

Calibration History of the Eppley PSP # 17853F3 Pyranometer

This page shows the calibration history of the PSP 17853F3. 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.

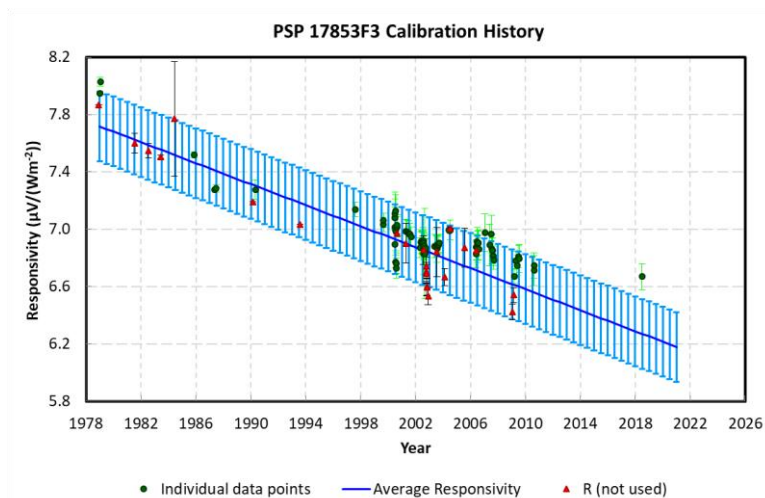


Figure 1: All calibration data plotted against time with long-term trend

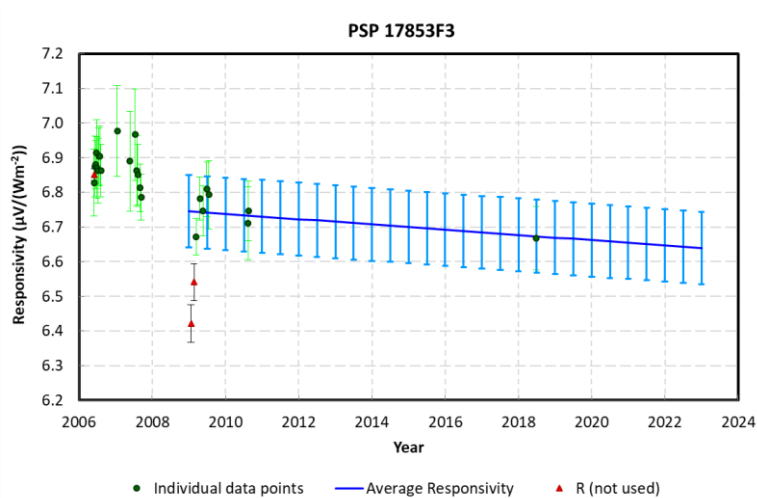


Figure 2: Calibration data plotted against time for 10 year trend

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 17853F3 (P3)

	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	1978/12/04	8.0500			25.00	Factory	Factory	
2	1979/01/06	7.9500	0.0100		-2.70	PSP_13365F3 R=8.33	Eugene, OR	
3	1979/01/15	8.0300	0.0300		5.60	PSP_13365F3 R=8.33	Eugene, OR	
4	1981/07/17	7.8500	0.0700			PSP_13365F3 R=8.33	Whitehorse, OR	
5	1982/07/13	7.8500	0.0500			PSP_13365F3 R=8.33	Whitehorse, OR	
6	1983/06/12	7.8500	0.0100			PSP_13365F3 R=8.33	Whitehorse, OR	

