



DIRECCIÓN METEOROLÓGICA DE CHILE



INFORME
SOLARIMÉTRICO
I SEMESTRE 2013

CLIMATOLOGÍA Y METEOROLOGÍA APLICADA

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JANUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	CALDERA
Date				
1	26.95	31.44	31.99	.
2	27.73	32.04	29.06	.
3	21.16	29.59	30.46	.
4	26.79	31.22	26.99	.
5	20.76	29.47	29.43	.
6	22.11	25.93	29.54	.
7	27.55	31.89	32.42	.
8	24.97	31.41	32.36	.
9	23.30	28.91	8.39	.
10	15.98	19.18	14.44	.
11	21.85	28.82	26.12	.
12	21.10	30.16	29.81	.
13	25.40	30.10	29.84	.
14	26.54	30.12	31.40	.
15	23.61	30.19	30.88	.
16	19.66	30.20	30.70	.
17	21.74	27.13	29.13	.
18	24.13	27.54	30.30	.
19	25.30	28.98	29.37	.
20	24.80	15.88	24.16	.
21	25.90	30.50	31.00	.
22	20.93	29.41	29.89	.
23	.	16.69	26.20	.
24	.	30.44	30.92	.
25	.	30.04	31.24	.
26	.	30.37	31.02	.
27	.	30.33	31.06	.
28	.	29.66	31.35	.
29	.	25.29	29.55	.
30	.	29.67	30.86	.
31	.	29.44	30.71	.
TT Monthly Totals	.	882.07	890.61	.
 Daily Means	.	28.45	28.73	.
SS Monthly Totals				
 Daily Means				
Types of Instruments	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JANUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station				
Date	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
1	29.25	30.13	26.62	24.56
2	29.51	29.82	28.51	11.08
3	28.85	25.91	28.77	16.99
4	26.00	22.55	20.64	13.46
5	27.56	24.82	13.43	13.74
6	29.03	3.92	17.24	21.83
7	28.79	10.66	9.79	26.03
8	28.61	14.89	14.30	21.43
9	28.74	28.54	19.64	18.79
10	25.98	29.45	27.52	14.55
11	26.95	13.82	25.73	25.18
12	27.85	30.17	27.66	23.66
13	23.21	28.99	27.14	20.17
14	27.44	29.36	26.85	21.34
15	27.42	29.53	26.74	11.27
16	27.15	21.96	27.13	23.57
17	27.06	28.03	26.68	14.33
18	27.39	27.85	26.61	22.73
19	26.83	27.94	26.18	24.43
20	27.07	27.95	25.99	20.08
21	9.52	27.05	25.69	11.12
22	26.43	23.79	21.85	22.49
23	27.82	11.85	24.61	19.20
24	24.37	23.63	25.23	10.56
25	27.11	23.22	25.52	20.58
26	27.55	26.51	24.70	20.89
27	27.75	23.92	18.55	19.00
28	23.72	20.37	19.37	10.80
29	27.31	18.69	21.01	10.79
30	26.85	28.00	24.94	8.87
31	26.28	22.13	7.64	22.98
TT Monthly Totals	825.40	735.45	712.29	566.50
Daily Means	26.63	23.72	22.98	18.27
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: FEBRUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15'S
Longitude	70°19'W	68°54' W	70°26' W	70°46'W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	CALDERA
Date				
1	.	29.61	30.67	.
2	.	29.48	30.84	.
3	.	26.67	30.39	.
4	.	28.23	26.86	.
5	.	27.78	25.58	.
6	.	24.14	28.63	.
7	.	26.43	29.47	.
8	.	23.69	14.03	.
9	.	27.22	29.54	.
10	.	28.40	29.68	.
11	.	29.02	28.88	.
12	.	28.43	29.17	.
13	.	28.18	28.91	.
14	.	27.12	29.44	.
15	.	28.00	29.38	.
16	.	28.44	28.99	.
17	.	28.16	29.21	.
18	.	28.19	29.01	.
19	.	27.82	29.38	.
20	.	26.90	29.45	.
21	.	23.45	28.58	.
22	.	24.16	23.80	.
23	.	26.19	27.11	.
24	.	26.77	27.30	.
25	.	26.84	26.56	.
26	.	26.91	27.03	.
27	.	26.45	27.28	.
28	.	26.25	27.00	.
29				
30				
31				
TT Monthly Totals	.	758.94	782.19	.
Daily Means	.	27.11	27.94	.
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: FEBRUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station				
Date	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
1	24.69	18.90	17.85	20.31
2	26.30	27.36	24.49	9.17
3	26.56	27.16	18.79	21.64
4	26.06	16.83	23.06	10.10
5	26.43	25.50	14.27	10.48
6	23.84	22.63	13.48	24.31
7	22.44	22.48	21.31	21.81
8	21.60	19.08	22.90	7.46
9	9.13	3.29	17.67	21.84
10	23.13	11.16	8.03	8.28
11	24.26	10.44	11.24	11.30
12	24.58	10.85	11.00	14.53
13	24.96	16.01	10.77	15.71
14	25.16	16.31	14.88	15.59
15	24.74	3.87	18.72	19.42
16	25.06	17.76	16.01	20.28
17	21.24	16.84	11.94	16.86
18	22.90	24.24	22.79	15.43
19	25.05	18.23	19.14	21.67
20	24.99	16.78	21.26	14.86
21	24.59	21.90	18.44	6.15
22	24.02	8.88	11.56	14.12
23	23.29	7.14	6.73	11.29
24	24.27	10.28	11.51	19.42
25	24.30	18.14	15.39	11.48
26	23.78	15.63	12.54	15.62
27	23.32	13.25	9.86	18.86
28	22.64	14.17	14.63	13.52
29				
30				
31				
TT Monthly Totals	663.32	455.10	440.27	431.51
Daily Means	23.69	16.25	15.72	15.41
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MARCH Year: 2013 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	CALDERA
Date				
1	.	25.24	26.52	.
2	.	25.73	23.52	.
3	.	25.70	26.39	.
4	.	25.69	26.50	.
5	.	25.73	21.85	.
6	.	25.86	25.23	.
7	.	24.03	24.96	.
8	.	19.64	24.79	.
9	.	25.00	18.91	.
10	.	25.74	25.39	.
11	.	25.90	23.79	.
12	.	25.15	24.16	.
13	.	25.96	26.06	.
14	.	25.06	26.29	.
15	.	25.39	25.86	.
16	.	24.91	22.95	.
17	.	25.20	26.26	.
18	.	24.81	24.85	.
19	.	24.51	25.36	.
20	.	24.16	24.29	.
21	.	24.10	24.39	.
22	.	23.95	23.38	.
23	.	24.30	25.18	.
24	.	24.06	23.90	.
25	.	24.01	24.83	.
26	.	23.63	22.38	.
27	.	23.43	23.61	.
28	.	23.55	24.47	.
29	19.91	23.58	22.30	.
30	18.52	23.62	22.39	.
31	15.89	23.36	22.60	.
TT Monthly Totals	.	760.97	753.36	.
 Daily Means	.	24.55	24.30	.
