



DIRECCIÓN METEOROLÓGICA DE CHILE

INFORME SOLARIMÉTRICO SEMESTRAL

I SEMESTRE 2003



SUBDIRECCIÓN DE CLIMATOLOGÍA Y MET APLICADA

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

Month: JANUARY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°09' S
Longitude	70°19'W	68°54' W	70°26' W	109°25' W
Elevation	58 m	2270 m	135 m	51 m
Station	ARICA	CALAMA	ANTOFAGASTA	ISLA DE PASCUA
Date				
1	.	.	22.45	.
2	.	.	22.36	.
3	.	.	16.78	.
4	.	.	18.05	.
5	.	.	21.95	.
6	.	.	17.68	.
7	.	.	20.30	.
8	.	.	18.69	.
9	.	.	19.89	.
10	.	.	19.54	.
11	.	.	20.53	.
12	.	.	21.04	.
13	.	.	21.29	.
14	.	.	21.00	.
15	.	.	20.95	.
16	.	.	20.44	.
17	.	.	19.18	.
18	.	.	11.96	.
19	.	.	17.96	.
20	.	.	21.55	.
21	.	.	21.22	.
22	.	.	21.61	.
23	.	.	21.14	.
24	.	.	18.76	.
25	.	.	21.61	.
26	.	.	20.12	.
27	.	.	19.89	.
28	.	.	14.14	.
29	.	.	15.80	.
30	.	.	18.27	.
31	.	.	20.30	.
TT|Monthly Totals	.	.	606.45	.
|Daily Means	.	.	19.56	.
SS|Monthly Totals				
|Daily Means				
Types of	PIRANOMETRO	PIRANOMETRO	PIRANOMETRO	PIRANOMETRO
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	27°18' S	28°35' S	33°23' S	34°06' S
Longitude	70°25' W	70°46' W	70°47' W	71°45' W
Elevation	291 m	469 m	475 m	296 m
Station	COPIAPO	VALLENAR	PUDAHUEL	HIDANGO
Date				
1	.	20.72	29.63	.
2	27.58	23.13	29.54	.
3	26.98	23.40	29.32	30.20
4	26.58	23.53	29.48	30.23
5	29.32	21.81	29.31	30.88
6	28.50	23.80	29.30	30.47
7	27.52	22.75	29.13	28.31
8	26.74	21.73	29.26	30.87
9	27.00	19.77	29.41	30.85
10	26.60	23.36	29.41	30.94
11	31.08	23.56	29.65	30.88
12	28.94	23.23	29.26	30.65
13	24.14	18.24	28.62	29.61
14	26.85	22.56	27.67	30.06
15	30.92	23.32	28.26	29.35
16	28.84	22.48	28.55	30.38
17	30.51	23.24	28.72	27.28
18	29.22	22.95	28.45	30.42
19	31.04	23.15	28.58	29.58
20	29.75	21.73	11.84	21.02
21	30.35	22.80	16.20	17.80
22	29.86	23.30	17.48	26.20
23	30.12	23.06	29.30	30.12
24	27.79	21.67	28.62	28.29
25	29.18	22.80	27.93	28.10
26	30.26	22.63	27.91	29.16
27	31.71	22.09	28.04	29.09
28	26.64	20.71	28.05	29.06
29	26.20	14.62	28.10	.
30	29.04	21.93	27.19	.
31	48.60	22.49	27.71	.
TT|Monthly Totals	.	686.56	849.91	.
|Daily Means	29.26	22.15	27.42	28.84
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	37°24' S	38°45' S
Longitude	71°14' W	73°03' W	72°26' W	72°38' W
Elevation	228 m	12 m	109 m	114 m
Station	CURICO	CONCEPCION	LOS ANGELES	TEMUCO
Date				
1	27.06	.	.	.
2	26.40	.	.	.
3	26.35	.	.	.
4	26.67	30.20	.	.
5	28.07	29.83	.	.
6	27.54	30.33	.	.
7	27.34	15.72	.	.
8	19.59	27.53	.	.
9	27.71	29.86	.	.
10	27.82	29.99	.	.
11	27.80	29.52	.	.
12	27.69	29.22	.	.
13	25.36	29.08	.	.
14	26.82	28.77	.	.
15	26.70	29.33	.	.
16	26.30	25.21	.	.
17	26.47	29.60	.	.
18	.	28.51	.	.
19	.	13.58	.	.
20	.	13.03	.	.
21	10.41	21.07	.	.
22	20.31	26.14	.	.
23	27.71	29.37	.	.
24	26.37	27.96	.	.
25	24.84	28.56	.	.
26	26.53	28.39	.	.
27	22.78	28.23	.	.