7	1984/06/09	8.1000	0.4000			PSP_13365F3 R=8.25	Whitehorse, OR	
8	1985/11/11	7.8900	0.0200		6.00	PSP_13365F3 R=8.25	Eugene, OR	
9	1987/05/10	7.6700	0.0060			PSP_13365F3 R=8.25	Eugene, OR	
10	1987/06/26	7.6830	0.0260			PSP_13365F3 R=8.25	Eugene, OR	
11	1990/02/28	7.1923	0.0000			PSP_13365F3 R=8.25	-	
12	1990/05/09	7.1297	0.0700	49.96	19.60	PSP_24041F3 R=9.1411	Eugene, OR	
13	1990/06/19 to 1990/06/20	7.2870	0.0036	50.35	23.80	PSP_18584F3 R=10.33		
14	1993/08/01	7.3470	0.0510		26.45	PSP_23620F3 R=8.078	Eugene, OR	
15	1997/08/07	7.1373	0.0430		24.00	ACR, PSP_18560F3 R=8.5134	Eugene, OR	
16	1999/08/25	7.0330	0.0510		26.50	NIP_18948E6 R=8.069, Schenk_1315 R=14.89	Eugene, OR	
17	1999/09/01	7.0608	0.0510		21.90	NIP_18948E6 R=8.069, Schenk_1315 R=14.89	Eugene, OR	
18	2000/07/24	6.9880	0.1680			NIP_18948E6 R=8.069, Schenk_1315 R=14.89	Eugene, OR	
19	2000/08/14	6.8933	0.4410	50.38		NIP_18948E6 R=8.069, Schenk_1315 R=14.89	Eugene, OR	
20	2000/06/29	7.0809	0.0717	44.85	26.42	NIP_18948E6 R= 8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
21	2000/06/30	7.0813	0.0898	44.95	20.90	NIP_18948E6 R= 8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
22	2000/07/02	7.0160	0.2449	46.98	18.35	NIP_18948E6 R= 8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
23	2000/07/02	7.1094	0.1006	45.09	24.08	NIP_18948E6 R= 8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
24	2000/01/02	7.1267	0.1129	44.98	26.71	NIP_18948E6 R= 8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
25	2000/07/24	6.7714	0.0779	44.95	27.36	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
26	2000/08/01	6.7629	0.0736	45.13	27.98	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
27	2000/08/08	6.7285	0.0704	45.26	22.72	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
28	2000/08/24	7.0150	0.0717	45.06	23.16	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
29	2000/08/28	7.0278	0.0745	44.96	26.08	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
30	2001/04/20	6.9830	0.0871	44.79	25.54	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
31	2001/05/21	6.9784	0.0844	44.89	26.61	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
32	2001/06/19	6.9713	0.0884	45.25	28.70	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	

33	2001/07/18	6.9637	0.0766	44.98	25.80	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
34	2001/08/07	6.9646	0.0765	44.98	29.25	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
35	2001/09/06	6.9474	0.0705	44.90	24.86	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
36	2002/07/25	6.8550	0.0996	-	27.30	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
37	2002/04/23	6.8719	0.0683	44.95	11.81	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
38	2002/05/22	6.9080	0.0764	45.29	22.75	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
39	2002/06/02	6.9178	0.0702	45.09	25.64	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
40	2002/07/02	6.9083	0.0720	44.80	25.54	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
41	2002/07/08	6.9091	0.0852	44.98	27.74	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
42	2002/07/15	6.9013	0.0759	44.98	27.15	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
43	2002/07/24	6.9160	0.0967	44.95	29.01	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
44	2002/07/24	6.9055	0.0809	44.93	26.72	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
45	2002/08/01	6.8627	0.0725	44.86	24.01	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
46	2002/08/06	6.8676	0.0849	44.73	22.54	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
47	2002/01/22	6.8281	0.1473	44.72	22.69	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
48	2002/08/19	6.8622	0.0705	45.04	25.11	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
49	2002/08/26	6.8837	0.0772	45.11	27.30	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
50	2002/09/04	6.8633	0.0668	45.00	23.36	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
51	2002/09/05	6.8292	0.3153	44.88	24.66	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
52	2002/09/12	6.8561	0.0724	44.90	26.62	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
53	2002/09/18	6.8659	0.0714	45.00	24.50	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
54	2002/09/19	6.8640	0.0691	45.01	24.51	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
55	2002/10/11	6.7416	0.0640	51.61	16.38	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	

