

Calibration History of the Eppley PSP # 19629F3 Pyranometer

This page shows the calibration history of the PSP 19629F3. 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 Fig. 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.

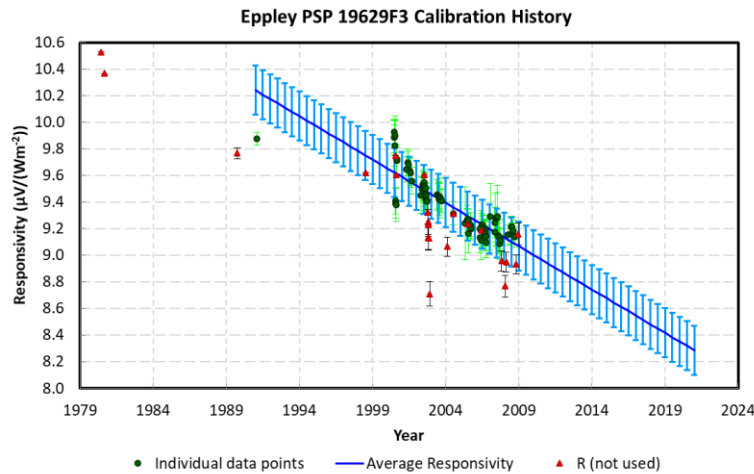


Figure 1: All calibration data plotted against time with long-term trend

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 History for PSP 19629F3

	Calibration Date	Responsivity (µV/Wm ²)	Uncertainty (µV/Wm ²)	Average SZA (°)	Temperature (C)	Reference Instruments	Location	Notes
1	1980/06/02	10.7700	0.0000		22.00	Factory	Factory	
2	1980/09/04	10.4700	0.0000			NOAA	Boulder, CO	Thermal Offset Ignored

3	1989/10/01	9.6740	0.0420			NREL	NREL	Thermal Offset Ignored
4	1991/02/01	10.1640	0.0550			PSP_17853F3 R=7.47	Eugene, OR	
5	1998/07/16	9.6211	0.0000			PSP_17853F3 R=7.138	Eugene, OR	
6	2000/07/28	9.7500	0.0000			NIP, Diff	Eugene, OR	
7	2000/08/14	9.6030	0.0000				Eugene, OR	
8	2000/06/29	9.8842	0.1296	44.85	26.42	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
9	2000/06/30	9.9283	0.0885	44.95	20.90	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
10	2000/07/02	9.8246	0.1566	46.98	18.35	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
11	2000/07/02	9.8961	0.1239	45.09	24.08	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
12	2000/01/02	9.9006	0.1492	44.98	26.71	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
13	2000/07/24	9.4074	0.0970	44.95	27.36	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
14	2000/08/01	9.3914	0.1122	45.13	27.98	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
15	2000/08/08	9.3792	0.1283	45.26	22.72	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
16	2000/08/24	9.7108	0.1031	45.06	23.16	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
17	2000/08/28	9.7205	0.1102	44.96	26.08	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

18	2001/04/20	9.6444	0.0953	44.79	25.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
19	2001/05/21	9.6981	0.1037	44.89	26.61	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
20	2001/01/17	9.6788	0.1089	45.25	28.70	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
21	2001/07/18	9.6350	0.1093	44.98	25.80	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
22	2001/08/07	9.6186	0.1095	44.98	29.25	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
23	2001/09/06	9.5607	0.1030	44.90	24.86	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
24	2002/04/23	9.4512	0.1366	44.36	12.18	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
25	2002/05/22	9.4989	0.0940	45.29	22.75	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
26	2002/06/02	9.5349	0.0998	45.09	25.64	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
27	2002/07/02	9.5058	0.0890	44.80	25.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
28	2002/07/09 ,21,28	9.6050	0.0000	44.98		NIP_18948E6 R=8.069, Schenk_1315 R=14.89?	Eugene, OR	
29	2002/07/08	9.5478	0.1002	44.98	27.74	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
30	2002/07/15	9.5212	0.1076	44.98	27.15	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
31	2002/07/24	9.5049	0.1070	44.95	29.01	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

32	2002/07/24	9.5157	0.1075	44.93	26.72	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
33	2002/08/01	9.4523	0.0843	44.86	24.01	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
34	2002/08/06	9.4609	0.1251	44.73	22.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
35	2002/01/22	9.5040	0.1188	44.72	22.69	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
36	2002/08/19	9.4354	0.1059	45.04	25.11	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
37	2002/08/26	9.4440	0.1067	45.11	27.30	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
38	2002/09/04	9.4144	0.1034	45.00	23.36	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
39	2002/09/05	9.4081	0.0958	44.88	24.66	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
40	2002/09/12	9.4079	0.0923	44.90	26.62	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
41	2002/09/18	9.4098	0.1065	45.00	24.50	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
42	2002/09/19	9.4069	0.1040	45.01	24.51	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
43	2002/10/11	9.3248	0.0929	51.61	16.38	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
44	2002/10/16	9.2494	0.0943	54.57	22.83	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
45	2002/01/29	9.2505	0.0940	54.33	22.98	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

