

Calibration History of the Eppley B&W 17701 Pyranometer

This page shows the calibration history of the B&W 17701. The responsivity used to transform the irradiance voltage data into Wm^{-2} is a running average of the calibration responsivities obtained over the years. This reduces the variation of the responsivities associated with the random uncertainty of a given calibration (See Figs 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.

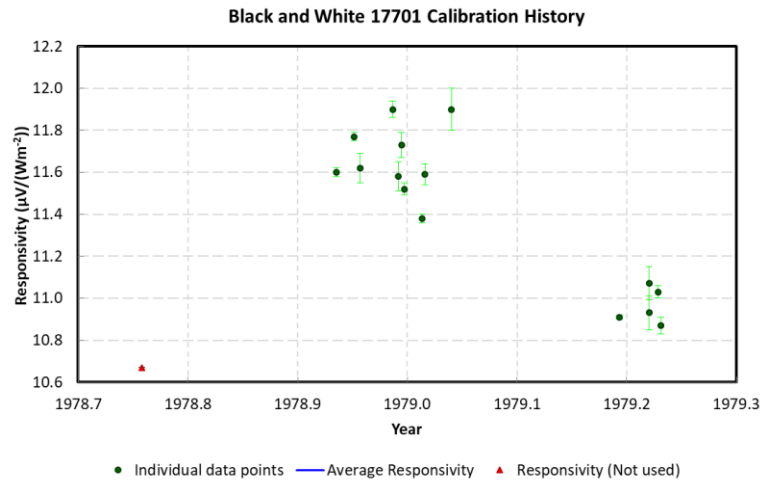


Figure 1: All calibration data plotted against time

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 B&W 17701

	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	1978/10/03	10.6700			25.00	factory	Factory	
2	1978/12/07	11.6000	0.0200		0.60	PSP_13365F3 R=8.33	Eugene, OR	
3	1978/12/13	11.7700	0.0200		6.10	PSP_13365F3 R=8.33	Eugene, OR	
4	1978/12/15	11.6200	0.0700		5.00	PSP_13365F3 R=8.33	Eugene, OR	
5	1978/12/26	11.9000	0.0400		6.10	PSP_13365F3 R=8.33	Eugene, OR	

6	1978/12/28	11.5800	0.0700		0.00	PSP_13365F3 R=8.33	Eugene, OR	
7	1978/12/29	11.7300	0.0600		-2.80	PSP_13365F3 R=8.33	Eugene, OR	
8	1978/12/30	11.5200	0.0300		-2.80	PSP_13365F3 R=8.33	Eugene, OR	
9	1979/01/05	11.3800	0.0200		0.00	PSP_13365F3 R=8.33	Eugene, OR	
10	1979/01/06	11.5900	0.0500		-2.80	PSP_13365F3 R=8.33	Eugene, OR	
11	1979/01/15	11.9000	0.1000		5.60	PSP_13365F3 R=8.33	Eugene, OR	
12	1979/03/10	10.9100	0.0100		-	PSP_17854F3 R=7.62	Eugene, OR	
13	1979/03/20	10.9300	0.0800		14.40	PSP_17854F3 R=7.62	Eugene, OR	morning
14	1979/03/20	11.0700	0.0800		16.70	PSP_17854F3 R=7.62	Eugene, OR	afternoon
15	1979/03/23	11.0300	0.0300		17.20	PSP_17854F3 R=7.62	Eugene, OR	
16	1979/03/24	10.8700	0.0400		18.90	PSP_17854F3 R=7.62	Eugene, OR	