SS Monthly Totals				
 Daily Means				
Types of Instruments	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MARCH Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station				
Date	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
1	23.58	13.53	18.33	15.45
2	23.65	10.25	15.30	12.93
3	22.09	19.12	19.57	15.47
4	22.65	13.24	19.54	9.83
5	21.92	7.06	9.13	13.65
6	21.30	16.52	16.95	14.26
7	12.94	5.42	6.74	17.05
8	14.19	5.46	11.85	3.13
9	21.56	4.82	12.49	9.17
10	21.51	11.21	6.51	5.82
11	21.60	18.60	8.83	7.50
12	20.37	15.38	9.83	9.34
13	20.42	20.20	15.08	14.23
14	20.99	20.83	14.77	15.63
15	20.57	18.67	17.64	13.19
16	18.10	8.75	11.69	8.85
17	20.05	17.01	14.42	12.44
18	14.57	17.23	16.12	11.46
19	18.92	7.88	10.24	3.28
20	14.42	12.74	8.17	13.00
21	19.11	15.27	6.45	8.58
22	18.74	10.39	7.60	12.70
23	15.22	12.67	7.63	4.62
24	18.75	15.03	10.34	8.23
25	18.94	12.87	5.11	5.17
26	18.91	12.86	13.40	11.41
27	18.20	15.09	11.21	6.62
28	17.59	15.13	6.07	9.45
29	16.83	7.93	13.89	5.42
30	11.04	15.09	13.41	6.83
31	10.96	15.09	13.57	7.72
TT Monthly Totals	579.67	411.35	371.90	312.44
 Daily Means	18.70	13.27	12.00	10.08
SS Monthly Totals				
 Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: APRIL Year: 2013 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15'S
Longitude	70°19'W	68°54' W	70°26' W	70°46'W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	CALDERA
Date				
1	17.52	23.58	24.18	.
2	18.18	23.10	22.24	.
3	18.58	22.53	23.77	.
4	19.32	22.70	23.81	.
5	19.03	22.49	23.23	.
6	15.88	22.02	22.69	.
7	18.74	22.16	22.79	.
8	18.87	22.06	22.58	.
9	18.10	21.73	22.45	.
10	16.76	21.73	21.06	.
11	16.19	21.35	22.09	.
12	18.73	20.90	21.70	.
13	18.72	21.71	19.91	.
14	16.24	21.25	18.78	.
15	18.24	21.26	21.47	.
16	17.62	21.31	20.40	.
17	17.63	21.00	20.97	.
18	10.59	20.38	19.12	.
19	17.77	20.21	20.61	.
20	17.86	20.19	21.30	.
21	17.54	20.09	19.90	.
22	16.68	17.44	18.28	.
23	14.29	19.10	13.06	.
24	16.83	19.32	19.69	.
25	17.01	19.17	19.53	.
26	16.76	19.08	9.48	.
27	14.83	19.46	19.07	.
28	16.61	19.34	18.39	.
29	16.25	19.10	18.48	.
30	16.25	18.87	16.81	.
31				
TT Monthly Totals	513.64	624.62	607.81	.
Daily Means	17.12	20.82	20.26	.
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: APRIL Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station				
Date	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
1	8.65	15.70	13.44	5.34
2	16.80	12.84	12.90	5.78
3	16.77	12.66	12.75	4.84
4	14.52	3.82	8.41	10.23
5	11.68	7.31	5.27	8.33
6	16.56	5.38	6.04	7.36
7	16.82	9.12	5.78	5.77
8	16.21	13.01	5.57	6.32
9	6.16	3.79	7.74	4.51
10	14.78	2.84	3.41	8.00
11	10.65	11.08	11.42	7.68
12	15.31	12.53	10.00	3.43
13	13.32	4.32	4.70	3.27
14	15.28	5.10	5.96	6.73
15	14.88	10.26	8.65	0.81
16	14.71	4.99	4.31	4.83
17	14.31	9.53	5.18	6.16
18	14.35	9.36	7.47	3.72
19	13.87	5.48	4.40	4.17
20	11.32	3.36	5.32	3.43
21	13.90	5.26	3.89	4.35
22	12.54	10.16	7.80	6.88
23	10.68	11.85	8.87	6.71
24	11.56	4.06	4.68	6.25
25	10.30	4.05	8.43	4.88
26	5.95	4.74	6.74	4.87
27	12.03	8.25	4.44	6.75
28	10.20	7.73	3.85	4.86
29	10.17	1.70	5.18	5.28
30	11.22	1.62	8.18	5.00
31				
TT Monthly Totals	385.51	221.87	210.80	166.52
 Daily Means	12.85	7.40	7.03	5.55
SS Monthly Totals				
 Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MAY Year: 2013 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	CALDERA
Date				
1	14.68	15.16	17.09	.
2	10.35	18.44	14.98	.
3	11.11	18.67	18.89	.
4	11.05	18.87	18.69	.
5	12.62	18.99	17.15	.
6	15.22	18.73	15.09	.
7	15.98	18.72	18.21	.
8	15.56	18.33	18.30	.
9	15.04	18.17	15.30	.
10	11.17	16.92	17.34	.
11	7.93	17.50	17.92	.
12	14.33	17.51	14.29	.
13	15.27	17.48	17.60	.
14	15.37	17.75	17.32	.
15	12.56	17.55	17.39	.
16	12.65	14.64	9.66	.
17	11.98	4.21	11.72	.
18	5.71	11.08	16.82	.
19	13.58	17.16	7.82	.
20	5.46	16.29	5.80	.
21	5.10	15.52	9.68	.
22	7.31	16.39	12.07	.
23	7.67	14.87	9.97	.
24	10.86	12.76	13.81	.
25	9.20	16.49	15.48	.
26	9.50	16.41	17.01	.
27	9.30	16.51	15.70	.
28	11.72	16.32	17.30	.
29	11.72	16.45	16.29	.
30	14.05	16.47	15.97	.
31	13.10	16.32	15.48	.
TT Monthly Totals	357.14	506.67	466.14	.
 Daily Means	11.52	16.34	15.04	.
SS Monthly Totals				
 Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MAY Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station				
Date	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
1	10.28	4.30	8.09	4.44
2	3.34	4.66	3.55	3.16
3	6.75	3.82	3.69	5.32
4	11.59	6.65	7.68	3.93
5	12.43	3.34	3.31	3.85
6	11.73	7.32	5.52	4.56
7	11.65	4.22	1.21	5.01
8	11.28	1.28	4.98	3.61
9	7.51	2.26	3.41	4.34
10	9.92	6.70	5.84	4.72
11	10.66	3.38	3.59	3.62
12	4.31	4.24	1.16	3.48
13	6.71	3.80	4.84	4.28
14	8.18	8.38	6.47	2.93
15	10.77	3.34	5.77	3.07
16	10.53	5.71	5.94	1.87
17	5.32	1.88	6.15	3.82
18	6.48	3.12	5.51	2.65
19	10.60	2.05	4.28	1.71
20	10.05	6.91	5.16	0.76
21	8.06	2.42	5.26	2.41
22	6.95	3.97	4.63	3.17
23	9.31	2.26	5.97	3.63
24	9.66	3.36	1.03	3.10
25	7.72	2.56	1.55	0.85
26	6.36	3.97	3.57	1.09
27	0.41	3.20	2.16	0.33
28	2.11	2.25	2.73	0.39
29	9.32	2.42	3.26	1.46
30	7.15	1.59	2.34	2.33
31	5.41	3.40	3.71	2.54
TT Monthly Totals	252.54	118.74	132.34	92.44
Daily Means	8.15	3.83	4.27	2.98
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JUNE Year: 2013 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	CALDERA
Date				
1	13.68	16.42	.	.
2	12.33	16.29	.	.
3	12.28	16.41	.	.
4	9.72	16.38	.	.
5	11.56	16.06	.	.
6	13.37	15.63	.	.
7	7.61	11.52	.	.
8	8.54	13.62	.	.
9	9.96	14.64	.	.
10	9.80	15.19	.	.
11	9.91	14.70	.	.
12	12.82	13.93	.	.
13	10.11	13.05	.	.
14	12.94	14.35	.	.
15	12.27	15.58	.	.
16	4.12	15.79	.	.
17	7.16	15.60	.	.
18	10.23	15.37	.	.
19	5.66	10.47	.	.
20	9.81	15.07	.	.
21	8.25	15.23	.	.
22	7.06	12.57	.	.
23	12.78	6.89	.	.
24	11.14	6.13	.	.
25	5.59	15.30	.	.
26	9.62	15.13	.	.
27	10.68	16.08	.	.
28	10.08	16.23	.	.
29	9.40	16.39	.	.
30	11.26	16.54	.	.
31				
TT Monthly Totals	299.73	432.56	.	.
Daily Means	9.99	14.42	.	.
