicker can be used as a stand-alone device but gets more powerful when used together with any Viso product as all photometric data can be seamlessly exported into one complete report. The LabFlicker is designed to be used in a laboratory setting positioned close to the light source.



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



OLED display gives live flicker results during measurement



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



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



## ACCESSORIES



All necessary equipment is included in your first shipment. A few items may be added to extend your capabilities. Do your own calibrations with the Cali-T50 reference lamp. Measure DUT temperature and integrate the results in your reports.

### CALI-T50



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. The Cali-T50 is included in LabSpion and LabRail



### LABTEMP



Keeping track of the temperature of the device under test is often important. The new LabTemp hub allows you to follow the temperature via three standard temperature probes. Results will be displayed dynamically and in reports. The LabTemp can be mounted on all steel surfaces via strong permanent magnets

## TECHNICAL SPECIFICATIONS



Physical Dimensions		
Shipping Weight	90 kg	35 kg
Dimensions (L x W x H)	190 x 190 x 162.5 cm	25 x 25 x 160 cm
Weight	78 kg	30 kg
Sensor Distance Range	0.5 to 50 m	0.5 to 12 m
Sensor Distance	≥ Light Source Length x 10 (min. x 8)	Standard up to 12 m (can be extended)
Sensor Distance Set-Up	Laser Range Finder	Laser Range Finder, Automatic
Light Source Diameter Range	0 - 1.5 m @ 2-Axis (Up to 6 m at 1-Axis)	
Light Source (DUT) Maximum Weight	25 kg	
Electrical Specifications		
Power Supply Input	90 - 260 VAC, 50/60 Hz	90 - 260 VAC, 50/60 Hz
Power Analyzer Voltage Range	90 - 260 VAC < ±0.5V	
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		
Measurement Method	Far Field	Far Field
Lumen and candela accuracy	±4 %	
Intensity, Lux at Sensor (Equal to cd @ 1 m)	0.20 – 200,000 <±2,5% lux	
Max intensity, candela @ 0.5 m	0.05 – 50,000 <± 2,5% candela	
Max intensity, candela @ 5 m	5 – 5,000,000 <± 2,5% candela	
Max intensity, candela @ 10 m	20 – 20,000,000 <± 2,5% candela	
Max intensity, candela @ 20 m	80 – 80,000,000 <± 2,5% candela	
Color Temperature Range	1,000 K - 40,000 K < ±35 K	
Color Rendering Index	Up to 100 < ±0.7	
Resolution, Standard	5 Degrees/Step (Auto-Detect)	±3 mm
Resolution, Highest	0.1 Degrees/Step (Auto-Detect)	±2 mm
Number of c-planes	2-72 (max. 144)	
Spectrometer Type	Ibsen Photonics FREEDOM	
Custom Viso	(High Sensitive Transmission Grating)	
Spectrometer Range	360 - 830 nm (1024 pixels)	
Spectrometer Detector	Hamamatsu S11639-01	
Calibration	Fully Calibrated Plug and Play Solution	Not Necessary
Re-calibration	Every Two Years	Not Necessary



# BaseSpion LightSpion Extender

Ð,

9 kg	7 kg	41 kg
100 x 36 x 21 cm	43 x 11.5 x 33.5 cm	205 - 360 x 56 x 55 cm
7 kg	6 kg	38 kg
66, 115 and 182 cm	66 cm	0.35 - 4.5 m
Fixed (Three Settings)	Fixed	≥ Light Source Length x 10 (min. x 8)
Manual input	Fixed	Automatic Detector on Sensor Rail
0 - 22 cm	0 - 8 cm @ 1-Axis	0 - 54 cm
4 kg	1 kg	9 kg
	90 - 260 VAC, 50/60 Hz	90 - 260 VAC, 50/60 Hz
	90 - 260 VAC < ±0.5V	90 - 260 VAC < ±0.5V
	0 - 3 A (Average ±0.5 mA)	0 - 3 A (Average ±0.5 mA)
	0 - 600 W (Average: ±0.1 W)	0 - 600 W (Average: ±0.1 W)
	0 - 300 W (Average: ±0.1W)	0 - 300 W (Average: ±0.1W)
	70,000 Samples/sec	70,000 Samples/sec
	Far Field	Far Field
	LED ±4%, other types ±7.8%	±4 %
	10 - 10,000 lux	0.20 – 200,000 <±2,5% lux
	0.5 - 50,000 candela ±4% @ 66 cm	0.05 – 50,000 <± 2,5% candela
		5 – 4,000,000 <± 2,5% candela @ 4.5 m
	1,000 K - 10,000 K < ±35 K	1,000 K - 40,000 K < ±35 K
	Up to 100 < ±0,7	Up to 100 < ±0,7
7.5 Degrees/Step (Auto-Detect)	7.5 Degrees/Step (Auto-Detect)	5 Degrees/Step (Auto-Detect)
0.1 Degrees/Step	0.1 Degrees/Step	0.1 Degrees/Step (Auto-Detect)
2-8	2 (fixed)	2-72 (max. 144)
	STS Ocean Optics	Ibsen Photonics FREEDOM
		(High Sensitive Transmission Grating)
		360 - 830 nm (1024 pixels)
	Panavision ELIS-1024	Hamamatsu S11639-01
Not Necessary	Fully Calibrated Plug and Play Solution	Fully Calibrated Plug and Play Solution
Not Necessary	Every Two Years	Every Two Years

