

Calibration Record of Schenk 1315 Pyranometer

This page shows the calibration history of the Schenk 1315. 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 Figs. 1 & 2). 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.

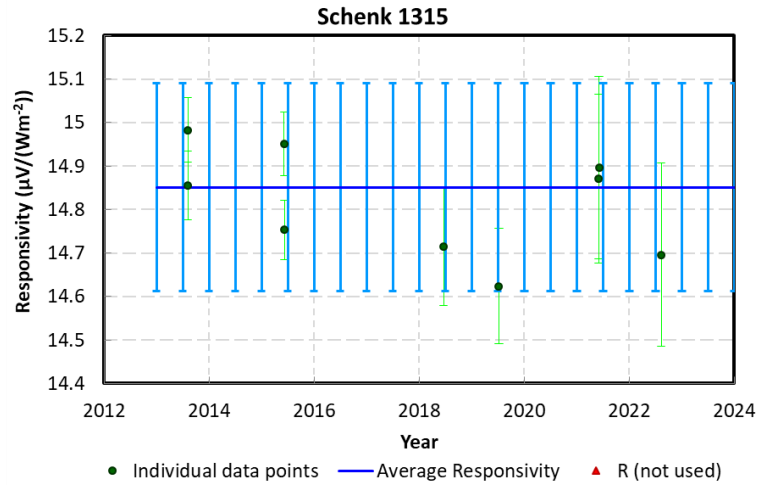
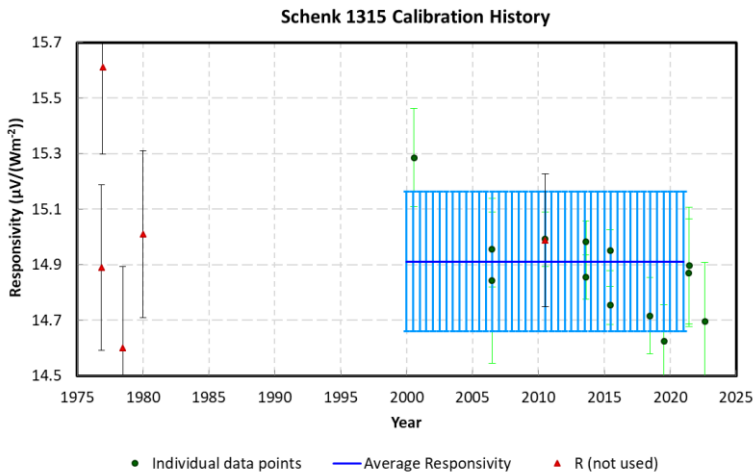


Figure 1: All calibration data plotted against time with long-term trend

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 Schenk 1315

	Calibration Date	Responsivity ($\mu V/Wm^{-2}$)	Uncertainty ($\mu V/Wm^{-2}$)	Average SZA ($^{\circ}$)	Temperature (C)	Reference Instruments	Location	Notes
1	1976/11/02	14.8900	0.2978	-	-	factory	Factory	
2	1976/12/13	15.6100	0.3122	-	-		Eugene, OR	Questionable
3	1978/06/15	14.6000	0.2920	-	30.18		Whitehorse Ranch, OR	

4	1980/01/01	15.0100	0.3002	-			Whitehorse Ranch, OR	
5	2000/02/29	15.2857	0.1762	44.98	26.71	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
6	2006/06/24	14.8420	0.2968	-		NIP_18948E6 R=8.1358, PSP_17518F3 R=7.76230	Eugene, OR	
7	2006/02/21	14.9553	0.1351	44.89	30.78	NIP_18948E6 R=8.1358, PSP_17518F3 R=7.76230	Eugene, OR	
8	2010/02/25	14.9873	0.2400	-	22.00	ACR, PSP_17518F3 R=7.75230?	Eugene, OR	with thermal offset
9	2010/02/25	14.9918	0.0980	44.42	24.00	ACR, Schenk_1315 R=14.89 (?)	Eugene, OR	
10	2013/03/06	14.8556	0.0793	44.84	31.10	ACR, CMP22_110265 R = 8.87	Eugene, OR	
11	2013/03/06	14.9827	0.0742	45.09	23.77	ACR, CMP22_110265 R = 8.87	Eugene, OR	
12	2015/02/16	14.9512	0.0741	44.73	21.63	ACR, CMP22_120363 R=9.68217	Eugene, OR	
13	2015/02/16	14.7536	0.0685	47.02	30.72	ACR, CMP22_120363 R=9.68217	Eugene, OR	
14	2018/02/20	14.7159	0.1371	45.59	24.40	ACR R=1.0002, CMP22_110265 R=8.9179	Eugene, OR	
15	2019/02/25	14.6242	0.1322	44.85	26.63	ACR R=1.00034, CMP22_110263 R=9.6981	Eugene, OR	
16	2021/02/14	14.8708	0.1945	44.93	27.10	ACR R=1.00038, CMP22_110263 R=9.7005	Eugene, OR	

17	2021/02/15	14.8967	0.2100	45.10	25.46	ACR R=1.00038, CMP22_110263 R=9.7005	Eugene, OR	
18	2022/03/07	14.6963	0.2109	44.89		ACR R=1.00038, CMP22_110265 R=8.9202	Eugene, OR	