

# Calibration History of the Li-Cor PY21248 Pyranometer

This page shows the calibration history of Li-Cor PY21248. 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.

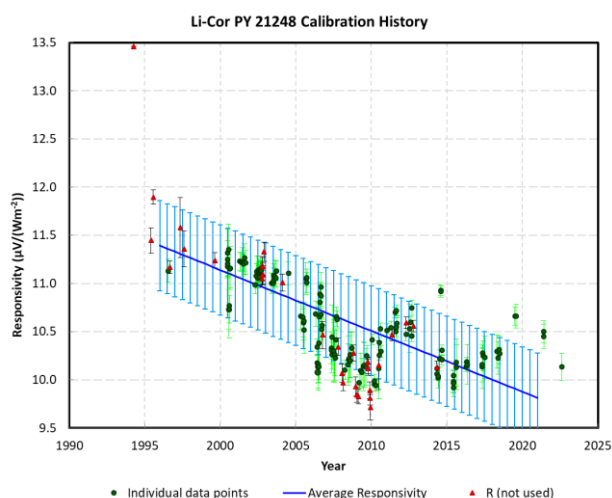


Figure 1: All calibration data plotted against time with long-term trend

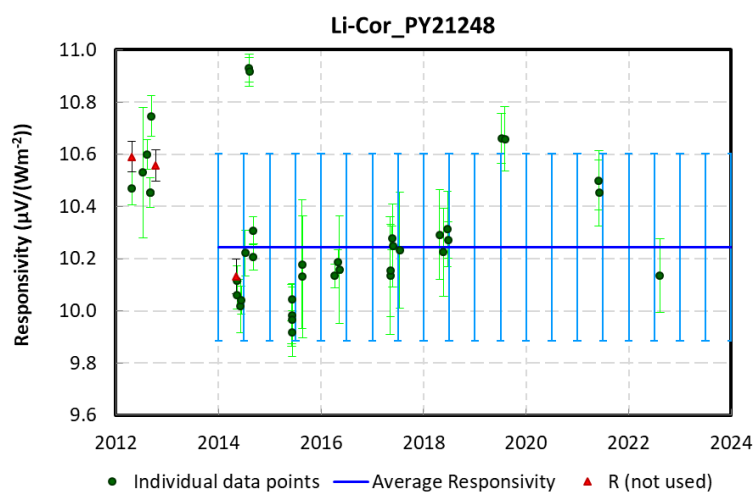


Figure 2: Calibration trend over the last ten years.

## 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 PY21248

	Calibration Date	Responsivity ( $\mu V/Wm^{-2}$ )	Uncertainty ( $\mu V/Wm^{-2}$ )	Average SZA ( $^{\circ}$ )	Temperature (C)	Reference Instruments	Location	Notes
1	1994/04/11	13.4600			-	Factory	Factory	
2	1995/06/02	11.4460	0.1320		-	PSP_13365F3	Eugene, OR	
3	1995/07/27	11.8950	0.0730		-	NREL	NREL, SRRL	
4	1996/07/20	11.1300	0.1190		-	PSP_13365F3	Eugene, OR	
5	1996/09/01	11.1660	0.0660		-	PSP_13365F3	Eugene, OR	

6	1997/05/09	11.5800	0.3130		15.00	ACR	NREL, SRRL	
7	1997/08/07	11.3560	0.1850		25.00	ACR, DHI?	Eugene, OR	
8	1999/08/25	11.2390	0.0780		-	NIP_18948E6, PSP_17518F3	Eugene, OR	
9	2000/06/29	11.2495	0.1941	44.85	26.42	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
10	2000/06/30	11.1760	0.0993	44.95	20.90	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
11	2000/07/02	11.2018	0.0969	46.98	18.35	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
12	2000/07/02	11.3155	0.2448	45.09	24.08	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
13	2000/07/18	11.3508	0.2646	44.98	26.71	NIP_18948E6 R=8.1358, PSP_18560F3 R=8.5134	Eugene, OR	
14	2000/07/24	10.7305	0.2092	44.95	27.36	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
15	2000/08/01	10.7667	0.3336	45.13	27.98	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
16	2000/08/08	10.7300	0.1422	45.26	22.72	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
17	2000/08/24	11.1539	0.1973	45.06	23.16	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
18	2000/08/28	11.1589	0.2239	44.96	26.08	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
19	2001/04/20	11.2305	0.0932	44.79	25.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

