

Calibration Record of the RSR using LI-COR PY35627

This page shows the calibration history of the Rotating Shadowband Radiometer (RSR) using LI-COR pyranometer PY35627. The responsivity used to transform the irradiance voltage data into Wm^{-2} is a running average of the responsivity obtained over the years. This reduces the variation of the responsivities associated with the random uncertainty of a given calibration (See Figs. 1 & 2). The rate of change of the pyranometer responsivity is related to exposure to UV radiation. The responsivity values used are in the comprehensive format files or the site files. The responsivities measured during specific calibrations are listed in Table 1.

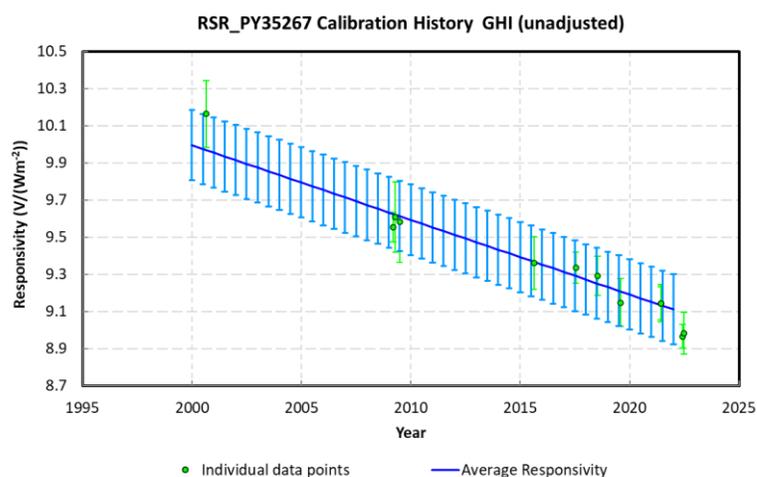


Figure 1: All calibration data plotted against time with long-term trend

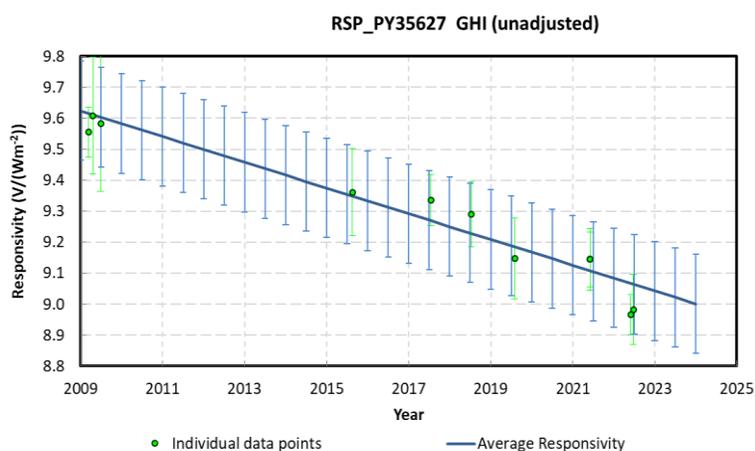


Figure 2: Calibration data plotted against time for 10 year trend

Information provided in the Table 1 are:

- Date of calibration
- Responsivity value
- Uncertainty at the 95% level of confidence
- Average SZA over which the calibration value was obtained
- Average temperature during the calibration
- Type of calibration and instruments used
- Location of calibration
- Notes

Table 1: Calibration History for RSR_PY35627

	Calibration Date	Responsivity ($\mu V/Wm^{-2}$)	Uncertainty ($\mu V/Wm^{-2}$)	Average SZA ($^{\circ}$)	Temperature (C)	Calibration Type	Location	Notes
1	2017/07/29	9.5685	0.0877	44.99	27.10	CMP22_120363 R=9.6916	CYW	Unadjusted mV
2	2018/07/25	9.6335	0.1473	44.91	31.32	CMP22_120363 R=9.6939	CYW	Unadjusted mV

3	2021/07/28	9.5827	0.0940	44.88	27.94	NIP_17668E6 R=8.621, CMP22_120363 R=9.7005	HEO	Unadjusted mV
4	2021/07/28	9.4227	0.0927	44.88	27.94	NIP_17668E6 R=8.621, CMP22_120363 R=9.7005	HEO	Adjusted mV
5	2022/07/23	9.4626	0.1209	43.95	-	NIP_17668E6 R=8.621, CMP22_120363 R=9.7005	HEO	Adjusted mV
6	2022/08/13	9.6652	0.2143	45.09	30.31	NIP_23385E6 R=8.5247, Shenk_1330 R=14.3501	HEO	Adjusted mV