

Calibration History of the Hukseflux SR20 4765 Pyranometer

This page shows the calibration history of the SR20 4765 pyranometer. 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 Fig. 1). 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.

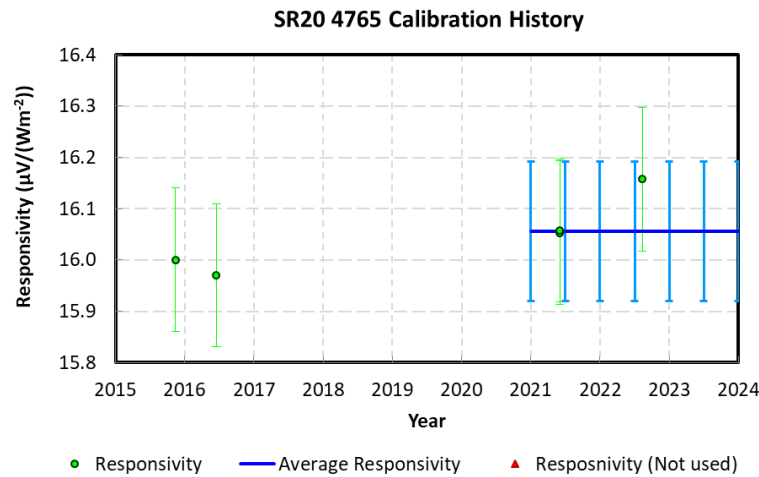


Fig. 1: Calibration data plotted against time for 10 year trend

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 information for SR20 4765

	Calibration Date	Responsivity ($\mu V/Wm^{-2}$)	Uncertainty ($\mu V/Wm^{-2}$)	Average SZA ($^{\circ}$)	Temperature (C)	Reference Instruments	Location	Notes
1	2015/11/12	16.0000	0.1600		20.00		Factory	
2	2016/06/17	15.9700					ISO_Cal	

3	2021/06/02	16.0532	0.1400	44.93	28.93	ACR R=1.00038, CMP22_120363 R=9.7005	Eugene, OR	Temperature adjusted Voltage used
4	2021/06/03	16.0574	0.1319	45.10	25.46	ACR R=1.00038, CMP22_120363 R=9.7005	Eugene, OR	Temperature adjusted Voltage used
5	2022/08/11	16.1578	0.1367	44.89		ACR R=1.00038, CMP22_120365 R=8.9202	Eugene, OR	-