46	2002/10/19	9.2299	0.0899	55.72	21.30	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
47	2002/10/22	9.1342	0.0935	58.22	11.73	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
48	2002/10/30	9.1294	0.0874	58.21	11.39	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
49	2002/11/27	8.7100	0.0904	65.63	10.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
50	2003/05/23	9.4548	0.1151	45.00	26.06	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
51	2003/07/10	9.4452	0.0950	45.04	29.25	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
52	2003/07/16	9.4400	0.1082	45.05	29.32	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
53	2003/07/22	9.4212	0.1218	45.02	29.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
54	2003/08/04	9.4403	0.0981	44.99	25.62	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
55	2003/08/15	9.4322	0.1511	45.03	27.63	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
56	2003/09/12	9.4084	0.0903	44.88	21.96	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
57	2003/09/22	9.4088	0.0876	45.16	26.49	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
58	2004/02/11	9.0653	0.0728	57.82	11.39	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
59	2004/07/04	9.3146	0.0889	44.98	25.75	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
60	2007/07/12	9.3104			-	NIP, Dif	Eugene, OR	

61	2005/01/12	9.2406	0.2747	45.37	20.14	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
62	2005/06/23	9.2631	0.0896	45.28	24.43	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
63	2005/06/29	9.2350		45.00	-	NIP, Dif	Eugene, OR	
64	2005/06/30	9.2728	0.1019	44.88	25.83	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
65	2005/07/13	9.2590	0.0877	44.96	26.72	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
66	2005/07/22	9.1657	0.1467	45.05	26.44	NIP_17668E6 R=8.6293, Schenk_1315 R=14.89	Eugene, OR	
67	2005/09/08	9.2304	0.0920	45.01	24.19	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
68	2005/09/18	9.1973	0.0838	45.12	20.22	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
69	2005/09/29	9.2072	0.0806	47.75	24.89	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
70		9.1880		-	-	NIP, Dif	Eugene, OR	
71	2006/04/27	9.1322	0.1151	45.03	16.97	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
72	2006/05/29	9.1119	0.1434	45.78	22.33	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
73	2006/06/06	9.1977	0.1370	44.95	27.22	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
74	2006/06/17	9.1904	0.0838	44.92	21.64	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
75	2006/06/24	9.2295	0.0862	44.95	29.76	NIP_18948E6 R=8.1358, PSP_17518F3 R=7.76230	Eugene, OR	

76	2006/06/27	9.2034	0.0892	45.01	27.71	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
77	2006/07/07	9.2197	0.0853	44.97	26.87	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
78	2006/07/16	9.2238	0.0823	45.01	29.09	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
79	2006/07/26	9.2029	0.0949	44.97	25.16	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
80	2006/08/06	9.1899	0.0864	44.93	26.63	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
81	2006/08/12	9.1694	0.0949	44.97	26.45	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
82	2006/09/01	9.1240	0.0925	45.05	25.32	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
83	2006/09/05	9.1634	0.0918	44.97	26.15	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
84	2006/09/08	9.1896	0.0812	44.89	24.37	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
85	2006/09/22	9.1662	0.0922	45.22	23.30	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
86	2006/09/29	9.1442	0.0764	46.76	24.17	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
87	2006/01/28	9.0987	0.1154	50.30	19.76	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
88	2007/05/08	9.2460	0.1167	45.00	24.91	NIP_18948E6 R=8.1358, Schenk_1315 R=14.9679	Eugene, OR	
89	2007/05/17	9.1751	0.1057	44.97	23.70	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

90	2007/05/22	9.2822	0.1822	45.06	18.26	NIP_23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
91	2007/01/15	9.2899	0.2516	44.83	26.30	NIP_23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
92	2007/07/07	9.2801	0.1940	44.99	24.81	NIP_23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
93	2007/07/12	9.2920	0.2353	45.18	26.52	NIP_23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
94	2007/07/31	9.1459	0.0980	45.15	25.29	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
95	2007/08/10	9.1407	0.1216	45.05	23.11	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
96	2007/09/01	9.1366	0.1314	44.99	25.10	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
97	2007/09/11	9.0885	0.1213	44.91	29.27	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
98	2007/09/24	9.1117	0.0841	45.07	18.18	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
99	2007/10/22	8.9566	0.0789	55.25	17.86	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
100	2008/01/25	8.7683	0.0828	62.98	3.39	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
101	2008/02/18	8.9475	0.0754	55.77	11.36	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
102	2008/04/01	9.1529	0.0774	44.98	9.60	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
103	2008/06/16	9.1629	0.0781	44.98	21.08	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
104	2008/06/27	9.2166	0.0778	45.00	24.35	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

105	2008/07/11	9.2133	0.0797	45.02	23.65	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
106	2008/08/03	9.1623	0.0756	44.99	21.41	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
107	2008/08/11	9.1824	0.0823	44.99	26.39	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
108	2008/09/13	9.1369	0.0758	44.97	23.47	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
109	2008/10/25	8.9315	0.0734	56.47	15.41	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
110	2008/12/16	9.1600	0.0829	67.41	-2.58	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	