

Calibration History of the Eppley PSP # 17523F3 Pyranometer

This page shows the calibration history of the PSP 17523F3. 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.

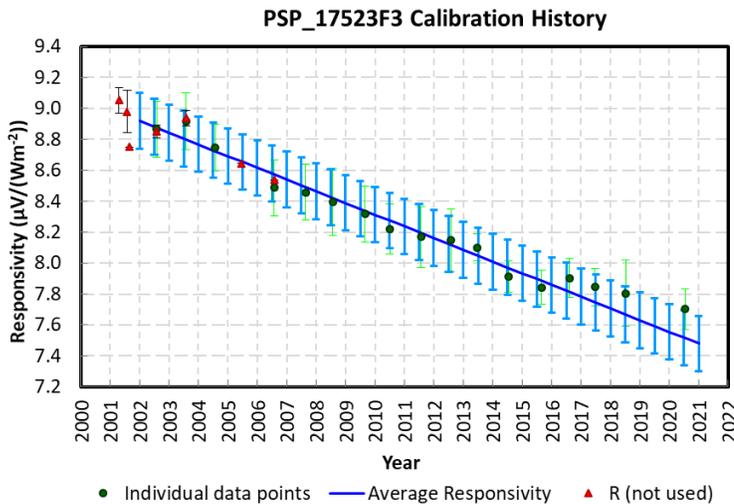


Figure 1: All calibration data plotted against time with long-term trend

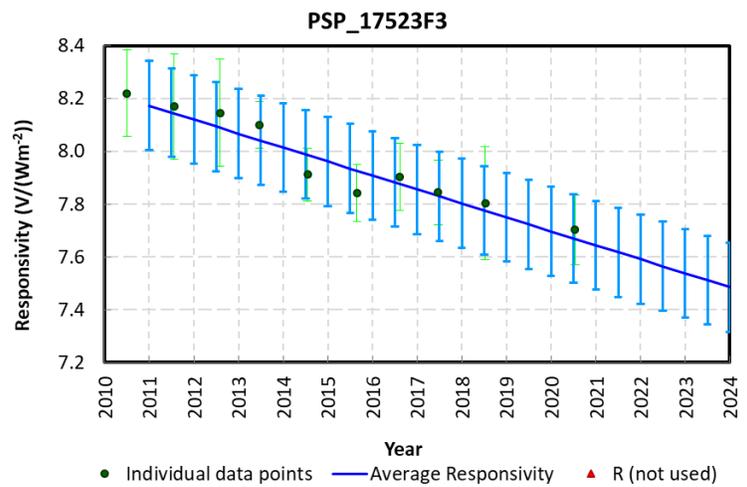


Figure 2: Calibration data plotted against time for 10 year trend

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 information for PSP 17846F3

	Calibration Date	Responsivity ($\mu V/Wm^{-2}$)	Uncertainty ($\mu V/Wm^{-2}$)	Average SZA ($^{\circ}$)	Temperature (C)	Calibration Type	Location	Notes
1	1978/09/05	9.0127	0.0000	-	25.00	factory	Factory	
2	2001/07/28	8.9795	0.1368	-	30.18	NREL	NREL, SRRL	
3	2001/08/25	8.7500	0.0000	-	-	NREL	NREL, SRRL	
4	2001/04/20	9.0522	0.0832	44.79	25.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

5	2002/07/30	8.8506	0.0420	-	-	PSP_13365F3	Burns, OR	
6	2003/07/28	8.9376	0.0500	-	-	PSP_13365F3	Burns, OR	
7	2005/06/14	8.6444	0.0000	-	-	PSP_13365F3	Burns, OR	
8	2006/07/29	8.5363	0.0000	-	-	PSP_13365F3	Burns, OR	
9	2002/07/26	8.8652	0.1801	43.76	27.53	PSP_13365F3 R=7.6825	Burns, OR	
10	2003/07/28	8.9176	0.1842	44.88	30.48	PSP_13365F3 R=7.6678	Burns, OR	
11	2004/07/26	8.7474	0.1522	45.12	26.70	PSP_23981F3 R=9.75441	Burns, OR	
12	2006/07/29	8.4886	0.1811	45.09	26.61	PSP_13365F3 R=7.6238	Burns, OR	
13	2007/08/21	8.4587	0.1810	45.06	23.23	PSP_13365F3 R=7.6091	Burns, OR	
14	2008/07/25	8.3944	0.2177	44.97	27.10	PSP_13365F3 R=7.5945	Burns, OR	
15	2009/08/29	8.3163	0.1797	44.83	21.03	PSP_13365F3 R=7.5798	Burns, OR	
16	2010/07/03	8.2202	0.1641	44.91	17.34	PSP_13365F3 R=7.5651	Burns, OR	
17	2011/07/23	8.1694	0.1985	45.01	24.05	PSP_13365F3 R=7.5505	Burns, OR	
18	2012/07/31	8.1459	0.2025	45.05	27.33	PSP_13365F3 R=7.5358	Burns, OR	
19	2013/06/21	8.1005	0.0887	45.02	13.59	CMP22_120363 Avg. R=9.6822	Burns, OR	
20	2014/07/17	7.9122	0.1002	45.00	27.24	CMP22_120363 Avg. R=9.6822	Burns, OR	
21	2015/08/26	7.8423	0.1092	45.05	29.03	CMP22_120363 Avg. R=9.6822	Burns, OR	
22	2016/08/10	7.9026	0.1271	44.98	22.34	CMP22_120363 R=9.6803	Burns, OR	
23	2017/06/21	7.8449	0.1223	45.01	21.66	CMP22_120363 R=9.6916	Burns, OR	
24	2018/07/10	7.8043	0.2151	45.01	24.82	CMP22_120363 R=9.6939	Burns, OR	
25	2020/07/14	7.7027	0.1313	45.05	28.58	CMP22_120363 R=9.6981	Burns, OR	