

Calibration Record of the Eppley NIP # 17829E6 Pyrheliometer

This page shows the calibration history of the NIP 18948E6. 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.

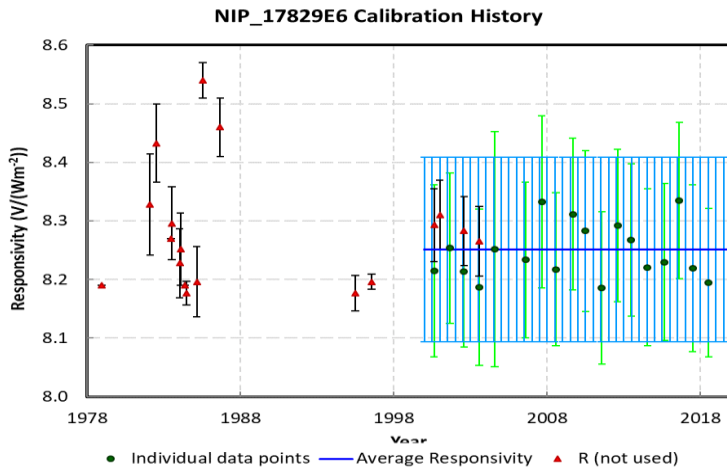


Figure 1: All calibration data plotted against time with long-term trend

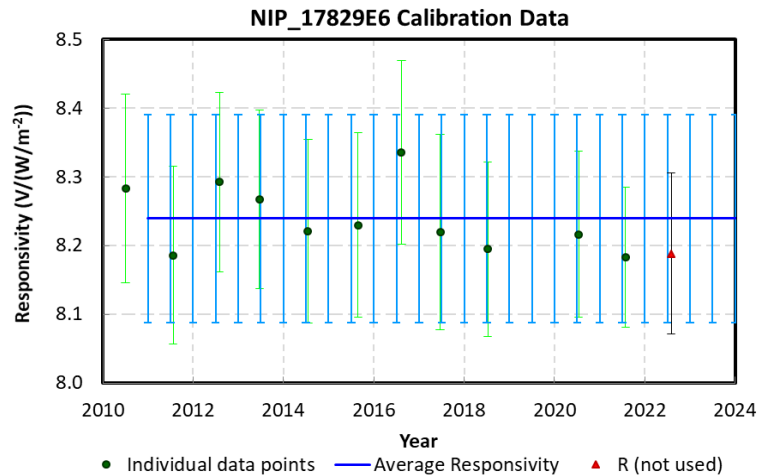


Figure 2: Calibration data plotted against time for 10 year trend

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 17829E6 (N3)

	Calibration Date	Responsivity ($\mu V/Wm^{-2}$)	Uncertainty ($\mu V/Wm^{-2}$)	Average SZA ($^{\circ}$)	Temperature (C)	Reference Instruments	Location	Notes
1	1978/12/10	8.1900			-6.00	Reference Standard	Factory	
2	1982/02/04	8.3280?	0.0860		2.00	NIP_13170E6, R=7.950	Eugene, OR	8.265+/-0.07?
3	1982/07/10	8.4326	0.0670		25.00	NIP_18948E6, R=8.08	Kimberly, ID	8.379+/-0.008
4	1983/06/22	8.2700			23.00	Reference Standard	Factory	

5	1983/07/10	8.2960	0.0620			22.00	NIP_13170E6, R=7.950	Eugene, OR	8.23+/- 0.02
6	1984/01/14	8.2280	0.0590			2.00	NIP_13170E6, R=7.950	Eugene, OR	8.18+/- 0.01
7	1984/02/04	8.2520	0.0620			10.00	NIP_13170E6, R=7.95	Eugene, OR	8.19+/- 0.06
8	1984/05/18	8.1900				12.00	Reference Standard	Factory	
9	1984/06/24	8.1770	0.0200		-		NIP_13170E6, R=7.950	Eugene, OR	?
10	1985/02/23	8.1960	0.0600			10.00	NIP_13170E6, R=7.950	Eugene, OR	
11	1985/07/15	8.5400	0.0300		-		NIP_21902E6, R=8.7	Coeur D'Alene, ID	
12	1986/09/04	8.4600	0.0500		-		NIP_13170E6, R=7.950	Eugene, OR	
13	1995/06/27	8.1770	0.0300		-		NIP_17009E6, R=8.344	Burns, OR	
14	1996/07/19	8.1960	0.0130	49.84	-		NIP_17009E6, R=8.344	Burns, OR	
15	2000/08/17	8.2150	0.1470			26.58	NIP_17668E6, R=8.6372	Burns, OR	
16	2001/08/29	8.2538	0.1286			27.06	NIP_17668E6, R=8.6373	Burns, OR	
17	2002/07/29	8.2133	0.1284			27.53	NIP_17668E6, R=8.6373	Burns, OR	
18	2003/07/28	8.1869	0.1336			30.48	NIP_17668E6, R=8.6373	Burns, OR	
19	2004/07/26	8.2520	0.2008			26.70	NIP_17668E6, R=8.6373	Burns, OR	
20	2006/07/29	8.2337	0.1330			26.61	NIP_17668E6, 8.6373	Burns, OR	
21	2007/08/21	8.3322	0.1469			23.23	NIP_17668E6, R=8.6373	Burns, OR	
22	2008/07/25	8.2176	0.1305			27.10	NIP_17668E6, R=8.6373	Burns, OR	
23	2009/08/29	8.3115	0.1296			21.03	NIP_17668E6, R=8.6373	Burns, OR	
24	2010/07/03	8.2828	0.1376			17.34	NIP_17668E6, R=8.6373	Burns, OR	
25	2011/07/23	8.1858	0.1296			24.05	NIP_17668E6, R=8.6373	Burns, OR	
26	2012/07/31	8.2922	0.1303			27.33	NIP_17668E6, R=8.6373	Burns, OR	

27	2013/06/21	8.2674	0.1301		13.59	NIP_17669E6, R=8.6373	Burns, OR	
28	2014/07/17	8.2208	0.1337		27.24	NIP_17668E6, R=8.6373	Burns, OR	
29	2015/08/26	8.2298	0.1338		29.03	NIP_17668E6, R=8.6373	Burns, OR	
30	2016/08/10	8.3353	0.1334		22.34	NIP_17668E6, R=8.6373	Burns, OR	
31	2017/06/21	8.2192	0.1419	45.01	21.66	NIP_17668E6, R=8.6373	Burns, OR	
32	2018/07/10	8.1948	0.1271	45.01	24.82	NIP_17668E6, R=8.6303	Burns, OR	
33	2020/07/14	8.2165	0.1213	45.00	27.66	NIP_17668E6, R=8.6303	Burns, OR	
34	2021/07/29	8.1830	0.1018	44.99	31.67	NIP_17668E6, R=8.6303	Burns, OR	
35	2022/08/01	8.1883	0.1173	44.61	33.67	NIP_17668E6, R=8.6303	Burns, OR	