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JUNE Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station				
Date	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
1	8.68	2.40	3.52	2.28
2	9.58	1.25	2.93	2.12
3	9.22	0.84	1.31	1.65
4	8.58	0.77	0.96	2.82
5	8.25	7.15	4.19	1.81
6	8.71	1.38	2.52	1.21
7	8.71	5.97	3.44	2.74
8	8.57	5.80	3.91	2.42
9	8.44	4.88	2.50	0.86
10	8.90	3.52	2.38	2.47
11	8.35	1.07	3.45	2.06
12	8.87	0.86	2.55	2.14
13	8.36	5.59	4.28	2.57
14	7.93	1.95	0.87	1.92
15	6.54	3.88	2.48	2.31
16	2.27	4.18	3.39	1.12
17	6.83	1.39	0.91	1.41
18	5.32	4.17	3.92	2.08
19	7.09	3.27	2.60	1.44
20	7.86	2.32	4.17	1.51
21	6.88	1.97	4.04	2.14
22	2.55	2.07	4.43	2.02
23	4.39	2.61	3.08	1.22
24	8.84	4.36	3.52	2.41
25	8.64	4.40	2.98	1.22
26	2.48	2.22	3.81	2.32
27	0.87	1.58	2.29	0.59
28	3.62	4.29	2.89	0.64
29	5.86	5.06	3.73	2.50
30	9.23	1.20	3.28	2.30
31				
TT Monthly Totals	210.42	92.42	90.32	56.29
Daily Means	7.01	3.08	3.01	1.88
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JANUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	18°21' S	20°32' S	22°28' S	23°26' S
Longitude	70°19'W	72°10' W	68°55' W	70°26' W
Elevation	58 m	52 m	270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	9.9	11.0	11.6	11.3
2	12.2	11.2	11.6	9.4
3	6.4	9.6	8.4	9.4
4	10.1	6.3	10.7	8.7
5	4.9	9.5	8.7	10.8
6	6.8	8.8	6.6	9.1
7	11.5	11.9	11.6	12.1
8	9.1	10.8	11.4	11.9
9	7.0	10.2	10.2	11.6
10	2.9	5.2	2.5	8.8
11	5.8	3.2	9.1	7.5
12	4.2	7.9	11.0	9.7
13	8.4	7.9	11.1	11.1
14	11.4	11.4	11.0	12.1
15	7.0	8.8	11.1	11.0
16	6.2	10.6	11.1	11.7
17	5.8	9.9	7.9	11.9
18	7.4	8.8	8.6	11.7
19	10.6	10.1	9.3	11.7
20	9.4	7.6	0.3	8.2
21	9.9	11.7	11.4	10.8
22	6.9	9.4	9.5	10.6
23	1.2	1.9	1.3	9.2
24	9.6	11.6	11.2	12.1
25	12.6	8.4	11.2	12.0
26	11.5	11.5	11.2	11.9
27	11.6	11.3	11.1	12.1
28	11.5	11.4	11.1	11.3
29	0.5	8.1	5.8	9.7
30	6.3	7.6	10.9	11.9
31	8.1	11.4	10.7	11.3
TT Monthly Totals				
Daily Means				
SS Monthly Totals	246.7	285.0	289.2	332.6
Daily Means	8.0	9.2	9.3	10.7
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JANUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	8.5	12.5	5.9	12.5
2	7.4	12.0	5.0	12.6
3	8.0	12.2	6.4	11.6
4	10.2	13.1	13.4	7.6
5	4.2	12.4	12.5	10.2
6	6.2	8.6	9.4	12.6
7	7.6	8.3	6.4	12.6
8	6.5	9.6	10.3	12.6
9	7.8	5.0	6.1	12.7
10	8.6	5.0	4.6	11.7
11	7.5	9.1	2.4	11.8
12	7.0	9.2	4.1	12.2
13	7.9	6.2	7.9	8.3
14	12.3	5.4	12.6	11.8
15	10.4	1.4	.	12.2
16	9.9	5.5	13.0	12.2
17	10.2	1.3	7.0	11.9
18	10.3	7.2	4.5	10.6
19	9.6	10.2	2.8	12.4
20	0.0	2.4	3.0	10.9
21	5.8	8.6	6.3	0.0
22	9.2	5.9	6.3	11.0
23	6.8	9.6	2.2	10.5
24	9.3	9.6	4.5	8.4
25	12.4	5.8	12.8	10.6
26	9.0	9.0	7.0	13.0
27	9.2	10.1	7.5	12.3
28	11.7	9.8	12.0	8.9
29	6.5	9.4	12.6	12.2
30	7.9	7.1	5.3	12.3
31	7.3	5.4	3.8	11.0
TT Monthly Totals				
Daily Means				
SS Monthly Totals	255.2	246.9	.	341.2
Daily Means	8.2	8.0	7.3	11.0
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JANUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station				
Date	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
1	12.3	4.1	9.0	13.6
2	12.2	0.3	2.9	15.6
3	11.3	0.1	3.1	7.5
4	8.9	4.4	5.4	4.5
5	10.4	2.6	9.3	10.6
6	11.9	9.8	7.9	13.6
7	11.8	6.1	11.1	13.5
8	11.9	0.2	12.4	13.7
9	11.9	10.7	12.6	13.6
10	10.7	11.4	7.7	13.6
11	11.1	2.6	2.1	7.7
12	11.7	10.6	0.0	13.4
13	8.4	10.0	5.6	5.5
14	11.6	4.8	4.5	8.0
15	11.4	10.5	8.4	9.0
16	11.5	2.6	0.0	12.8
17	11.2	11.4	0.9	12.4
18	11.0	4.8	1.9	11.8
19	11.3	5.7	0.2	13.1
20	11.2	5.8	1.5	12.8
21	0.0	5.3	0.0	6.9
22	10.1	0.6	0.0	10.2
23	11.2	11.4	0.0	10.9
24	9.2	11.0	0.0	7.4
25	10.6	0.0	0.7	12.2
26	10.8	6.9	2.6	13.0
27	11.0	0.1	5.8	13.1
28	8.8	9.2	7.8	4.8
29	9.9	9.3	10.9	13.0
30	11.3	6.2	3.2	12.9
31	9.8	7.0	0.0	9.6
TT Monthly Totals				
Daily Means				
SS Monthly Totals	326.4	185.5	137.5	340.3
Daily Means	10.5	6.0	4.4	11.0
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JANUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	13.2	13.0	10.6	13.1
2	13.3	8.9	10.7	13.6
3	9.7	5.8	6.8	9.5
4	1.3	3.0	4.9	11.0
5	12.3	12.5	9.4	12.1
6	11.7	8.1	0.6	0.0
7	8.7	10.1	8.9	12.4
8	13.4	13.0	10.6	9.1
9	13.5	12.9	9.8	13.3
10	13.2	8.1	10.8	12.2
11	12.2	11.4	7.5	9.4
12	13.2	12.0	10.5	11.2
13	9.5	8.0	10.6	13.0
14	3.8	5.2	8.2	12.3
15	6.6	0.0	6.3	10.6
16	11.9	9.6	8.4	12.5
17	13.2	11.3	9.6	13.3
18	12.4	0.0	10.5	13.2
19	13.0	0.1	10.3	13.1
20	8.2	0.0	10.9	13.1
21	5.5	0.0	7.5	11.3
22	8.0	6.1	6.2	7.8
23	12.2	11.2	8.8	13.2
24	11.5	12.1	10.3	10.8
25	13.0	12.5	10.6	12.8
26	12.7	12.7	9.0	12.3
27	13.0	10.1	9.8	12.0
28	8.9	3.7	8.2	9.4
29	12.4	12.6	5.2	6.1
30	11.3	8.9	10.6	12.3
31	11.8	11.2	10.6	12.2
TT Monthly Totals				
Daily Means				
SS Monthly Totals	334.6	254.1	272.7	348.2
Daily Means	10.8	8.2	8.8	11.2