## **REPORT DESIGNER**

Design your report templates in your 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 .ltd files (universal or custom)
- Raw data as .csv or MS Office Excel spreadsheets
- PDF standard reports
- Customized reports based on your own templates. Light Inspector allows you to design you 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





#### VISO UGR Gave Exclusion According to UGN 31 0 単形の 50. 30 24 4 23 \* \* 30 30 10 10 10.8 17.5 18.8 18.9 18.9 18.9 10.7 10.9 10.9 10.2 10.2 27 15 118 179 188 175 197 163 194 201 74 201 201 201 18.5 18.5 18.9 18.9 42 16.6 23 33 12.1 20.0 22.1 23 144 145 155 155 155 155 197 198 198 198 197 197 197 149 142 255 255 255 252 254 24) 730 740 740 740 740 A/ 235 213 213 213 213 213 213 213 142 144 145 145 142 -21 : -21 -27 : -20 -24 : -23 2-14) X + 199 2 - 201 44144 Sauce of -0106 22 Convertient of the second seco 2.4 design 100 in this land Star Zeriman Ages - Denningen, Dermide - soweren was immeren





Simply add, move and/or resize any photometric data diagram



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



Use keywords to place photometric values anywhere and create tables



Unlimited number of PDF templates can be saved and selected with preview















## TRACK AND TRACE

LDT and IES files are not protected formats. To strengthen your credibility you have the option of uploading your results to Viso's server. Let your customers have access to the original results with a simple tracking number. Safeguard the integrity of your most important results by backing them up.

Track and trace your measurements with our unique new feature that gives each measurement a time, date and location stamp and stores all details on the Viso Systems tracking server with a unique number. Afterwards, it is possible to share and verify the data merely by sharing the tracking number. In this way, anyone can go onto the Viso Systems tracking site and verify the measurement data, time and location.

- Guarantee measurement integrity for clients, including before and after results. .
- Keep track of measurement history using a simple tracking number list.
- Verify your suppliers measurement results including date and location.



Enable the tracking function in the Light Inspector software

Racking		× +					
⇒ c i	visosystems.c	om/tracking/				Q & 0	4
ISO					COMPANY P		
15	• M	EAS	URE	ME	NT T	RAC	KING
artest way to er tracking nur	share and keepin ober: VT180502-4	ig track of your m 008887	search				
			- Contraction				
PDF III	E5 fin 1.0	T file Advance	ed options				
	VISO MEASU	REMENT TRACK	NG				
	Tracking dieteits: Tracking number	Mussurement dataflare	. Measurement duration	Tracking country	Tracking city	Tracking IP	
	V11======	Negradore na de Interación proce	me Ber 19.0020		Countriesper)	Rick-KER Bin 14	
	Protect datable	the regiment formed	Bar 10.00.00		angleite in simil		
	Product name	Menudiatorer	Nam namber	Larep type	Lang physical size	Lamp Huminitian size	
	Derive passed argument 5 anth Felb.24 Fisch	Visc Deros Light	PONBULE .	55.00 D	Longit di la 1000 m. Mate 40 air 1000 m. Mate 1000 tani	Hangen William (12.7 Jan Hangen: Anlands (12.7 Jan Hangen: Anlands (12.7 Jan	
	System details:	<u> </u>	14				
	Bystere autal namber	C Measurement device	Manuarament and an	Spectromatian came	Californities insurce	Cost calibration data:	
		and other	THE REAL PROPERTY AND	1000 C		-	
	Measurement salup		I.S				
	Variation resolution	Hortzyntál ressector.	Sanser distance	Integration Sma	Average sound	Internal number	
	AT CONTRACT OF CONTRACT	AND AND A DAY AND	10.0 mm	States - Rev States	and a second		
	Measurement data:		A-4	Name of Street Street	1		
	H-LY	No the	Output	Piotometite	Radated power	Herticultural	
		-	Total subset	THE R	A B 2 Walk	14.22.299	
	- 1	Nº1	Citilianey	Vt.3.howat	27.81.%	1.3. Jonal Marile	
	N/M		Color temperature	3105 K	79.00	nia	
	-SIAU	LIN XS	Cutor mediaring (CHQ	M3	101	100.0	
	E N P	TALAN	Beam args	110.0*	218	118	
	XIN	+ XX	Real angle (CB-C180)	10.2	100	100	
		K	Commentant Designation	1.0.0	-		
	NN	-//	Digital	111000	Warring? provide the period	The same of the sa	
	1		Printed Section	D.D.L	Transa in variation	A Ph	
	12	1 1 3	Village	227.3.Yes (80Hz)	Color extension	E1 Names - 0:0023 Day	
	10		Cumere	0.053 Amp	Wantup conditions	Same Vision - Mars of St. Amber Vision	
						X	
	10.0					5 4 8	
L	2.2					1111	
						111	
L					1	44	