28	26.48	28.49	.	.
29	27.18	28.50	.	.
30	26.06	23.99	.	.
31	24.48	28.01	.	.
TT|Monthly Totals	.	.	.	.
|Daily Means	25.53	26.72	.	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	41°25' S	42°55' S	45°35' S	53°00' S
Longitude	73°05' W	72°43' W	72°07' W	70°51' W
Elevation	85 m	7 m	310 m	37 m
Station	PUERTO MONTT	CHAITEN	COYHAIQUE	PUNTA ARENAS
Date				
1	24.96	.	31.57	17.23
2	23.11	.	29.99	18.88
3	25.85	.	30.14	13.52
4	20.91	.	18.95	22.91
5	27.31	.	27.57	10.87
6	29.31	.	28.71	26.30
7	17.04	.	26.10	17.03
8	10.37	.	28.96	25.13
9	19.64	.	17.04	19.00
10	18.09	.	19.84	21.35
11	22.45	.	15.66	15.34
12	5.37	.	10.35	28.81
13	11.09	.	29.43	25.28
14	20.01	.	13.43	16.10
15	12.55	.	22.70	18.18
16	13.57	.	17.58	10.07
17	16.36	.	27.70	27.17
18	8.60	.	10.29	12.35
19	9.75	.	16.67	16.06
20	7.67	.	12.03	16.33
21	20.15	.	19.27	27.30
22	14.98	.	28.00	22.78
23	11.67	.	11.60	9.27
24	8.40	.	20.27	27.27
25	23.63	.	26.30	16.21
26	5.19	.	16.11	14.72
27	23.63	.	.	19.82
28	13.81	.	14.87	17.29
29	8.20	.	7.20	21.99
30	18.30	.	16.73	11.04
31	4.10	.	13.83	23.35
TT|Monthly Totals	496.08	.	.	588.95
|Daily Means	16.00	.	20.29	19.00
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	18°20' S	22°29' S	23°26' S	27°09' S
Longitude	70°20'W	68°54' W	70°26' W	109°25' W
Elevation	58 m	2270 m	135 m	51 m
Station	ARICA	CALAMA	ANTOFAGASTA	ISLA DE PASCUA
Date				
1	.	.	19.92	.
2	.	.	21.21	.
3	.	.	19.84	.
4	.	.	18.78	.
5	.	.	19.76	.
6	.	.	20.05	.
7	.	.	19.92	.
8	.	.	18.22	.
9	.	.	19.83	.
10	.	.	16.01	.
11	.	.	19.21	.
12	.	.	20.27	.
13	.	.	20.28	.
14	.	.	16.86	.
15	.	.	19.40	.
16	.	.	19.37	.
17	.	.	18.81	.
18	.	.	19.19	.
19	.	.	19.10	.
20	.	.	19.17	.
21	.	.	19.27	.
22	.	.	19.78	.
23	.	.	20.04	.
24	.	.	19.74	.
25	.	.	18.59	.
26	.	.	18.37	.
27	.	.	18.98	.
28	.	.	18.92	.
TT|Monthly Totals	.	.	538.89	.
|Daily Means	.	.	19.25	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	27°18' S	28°35' S	33°23' S	34°06' S
Longitude	70°25' W	70°46' W	70°47' W	71°45' W
Elevation	291 m	469 m	475 m	296 m
Station	COPIAPO	VALLENAR	PUDAHUEL	HIDANGO
Date				
1	29.47	21.86	27.61	.
2	47.54	21.47	27.55	.
3	32.48	21.47	26.74	.
4	38.07	18.64	26.44	.
5	39.99	21.76	26.47	.
6	44.30	22.01	26.35	.
7	45.68	21.92	26.09	.
8	32.31	21.29	26.21	.
9	46.25	22.04	26.11	.
10	38.02	21.67	25.50	.
11	43.88	21.13	25.31	.
12	41.19	21.51	25.48	.
13	39.95	19.16	25.43	.
14	38.03	15.85	23.45	.
15	36.00	21.46	26.70	.
16	34.01	21.30	26.18	.
17	30.48	21.12	25.52	.
18	22.76	20.17	25.27	.
19	25.79	20.30	24.30	.
20	26.33	18.53	24.98	.
21	27.39	20.39	23.45	.
22	29.81	21.03	24.64	.
23	28.16	21.16	24.72	.
24	28.39	19.95	24.29	.
25	23.27	14.49	23.75	.
26	28.78	13.88	23.52	.
27	36.38	14.94	23.26	.
28	37.05	18.73	23.14	.
TT|Monthly Totals	971.74	559.22	708.44	.
|Daily Means	34.70	19.97	25.30	.
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: 2003

Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	37°24' S	38°45' S
Longitude	71°14' W	73°03' W	72°26' W	72°38' W
Elevation	228 m	12 m	109 m	114 m
Station	CURICO	CONCEPCION	LOS ANGELES	TEMUCO
Date				
1	26.61	27.80	.	.
2	26.07	22.06	.	.
3	23.81	27.06	.	.
4	24.89	25.60	.	.
5	25.47	27.24	.	.
6	25.71	27.23	.	.
7	25.59	27.50	.	.
8	25.35	26.95	.	.
9	25.12	26.20	.	.
10	24.80	25.93	.	.
11	24.56	25.72	.	.
12	25.11	26.62	.	.
13	24.75	26.70	.	.
14	21.57	25.16	.	.
15	25.86	26.58	.	.
16	25.64	26.08	.	.
17	24.80	24.91	.	.
18	23.55	24.31	.	.
19	22.00	25.84	.	.
20	24.51	25.79	.	.
21	24.36	24.83	.	.
22	23.96	22.75	.	.
23	23.57	21.94	.	.
24	23.75	22.01	.	.
25	18.36	14.47	.	.
26	22.62	16.38	.	.
27	23.05	24.09	.	.
28	23.49	23.97	.	.
TT|Monthly Totals	678.93	691.71	.	.
|Daily Means	24.25	24.70	.	.
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: 2003

