

## Calibration History of the Eppley PSP # 17854F3 Pyranometer

This page shows the calibration history of the PSP 17854F3. 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). 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.

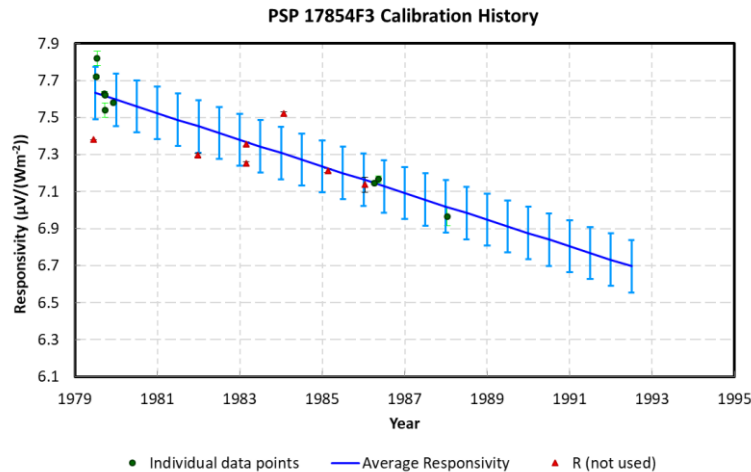


Figure 1: All calibration data plotted against time with long-term trend

### 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 17854F3

	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	1978/12/14	7.5500			25.00	factory	Factory	
2	1979/01/06	7.7200	0.0100		-2.80		Eugene, OR	
3	1979/01/15	7.8200	0.0400		5.60		Eugene, OR	
4	1979/03/20	7.6100	0.0100		14.40		Eugene, OR	
5	1979/03/23	7.6700	0.0100		16.70		Eugene, OR	
6	1979/03/23	7.6200	0.0100		16.10		Eugene, OR	
7	1979/03/24	7.5400	0.0400		18.90		Eugene, OR	
8	1979/06/07	7.5800			17.20		Eugene, OR	

9	1981/06/24	7.5370	0.0090			PSP_13356F3 R=8.330	Hermiston, OR	
10	1982/08/26	7.6500	0.0100			PSP_13356F3 R=8.330	Hermiston, OR	
11	1982/08/26	7.5400	0.0100			PSP_13356F3 R=8.330	Hermiston, OR	
12	1983/07/25	7.5200	0.0100			PSP_13102F3 R=7.498	Hermiston, OR	
13	1984/08/18	7.5300	0.0100			PSP_13356F3 R=8.250	Hermiston, OR	
14	1985/07/13	7.4900	0.0400			PSP_13356F3 R=8.250	Hermiston, OR	
15	1985/10/08	7.5000	0.0100			PSP_13356F3 R=8.250	Eugene, OR	
16	1985/11/11	7.5300	0.0200			PSP_13356F3 R=8.250	Eugene, OR	
17	1987/07/12	7.3530	0.0490			PSP_13356F3 R=8.250	Eugene, OR	