

# TECHNICAL SPECIFICATIONS

## LabSpion



## LabRail for LabSpion



### 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	$\geq$ 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 $< \pm 0.5V$	
Power Analyzer Current Range	0 - 3 A (Average $\pm 0.5$ mA)	
Power Analyzer Power Range @ 230 V	0 - 600 W (Average: $\pm 0.1$ W)	
Power Analyzer Power Range @ 110 V	0 - 300 W (Average: $\pm 0.1W$ )	
Power Analyzer Sample Rate	70,000 Samples/sec	

### Photometric Specifications

Measurement Method	Far Field	Far Field
Lumen and candela accuracy	$\pm 4$ %	
Intensity, Lux at Sensor (Equal to cd @ 1 m)	0.20 – 200,000 $< \pm 2.5$ % lux	
Max intensity, candela @ 0.5 m	0.05 – 50,000 $< \pm 2.5$ % candela	
Max intensity, candela @ 5 m	5 – 5,000,000 $< \pm 2.5$ % candela	
Max intensity, candela @ 10 m	20 – 20,000,000 $< \pm 2.5$ % candela	
Max intensity, candela @ 20 m	80 – 80,000,000 $< \pm 2.5$ % candela	
Color Temperature Range	1,000 K - 40,000 K $< \pm 35$ K	
Color Rendering Index	Up to 100 $< \pm 0.7$	
Resolution, Standard	5 Degrees/Step (Auto-Detect)	$\pm 3$ mm
Resolution, Highest	0.1 Degrees/Step (Auto-Detect)	$\pm 2$ mm
Number of c-planes	2-72 (max. 144, automatic)	
Spectrometer Type	Ibsen Photonics FREEDOM	
Custom Viso	(High Sensitive Transmission Grating)	
Spectrometer Range, VIS	360 - 830 nm (1024 pixels)	
Spectrometer Range, UV-VIS (optional)	200 - 850 nm (2048 pixels)	
Spectrometer Detector, VIS and UV-VIS	Hamamatsu S11639-01	
Calibration	Fully Calibrated Plug and Play Solution	Not Necessary
Re-calibration	Every Two Years	Not Necessary

## BaseSpion



## LightSpion



## Extender for LightSpion



	41 kg	7 kg	9 kg
	205 - 360 x 56 x 55 cm	43 x 11.5 x 33.5 cm	100 x 36 x 21 cm
	38 kg	6 kg	7 kg
	0.35 - 4.5 m	66 cm	66, 115 and 182 cm
	≥ Light Source Length x 10 (min. x 8)	Fixed	Fixed (Three Settings)
	Automatic Detector on Sensor Rail	Fixed	Automatic Detector on Gonio Rail
	0 - 54 cm	0 - 8 cm @ 1-Axis	0 - 22 cm
	9 kg	1 kg	4 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	
	±4 %	LED ±4%, other types ±7.8%	
	0.20 – 200,000 <±2,5% lux	10 - 10,000 lux	
	0.05 – 50,000 <± 2,5% candela	0.5 - 50,000 candela ±4% @ 66 cm	
	5 – 4,000,000 <± 2,5% candela @ 4.5 m		
	1,000 K - 40,000 K < ±35 K	1,000 K - 10,000 K < ±35 K	
	Up to 100 < ±0,7	Up to 100 < ±0,7	
	5 Degrees/Step (Auto-Detect)	7.5 Degrees/Step (Auto-Detect)	7.5 Degrees/Step (Auto-Detect)
	0.1 Degrees/Step (Auto-Detect)	0.1 Degrees/Step	0.1 Degrees/Step
	2-72 (max. 144, automatic)	2 (fixed)	2-8 (manual)
	Ibsen Photonics FREEDOM	STS Ocean Optics	
	(High Sensitive Transmission Grating)		
	360 - 830 nm (1024 pixels)	350-800 nm	
	200-850 nm (2048 pixels)		
	Hamamatsu S11639-01	Panavision ELIS-1024	
	Fully Calibrated Plug and Play Solution	Fully Calibrated Plug and Play Solution	Not Necessary
	Every Two Years	Every Two Years	Not Necessary