Country: CHILE

Daily Totals				
Latitude	41°25' S	42°55' S	45°35' S	53°00' S
Longitude	73°05' W	72°43' W	72°07' W	70°51' W
Elevation	85 m	7 m	310 m	37 m
Station	PUERTO MONTT	CHAITEN	COYHAIQUE	PUNTA ARENAS
Date				
1	7.59	.	21.26	14.94
2	20.90	.	14.71	12.79
3	12.94	.	16.35	7.82
4	13.40	.	12.03	12.30
5	13.48	.	17.62	18.90
6	21.27	.	20.27	15.28
7	25.19	.	13.95	9.72
8	8.71	.	21.97	16.01
9	25.68	.	23.06	16.52
10	24.12	.	25.60	10.50
11	9.14	.	23.49	22.85
12	23.30	.	22.22	24.02
13	25.55	.	19.78	10.85
14	15.40	.	10.91	22.71
15	25.14	.	24.60	21.08
16	17.89	.	21.42	20.00
17	10.08	.	18.25	10.29
18	16.53	10.36	15.36	14.90
19	21.36	0.00	23.49	17.54
20	23.18	24.09	20.53	14.15
21	22.59	23.50	18.56	8.90
22	20.28	20.24	21.52	16.30
23	9.88	19.47	19.36	12.70
24	19.06	20.35	3.82	12.01
25	5.04	15.62	21.77	17.59
26	14.49	17.55	9.41	8.46
27	10.14	10.10	9.40	10.61
28	9.77	.	6.77	14.67
TT|Monthly Totals	472.12	.	497.49	414.39
|Daily Means	16.86	.	17.77	14.80
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	18°20' S	22°29' S	23°26' S	27°09' S
Longitude	70°20'W	68°54' W	70°26' W	109°25' W
Elevation	58 m	2270 m	135 m	51 m
Station	ARICA	CALAMA	ANTOFAGASTA	ISLA DE PASCUA
Date				
1	.	.	18.69	.
2	.	.	18.62	.
3	.	.	17.57	.
4	.	.	17.16	.
5	.	.	18.36	.
6	.	.	17.71	.
7	.	.	18.13	.
8	.	.	18.38	.
9	.	.	17.14	.
10	.	.	16.23	.
11	.	.	17.48	.
12	.	.	17.75	.
13	.	.	14.16	.
14	.	.	.	.
15	.	.	.	.
16	.	.	.	.
17	.	.	.	.
18	.	.	.	.
19	.	.	12.93	.
20	.	.	16.78	.
21	.	.	16.84	.
22	.	.	14.85	.
23	.	.	16.68	.
24	.	.	13.61	.
25	.	.	16.52	.
26	.	.	12.69	.
27	.	.	15.87	.
28	.	.	16.15	.
29	.	.	15.57	.
30	.	.	15.55	.
31	.	.	15.83	.
TT|Monthly Totals	.	.	.	.
|Daily Means	.	.	16.43	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	27°18' S	28°35' S	33°23' S	34°06' S
Longitude	70°25' W	70°46' W	70°47' W	71°45' W
Elevation	291 m	469 m	475 m	296 m
Station	COPIAPO	VALLENAR	PUDAHUEL	HIDANGO
Date				
1	23.22	20.35	23.25	.
2	22.78	19.54	23.28	.
3	21.70	15.84	22.89	24.36
4	19.95	13.64	20.79	6.54
5	25.97	20.40	4.86	14.62
6	25.93	20.74	22.11	16.59
7	20.56	14.32	21.03	6.63
8	25.37	20.30	18.82	11.34
9	25.12	20.32	21.08	20.27
10	21.22	13.37	21.68	21.78
11	20.67	16.13	20.86	20.80
12	18.06	15.34	20.04	0.00
13	18.01	17.57	20.68	0.00
14	20.46	16.35	18.94	22.69
15	23.86	19.11	20.48	.
16	23.71	19.11	20.57	22.00
17	20.22	18.30	19.99	18.88
18	18.57	12.29	19.37	8.81
19	.	17.01	13.71	4.49
20	.	18.54	19.76	20.92
21	.	15.34	19.69	11.94
22	.	14.18	16.28	16.47
23	22.42	18.39	14.92	18.53
24	22.62	17.73	19.85	20.52
25	19.55	9.97	17.98	19.11
26	19.70	16.62	18.57	18.44
27	17.10	14.80	17.86	12.20
28	16.80	14.50	15.71	19.96
29	17.13	17.53	17.90	19.84
30	17.93	17.18	18.31	18.82
31	16.45	17.20	17.70	18.17
TT|Monthly Totals	.	521.97	588.97	.
|Daily Means	20.93	16.84	19.00	15.53
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	37°24' S	38°45' S
Longitude	71°14' W	73°03' W	72°26' W	72°38' W
Elevation	228 m	12 m	109 m	114 m
Station	CURICO	CONCEPCION	LOS ANGELES	TEMUCO
Date				
1	23.46	23.59	.	.
2	22.82	23.46	.	.
3	22.32	22.88	.	.
4	15.57	12.16	.	.
5	9.68	17.22	.	.
6	18.45	21.89	.	.
7	14.59	8.59	.	.
8	11.06	7.31	.	.
9	16.91	5.78	.	.
10	16.96	21.47	.	.
11	20.71	21.44	.	.
12	20.92	21.57	.	.
13	18.24	20.26	.	.
14	7.75	16.86	.	.
15	19.00	15.06	.	.
16	20.03	21.48	.	.
17	19.63	16.91	.	.
18	17.42	6.92	.	.
19	4.21	8.25	.	.
20	15.48	15.29	.	.
21	18.17	19.07	.	.
22	12.40	15.58	.	.
23	13.36	7.59	.	.
24	18.34	17.92	.	.
25	16.18	16.09	.	.
26	15.39	8.47	.	.
27	8.42	18.39	.	.
28	13.66	16.39	.	.
29	16.00	.	.	.
30	16.64	.	.	.
31	14.06	.	.	.
TT|Monthly Totals	497.84	.	.	.
|Daily Means	16.06	16.00	.	.
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: 2003

