# VISO Calibration lamp. Cali-Tungsten User guide



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### Contents of the Cali-Tungsten box.



The Viso Calibration lamp is delivered in a smart suitcase along with two cables.



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# **Physical dimensions**



#### Shipping dimensions: 400 x 300 x 250 mm

#### Shipping weight: 2 kg

LightSpion user guide

### Contents

Aligning sensor	6
Measuring distance	7
Installation	
Specifications	9
Photometric characteristics	9

# Safety Information

#### Warning! This product is not for household use.

Read this manual before installing and operating the controller, follow the safety precautions listed below, and observe all warnings in this manual.

### Preventing electric shocks



Always ground (earth) the power supply.

Use only a source of AC power that complies with local building and electrical codes, and that has both overload and ground-fault protection.

If the controller or power supply are in any way damaged, defective, wet, or show signs of overheating, disconnect the power supply from AC power and contact Viso Service for assistance.

Do not install or use the device outdoors. Do not spray with or immerse in water or any other liquid.

Do not remove any covers or attempt to repair the controller or power supply. Refer any service to Viso.



Disposing of this product

Viso products are supplied in compliance with Directive 2002/96/EC of the European Parliament and of the Council of the European Union on WEEE (Waste Electrical and Electronic Equipment), as amended by Directive 2003/108/EC, where applicable.

Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of Viso products.

### Aligning sensor

The very first step is to mount the calibration lamp into the setup as shown in the pictures.



Then place the sensor approximately two meters away from the setup with the calibration lamp. Make sure the sensor is aligned with the lamp. Shoot the laser towards the lamp and catch the reflected beam in the same area of its origin, or within a 4 cm area. Such a procedure puts both the sensor and the lamp in the horizontal alignment. The pictures below explain the process:





#### **Measuring distance**

When the sensor is perfectly aligned relative to the lamp, you can measure the precise distance between the two components. It should be between 190 and 210 cm. Target the laser beam towards a little circle above the lamp area and simultaneously press the two buttons on the sensor, as shown in the picture below:



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The glass surface of the lamp produces a lot of internal reflections of the laser beam, and it complicates the exact distance calculation. The precise distance determination is essential in achieving the best calibration. That is why a fixed target point was designed above the lamp luminous area.

The determined lamp-sensor distance is reflected in the software, once the two buttons are released.

### Installation

To turn on the lamp simply plug in the lamp to the box socket, and then connect the box to the power supply, as shown in the pictures below.



The lamp needs to ramp up, and there is an indicator with a mini instruction on the box. The blue flashing indicator means the lamp is ramping up, a constant blue colour defines the lamp is ready, whereas the red colour of the indicator means there is an error.

Then the lamp needs to stabilise for about 20 minutes, after which it is ready for measurement.

## **Specifications**

Lamp type	. Irradiance reference light source
Light source	Tungsten
Typical intensity	
Typical lux	212 lux @ 2m
Lamp type	Tungsten
Colour temperature	
Power	
Voltage	12V
Beam angle	
Calibration life time	60 hours
Stable light input	min 20 minutes

### **Photometric characteristics**

The lamp's spectrum:



The lamp's stabilisation curve. The lamp is considered to give a stable output after about 20 minutes, when its intensity fluctuation is less than 2%:



### **Ordering information**

Viso Cali Tungsten .....P/N CALI-Tungsten