20	2001/05/21	11.2179	0.0910	44.89	26.61	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
21	2001/06/19	11.2218	0.1473	45.25	28.70	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
22	2001/07/18	11.2036	0.1094	44.98	25.80	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
23	2001/08/07	11.2643	0.1452	44.98	29.25	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
24	2001/09/06	11.2151	0.1265	44.90	24.86	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
25	2002/04/23	10.9870	0.0965	44.95	11.81	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
26	2002/05/22	11.0786	0.1295	45.29	22.75	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
27	2002/06/02	11.1248	0.1610	45.09	25.64	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
28	2002/07/02	11.0544	0.0996	44.80	25.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
29	2002/07/08	11.1372	0.1414	44.98	27.74	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
30	2002/07/15	11.1123	0.1019	44.98	27.15	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
31	2002/07/24	11.0995	0.0944	44.95	29.01	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
32	2002/07/24	11.1093	0.1194	44.93	26.72	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
33	2002/08/01	11.0796	0.0937	44.86	24.01	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

34	2002/08/06	11.0771	0.1089	44.73	22.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
35	2002/08/08	11.0636	0.0864	43.45	21.61	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
36	2002/08/19	11.1399	0.1014	45.04	25.11	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
37	2002/08/26	11.1397	0.1132	45.11	27.30	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
38	2002/09/04	11.1208	0.1030	45.00	23.36	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
39	2002/09/05	11.1287	0.1067	44.88	24.66	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
40	2002/09/12	11.1581	0.0951	44.90	26.62	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
41	2002/09/18	11.1346	0.0964	45.00	24.50	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
42	2002/09/19	11.1336	0.0962	45.01	24.51	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
43	2002/10/11	11.0489	0.0900	51.61	16.38	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
44	2002/10/16	11.1827	0.0992	54.57	22.83	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
45	2002/10/17	11.1820	0.0999	54.33	22.98	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
46	2002/10/19	11.1753	0.0922	55.72	21.30	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
47	2002/10/22	11.0953	0.1139	58.22	11.73	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

48	2002/10/30	11.0870	0.0953	58.21	11.39	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
49	2002/11/27	11.3287	0.1011	65.63	10.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
50	2003/05/23	11.0042	0.1048	45.00	26.06	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
51	2003/07/10	11.0054	0.0983	45.04	29.25	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
52	2003/07/16	11.0295	0.1335	45.05	29.32	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
53	2003/07/22	11.0850	0.1232	45.02	29.54	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
54	2003/08/04	11.0631	0.0933	44.99	25.62	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
55	2003/08/15	11.0727	0.1660	45.03	27.63	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
56	2003/09/12	11.0529	0.0955	44.88	21.96	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
57	2003/09/22	11.1305	0.1036	45.16	26.49	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
58	2005/02/23	11.0075	0.0868	57.82	11.39	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
59	2004/07/04	11.1041	0.1184	44.98	25.75	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
60	2005/04/30	10.6578	0.1363	45.37	20.14	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
61	2005/06/23	10.6511	0.1422	45.28	24.43	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

62	2005/06/30	10.5913	0.1460	44.88	25.83	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
63	2005/07/13	10.6077	0.1984	44.96	26.72	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
64	2005/07/22	10.5170	0.2415	45.05	26.44	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
65	2005/09/08	11.0500	0.1653	45.01	24.19	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
66	2005/09/18	11.0099	0.1069	45.12	20.22	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
67	2005/09/29	11.0603	0.0889	47.75	24.89	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
68	2006/04/27	10.6839	0.1316	45.03	16.97	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
69	2006/05/29	10.3380	0.0846	45.78	22.33	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
70	2006/06/06	10.1753	0.0866	44.95	27.22	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
71	2006/06/17	10.1339	0.2187	44.92	21.64	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
72	2006/06/24	10.1652	0.1970	44.95	29.76	NIP_18948E6 R=8.13580, PSP_17518F3 R=7.76230	Eugene, OR	
73	2006/06/27	10.0764	0.1841	45.01	27.71	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
74	2006/07/07	10.1323	0.1589	44.97	26.87	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
75	2006/07/16	10.3814	0.3731	45.01	29.09	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