Country: CHILE

Daily Totals				
Latitude	41°25' S	42°55' S	45°35' S	53°00' S
Longitude	73°05' W	72°43' W	72°07' W	70°51' W
Elevation	85 m	7 m	310 m	37 m
Station	PUERTO MONTT	CHAITEN	COYHAIQUE	PUNTA ARENAS
Date				
1	11.99	.	21.52	15.00
2	19.18	.	15.54	19.47
3	18.81	.	7.21	6.15
4	19.54	.	13.42	15.71
5	19.49	.	6.27	4.39
6	18.06	.	16.21	15.41
7	16.03	.	19.19	15.30
8	16.84	.	19.83	4.54
9	18.39	.	19.36	6.93
10	17.92	.	19.53	15.18
11	16.72	.	15.77	15.28
12	12.22	.	11.64	12.30
13	9.78	.	11.10	2.77
14	18.30	.	19.20	15.76
15	19.94	.	9.60	11.84
16	20.31	.	14.29	2.54
17	17.93	.	16.14	11.27
18	5.95	.	5.50	7.19
19	7.45	.	15.38	10.35
20	10.72	.	5.72	9.70
21	10.35	.	7.09	11.18
22	12.02	.	10.40	4.28
23	7.25	.	11.70	2.28
24	14.69	.	7.19	5.24
25	4.03	.	5.57	6.48
26	12.32	.	9.34	4.10
27	10.48	.	10.48	10.43
28	14.46	.	6.46	13.26
29	17.11	.	15.16	10.62
30	17.38	.	.	10.13
31	14.57	.	.	8.64
TT|Monthly Totals	450.22	.	.	303.71
|Daily Means	14.52	.	12.61	9.80
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

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

Month: APRIL

Year: 2003

Country: CHILE

Daily Totals				
Latitude	18°20' S	22°29' S	23°26' S	27°09' S
Longitude	70°20'W	68°54' W	70°26' W	109°25' W
Elevation	58 m	2270 m	135 m	51 m
Station	ARICA	CALAMA	ANTOFAGASTA	ISLA DE PASCUA
Date				
1	.	.	14.63	.
2	.	.	16.05	.
3	.	.	16.37	.
4	.	.	13.99	.
5	.	.	15.35	.
6	.	.	14.91	.
7	.	.	14.80	.
8	.	.	12.89	.
9	.	.	14.64	.
10	.	.	15.06	.
11	.	.	15.06	.
12	.	.	14.22	.
13	.	.	14.83	.
14	.	.	14.44	.
15	.	.	14.30	.
16	.	.	13.17	.
17	.	.	14.22	.
18	.	.	14.43	.
19	.	.	14.94	.
20	.	.	13.90	.
21	.	.	13.96	.
22	.	.	13.70	.
23	.	.	11.06	.
24	.	.	12.43	.
25	.	.	11.41	.
26	.	.	7.96	.
27	.	.	13.27	.
28	.	.	9.04	.
29	.	.	11.90	.
30	.	.	12.87	.
TT|Monthly Totals	.	.	409.80	.
|Daily Means	.	.	13.66	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

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

Month: APRIL

Year: 2003

Country: CHILE

Daily Totals				
Latitude	27°18' S	28°35' S	33°23' S	34°06' S
Longitude	70°25' W	70°46' W	70°47' W	71°45' W
Elevation	291 m	469 m	475 m	296 m
Station	COPIAPO	VALLENAR	PUDAHUEL	HIDANGO
Date				
1	15.21	12.34	18.03	.
2	16.86	13.92	11.65	.
3	20.80	17.03	15.77	.
4	19.41	16.63	16.99	.
5	16.20	15.62	.	.
6	16.15	15.00	.	.
7	17.14	16.40	.	.
8	17.83	14.51	.	.
9	16.33	12.70	.	.
10	16.25	14.70	.	.
11	16.12	14.01	.	.
12	16.11	15.44	.	.
13	14.60	13.87	.	.
14	11.26	10.76	.	.
15	9.49	8.05	.	.
16	11.18	6.39	.	.
17	17.03	13.59	.	.
18	18.91	14.37	14.24	.
19	18.87	14.53	15.05	.
20	17.80	14.37	9.56	.
21	13.68	10.05	8.41	.
22	18.12	13.91	12.41	.
23	16.43	10.82	10.02	.
24	17.89	13.65	11.11	.
25	12.26	11.20	8.86	.
26	10.93	13.10	12.67	.
27	14.62	13.31	12.72	.
28	13.30	11.81	12.61	.
29	14.86	12.65	12.86	.
30	15.91	13.39	11.13	.
TT|Monthly Totals	471.55	398.09	.	.
|Daily Means	15.72	13.27	.	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

