

Calibration History of the Eppley PSP # 23621F3 Pyranometer

This page shows the calibration history of the PSP 23621F3. The responsivity used to transform the irradiance voltage data into Wm^{-2} is a running average of the calibration responsivities obtained over the years. This reduces the variation of the responsivities associated with the random uncertainty of a given calibration (See Figs 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.

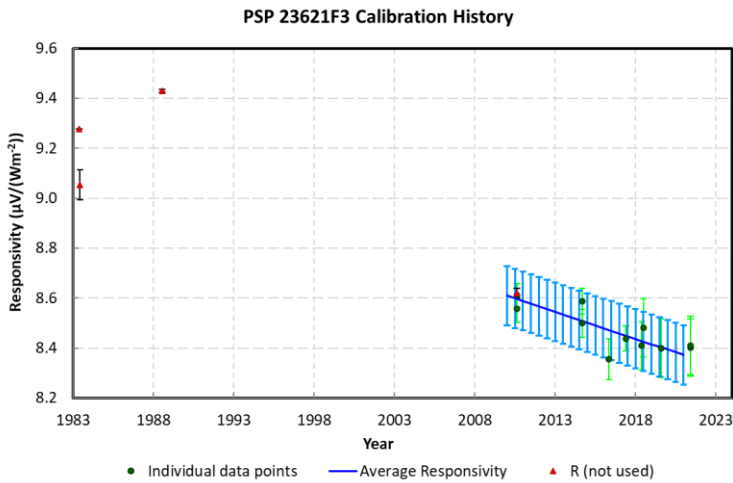


Figure 1: All calibration data plotted against time with long-term trend

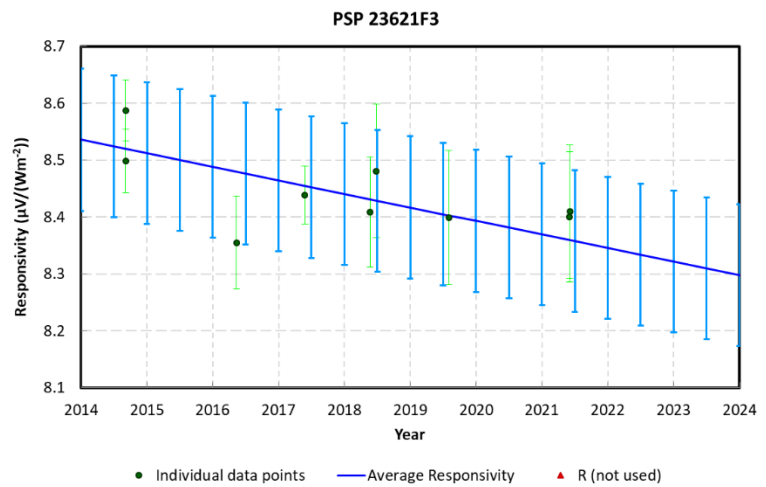


Figure 2: Calibration trend over the past 10 years

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 PSP 23621F3 P9

	Calibration Date	Responsivity ($\mu V/Wm^{-2}$)	Uncertainty ($\mu V/Wm^{-2}$)	Average SZA ($^{\circ}$)	Temperature (C)	Reference Instruments	Location	Notes
1	1983/05/13	9.4900		-	25.00	factory	Factory	
2	1983/06/05	9.4700	0.0600	-	-	PSP_13365F3 R=8.33	Eugene, OR	
3	1988/07/17	9.4330	0.0060	-	-	PSP_17853F3 R=7.69	Eugene, OR	
4	2010/08/13	8.5558	0.0523	44.93	41.74	ACR, Schenk_1315 R=14.89	Eugene, OR	

5	2010/08/16	8.6122	0.0466	44.56	27.08	ACR, Schenk_1315 R=14.89	Eugene, OR	
6	2014/09/04	8.5870	0.0528	44.96	27.22	ACR, Schenk_1315 R=14.89	Eugene, OR	
7	2014/09/05	8.4984	0.0559	45.08	24.25	ACR, Schenk_1315 R=14.89	Eugene, OR	
8	2016/05/11	8.3549	0.0815	45.00	23.50	ACR R=1.00069, Schenk_1315 R=14.89	Eugene, OR	
9	2017/05/26	8.4384	0.0506	45.01	22.79	ACR R=1.0005, Schenk_1315 R=14.89	Eugene, OR	
10	2018/05/22	8.4085	0.0962	45.00	22.00	ACR R=1.0002, Schenk_1315 R=14.89	Eugene, OR	
11	2018/06/26	8.4806	0.1174	45.34	23.04	ACR R=1.0002, Schenk_1315 R=14.89	Eugene, OR	
12	2019/08/01	8.3988	0.1178	45.12	25.74	ACR R=1.00034, CMP22_120363 R=9.6981	Eugene, OR	
13	2021/06/02	8.4004	0.1147	44.93	27.10	ACR R=1.00038, CMP22_120363 R=9.7005	Eugene, OR	
14	2021/06/03	8.4096	0.1171	45.10	25.46	ACR R=1.00038, CMP22_120363 R=9.7005	Eugene, OR	