

## Calibration History of the Eppley PSP # 18560F3 Pyranometer

This page shows the calibration history of the PSP 18560F3. The responsivity used to transform the irradiance voltage data into  $\text{Wm}^{-2}$  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 and 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.

**Information provided in the Table 1 are:**

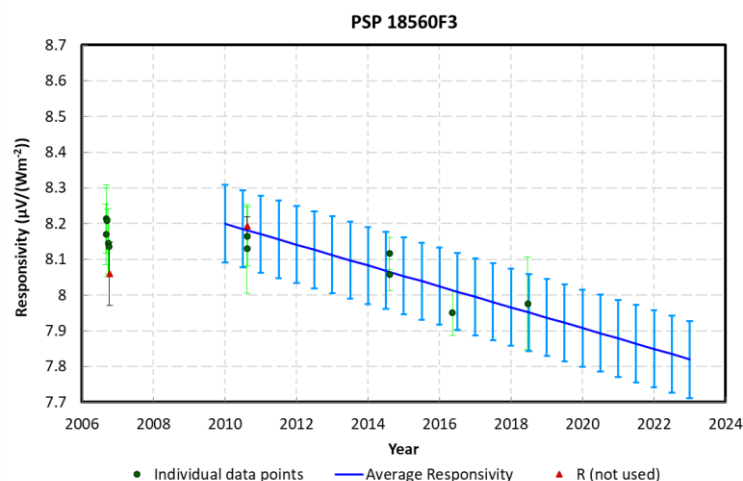
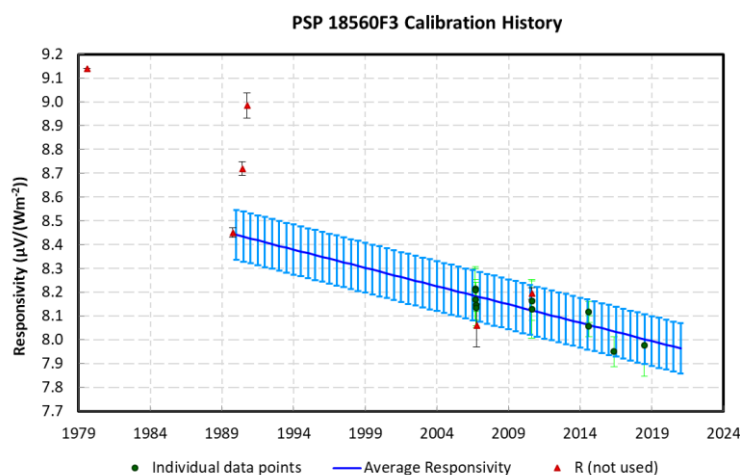


Figure 1: All calibration data plotted against time with long-term trend

Figure 2: Calibration trend for the last 10 years

- 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 18560F3 P13**

	Calibration Date	Responsivity ( $\mu\text{V}/\text{Wm}^{-2}$ )	Uncertainty ( $\mu\text{V}/\text{Wm}^{-2}$ )	Average SZA ( $^{\circ}$ )	Temperature (C)	Reference Instruments	Location	Notes
1	1979/08/01	9.1400		-	25.00	factory	Factory	
2	1989/10/01	8.4500	0.0200	-	-	NREL, SRRL	NREL, SRRL	
3	1990/06/01	8.7190	0.0290	-	-	NREL, SRRL	NREL, SRRL	
4	1990/10/01	8.9840	0.0530	-	-	PSP_17853F3 R=7.47	Eugene, OR	
5	2006/09/01	8.1696	0.0849	45.05	25.32	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	

6	2006/09/05	8.2135	0.0952	44.97	26.15	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
7	2006/09/08	8.2089	0.0905	44.89	24.37	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
8	2006/09/22	8.1461	0.0948	45.22	23.30	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
9	2006/09/29	8.1358	0.0768	46.76	24.17	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
10	2006/10/07	8.0598	0.0894	50.30	19.76	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
11	2010/08/13	8.1936	0.0247	-	-	AHF, Schenk_1315 R=14.89	Eugene, OR	
12	2010/08/13	8.1296	0.1234	44.93	35.74	AHF, Schenk_1315 R=14.89	Eugene, OR	
13	2010/08/16	8.1642	0.0831	44.99	23.08	AHF, Schenk_1315 R=14.89	Eugene, OR	
14	2014/08/06	8.1174	0.0451	44.63	29.05	AHF, Schenk_1315 R=14.89	Eugene, OR	
15	2014/08/07	8.0568	0.0442	45.15	21.78	AHF, Schenk_1315 R=14.89	Eugene, OR	
16	2016/05/11	7.9501	0.0622	45.00	23.50	ACR R=1.00069, Schenk_1315 R=14,89	Eugene, OR	
17	2018/06/19	7.9759	0.1295	45.12	26.46	ACR R=1.0002, CMP22_110265 R=8.9179	Eugene, OR	