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

Month: APRIL

Year: 2003

Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	37°24' S	38°45' S
Longitude	71°14' W	73°03' W	72°26' W	72°38' W
Elevation	228 m	12 m	109 m	114 m
Station	CURICO	CONCEPCION	LOS ANGELES	TEMUCO
Date				
1	15.92	.	.	.
2	8.00	.	.	.
3	14.50	.	.	.
4	15.51	.	.	.
5	14.19	.	.	.
6	14.79	.	.	.
7	15.98	.	.	.
8	13.62	.	.	.
9	12.29	.	.	.
10	15.15	.	.	.
11	14.56	.	.	.
12	14.02	.	.	.
13	13.23	.	.	.
14	3.06	.	.	.
15	6.45	.	.	.
16	8.44	.	.	.
17	10.83	.	.	.
18	14.05	.	.	.
19	12.32	.	.	.
20	8.21	.	.	.
21	6.84	.	.	.
22	10.90	.	.	.
23	6.04	.	.	.
24	7.61	.	.	.
25	7.44	.	.	.
26	11.28	.	.	.
27	12.49	.	.	.
28	12.19	.	.	.
29	6.87	.	.	.
30	10.64	.	.	.
TT|Monthly Totals	337.44	.	.	.
|Daily Means	11.25	.	.	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

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

Month: APRIL

Year: 2003

Country: CHILE

Daily Totals				
Latitude	41°25' S	42°55' S	45°35' S	53°00' S
Longitude	73°05' W	72°43' W	72°07' W	70°51' W
Elevation	85 m	7 m	310 m	37 m
Station	PUERTO MONTT	CHAITEN	COYHAIQUE	PUNTA ARENAS
Date				
1	15.60	.	.	12.16
2	12.95	.	.	11.03
3	12.91	.	.	8.78
4	11.56	.	.	6.87
5	10.76	.	.	5.27
6	12.53	.	.	8.98
7	7.54	.	.	5.63
8	11.49	.	.	4.79
9	13.83	.	.	7.76
10	14.70	.	.	7.73
11	13.38	.	.	5.92
12	13.79	.	.	2.44
13	9.79	.	.	9.14
14	5.83	.	.	4.20
15	12.21	.	.	5.26
16	10.62	.	.	6.99
17	3.37	.	.	4.61
18	9.00	.	.	6.20
19	2.37	.	.	6.45
20	7.38	.	.	3.39
21	8.82	.	.	4.70
22	11.60	.	.	7.48
23	9.98	.	.	5.62
24	9.63	.	.	7.62
25	4.31	.	.	4.99
26	10.84	.	.	6.04
27	6.65	.	.	5.68
28	10.76	.	.	6.39
29	9.26	.	.	0.98
30	5.47	.	.	2.44
TT|Monthly Totals	298.96	.	.	185.52
|Daily Means	9.97	.	.	6.18
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