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JANUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station				
Date	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
1	12.4	12.5	4.5	
2	13.2	12.5	2.6	
3	11.2	12.9	7.6	
4	11.5	8.1	4.0	
5	9.9	4.1	3.4	
6	0.0	2.0	9.2	
7	2.9	0.0	9.8	
8	5.7	5.0	8.4	
9	12.2	8.4	7.2	
10	13.7	12.2	5.2	
11	4.9	8.5	11.7	
12	13.5	13.1	10.5	
13	13.5	12.7	7.3	
14	13.5	12.3	8.3	
15	12.4	12.6	3.7	
16	8.0	12.8	10.5	
17	10.6	12.3	4.0	
18	10.6	12.6	7.9	
19	13.6	12.5	9.7	
20	14.8	12.5	8.9	
21	13.1	12.4	0.2	
22	7.4	9.0	11.0	
23	6.1	11.6	9.3	
24	10.0	11.6	0.2	
25	12.3	12.2	10.2	
26	10.9	11.4	9.2	
27	11.0	7.7	9.2	
28	7.8	6.6	4.7	
29	7.9	9.3	4.7	
30	13.0	11.7	2.6	
31	8.8	0.4	12.1	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	316.4	303.5	217.8	
 Daily Means	10.2	9.8	7.0	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: FEBRUARY		Year: 2013		Country: CHILE	
Daily Totals					
Latitude	18°21' S	20°32' S	22°28' S	23°26' S	
Longitude	70°19' W	72°10' W	68°55' W	70°26' W	
Elevation	58 m	52 m	270 m	135 m	
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA	
Date					
1	10.7	11.3	11.0	12.1	
2	9.7	11.0	11.0	11.6	
3	5.5	8.7	8.1	11.5	
4	9.7	10.9	10.5	10.1	
5	8.8	10.6	10.3	9.9	
6	8.4	10.8	7.6	9.4	
7	11.4	11.3	10.0	11.6	
8	11.7	11.2	7.2	11.9	
9	9.7	10.5	6.1	11.9	
10	8.8	11.2	9.7	12.0	
11	11.0	11.4	10.4	10.6	
12	11.5	11.4	10.2	11.7	
13	11.5	10.9	10.2	11.1	
14	11.5	10.5	9.4	11.4	
15	10.8	10.8	10.0	11.4	
16	11.4	10.8	10.0	10.3	
17	9.2	10.9	9.8	11.0	
18	8.7	11.0	9.7	10.2	
19	4.0	8.7	9.1	11.3	
20	9.3	10.1	11.7	11.3	
21	8.1	10.1	9.4	10.8	
22	7.9	8.2	8.6	9.2	
23	11.2	9.8	10.6	11.0	
24	10.8	10.7	11.4	10.7	
25	10.1	10.9	11.5	10.5	
26	10.0	8.6	11.3	11.2	
27	10.8	10.6	11.0	11.3	
28	10.9	10.5	11.1	11.0	
29					
30					
31					
TT Monthly Totals					
Daily Means					
SS Monthly Totals	273.1	293.4	276.9	308.0	
Daily Means	9.8	10.5	9.9	11.0	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: FEBRUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	12.2	10.8	12.5	9.3
2	12.3	11.2	9.2	11.5
3	4.4	11.4	0.0	12.3
4	5.3	11.6	3.5	12.3
5	9.8	6.3	5.7	12.1
6	12.0	9.0	12.0	8.8
7	12.2	12.0	12.0	9.6
8	12.2	11.4	11.6	10.3
9	12.3	10.5	.	2.9
10	11.7	10.3	8.6	10.9
11	9.5	11.4	11.6	9.7
12	4.8	9.5	11.5	12.0
13	12.0	0.9	9.4	11.9
14	10.8	11.4	12.0	12.0
15	8.3	12.1	10.6	11.9
16	5.6	12.2	5.6	11.9
17	2.5	11.6	12.5	10.4
18	10.1	11.8	12.4	10.8
19	10.0	10.1	12.3	11.6
20	11.2	11.6	12.0	11.8
21	6.8	10.0	11.7	11.8
22	9.4	9.1	6.8	10.6
23	11.1	11.1	11.4	11.0
24	9.1	2.3	12.2	11.8
25	5.9	7.5	11.2	12.7
26	8.5	10.1	8.6	11.6
27	9.0	7.9	7.5	11.4
28	7.1	10.4	7.3	11.4
29				
30				
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	256.1	275.5	.	306.3
Daily Means	9.1	9.8	9.7	10.9
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: FEBRUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
Date				
1	9.6	8.0	2.2	8.8
2	9.7	4.0	12.6	10.4
3	11.1	10.9	11.9	13.1
4	11.1	9.2	7.9	13.1
5	11.1	9.0	4.0	12.8
6	9.0	11.4	9.0	7.3
7	10.3	4.2	9.0	12.6
8	9.3	0.4	12.0	10.7
9	3.6	8.1	5.4	1.2
10	10.6	9.2	10.3	12.0
11	9.0	3.2	9.1	6.6
12	11.2	8.5	11.8	11.7
13	11.2	0.6	11.8	10.9
14	11.2	5.6	11.8	12.6
15	11.3	4.5	10.6	10.5
16	11.3	6.1	6.7	6.7
17	11.3	5.0	10.5	11.8
18	10.8	9.3	10.5	9.6
19	11.2	7.0	10.9	11.6
20	11.0	5.0	10.1	11.6
21	10.9	10.3	10.7	11.9
22	11.4	9.1	6.1	8.1
23	10.1	9.7	9.0	8.8
24	10.8	4.5	10.3	8.9
25	10.8	5.2	11.6	10.1
26	10.5	7.7	3.5	12.2
27	10.3	3.6	1.1	10.8
28	10.6	6.7	7.9	11.9
29				
30				
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	290.3	186.0	248.3	288.3
Daily Means	10.4	6.6	8.9	10.3
Types of Instruments	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH
	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL
	STOKES	STOKES	STOKES	STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: FEBRUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	11.5	8.4	0.0	4.7
2	12.7	12.6	9.4	12.4
3	12.8	12.8	10.4	12.9
4	12.8	12.5	10.9	12.1
5	12.4	7.4	9.8	12.8
6	9.6	5.9	9.5	11.6
7	9.0	10.1	10.4	12.2
8	8.8	2.4	10.3	11.6
9	2.7	3.6	0.9	1.2
10	6.1	3.7	3.1	0.7
11	2.4	3.4	0.0	0.2
12	10.0	12.4	5.9	4.2
13	10.2	9.8	10.4	6.4
14	13.2	9.4	6.0	1.6
15	10.0	7.2	3.2	0.3
16	7.2	12.4	5.2	8.6
17	11.9	12.2	10.0	11.7
18	.	12.2	11.1	12.1
19	10.7	12.1	5.8	8.4
20	10.6	11.5	6.2	11.5
21	10.4	12.0	8.3	9.2
22	11.6	11.4	6.9	5.7
23	9.1	11.4	3.1	3.5
24	12.6	12.1	7.9	8.9
25	10.4	12.0	10.4	8.1
26	.	11.3	8.6	11.9
27	11.0	12.0	9.6	10.3
28	12.3	12.0	6.8	7.7
29				
30				
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	.	276.2	200.1	222.5
Daily Means	10.1	9.9	7.1	7.9
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL
	STOKES	STOKES	STOKES	STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: FEBRUARY Year: 2013 Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station				
