

Calibration Record of the Eppley NIP # 17009E6 Pyrheliometer

This page shows the calibration history of the NIP 17009E6. 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 calibration random uncertainties (See Figs 1 & 2). The responsivity values used are in the comprehensive format file or the site files. The responsivity measured during specific calibrations are listed in Table 1.

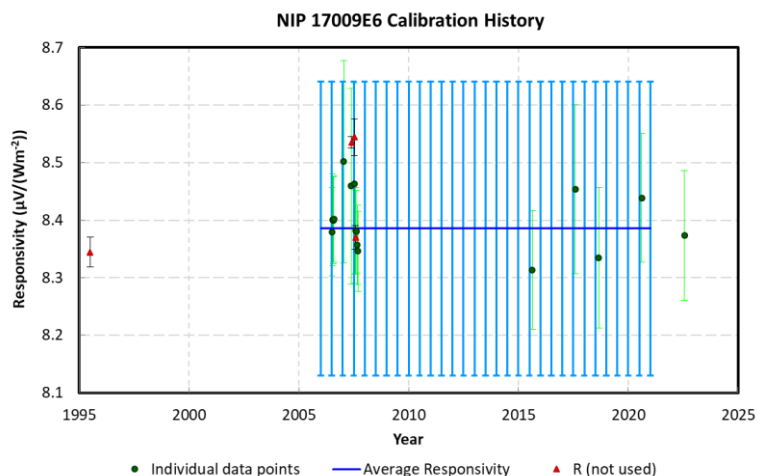


Figure 1: All calibration data plotted against time with long-term trend

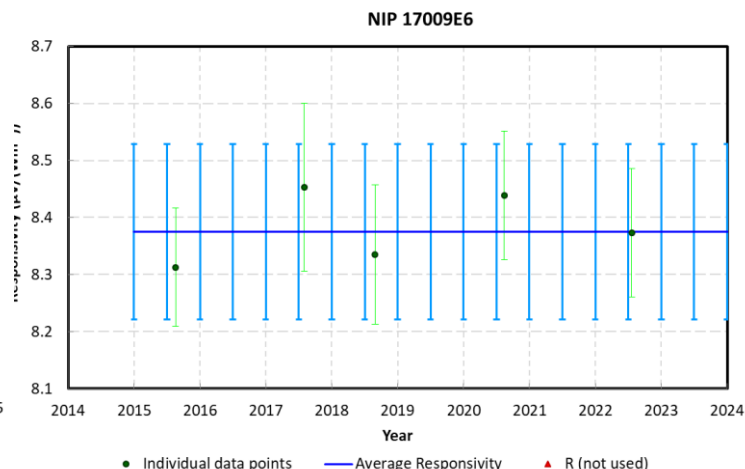


Figure 2: Calibration data plotted against time for 10 year trend

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 History for NIP 17009E6 (N11)

	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	?	8.3600				Factory	Factory	
2	?	8.3600	0.0200			NOAA	NOAA	
3	1995/07/01	8.3440	0.0260			NREL, SRRL	NREL	

4	2006/07/07	8.3797	0.0765	45.02	26.57	NIP_18948E6 R=8.1358, Schenk_1314 R=14.89	Eugene, OR	
5	2006/07/16	8.4005	0.0801	45.01	29.32	NIP_18948E6 R=8.1358, Schenk_1314 R=14.89	Eugene, OR	
6	2006/07/26	8.4000	0.0751	44.97	26.75	NIP_18948E6 R=8.1358, Schenk_1314 R=14.89	Eugene, OR	
7	2006/08/06	8.4020	0.0748	44.95	26.85	NIP_18948E6 R=8.1358, Schenk_1314 R=14.89	Eugene, OR	
8	2007/05/22	8.5355	0.0100		20.50	NIP_23828E6 R=8.26	Eugene, OR	
9	2007/05/22	8.4594	0.1700	45.06	18.26	NIP_23828E6 R=8.26	Eugene, OR	
10	2007/01/15	8.5018	0.1759	44.83	26.30	NIP_23828E6 R=8.26	Eugene, OR	
11	2007/07/12	8.4634	0.1734	45.18	26.52	NIP_23828E6 R=8.26	Eugene, OR	
12	2007/07/12	8.5443	0.0320		26.00	NIP_23828E6 R=8.26	Eugene, OR	
13	2007/07/30	8.3700	0.0210		23.00	NIP_18948E6 R=8.1358	Eugene, OR	
14	2007/07/31	8.3811	0.0755	45.15	25.29	NIP_18948E6 R=8.1358, Schenk_1314 R=14.89	Eugene, OR	
15	2007/08/10	8.3803	0.0722	45.05	23.11	NIP_18948E6 R=8.1358, Schenk_1314 R=14.89	Eugene, OR	
16	2007/09/01	8.3567	0.0694	44.99	25.10	NIP_18948E6 R=8.1358, Schenk_1314 R=14.89	Eugene, OR	
17	2007/09/11	8.3460	0.0697	44.91	29.27	NIP_18948E6 R=8.1358, Schenk_1314 R=14.89	Eugene, OR	
18	2015/08/18	8.3129	0.1035	44.95	25.52	NIP_18948E6 R=8.1321	Eugene, OR	
19	2017/07/31	8.4532	0.1469	45.06	26.94	NIP_17668E6 R=8.6303	Seattle, WA	
20	2018/08/28	8.3347	0.1220	45.00	25.50	NIP_17668E6 R=8.6091	Seattle, WA	
21	2020/08/12	8.4390	0.1123	44.92	21.54	NIP_17668E6 R=8.6121	Seattle, WA	
22	2022/07/20	8.3730	0.1126	44.80	-	NIP_17668E6 R=8.6121	Seattle, WA	