56	2002/10/16	6.6974	0.0724	54.57	22.83	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
57	2002/01/29	6.7015	0.0672	54.33	22.98	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
58	2002/10/19	6.6883	0.0666	55.72	21.30	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
59	2002/10/22	6.5983	0.0623	58.22	11.73	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
60	2002/10/30	6.5946	0.0574	58.21	11.39	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
61	2002/11/27	6.5325	0.0575	65.63	10.54	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
62	2003/07/17	6.8410	0.1721	-	-	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	-	
63	2003/05/23	6.8813	0.0811	45.00	26.06	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
64	2003/07/10	6.8877	0.0650	45.04	29.25	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
65	2003/07/16	6.8833	0.0752	45.05	29.32	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
66	2003/07/22	6.8662	0.0989	45.02	29.54	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
67	2003/08/04	6.8821	0.0690	44.99	25.62	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
68	2003/08/15	6.8904	0.0670	45.03	27.63	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
69	2003/09/12	6.8897	0.0614	44.88	21.96	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
70	2003/09/22	6.9027	0.0626	45.16	26.49	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
71	2004/07/11	7.0042	0.0000	-	-	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
72	2004/02/11	6.6667	0.0594	57.82	11.39	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
73	2004/07/04	6.9932	0.0684	44.98	25.75	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
74	2005/07/27	6.7052	0.1357	45.00	25.04	ACR (BORCAL)	NREL/SRRL	
75	2006/06/01	6.8510	0.0160	-	-	PSP_13365F3 R=7.6369	Eugene, OR	
76	2006/05/29	6.8277	0.0964	45.78	22.33	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
77	2006/06/06	6.8756	0.0876	44.95	27.22	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
78	2006/06/17	6.8814	0.0699	44.94	20.76	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
79	2006/06/24	6.9140	0.0953	44.95	29.76	NIP_18948E6 R=8.13580, PSP_17518F3 R=7.76230	Eugene, OR	

80	2006/06/27	6.8717	0.0894	45.01	27.71	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
81	2006/07/07	6.8627	0.0934	45.02	26.57	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
82	2006/07/16	6.9050	0.0821	45.01	29.32	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
83	2006/07/26	6.9049	0.0866	44.97	26.75	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
84	2006/08/06	6.8633	0.0758	44.95	26.85	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
85	2007/05/22	6.8898	0.1437	45.06	18.26	NIP23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
86	2007/01/15	6.9771	0.1305	44.83	26.30	NIP23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
87	2007/07/12	6.9667	0.1320	45.18	26.52	NIP23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
88	2007/07/31	6.8623	0.1028	45.15	25.29	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
89	2007/08/10	6.8504	0.0875	45.05	23.11	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
90	2007/09/01	6.8130	0.0688	44.99	25.10	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
91	2007/09/11	6.7860	0.0658	44.91	29.27	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
92	2009/01/02	6.4219	0.0535	64.13	5.27	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
93	2009/02/20	6.5412	0.0526	55.03	13.02	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
94	2009/03/12	6.6721	0.0525	47.19	9.15	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
95	2009/04/19	6.7817	0.0618	44.91	20.78	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
96	2009/01/14	6.7469	0.0713	45.49	17.33	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
97	2009/06/27	6.8094	0.0789	44.94	23.22	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
98	2009/01/02	6.7935	0.0983	45.13	24.44	NIP_18948E6 R=8.13580, Schenk_1315 R=14.89	Eugene, OR	
99	2010/08/13	6.7121	0.1054	44.93	37.74	ACR, Schenk_1315 R=14.89	Eugene, OR	
100	2010/08/16	6.7466	0.0863	44.56	25.08	ACR, Schenk_1315 R=14.89	Eugene, OR	
101	2000/06/30	6.8966	0.1660	45.04	20.90	NIP_18948E6 R=8.1338, PSP18560F3 R=8.06907125	Eugene, OR	
102	2018/06/26	6.6684	0.0911	45.34	23.04	ACR R=1.0002, Schenk_1315 R=14.9111	Eugene, OR	