Date	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
1	9.2	7.9	7.9	
2	12.7	11.1	1.8	
3	13.1	8.5	10.2	
4	6.0	10.8	1.7	
5	10.0	2.8	3.1	
6	9.7	5.9	12.7	
7	8.5	8.3	12.7	
8	6.3	11.4	1.8	
9	0.6	6.7	11.7	
10	3.7	0.8	0.1	
11	4.2	3.6	3.0	
12	3.7	4.4	6.0	
13	8.2	4.0	7.4	
14	5.9	4.4	7.5	
15	0.0	8.1	11.4	
16	7.7	7.1	12.1	
17	10.0	7.3	10.1	
18	12.5	11.6	7.0	
19	7.1	8.0	12.4	
20	5.0	11.0	6.9	
21	8.2	8.8	0.0	
22	3.0	2.7	6.9	
23	0.7	0.1	4.2	
24	3.6	2.9	12.8	
25	7.1	6.6	4.4	
26	8.0	2.9	8.1	
27	5.0	1.8	12.4	
28	6.8	7.7	5.6	
29				
30				
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	186.5	177.2	201.9	
Daily Means	6.7	6.3	7.2	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MARCH		Year: 2013		Country: CHILE	
Daily Totals					
Latitude	18°21' S	20°32' S	22°28' S	23°26' S	
Longitude	70°19' W	72°10' W	68°55' W	70°26' W	
Elevation	58 m	52 m	270 m	135 m	
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA	
Date					
1	9.3	7.5	10.0	9.5	
2	10.7	8.4	10.6	7.7	
3	8.5	9.4	11.0	9.7	
4	9.0	3.5	10.9	10.1	
5	6.5	7.3	11.1	7.1	
6	8.0	9.8	10.9	9.3	
7	7.3	9.7	9.7	9.3	
8	9.6	8.4	5.7	9.0	
9	4.2	9.6	10.7	3.6	
10	11.0	7.6	10.8	8.8	
11	5.3	0.0	10.8	8.1	
12	6.6	7.4	10.7	8.2	
13	7.9	6.3	10.8	9.7	
14	8.2	9.0	10.8	10.6	
15	8.1	9.6	10.6	9.3	
16	6.9	5.2	10.9	7.9	
17	10.2	10.3	11.2	10.7	
18	10.6	10.1	11.3	10.1	
19	10.0	10.4	11.2	10.5	
20	10.5	10.3	11.2	9.0	
21	10.5	10.2	11.2	10.4	
22	9.7	10.2	11.3	8.4	
23	7.2	10.2	11.0	10.4	
24	10.6	10.3	11.2	9.0	
25	10.7	10.2	11.2	10.5	
26	10.5	10.4	11.0	7.9	
27	10.5	10.3	11.0	9.0	
28	10.4	10.3	10.9	10.4	
29	9.5	10.2	11.1	7.9	
30	7.7	10.2	10.9	9.1	
31	6.3	7.2	10.9	8.5	
TT Monthly Totals					
Daily Means					
SS Monthly Totals	272.0	269.5	332.6	279.7	
Daily Means	8.8	8.7	10.7	9.0	
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MARCH Year: 2013 Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	7.0	1.8	.	11.5
2	8.7	2.7	11.8	11.1
3	6.1	5.7	8.8	11.0
4	6.1	6.5	8.2	11.2
5	4.8	11.9	5.9	10.9
6	8.9	10.0	8.5	8.6
7	6.4	2.0	4.4	3.7
8	10.9	9.8	10.3	7.4
9	8.7	1.2	8.9	10.8
10	8.5	3.2	8.8	10.9
11	3.6	10.8	7.3	10.8
12	4.2	1.4	6.4	10.5
13	5.6	3.8	8.9	10.7
14	6.0	6.8	6.0	10.6
15	8.6	5.8	9.3	10.5
16	3.9	1.7	5.2	9.7
17	8.3	10.0	10.6	9.8
18	7.2	9.4	5.0	7.7
19	7.7	10.8	9.3	9.0
20	5.6	6.7	9.0	7.1
21	5.4	6.1	3.7	10.3
22	0.1	4.8	0.0	10.3
23	9.9	7.6	0.0	7.1
24	2.9	8.4	6.1	10.4
25	8.3	10.8	6.1	10.5
26	1.6	10.2	1.6	10.4
27	6.8	11.2	.	10.4
28	6.8	10.8	0.0	9.8
29	6.2	7.8	3.1	7.1
30	0.0	4.7	.	2.4
31	4.4	6.0	1.9	5.0
TT Monthly Totals				
Daily Means				
SS Monthly Totals	189.2	210.4	.	287.2
Daily Means	6.1	6.8	6.3	9.3
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MARCH Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
Date				
1	10.9	5.4	11.2	11.5
2	10.4	3.5	11.3	11.4
3	9.9	4.1	4.8	11.6
4	10.4	4.9	0.9	10.8
5	9.9	5.5	4.1	10.8
6	8.6	8.3	11.4	11.4
7	2.6	8.3	6.0	4.4
8	5.8	4.2	8.0	1.7
9	10.1	8.7	11.0	10.3
10	9.8	3.2	11.0	8.0
11	9.8	5.5	3.2	10.6
12	9.4	6.2	9.2	10.8
13	9.6	0.0	9.2	11.1
14	9.5	8.2	10.4	10.8
15	9.2	8.7	10.7	11.0
16	8.4	7.2	5.3	7.0
17	8.8	5.1	8.4	9.7
18	7.4	0.8	5.7	8.7
19	8.7	0.6	4.5	7.8
20	5.3	3.8	7.2	9.4
21	8.7	3.3	10.2	7.6
22	8.3	6.4	10.3	10.7
23	4.8	7.0	5.9	8.7
24	7.6	5.3	8.7	8.4
25	8.9	6.5	9.9	7.6
26	9.1	5.0	10.1	10.5
27	9.2	6.1	1.2	10.3
28	8.9	7.1	0.1	9.7
29	8.0	5.3	4.6	4.3
30	2.8	3.6	0.0	0.2
31	4.6	3.9	0.0	4.4
TT Monthly Totals				
Daily Means				
SS Monthly Totals	255.4	161.7	214.5	271.2
Daily Means	8.2	5.2	6.9	8.7
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MARCH Year: 2013 Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	7.7	10.7	8.2	9.4
2	10.2	11.9	9.6	6.8
3	9.9	10.7	10.5	9.3
4	10.6	10.2	6.3	11.1
5	10.5	10.3	4.8	1.3
6	9.6	11.3	8.3	10.2
7	9.0	10.7	8.3	2.0
8	5.8	9.8	6.3	8.1
9	11.4	8.9	1.8	1.5
10	.	11.1	8.9	3.3
11	8.4	7.9	6.6	6.5
12	11.5	11.2	9.4	10.5
13	10.7	10.5	9.1	10.1
14	10.5	10.9	9.3	11.0
15	10.4	11.3	9.2	10.0
16	3.7	8.6	8.3	7.4
17	10.9	8.0	7.0	7.1
18	10.0	10.3	8.6	10.5
19	9.4	8.0	3.7	5.6
20	7.6	0.3	2.4	5.1
21	10.6	10.1	9.4	7.3
22	9.5	10.5	9.2	9.7
23	6.1	7.6	7.4	8.3
24	5.6	3.2	4.5	8.6
25	11.2	9.5	7.0	8.2
26	10.3	10.5	9.1	10.7
27	10.1	10.4	7.8	6.9
28	10.5	10.4	9.5	10.0
29	7.2	6.3	1.4	2.8
30	5.6	6.9	2.8	6.2
31	4.1	8.5	8.2	8.0
TT Monthly Totals				
Daily Means				
SS Monthly Totals	.	286.5	222.9	233.5
Daily Means	9.0	9.2	7.2	7.5
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MARCH Year: 2013 Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station				
Date	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
1	6.2	10.0	7.6	
2	3.8	6.1	7.2	
3	7.9	10.2	9.5	
4	5.2	10.4	2.2	
5	2.7	3.5	8.4	
6	8.3	8.2	9.6	
7	0.1	0.0	11.1	
8	0.0	4.2	1.3	
9	0.0	5.0	2.4	