76	2006/07/26	10.6547	0.2541	44.97	25.16	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
77	2006/08/06	10.8030	0.1732	44.93	26.63	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
78	2006/08/12	10.8885	0.1252	44.97	26.45	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
79	2006/09/01	10.9645	0.1503	45.05	25.32	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
80	2006/09/05	10.8717	0.1289	44.97	26.15	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
81	2006/09/08	10.6787	0.1592	44.89	24.37	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
82	2006/09/22	10.5217	0.1053	45.22	23.30	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
83	2006/09/29	10.5627	0.0827	46.76	24.17	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
84	2006/10/07	10.4640	0.1436	50.30	19.76	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
85	2007/05/08	10.3319	0.1630	45.00	24.91	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
86	2007/05/17	10.3045	0.0839	44.97	23.70	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
87	2007/05/22	10.2593	0.1853	45.06	18.26	NIP_23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
88	2007/05/30	10.4451	0.3334	44.83	26.30	NIP_23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
89	2007/07/07	10.2897	0.3039	44.99	24.81	NIP_23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	
90	2007/07/12	10.2981	0.3250	45.18	26.52	NIP_23928E6 R=8.26, Schenk_1315 R=14.89	Eugene, OR	

91	2007/07/31	10.2583	0.2636	45.15	25.29	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
92	2007/08/10	10.2283	0.1877	45.05	23.11	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
93	2007/09/01	10.4130	0.1009	44.99	25.10	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
94	2007/09/11	10.6554	0.1007	44.91	29.27	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
95	2007/09/24	10.6272	0.0887	45.07	18.18	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
96	2007/10/22	10.3429	0.0929	55.25	17.86	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
97	2008/09/06	10.0672	0.0936	62.98	3.39	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
98	2009/05/04	9.9717	0.0873	55.77	11.36	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
99	2010/07/08	10.1007	0.0977	44.98	9.60	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
100	2008/06/16	10.1593	0.2150	44.98	21.08	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
101	2008/06/27	10.2119	0.2404	45.00	24.35	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
102	2008/07/11	10.2187	0.2351	45.17	20.51	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
103	2008/08/03	10.1955	0.1694	44.99	21.41	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
104	2008/08/11	10.2585	0.2402	44.99	26.39	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	



105	2008/09/13	10.3270	0.1641	44.97	23.47	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
106	2008/10/25	10.2754	0.0824	56.47	15.41	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
107	2008/12/16	9.9293	0.0984	67.41	-2.58	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
108	2009/01/20	9.8465	0.0805	64.13	5.27	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
109	2009/02/20	9.8243	0.0772	55.03	13.02	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
110	2009/03/12	9.9686	0.0818	47.19	9.15	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
111	2009/04/19	10.0946	0.1821	44.91	20.78	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
112	2009/05/20	10.0790	0.1469	45.49	17.33	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
113	2009/06/27	10.1405	0.2535	44.94	23.22	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
114	2009/07/19	10.1512	0.2312	45.13	24.44	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
115	2009/08/26	10.1351	0.1927	44.98	26.06	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
116	2009/09/11	10.2469	0.1097	45.00	28.02	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
117	2009/10/09	10.1313	0.0832	50.72	16.78	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
118	2009/11/24	9.8896	0.0862	64.81	12.98	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	