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

Month: MAY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	18°20' S	22°29' S	23°26' S	27°09' S
Longitude	70°20'W	68°54' W	70°26' W	109°25' W
Elevation	58 m	2270 m	135 m	51 m
Station	ARICA	CALAMA	ANTOFAGASTA	ISLA DE PASCUA
Date				
1	.	.	12.00	.
2	.	.	12.92	.
3	.	.	9.76	.
4	.	.	12.80	.
5	.	.	11.88	.
6	.	.	11.53	.
7	.	.	12.39	.
8	.	.	12.50	.
9	.	.	11.86	.
10	.	.	14.35	.
11	.	.	.	.
12	.	.	.	.
13	.	.	.	.
14	.	.	5.08	.
15	.	.	5.42	.
16	.	.	.	.
17	.	.	.	.
18	.	.	.	.
19	.	.	.	.
20	.	.	3.77	.
21	.	.	6.62	.
22	.	.	8.36	.
23	.	.	9.15	.
24	.	.	8.82	.
25	.	.	7.65	.
26	.	.	8.15	.
27	.	.	9.34	.
28	.	.	9.19	.
29	.	.	9.20	.
30	.	.	9.05	.
31	.	.	8.77	.
TT|Monthly Totals	.	.	.	.
|Daily Means	.	.	.	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

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

Month: MAY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	27°18' S	28°35' S	33°23' S	34°06' S
Longitude	70°25' W	70°46' W	70°47' W	71°45' W
Elevation	291 m	469 m	475 m	296 m
Station	COPIAPO	VALLENAR	PUDAHUEL	HIDANGO
Date				
1	.	13.34	12.63	.
2	17.60	12.99	12.07	10.37
3	9.25	5.03	11.30	6.48
4	16.95	12.35	10.60	12.98
5	16.82	12.09	11.99	13.61
6	12.29	12.13	11.87	13.57
7	10.60	8.36	11.57	5.18
8	14.76	11.81	5.01	3.65
9	8.22	11.75	2.64	8.96
10	12.05	8.72	10.02	11.73
11	12.18	11.75	10.29	10.84
12	12.86	8.99	10.25	11.46
13	6.97	4.41	6.76	8.91
14	7.07	8.47	10.76	11.91
15	11.90	9.20	10.43	10.78
16	14.81	11.00	10.36	0.00
17	11.24	11.54	9.62	12.55
18	9.48	11.02	4.52	0.00
19	13.55	7.27	4.28	5.87
20	11.22	4.03	1.22	0.97
21	10.05	7.55	3.08	1.64
22	14.37	10.67	7.52	8.92
23	14.76	10.67	10.72	11.63
24	11.89	10.73	10.62	11.51
25	6.00	6.80	8.44	8.63
26	11.16	8.43	10.25	11.32
27	8.63	10.91	9.83	11.33
28	11.28	10.91	8.80	8.45
29	10.14	0.00	5.56	2.57
30	6.88	7.02	5.46	5.08
31	14.34	.	7.51	.
TT|Monthly Totals	.	.	265.98	.
|Daily Means	11.64	9.33	8.58	8.31
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: 2003

Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	37°24' S	38°45' S
Longitude	71°14' W	73°03' W	72°26' W	72°38' W
Elevation	228 m	12 m	109 m	114 m
Station	CURICO	CONCEPCION	LOS ANGELES	TEMUCO
Date				
1	9.61	.	.	.
2	11.41	.	.	.
3	11.64	.	.	.
4	9.41	.	.	.
5	8.35	.	.	.
6	11.86	.	.	.
7	11.02	.	.	.
8	3.43	.	.	.
9	7.36	.	.	.
10	7.87	.	.	.
11	5.89	.	.	.
12	7.41	.	.	.
13	4.33	.	.	.
14	9.94	.	.	.
15	6.60	.	.	.
16	8.31	.	.	.
17	9.86	.	.	.
18	6.43	.	.	.
19	3.57	.	.	.
20	0.47	.	.	.
21	1.02	.	.	.
22	6.52	.	.	.
23	8.25	.	.	.
24	5.72	.	.	.
25	6.83	.	.	.
26	6.70	.	.	.
27	7.21	.	.	.
28	6.36	.	.	.
29	3.67	.	.	.
30	2.77	.	.	.
31	5.74	.	.	.
TT|Monthly Totals	215.58	.	.	.
|Daily Means	6.95	.	.	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY	PSP EPPLEY