10	3.2	1.5	0.0	
11	10.8	2.2	1.2	
12	9.5	4.8	4.4	
13	9.5	8.0	9.5	
14	8.9	7.6	11.1	
15	9.1	9.2	8.0	
16	0.6	4.4	2.8	
17	8.4	6.6	8.1	
18	9.1	8.8	7.6	
19	1.3	4.7	0.0	
20	6.0	4.4	9.8	
21	9.2	0.7	4.9	
22	3.1	1.8	9.1	
23	5.2	3.2	0.2	
24	9.1	5.6	4.3	
25	6.0	0.9	1.3	
26	7.8	8.2	8.4	
27	8.1	6.5	2.6	
28	8.2	1.3	7.7	
29	2.1	8.1	1.2	
30	9.5	8.3	4.1	
31	8.3	8.7	4.9	
TT Monthly Totals				
Daily Means				
SS Monthly Totals	187.2	173.1	170.5	
Daily Means	6.0	5.6	5.5	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: APRIL		Year: 2013		Country: CHILE	
Daily Totals					
Latitude	18°21' S	20°32' S	22°28' S	23°26' S	
Longitude	70°19' W	72°10' W	68°55' W	70°26' W	
Elevation	58 m	52 m	270 m	135 m	
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA	
Date					
1	6.5	10.2	10.7	10.0	
2	9.4	10.3	10.7	9.2	
3	10.6	9.9	11.1	10.5	
4	10.7	10.2	11.0	10.4	
5	10.8	10.1	11.0	10.4	
6	11.2	9.2	11.0	10.1	
7	10.6	10.4	11.0	10.4	
8	10.9	10.2	11.0	10.5	
9	9.9	10.0	10.9	10.4	
10	7.1	10.1	11.0	8.3	
11	6.5	10.0	10.8	10.0	
12	10.7	10.0	10.4	9.2	
13	10.5	10.1	10.8	7.7	
14	7.1	6.4	11.1	7.1	
15	10.6	10.1	11.0	9.7	
16	8.6	8.8	11.0	8.6	
17	9.6	9.8	11.0	9.0	
18	3.7	2.9	10.9	8.0	
19	10.4	10.5	10.9	9.6	
20	10.6	10.6	10.8	10.5	
21	10.3	8.7	10.7	8.8	
22	10.2	6.8	8.4	8.0	
23	6.2	6.5	10.3	6.2	
24	10.5	10.0	9.9	10.0	
25	10.2	9.9	9.8	10.0	
26	10.6	7.7	10.6	3.2	
27	6.6	6.5	10.8	10.1	
28	10.2	9.9	10.8	9.4	
29	10.5	9.7	10.6	9.3	
30	10.0	8.2	10.3	7.3	
31					
TT Monthly Totals					
Daily Means					
SS Monthly Totals	281.3	273.7	320.3	271.9	
Daily Means	9.4	9.1	10.7	9.1	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: APRIL Year: 2013 Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	5.7	9.1	5.1	3.2
2	10.4	8.0	10.6	9.9
3	7.9	7.3	6.3	9.5
4	9.0	6.1	8.2	6.9
5	8.6	4.0	9.9	4.1
6	6.6	5.4	10.2	8.9
7	5.6	9.7	5.5	9.7
8	4.4	7.3	0.0	9.6
9	5.6	6.3	0.0	0.2
10	1.3	5.6	8.9	8.8
11	5.7	7.8	9.9	5.6
12	9.6	0.4	10.0	8.9
13	8.6	6.7	8.6	7.8
14	4.6	8.5	5.3	10.4
15	3.5	2.9	1.5	10.2
16	0.1	5.0	.	10.1
17	5.9	7.6	1.7	10.0
18	5.9	9.5	0.0	9.2
19	9.5	8.7	0.0	8.8
20	10.4	7.7	8.0	0.0
21	10.1	8.0	10.5	9.5
22	9.8	7.4	9.5	9.2
23	0.0	9.5	0.1	6.7
24	0.0	7.6	0.0	9.0
25	5.0	9.9	0.0	7.5
26	9.3	4.6	9.6	4.4
27	10.1	9.3	10.2	9.1
28	7.9	2.0	8.5	6.2
29	4.6	5.2	7.3	7.5
30	5.7	9.5	0.0	8.1
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	191.4	206.6	.	229.0
Daily Means	6.4	6.9	5.7	7.6
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: APRIL Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
Date				
1	3.1	2.7	3.8	1.7
2	8.9	0.8	9.8	9.2
3	9.0	3.6	0.0	9.3
4	7.0	2.9	3.3	4.3
5	3.8	5.0	4.3	0.1
6	8.7	3.9	10.1	10.1
7	8.6	6.5	9.8	9.8
8	8.9	7.2	9.6	10.7
9	0.1	5.4	0.0	0.3
10	8.3	5.7	7.4	9.0
11	5.4	3.8	8.2	3.9
12	8.8	0.0	10.2	9.5
13	6.4	4.7	7.3	9.0
14	8.9	8.2	8.8	9.3
15	8.7	6.6	1.1	9.8
16	7.5	3.3	0.0	8.8
17	8.3	3.1	0.0	9.1
18	8.1	7.0	0.0	8.6
19	8.1	0.2	0.4	4.5
20	6.4	2.4	9.9	7.0
21	8.1	2.4	9.7	8.7
22	7.9	7.8	7.2	8.7
23	6.2	8.4	4.3	3.5
24	7.8	5.5	1.7	8.5
25	5.0	4.0	0.0	5.2
26	3.4	2.7	5.3	0.5
27	7.9	1.5	9.5	2.2
28	6.0	1.3	5.4	5.7
29	6.7	3.6	5.7	4.7
30	7.4	0.9	0.0	6.0
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	209.4	121.1	152.8	197.7
Daily Means	7.0	4.0	5.1	6.6
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: APRIL Year: 2013 Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	4.9	5.2	8.7	8.2
2	8.6	8.3	8.4	8.9
3	9.3	10.3	9.3	8.7
4	1.9	0.6	4.9	4.0
5	3.1	8.3	0.7	2.3
6	7.9	9.1	2.9	1.9
7	9.1	10.1	6.7	5.2
8	8.5	10.0	6.1	7.1
9	1.7	1.0	0.0	0.3
10	6.2	1.5	2.6	3.2
11	9.5	9.8	7.1	5.2
12	8.2	9.0	9.1	5.6
13	8.9	9.6	7.5	7.2
14	9.5	10.3	8.8	8.9
15	9.3	9.0	6.8	4.8
16	5.5	1.5	4.5	3.1
17	7.4	9.7	8.8	7.4
18	9.5	0.3	0.0	0.1
19	5.4	0.0	5.8	5.7
20	2.5	0.1	1.0	0.5
21	6.8	4.6	0.1	0.0
22	8.9	8.5	9.2	7.5
23	8.8	9.7	6.3	5.2
24	5.3	7.7	4.2	1.4
25	7.7	2.4	5.8	5.2
26	0.1	3.2	5.8	0.0
27	0.0	0.0	0.0	.
28	7.2	7.7	2.3	0.7
29	6.8	5.8	1.1	0.0
30	6.7	1.3	0.0	0.0
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	195.2	174.6	144.5	.
Daily Means	6.5	5.8	4.8	4.1
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL
	STOKES	STOKES	STOKES	STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: APRIL Year: 2013 Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station				
Date	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
1	10.0	8.6	3.5	
2	6.7	8.6	0.2	
3	6.5	8.5	1.5	
4	0.1	5.0	9.2	
5	4.2	2.4	5.7	
6	0.0	5.4	5.8	
7	4.3	0.0	4.8	
8	6.5	1.8	4.3	
9	0.3	3.3	1.0	
10	2.2	0.0	7.1	
11	7.2	7.8	8.7	
12	7.6	6.4	1.7	
13	0.0	0.3	0.0	
14	0.2	3.7	6.1	
15	5.4	5.5	0.0	
16	0.5	2.1	2.6	
17	4.1	4.8	5.0	
18	7.5	5.9	3.1	
19	1.5	1.3	3.7	
20	0.2	0.9	0.8	
21	1.9	3.0	1.2	
22	7.0	5.6	8.1	
23	9.4	6.5	8.4	
24	1.2	2.2	6.8	
25	2.1	7.3	3.4	
26	2.5	4.4	6.2	
27	4.7	0.8	7.6	
28	4.7	1.5	.	