119	2009/12/08	9.7141	0.1321	66.87	-2.44	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
120	2009/10/07	10.1846	0.0523	55.44	18.93	ACR, Schenk_1315 R=14.89	Eugene, OR	
121	2009/10/08	10.1809	0.0481	50.47	18.82	ACR, Schenk_1315 R=14.89	Eugene, OR	
122	2009/10/11	10.1159	0.0495	51.83	13.08	ACR, Schenk_1315 R=14.89	Eugene, OR	
123	2009/12/04	9.8100	0.0689	67.45	5.87	ACR, Schenk_1315 R=14.89	Eugene, OR	
124	2010/01/27	10.4162	0.0568	45.87	25.82	ACR, Schenk_1315 R=14.89	Eugene, OR	
125	2010/03/18	9.9516	0.0689	45.10	11.99	ACR, Schenk_1315 R=14.89	Eugene, OR	
126	2010/03/19	9.9881	0.0714	44.94	14.87	ACR, Schenk_1315 R=14.89	Eugene, OR	
127	2010/04/23	9.9414	0.0579	44.72	13.02	ACR, Schenk_1315 R=14.89	Eugene, OR	
128	2010/06/28	10.1533	0.2545	39.59	22.36	ACR, Schenk_1315 R=14.89	Eugene, OR	
129	2010/07/06	10.1208	0.3201	44.42	23.00	ACR, Schenk_1315 R=14.89	Eugene, OR	
130	2010/07/14	10.3887	0.0526	44.81	28.55	ACR, Schenk_1315 R=14.89	Eugene, OR	
131	2010/07/15	10.2564	0.0552	45.05	23.36	ACR, Schenk_1315 R=14.89	Eugene, OR	
132	2010/08/13	10.5288	0.0576	44.93	33.74	ACR, Schenk_1315 R=14.89	Eugene, OR	
133	2010/08/16	10.2951	0.0598	44.56	23.08	ACR, Schenk_1315 R=14.89	Eugene, OR	
134	2011/01/21	10.5124	0.0707	44.51	22.42	ACR, Schenk_1315 R=14.89	Eugene, OR	
135	2011/04/22	10.5389	0.0659	45.56	15.73	ACR, Schenk_1315 R=14.89	Eugene, OR	
136	2011/05/19	10.4669	0.0621	35.53	17.54	ACR, Schenk_1315 R=14.89	Eugene, OR	
137	2011/07/28	10.6990	0.0578	45.05	27.74	ACR, Schenk_1315 R=14.89	Eugene, OR	
138	2011/08/19	10.5002	0.0561	44.35	21.43	ACR, Schenk_1315 R=14.89	Eugene, OR	

139	2011/09/01	10.5456	0.1252	45.11	21.00	ACR, Schenk_1315 R=14.89	Eugene, OR	
140	2011/09/03	10.7189	0.0563	44.50	31.86	ACR, Schenk_1315 R=14.89	Eugene, OR	
141	2011/09/06	10.5860	0.0583	44.79	23.72	ACR, Schenk_1315 R=14.89	Eugene, OR	
142	2012/04/22	10.5903	0.0589	37.86	24.37	ACR, Schenk_1315 R=14.89	Eugene, OR	
143	2012/04/23	10.4700	0.0635	44.93	21.04	ACR, Schenk_1315 R=14.89	Eugene, OR	
144	2012/07/11	10.5296	0.2509	44.89	25.00	ACR, Schenk_1315 R=14.89	Eugene, OR	
145	2012/08/09	10.5998	0.0573	45.49	25.11	ACR, Schenk_1315 R=14.89	Eugene, OR	
146	2012/08/31	10.4538	0.0562	44.89	17.18	ACR, Schenk_1315 R=14.89	Eugene, OR	
147	2012/08/31	10.4538	0.0562	44.89	17.18	ACR, Schenk_1315 R=14.89	Eugene, OR	
148	2012/09/07	10.7456	0.0776	48.58	28.72	ACR, Schenk_1315 R=14.89	Eugene, OR	
149	2012/10/10	10.5571	0.0614	51.20	17.42	ACR, Schenk_1315 R=14.89	Eugene, OR	
150	2014/05/07	10.1310	0.0661	51.88	10.20	ACR, Schenk_1315 R=14.89	Eugene, OR	
151	2014/05/13	10.1157	0.0562	44.92	25.58	ACR, Schenk_1315 R=14.89	Eugene, OR	
152	2014/05/14	10.0608	0.0547	45.45	21.38	ACR, Schenk_1315 R=14.89	Eugene, OR	
153	2014/06/05	10.0188	0.1025	45.02	17.82	ACR, Schenk_1315 R=14.89	Eugene, OR	
154	2014/06/11	10.0399	0.0532	44.85	17.13	ACR, Schenk_1315 R=14.89	Eugene, OR	
155	2014/07/10	10.2220	0.0872	45.10	25.12	ACR, Schenk_1315 R=14.89	Eugene, OR	
156	2014/08/06	10.9307	0.0545	44.63	29.05	ACR, Schenk_1315 R=14.89	Eugene, OR	
157	2014/08/07	10.9159	0.0562	45.15	21.78	ACR, Schenk_1315 R=14.89	Eugene, OR	
158	2014/09/04	10.3068	0.0540	44.96	27.22	ACR, Schenk_1315 R=14.89	Eugene, OR	
159	2014/09/05	10.2066	0.0517	45.08	24.25	ACR, Schenk_1315 R=14.89	Eugene, OR	

