

Calibration Light Source HG-1 / NE-1 / XE-1



2022 V1

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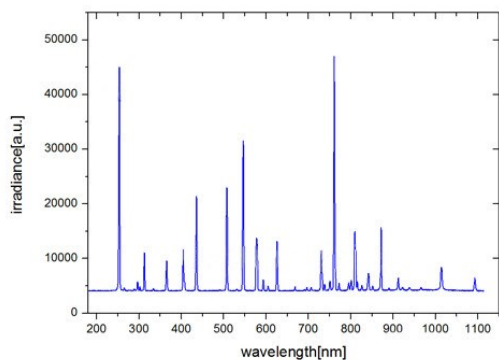
HG-1 Mercury-argon Calibration Light Source

The mercury-argon lamp is a compact, low-cost HG-1 mercury-argon calibration light source, which is a wavelength calibration light source for UV-VIS-NIR spectroscopy systems. The HG-1 produces a spectral range of 253-1700nm. Our spectrometers are carefully calibrated. However, the wavelength shifts slightly over time and as the environment changes. If wavelength accuracy is important to your application, you may consider calibrating the wavelength every time. You can retune the optical spectrometer to perform a linear regression using the characteristic peaks in the spreadsheet below.

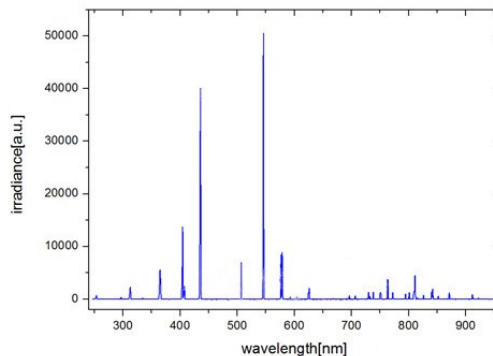


Features

- SMA905 connector (FC connector optional)
- Wavelength range 253-1700nm
- Calibrate the light source. Generates mercury and argon atomic emission lines for calibrating spectrometers
- Easy to operate. The spectrometer system can be calibrated with only a power supply and fiber optics.
- The curves obtained by spectrometers with different responses will be somewhat different.



MAX2000-PRO full-band blaze spectrometer calibration curve



EQ4000 single grating blazed spectrometer calibration curve

Specification

Model	HG-1
Light Source	Low-pressure mercury & argon lamps
Wavelength Range	253 - 1704 nm
Size	13.5 x 8.5 x 4.5 cm
Weight	40 g
Power Consumption	250 mA at 12 VDC
Power Requirements	12 VDC (included in the product)
Lamp Life	about 6000 hours
Preheat	15 minutes
Connector	SMA905 (optional FC interface)