29	0.0	2.9	5.3	
30	0.0	6.9	7.1	
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	108.5	123.4	.	
Daily Means	3.6	4.1	4.4	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MAY		Year: 2013		Country: CHILE	
Daily Totals					
Latitude	18°21' S	20°32' S	22°28' S	23°26' S	
Longitude	70°19' W	72°10' W	68°55' W	70°26' W	
Elevation	58 m	52 m	270 m	135 m	
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA	
Date					
1	7.1	5.0	7.0	7.6	
2	5.2	1.0	10.1	6.8	
3	3.7	8.7	10.6	9.2	
4	4.4	2.4	10.3	10.8	
5	5.1	0.0	10.6	9.0	
6	8.6	0.5	10.6	6.4	
7	10.6	8.4	10.5	9.8	
8	10.0	9.6	10.5	10.1	
9	8.7	4.7	10.5	6.8	
10	5.3	8.8	8.9	9.0	
11	2.6	6.9	10.5	9.9	
12	7.3	5.1	10.6	6.2	
13	10.2	9.6	10.5	9.8	
14	9.0	7.3	10.4	11.5	
15	5.9	5.1	10.4	9.7	
16	6.0	4.1	7.5	2.2	
17	4.1	0.1	0.0	5.6	
18	0.0	0.2	4.8	0.0	
19	8.8	0.0	10.5	1.4	
20	0.0	0.9	9.8	0.0	
21	0.0	1.2	9.6	2.6	
22	0.2	2.4	10.3	4.4	
23	2.8	0.0	8.7	1.1	
24	5.6	0.7	7.5	6.1	
25	4.4	1.6	10.4	7.7	
26	4.5	2.2	10.4	9.1	
27	4.3	5.4	10.6	7.6	
28	5.0	9.4	10.7	9.3	
29	4.8	3.8	10.6	8.0	
30	9.4	7.2	10.6	9.0	
31	7.9	5.5	10.5	8.0	
TT Monthly Totals					
Daily Means					
SS Monthly Totals	171.5	127.8	294.5	214.7	
Daily Means	5.5	4.1	9.5	6.9	
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MAY Year: 2013 Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	7.8	2.7	7.6	7.1
2	10.0	2.5	3.8	0.0
3	10.0	3.0	9.9	2.5
4	7.4	9.8	9.9	7.5
5	8.2	9.6	9.8	8.9
6	3.0	8.5	.	9.2
7	6.2	0.0	1.5	9.2
8	8.0	5.4	2.7	7.4
9	5.8	2.1	3.2	4.8
10	3.2	5.1	2.8	11.4
11	8.2	2.3	9.5	7.9
12	3.4	3.2	.	0.0
13	5.8	3.2	0.0	3.6
14	3.6	5.1	7.4	3.9
15	4.4	8.1	8.0	8.4
16	2.1	8.3	0.0	8.9
17	0.0	7.2	0.0	2.8
18	5.5	5.4	.	3.2
19	7.8	8.1	9.4	7.0
20	3.6	9.5	0.0	8.2
21	0.0	4.2	0.0	2.4
22	0.0	7.9	1.6	4.7
23	5.0	7.9	.	7.6
24	0.2	9.3	0.0	7.8
25	3.0	6.2	0.0	5.2
26	7.4	5.9	5.1	1.7
27	3.2	7.5	3.0	0.0
28	10.0	6.7	0.0	0.2
29	8.3	1.2	.	6.3
30	6.3	7.9	2.0	3.6
31	4.9	8.4	7.6	3.6
TT Monthly Totals				
Daily Means				
SS Monthly Totals	162.3	182.2	.	165.0
Daily Means	5.2	5.9	4.0	5.3
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MAY Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station				
Date	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
1	5.4	6.2	1.9	0.0
2	0.0	0.4	0.0	0.0
3	1.6	2.2	4.0	1.6
4	7.7	7.1	9.9	6.0
5	7.7	4.7	9.7	6.3
6	8.0	5.3	9.1	8.7
7	8.0	8.0	8.3	8.4
8	7.7	0.0	5.8	8.9
9	3.9	1.8	1.0	0.2
10	7.2	3.9	7.2	2.1
11	7.6	0.8	8.3	0.9
12	0.0	0.6	0.0	4.7
13	3.9	1.2	7.7	8.3
14	.	1.7	8.1	6.0
15	7.7	3.5	9.5	8.6
16	8.0	2.3	7.1	5.9
17	2.0	0.3	0.0	.
18	2.9	3.8	0.2	0.0
19	6.2	6.0	9.2	4.7
20	7.2	1.7	4.8	1.8
21	3.7	4.6	1.2	3.0
22	3.8	5.2	3.0	5.1
23	7.1	4.1	7.3	5.3
24	7.4	5.2	7.2	5.6
25	4.8	1.0	0.0	0.0
26	2.8	0.7	1.6	1.8
27	0.0	4.0	0.0	0.0
28	0.2	5.1	0.0	0.0
29	6.1	5.2	5.6	7.2
30	3.3	0.0	0.5	1.7
31	3.3	4.2	1.4	0.0
TT Monthly Totals				
Daily Means				
SS Monthly Totals	.	100.8	139.6	.
Daily Means	4.8	3.3	4.5	3.8
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MAY Year: 2013 Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	0.2	0.4	0.0	0.0
2	0.3	0.4	0.0	0.8
3	0.0	0.0	0.2	.
4	6.2	8.6	2.1	6.5
5	8.8	9.1	4.4	1.0
6	9.0	9.1	8.4	8.1
7	9.0	8.4	4.8	0.4
8	8.5	9.4	0.4	.
9	2.0	0.0	0.5	1.5
10	0.0	3.2	1.8	3.8
11	4.9	7.0	1.5	1.4
12	7.0	8.7	5.7	0.9
13	8.6	9.0	2.5	3.9
14	8.5	7.6	7.2	8.0
15	9.1	9.2	7.3	4.1
16	8.6	9.2	9.0	6.5
17	7.6	8.8	5.2	0.0
18	0.0	0.0	0.0	1.1
19	5.8	7.1	0.1	0.4
20	5.0	6.6	1.6	3.8
21	6.7	8.9	7.1	0.0
22	8.2	8.6	8.1	6.2
23	8.1	0.4	0.0	0.0
24	8.1	.	0.0	3.5
25	0.0	0.0	2.4	0.0
26	1.3	3.7	0.0	0.0
27	0.0	3.7	0.0	0.0
28	1.8	0.0	1.0	0.8
29	2.8	3.4	1.8	0.5
30	0.3	0.0	0.0	0.0
31	2.9	3.4	0.8	2.8
TT Monthly Totals				
Daily Means				
SS Monthly Totals	149.3	.	83.9	.
