

# AURALIS LIGHT SOURCE

- 1.0 - 10.0  $\mu\text{m}$  Wavelength Range
- Working Distance of 150 mm
- 1375 °C Silicon Carbide Source
- 0.5 W/cm<sup>2</sup> in Focus Point



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# THE TECHNOLOGY

## LIGHT SOURCE | AURALIS

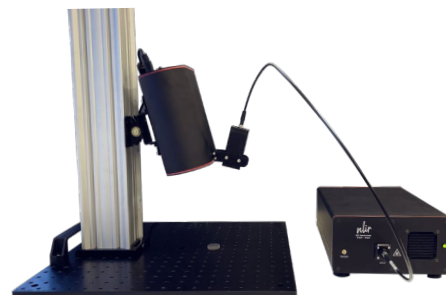
High-temperature mid-infrared light sources are cost-effective and require only basic electronics; they emit high-power light and are stable and robust.

NLIR's AURALIS Light Source directs light from the silicon carbide emitter onto an approximately 1 cm diameter spot at a 150 mm working distance. This broad illumination area, combined with light impacting

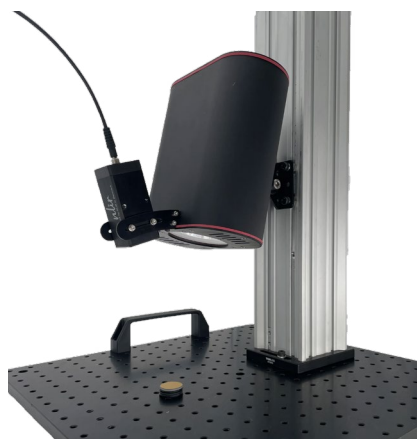
the sample in different angles, ensures that even rough and uneven samples reflect light towards the collection optics.

The light source is plug-and-play, activating in just a few seconds.

Additionally, its active heat management system ensures that no components become excessively warm to the touch ■



## DETAILS



NLIR's AURALIS Light Source illuminates the gold target on the base plate, while NLIR's SAMPLER Accessory captures the light reflected from the gold target.



NLIR's AURALIS Light Source coupled together with NLIR's SAMPLER Accessory for effortless reflection measurement.

### AURALIS Light Source

|                                    |                          |
|------------------------------------|--------------------------|
| Optical Bandwidth                  | 1.0 - 10.0 $\mu\text{m}$ |
| Source                             | 1375 °C Silicon Carbide  |
| Features                           | Active Heat Management   |
| Lifetime                           | 5000 hours               |
| Optical Output                     | Free-Space               |
| Intensity in Focus Spot            | 0.5 W/cm <sup>2</sup>    |
| Working Distance                   | 150 mm                   |
| Power Consumption                  | 22 - 25 W                |
| Measurements (L × W × H)           | 180 × 180 × 90 mm        |
| Weight                             | 1.6 kg                   |
| Protective Calcium Flouride Window |                          |



# USE AND TECH DRAWINGS

## USE OF AURALIS LIGHT SOURCE

NLIR's AURALIS Light Source delivers abundant mid-infrared light, making it highly effective even for dark materials such as black plastics or foams.

AURALIS Light Source can be coupled together with NLIR's SAMPLER Accessory, representing the collection optics. In practical measurement scenario, a fiber is connected to NLIR's SAMPLER Accessory which transfers the light

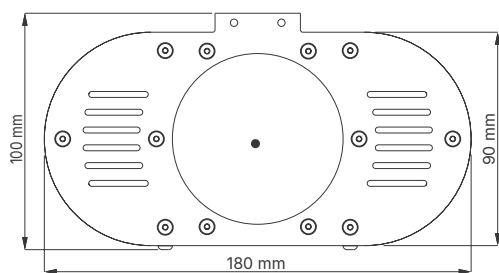
to the 2.0 – 5.0  $\mu\text{m}$  spectrometer for data acquisition.

This schematic illustrates the optimal setup where AURALIS Light Source is positioned to face a table or conveyor belt at the ideal working distance of 150 mm. The unit is designed to be compatible with a standard 100 mm VESA wall mount for real-time productions measurements.

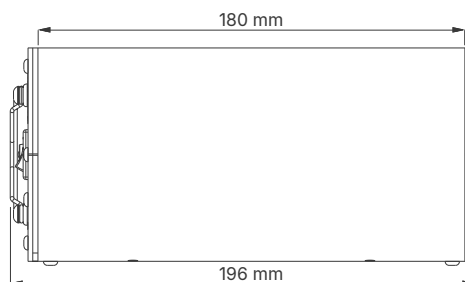


## TECH DRAWINGS

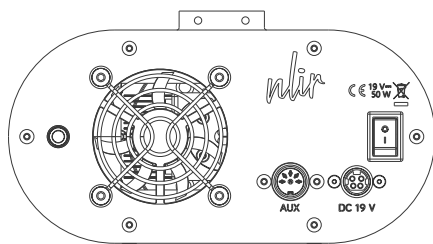
### FRONT



### SIDE



### BACK



### DESCRIPTION

The drawings provide detailed dimensions and an overview of NLIR's AURALIS Light Source design.

AURALIS Light Source is equipped with a green LED on the back panel to indicate proper operation. It includes a 19 V DC power supply input and an AUX port, allowing it to receive power directly from NLIR spectrometers for convenient integration.

On the front panel the optical output is a 3-inch CaF<sub>2</sub> window protecting the user from the hot filament inside the device.

Note that all measurements are in mm ■