NE-1 | Neon Calibration Light Source

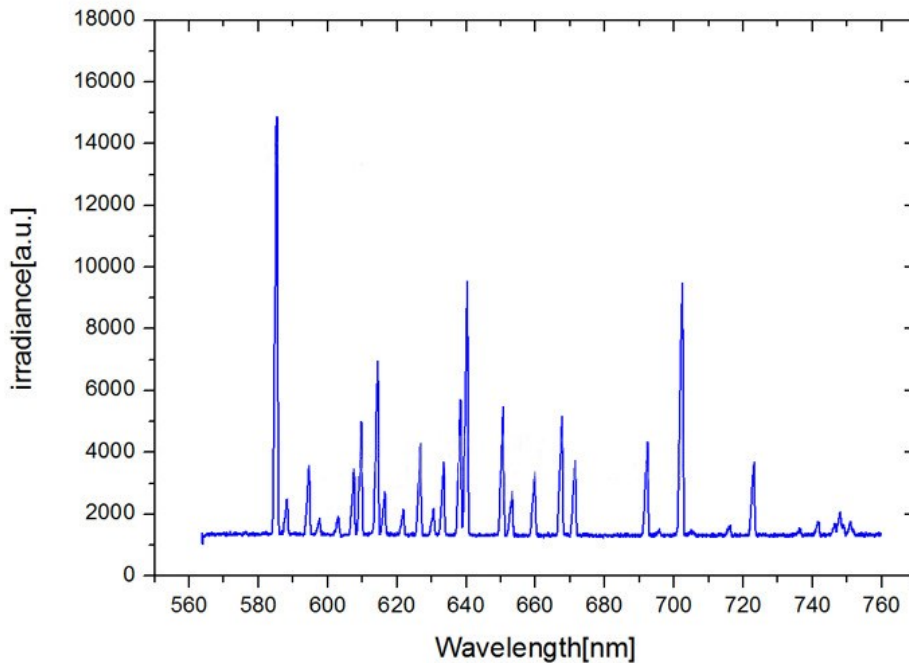
The compact low-cost NE-1 calibration light source is suitable for wavelength calibration in the visible and near-infrared regions. The NE-1 produces transmission lines in the 540 - 754 nm range and is suitable for performing fast and reliable spectrometer wavelength calibration. Easily identifiable transmission lines are printed on the NE-1 housing. The NE-1 can be used to confirm the wavelength accuracy of either spectrometer and, if necessary, to recalibrate the spectrometer. The NE-1 operates from a 12 VDC power supply (included in the product). Any SMA fiber or FC fiber can be used to connect to the NE-1.

Product Details

- Mainly used for visible-NIR wavelength calibration without intensity calibration
- Calibration lines are printed on the luminaire housing for ease of use



Spectral Curve



The XE-1 Xenon Lamp Calibration Light Source

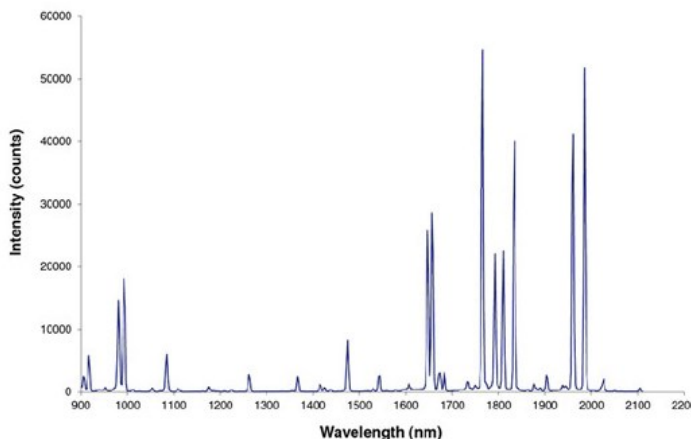
The XE-1 is a light source that produces xenon atomic emission lines in the wavelength range 916-1984 nm. For quick and reliable calibration of spectral analysis instruments! It gives all xenon characteristic lines from 916-1984 nm. Through the standard SMA905 or FC/PC interface, the light source can be quickly connected to the optical fiber, so the wavelength calibration of the optical fiber spectrometer can be very easy. In addition, there are wavelength-calibrated light sources suitable for other wavelength bands, such as Neon Lamp NE-1 (340-1100nm) and Mercury-Argon Lamp (253-1700nm).

Features

- Imported high-quality bulbs are used, with a lifespan of up to 3000 hours, low power, only 3 watts;
- It can be used in various optical fiber interface type spectral analysis instruments for wavelength calibration;
- Small size, size: 60mm x 45mm x 40mm;
- Wide wavelength range, 916-1984 nm; SMA905 interface output;
- Powered by 12V 2A DC, equipped with a power adapter;
- All aluminum alloy shell;
- The light source bulbs are consumables, please replace them before the service life is reached.



Spectral Curve



The wavelength of Xenon Emission Line (nm)

916.265	1365.706	1647.29	1809.09
979.97	1414.244	1656.023	1832.53
992.319	1473.281	1672.815	1959.94
1083.837	1541.839	1763.882	1984.638
1262.339	1605.328	1790.45	