Daily Means	4.8	5.1	2.7	2.3
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: MAY Year: 2013 Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station				
Date	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
1	0.2	6.5	3.0	
2	0.9	0.6	2.6	
3	1.9	0.1	7.2	
4	3.7	7.0	4.6	
5	0.0	1.6	4.4	
6	6.9	5.8	4.8	
7	0.7	0.0	7.4	
8	0.0	4.4	4.7	
9	0.0	2.4	5.8	
10	6.1	6.0	7.2	
11	1.6	2.1	4.3	
12	2.8	0.0	3.1	
13	2.2	4.6	6.8	
14	7.5	6.7	10.4	
15	0.5	5.6	4.2	
16	4.0	6.1	1.6	
17	0.0	5.0	6.6	
18	1.1	6.2	1.8	
19	0.0	4.6	0.0	
20	5.0	4.1	0.0	
21	0.0	6.0	3.1	
22	1.7	5.4	5.0	
23	0.4	6.6	7.5	
24	1.2	0.0	5.8	
25	0.0	0.1	0.0	
26	0.9	3.5	0.0	
27	1.3	0.0	0.0	
28	1.0	1.3	0.0	
29	0.0	1.5	0.0	
30	0.0	1.6	1.8	
31	1.7	4.0	2.7	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	53.3	109.4	116.4	
 Daily Means	1.7	3.5	3.8	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JUNE		Year: 2013		Country: CHILE	
Daily Totals					
Latitude	18°21' S	20°32' S	22°28' S	23°26' S	
Longitude	70°19' W	72°10' W	68°55' W	70°26' W	
Elevation	58 m	52 m	270 m	135 m	
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA	
Date					
1	7.8	1.7	10.6	8.4	
2	6.3	7.2	10.5	7.3	
3	6.0	6.7	10.5	5.8	
4	4.8	4.1	10.5	5.9	
5	5.8	1.0	10.6	6.0	
6	8.7	8.3	10.4	6.7	
7	2.6	3.5	4.5	9.0	
8	0.9	4.4	7.8	8.1	
9	3.9	7.1	10.0	8.7	
10	4.5	0.4	10.5	1.4	
11	4.5	3.8	9.6	2.8	
12	8.3	4.4	9.1	6.3	
13	4.8	7.9	7.6	9.1	
14	8.9	7.9	10.2	5.9	
15	7.0	9.2	10.2	9.1	
16	0.0	0.2	10.4	6.7	
17	3.0	3.0	10.2	4.3	
18	5.0	8.4	10.4	7.4	
19	1.6	6.7	7.4	0.2	
20	3.9	4.4	10.4	9.2	
21	3.0	8.6	10.2	9.2	
22	0.0	0.0	5.3	7.3	
23	8.8	0.3	0.0	4.6	
24	4.6	5.5	1.8	9.2	
25	0.9	0.0	9.4	9.0	
26	4.5	7.8	10.5	8.2	
27	3.2	3.6	10.5	2.8	
28	2.7	2.7	10.5	6.0	
29	3.9	0.0	10.6	0.3	
30	5.7	0.2	10.6	6.2	
31					
TT Monthly Totals					
Daily Means					
SS Monthly Totals	135.6	129.0	270.8	191.1	
Daily Means	4.5	4.3	9.0	6.4	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	STOKES	

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JUNE Year: 2013 Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	9.2	7.3	9.1	7.3
2	9.4	6.7	9.3	8.5
3	3.4	6.3	6.7	8.1
4	1.2	0.0	0.0	8.2
5	3.7	0.0	0.0	8.6
6	5.1	1.1	0.0	8.0
7	7.0	1.2	0.0	7.9
8	8.5	8.0	0.0	7.4
9	4.5	9.0	3.3	7.1
10	0.0	10.7	0.0	8.1
11	0.0	8.4	0.0	6.9
12	2.9	9.0	0.0	7.2
13	1.9	0.0	0.0	6.6
14	1.4	4.7	5.0	6.7
15	5.3	2.0	0.0	3.8
16	9.0	0.0	7.7	0.0
17	0.0	0.0	0.0	4.8
18	1.3	1.0	2.6	1.4
19	0.9	7.8	0.0	4.8
20	4.3	4.9	4.6	7.2
21	9.3	0.7	8.8	3.7
22	6.0	5.7	0.0	0.0
23	6.6	6.4	1.8	1.4
24	9.1	7.0	4.6	7.3
25	5.9	2.0	3.0	6.7
26	3.7	8.2	1.3	0.0
27	6.2	8.9	1.5	0.0
28	9.0	7.7	8.7	2.8
29	9.2	8.1	9.2	2.5
30	9.3	5.3	9.4	6.6
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	153.3	148.1	96.6	159.6
Daily Means	5.1	4.9	3.2	5.3
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JUNE Year: 2013 Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
Date				
1	5.8	0.7	5.5	3.4
2	7.0	2.0	9.2	3.0
3	6.9	2.1	9.0	3.3
4	6.9	5.9	9.0	5.6
5	6.9	1.3	8.5	3.2
6	7.0	6.9	7.8	7.3
7	6.7	1.4	8.5	6.8
8	6.8	6.2	0.0	1.7
9	6.5	5.3	7.0	3.1
10	7.1	3.4	8.7	7.4
11	7.0	5.8	5.0	0.0
12	7.1	0.0	1.7	3.1
13	7.0	3.9	6.2	8.1
14	5.9	0.1	0.0	0.2
15	4.0	0.3	0.0	0.0
16	0.0	0.9	6.3	4.3
17	5.5	0.6	5.2	6.1
18	0.8	1.5	7.5	.
19	3.9	4.0	6.6	5.7
20	7.1	2.7	8.4	7.3
21	3.5	2.0	3.0	0.9
22	0.0	1.5	0.0	0.0
23	0.2	3.7	5.7	0.0
24	6.8	5.4	0.0	0.0
25	6.5	3.8	0.0	0.3
26	0.0	0.0	0.0	0.0
27	0.1	3.2	0.0	0.0
28	2.1	3.3	3.1	2.1
29	1.3	2.5	4.2	0.7
30	6.3	3.8	7.0	6.7
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	142.7	84.2	143.1	.
Daily Means	4.8	2.8	4.8	3.1
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JUNE Year: 2013 Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	0.3	2.9	0.0	0.0
2	5.7	0.1	0.0	0.0
3	6.3	6.7	0.0	0.3
4	8.5	6.6	0.0	0.0
5	7.4	7.7	7.7	7.7
6	7.5	8.4	0.0	0.0
7	6.5	8.6	6.9	.
8	2.9	7.8	6.3	6.9
9	8.3	8.1	6.8	4.9
10	7.9	7.8	4.2	0.0
11	5.9	8.2	0.0	0.0
12	6.3	6.6	0.7	0.0
13	7.8	7.5	0.0	0.0
14	2.3	5.8	0.0	0.0
15	0.0	1.3	0.0	2.6
16	8.5	0.0	4.7	1.5
17	7.2	5.2	12.0	0.0
18	5.2	6.5	4.7	5.1
19	8.1	8.2	8.0	2.1
20	7.0	7.5	0.0	0.0
21	0.0	0.0	0.0	0.0
22	0.3	0.8	0.7	1.9
23	0.5	8.2	0.7	0.3
24	0.0	8.2	0.0	.
25	0.0	6.9	0.0	0.0
26	0.6	0.6	0.0	0.0
27	0.0	0.0	0.0	0.0
28	2.2	3.0	2.1	3.8
29	0.0	0.0	0.0	0.0
30	0.9	2.8	0.8	0.3
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	124.1	152.0	66.3	.
Daily Means	4.1	5.1	2.2	1.3
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

WMO
 Total radiation (sun and sky) T,MJ/m2
 Duration of sunshine ss, hours

Month: JUNE Year: 2013 Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station				
Date	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
1	0.1	2.9	2.5	
2	0.0	2.5	0.9	
3	0.0	0.0	1.0	
4	0.0	0.0	6.1	
5	5.0	5.2	1.1	
6	0.0	0.0	1.8	
7	5.7	4.4	5.6	
8	4.9	3.3	3.9	
9	1.3	1.0	0.0	
10	0.2	1.8	5.0	
11	0.0	2.3	2.7	
12	0.0	2.3	3.0	
13	4.4	5.7	5.8	
14	0.0	0.0	1.3	
15	2.1	1.6	5.0	
16	2.0	1.9	0.6	
17	0.2	0.0	0.0	
18	1.0	3.5	2.9	
19	0.0	0.0	1.5	
20	0.0	4.5	1.6	
21	1.6	4.6	3.1	
22	0.0	5.4	1.1	
23	0.5	2.8	0.9	
24	1.9	2.8	5.4	
25	2.3	1.6	0.3	
26	0.2	3.9	4.8	
27	0.0	0.9	0.0	
28	2.7	3.5	0.0	
29	3.0	2.7	6.3	
30	0.0	2.0	4.4	
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	39.1	73.1	78.6	
Daily Means	1.3	2.4	2.6	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	