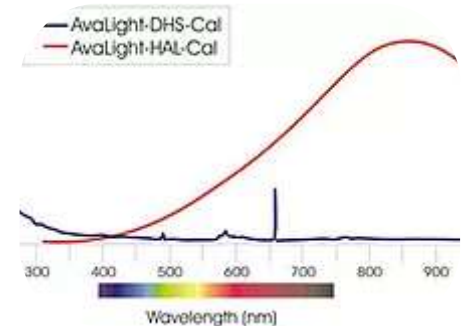




AvaLight-HAL-CAL-Mini NIST Traceable Calibrated Halogen Light Source



AvaLight-HAL-CAL-Mini

Calibrating your spectrometer has never been easier - the AvaLight-HAL-CAL-Mini and Avalight-DH-CAL are NIST traceable calibrated light sources to measure absolute spectral intensity.

The AvaLight-HAL-CAL-Mini is a compact, affordable light source, and is calibrated for the visible range (350-1095nm). As an option, an extended calibration for the near infrared spectral range (1100-2500nm) can be ordered. It has a built in diffuser - a cosine corrector with SMA adapter - and comes with a calibration file in ASCII format. Calibration is simple a straight forward using the AvaSoft software.

The AvaLight-HAL-CAL-ISPxx-Mini is a special version of the Avalight-HAL-CAL-Mini, which enables coupling any of Avantes AvaSphere-xx-IRRAD integrating spheres to the lightsource (xx=30, 50 or 80) for calibration. This source is supplied with a special bottom plate to stabilize the AvaSphere.

The Avalight-HAL-CAL-Mini and Avalight-HAL-CAL-ISPxx-Mini both include a power supply.

Key features....

- Field calibration
- Visible and optional NIR range
- Built-in diffuser
- Versatile

AvaSphere-50-LS-HAL-CAL

For radiance calibration in the visible spectral range (360-1100nm), we offers the AvaSphere-50-LS-HAL-CAL.

This radiance calibration sphere is normally used to calibrate a spectrometer and a bare fibre with an SMA connector. This uniform source ensures that the fibre is homogeneously illuminated during calibration.

The AvaSphere-LS-HAL-CAL is supplied with a power supply and a CD-ROM with the calibration file in ASCII format.

Key features...

- Radiance calibration
- Visible range
- For homogeneous illuminated areas

AvaLight-DH-CAL

For calibrations in the ultraviolet and visible range (200-1099nm), the AvaLight-DH-CAL is the best solution.

This source can be used with all AvaSpec spectrometers to calibrate for absolute spectral intensity, and is supplied with a built in diffuser (cosine corrector (CC-VIS/NIR) with SMA adapter) and a CD-ROM containing the calibration files in ASCII format.

Two calibration files are included - one for irradiance calibration over the full range (200-1099nm) and one over the visible and near infrared range (350-1099nm). For the first file, both the deuterium and the halogen bulb should be





The AvaLight-DH-CAL-ISP-xx is a special version of these calibrated light sources, designed to facilitate coupling of the AvaSphere-xx-IRRAD integrating spheres to the light source (xx is 30, 50 or 80mm - internal sphere diameter).

The AvaLight-DH-CAL, AvaLight-DH-BAL-CAL and AvaLight-D-BAL-CAL all include a power supply.

Key features....

- Flexible calibration
- Ultraviolet and visible range
- Built-in diffuser and cosine corrector

Technical data

	AvaLight-HAL-CAL-Mini	AvaSphere-50-LS-HAL-CAL	AvaLight-DH-(BAL-)CAL
Calibration use	Irradiance $\mu\text{W cm}^{-2} \text{ nm}^{-1}$	Radiance $\mu\text{W sr}^{-1} \text{ cm}^{-2} \text{ nm}^{-1}$	Irradiance $\mu\text{W cm}^{-2} \text{ nm}^{-1}$
Calibrated surface	CC-VIS/NIR or AvaSphere	Bare fiber	CC-UV/VIS or AvaSphere
Wavelength Range	350-1095 nm / 1100-2500 nm*	350-1095 nm / 1100-2500 nm*	200-1099 nm
Calibration Repeatability	$\pm 0.5 \%$	$\pm 0.5 \%$	$\pm 1.0 \%$
Calibration Relative Uncertainty to NIST standard	$\pm 9.5\% (350-1100 \text{ nm})/\pm 6.5\% (1100-1950 \text{ nm})/\pm 9.5\% (1950-2500 \text{ nm})$	$\pm 9.5\% (350-1100 \text{ nm})$	$\pm 10\% (200-240 \text{ nm})/\pm 9\% (240-350 \text{ nm})/\pm 10\% (350-400 \text{ nm})/\pm 9.5\% (400-1100 \text{ nm})$
Calibration valid for	60 hrs	60 hrs	60 hrs
Warm-up Time	Ca. 15 Min.	Ca. 15 Min.	Ca. 30 Min.
Bulb Output	$170 \mu\text{W cm}^{-2} \text{ nm}^{-1} (@800 \text{ nm})$	$100 \mu\text{W sr}^{-1} \text{ cm}^{-2} \text{ nm}^{-1} (@800 \text{ nm})$	$80 \mu\text{W cm}^{-2} \text{ nm}^{-1} (@215 \text{ nm})/5 \mu\text{W cm}^{-2} \text{ nm}^{-1} (@800 \text{ nm})$
Power requirement	12 V / 2.08 A	24 VDC / 0.3 A	100-240 VAC
Dimensions	150 x 78 x 37 mm	70 round x 75 mm height	315 x 165 x 140 mm

* Optional extended range NIR calibration

Ordering information

AvaLight-HAL-CAL-Mini	NIST traceable Halogen Lamp with CC- VIS/NIR diffuser, incl. PS-12V/2.08A
AvaLight-HAL-CAL-ISP30-Mini	NIST traceable Halogen Lamp for use with AvaSphere-30-IRRAD, incl. PS-12V/2.08A and special sphere holder bottom plate
AvaLight-HAL-CAL-ISP50-Mini	As AvaLight-HAL-CAL-ISP30 for use with AvaSphere-50-IRRAD
AvaLight-HAL-CAL-ISP80-Mini	As AvaLight-HAL-CAL-ISP30 for use with AvaSphere-80-IRRAD
AvaSphere-50-LS-HAL-CAL	NIST traceable radiance calibration source, 10 mm and SMA adapter calibrated, incl PS-24V/1.25A
HL-Recal	AvaLight-HAL-CAL recalibration service 350-1095nm
HL-Recal-NIR	AvaLight-HAL-CAL extended or recalibration service 1100-2500nm
AvaLight-D-CAL	NIST traceable UV Deuterium Lamp with CC-UV/VIS diffuser, -SR fibers recommended
AvaLight-DH-CAL	NIST traceable UV/VIS Deuterium/Halogen Lamp with CC-UV/VIS diffuser, -SR fiber r



AvaSoft-IRRAD Irradiance add-on software, to be ordered with AvaSoft-Full

[Want to discuss your application?](#) [Need a quote?](#) [Want a demo?](#)