160	2015/06/05	9.9835	0.1189	44.77	23.32	ACR, CMP22_120363 R=9.68217	Eugene, OR	
161	2015/06/06	9.9183	0.0450	44.73	21.63	ACR, CMP22_120363 R=9.68217	Eugene, OR	
162	2015/06/07	10.0460	0.0452	47.02	30.72	ACR, CMP22_120363 R=9.68217	Eugene, OR	
163	2015/06/08	9.9651	0.1402	45.01	26.97	ACR, CMP22_110265 R=8.9212	Eugene, OR	
164	2015/08/22	10.1318	0.2338	45.24	22.61	ACR R=1.0000, Scheck_1315 R=14.89	Eugene, OR	
165	2015/08/18	10.1788	0.2474	44.99	25.76	NIP_18948E6 R=8.1358, Schenk_1315 R=14.89	Eugene, OR	
166	2016/04/07	10.1345	0.0456	45.02	19.79	ACR R=1.00069, Scheck_1315 R=14.89	Eugene, OR	
167	2016/05/01	10.1877	0.0452	44.99	23.84	ACR R=1.00069, Scheck_1315 R=14.89	Eugene, OR	
168	2016/05/11	10.1585	0.2053	45.00	23.50	ACR R=1.00069, Scheck_1315 R=14.89	Eugene, OR	
169	2017/05/08	10.1349	0.2245	44.81	16.60	ACR R=1.0005, Scheck_1315 R=14.89	Eugene, OR	
170	2017/05/09	10.1558	0.1766	44.80	17.53	ACR R=1.0005, Scheck_1315 R=14.89	Eugene, OR	
171	2017/05/19	10.2784	0.0457	45.03	24.17	ACR R=1.0005, Scheck_1315 R=14.89	Eugene, OR	
172	2017/05/26	10.2501	0.1589	45.01	22.79	ACR R=1.0005, Scheck_1315 R=14.89	Eugene, OR	
173	2017/07/15	10.2321	0.2219	44.98	21.89	NIP_18948E6,R =8.12018, Schenk_1315 R=14.89	Eugene, OR	
174	2018/04/25	10.2925	0.1706	44.99	22.45	ACR R=1.0002, Scheck_1315 R=14.9111	Eugene, OR	
175	2018/05/22	10.2250	0.1691	45.00	22.00	ACR R=1.0002, Scheck_1315 R=14.9111	Eugene, OR	
176	2018/06/19	10.3132	0.1446	45.13	26.39	ACR R=1.0002, CMP22_110265 R=8.9179	Eugene, OR	
177	2018/06/26	10.2704	0.0697	45.34	23.04	ACR R=1.0002, Scheck_1315 R=14.9111	Eugene, OR	

178	2019/07/08	10.6612	0.0955	44.85	26.63	ACR R=1.00034, CMP22_120363 R=9.6981	Eugene, OR	
179	2019/08/01	10.6586	0.1230	45.16	25.48	ACR R=1.00034, CMP22_120363 R=9.6981	Eugene, OR	
180	2021/06/02	10.4995	0.1139	44.93	27.10	ACR R=1.00038, CMP22_120363 R=9.7005	Eugene, OR	
181	2021/06/03	10.4517	0.1270	45.10	25.46	ACR R=1.00038, CMP22_120363 R=9.7005	Eugene, OR	
182	2022/08/11	10.1350	0.1424	44.93	-	ACR R=1.00038, CMP22_120365 R=8.9202	Eugene, OR	