

Calibration Record of the Eppley NIP # 23385E6 Pyrheliometer

This page shows the calibration history of the NIP 23385E6. 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.

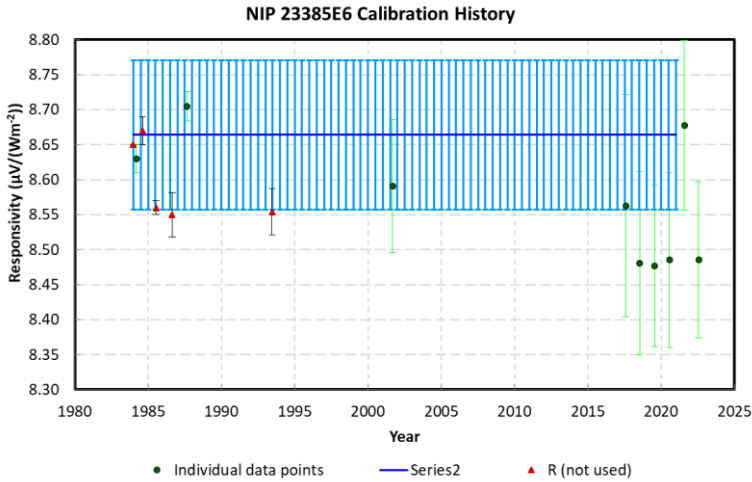


Figure 1: All calibration data plotted against time with long-term trend

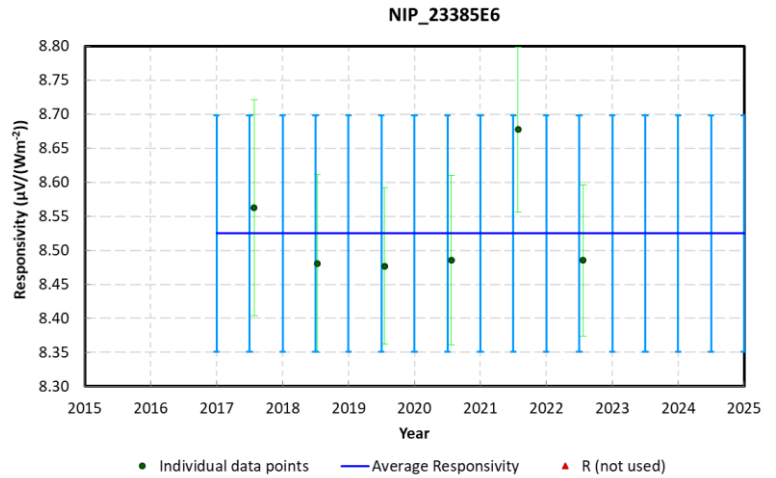


Figure 2: Calibration data plotted against time for 10 year trend

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 23385E6 (N10)

	Calibration Date	Responsivity ($\mu V/Wm^{-2}$)	Uncertainty ($\mu V/Wm^{-2}$)	Average SZA ($^{\circ}$)	Temperature (C)	Reference Instruments	Location	Notes
1	1983/12/26	8.6500			-7.00	Factory	Factory	
2	1984/03/06	8.6300	0.0200		13.00	NIP_13170E6	Eugene, OR	
3	1984/08/16	8.6700	0.0200			NIP_17829E6 R=8.74	Hood River, OR	

4	1985/07/12	8.5600	0.0100			NIP_21902E6 R=8.70	Hood River, OR	
5	1986/08/19	8.5500	0.0320			NIP_21149E6 R=8.41	Hood River, OR	
6	1987/08/27	8.7050	0.0210			NIP_13170E6 R=7.95	Eugene, OR	
7	1993/06/13	8.5540	0.0330	50.00	25.00	AHF, R=0.99977	NREL, SRRL	
8	2001/09/06	8.5910	0.0950	44.90	24.86	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
9	2017/07/27	8.5630	0.1587	45.02	28.96	NIP_17668E6 R=8.6303	Hermiston, OR	
10	2018/07/12	8.4810	0.1307	44.94	33.90	NIP_17668E6 R=8.6091	Hermiston, OR	
11	2019/07/19	8.4770	0.1153	44.97	-	NIP_17668E6 R=8.6121	Hermiston, OR	
12	2020/07/23	8.4850	0.1246	44.97	27.70	NIP_17668E6 R=8.6121	Hermiston, OR	
13	2021/07/28	8.6780	0.1213	44.88	27.94	NIP_17668E6 R=8.6121	Hermiston, OR	
14	2022/07/23	8.4850	0.1112	44.80		NIP_17668E6 R=8.6121	Hermiston, OR	