



Technical Help Light

LUX SENSOR CALIBRATION

Skye Instruments' light and radiation sensors, including the Lux sensor, are individually calibrated, traceable to UK National Standards via the National Physical Laboratory (NPL).

Our calibration facilities include a dark room with optical bench, NPL traceable calibrated single and double scanning monochromators, NPL calibrated light sources and UKAS (UK Accreditation Service) calibrated multimeters. Fully traceable calibrations can be made between 280 and 1100 nm.

The light source used for calibrating Lux sensors is a tungsten halogen lamp. The sensor output calibration is made at 4626 lux illuminance, colour temperature 2977 K. A sensor's exact wavelength response is checked using the scanning monochromator and compared against a Skye reference Lux sensor. The acceptable limit for mis-match is 2%.

Both the sensor output and wavelength response measurements are taken into account when calculating the sensor's individual calibration data.

After final sensor assembly the output is again checked at 1100 Lux under a tungsten filament lamp. Acceptable error limit is 2%.

Each sensor is supplied with a Calibration Certificate, fully traceable to UK National Standards plus its wavelength response curve.

All Skye light sensors are recommended to be recalibrated every 2 years to ensure maximum accuracy of measurements. The sensor can be returned to Skye where it will undergo a full calibration as described above. A new Calibration Certificate is issued showing the current calibration plus variation, if any, from the previous calibration.

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