## **READY FOR GROWTH**



LEDs are perfect for growth lighting solutions and, as all Viso measurement solutions use unique super-fast spectrometer sensor technology, horticultural data can easy be computed.



### **MEASURE IN 30 SECONDS**

- PPF
- PPFD
- Efficiency µmol/Joule
- Beam angle
- Detailed angular field distribution
- Power
- Power factor
- Export to: IES and LDT in PPFD

Horticultural lighting is the standard term used when lights are used for growing plants. Instead of lumen, data is displayed in PPF value, which consist of number of photons radiated by a light source in the photosynthetically active wavelength interval 400-700 nm. As all Viso measurement solutions use fast spectrometer sensors, the PPF can be calculated for any of your measurements.

You might think this kind of data is not necessary for general lighting applications, but if you work on illuminating open spaces like hotel lobbies, which include plants in the architecture, you might be required to specify PPF values.

Viso technology even allows you to generate 3D files in PPFD (photon flux density) as IES and LDT files. This way, you can use existing lighting CAD software, such as Dialux and AG132, to create your horticultural planning.



Switch between photometric and horticultural on any measurement

Hempresent Schus	Midity Linear Jump
Plat	madate Name and a date of a context of
* Reality	
(40) inte	inthe Partieton When the
Pome	the photon and the photon in the
Canada II	
The second second	
- (Full	
PARTIN	
tool promounts	fically active redisting 400 - 200ext
Conten	r-true 10
and the second se	400 (=1

Import your PPFD IES file into Dialux or AGI32 and set up a greenhouse



Heat map shows exact PPFD distribution on any desired plane



The automatic sensor positioning system insures accurate distance



## 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



### 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





### 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

### Aleksandr Goncharov Arlight, Russia

- Before the LabSpion, we had to use a combination of an integration sphere and hand-held spectrometers, which imposed many measurement errors
- The software has a user-friendly interface and it is very fast

### 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

### **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



### 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



### 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

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 ANSWERS**

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

## CONTACT



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

### **HEAD OFFICE**

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

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

### EUROPE

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., Room 1.09, , Challenge House Sherwood Drive, Bletchley Milton Keynes, MK3 6DP United Kingdom Tel: +44(0) 7785 904 054 Email: zoe.yates@acalbfi.co.uk

### France

Acal BFi France SAS 4 Allée du Cantal ZI La petite Montagne Sud CE1834 Lisses 91018 EVRY Cedex 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 Holland 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

#### Spain and Portugal

Pro-Lite Technology Iberia, S.L. C/ Fluvià 97 1-2 08019 Barcelona Spain Tel: +34 (0) 93 599 1937 Email: gabriel.cruz@pro-lite.es

#### 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

Alfa Analytical Instruments 4, Danais str., Gerakas Athens, 153 44 Tel: +30 2109573172 Email: sales@instruments.gr

### Turkey

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

### Russia

Proteh Moscow Ring Road 38km, build. 4B-1 117574 Moscow, Russia Tel: +7 495 662 9625 Email: msk@protehnology.ru

Proteh St. Petersburg ul. Marshala Govorova 35-5. Nr. 421. 198095 St. Petersbyrg, Russia Tel: +7 812 643 2355 Email: men@protehnology.ru

Proteh Novosibirsk Krasniy Pr. 220-5. Nr. 320. 630049 Novosibirsk, Russia Email: nsk@protehnology.ru Tel: +7 383 325 3155

### AMERICAS

### USA

Inner Circle Distribution 3300 Davie Road Suite 105 Davie, FL 33314 Tel: +1 954.256.8087 Mob: +1 954.461.4970 Email: noel.duncan@visosystems.com

#### Argentina

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

### **ASIA**

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

#### China (Beijing)

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 T: +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 T: +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 T: +86 755 8320 5020 Email: sales-sz@teo.com.cn

### India including 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

#### South Korea

Radiant Solution Co., Ltd. B-802, 583 Yangcheon-ro, Gangseo-gu Seoul, Korea 07547 Tel: +82 2 2065 0726 Email: support@radiantsolution.co.kr

#### Singapore

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









li

SALES@VISOSYSTEMS.COM - TEL. +45 36991882 VISO SYSTEMS APS - COPENHAGEN - DENMARK SAFIBRA, s.r.o. +420 604 212 525 michal@safibra.cz