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

Month: MAY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	41°25' S	42°55' S	45°35' S	53°00' S
Longitude	73°05' W	72°43' W	72°07' W	70°51' W
Elevation	85 m	7 m	310 m	37 m
Station	PUERTO MONTT	CHAITEN	COYHAIQUE	PUNTA ARENAS
Date				
1	6.22	.	.	4.62
2	7.89	.	.	1.67
3	4.32	.	.	2.67
4	8.43	.	.	4.19
5	5.74	.	.	0.56
6	5.48	.	.	2.55
7	5.46	.	.	2.91
8	6.40	.	.	1.44
9	4.68	.	.	2.15
10	6.46	.	.	4.75
11	4.68	.	.	4.87
12	7.70	.	.	4.80
13	3.19	.	.	3.72
14	6.98	.	.	2.90
15	5.01	.	.	3.82
16	7.07	.	.	3.63
17	2.90	.	.	2.83
18	8.65	.	.	1.55
19	8.09	.	.	3.95
20	1.15	.	.	2.67
21	2.95	.	.	0.95
22	3.78	.	.	0.84
23	2.46	.	.	1.31
24	4.99	.	.	2.33
25	4.77	.	.	1.30
26	3.69	.	.	3.25
27	2.54	.	.	3.24
28	2.88	.	.	2.17
29	4.90	.	.	2.27
30	3.68	.	.	1.42
31	4.34	.	.	2.22
TT|Monthly Totals	157.47	.	.	83.57
|Daily Means	5.08	.	.	2.70
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	18°20' S	22°29' S	23°26' S	27°09' S
Longitude	70°20'W	68°54' W	70°26' W	109°25' W
Elevation	58 m	2270 m	135 m	51 m
Station	ARICA	CALAMA	ANTOFAGASTA	ISLA DE PASCUA
Date				
1	.	.	6.08	.
2	.	.	8.06	.
3	.	.	9.34	.
4	.	.	9.54	.
5	.	.	9.13	.
6	.	.	6.29	.
7	.	.	0.00	.
8	.	.	7.75	.
9	.	.	5.06	.
10	.	.	8.92	.
11	.	.	8.67	.
12	.	.	8.51	.
13	.	.	9.02	.
14	.	.	6.97	.
15	.	.	9.14	.
16	.	.	8.20	.
17	.	.	9.35	.
18	.	.	9.41	.
19	.	.	9.23	.
20	.	.	9.09	.
21	.	.	8.32	.
22	.	.	7.03	.
23	.	.	9.35	.
24	.	.	9.43	.
25	.	.	7.78	.
26	.	.	7.55	.
27	.	.	9.42	.
28	.	.	8.73	.
29	.	.	7.07	.
30	.	.	8.69	.
TT|Monthly Totals	.	.	241.13	.
|Daily Means	.	.	8.04	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	27°18' S	28°35' S	33°23' S	34°06' S
Longitude	70°25' W	70°46' W	70°47' W	71°45' W
Elevation	291 m	469 m	475 m	296 m
Station	COPIAPO	VALLENAR	PUDAHUEL	HIDANGO
Date				
1	9.12	.	5.84	6.41
2	13.32	9.77	5.58	5.22
3	13.77	10.27	9.81	10.71
4	0.00	8.62	3.14	2.67
5	13.69	10.18	1.08	2.52
6	13.66	10.20	3.97	9.75
7	11.72	7.78	7.27	9.34
8	6.66	0.00	4.15	4.71
9	3.70	0.00	2.73	3.17
10	12.58	4.07	6.13	2.49
11	13.47	10.11	.	3.20
12	13.25	9.63	.	2.27
13	13.44	9.85	.	2.19
14	8.11	6.31	.	1.19
15	13.35	7.70	.	9.57
16	13.96	0.00	.	10.38
17	10.24	0.00	.	4.96
18	13.27	0.00	.	6.95
19	13.46	0.00	.	9.00
20	10.82	9.85	.	2.46
21	13.30	9.93	.	7.80
22	10.16	8.31	.	4.58
23	11.18	9.57	.	10.24
24	13.32	9.98	.	9.12
25	13.27	9.97	.	9.66
26	11.45	10.02	.	8.29
27	13.14	9.91	.	9.61
28	13.39	9.74	.	10.06
29	.	8.71	.	7.60
30	.	10.00	3.95	7.32
TT|Monthly Totals	.	.	.	193.44
|Daily Means	11.46	7.26	.	6.45
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	37°24' S	38°45' S
Longitude	71°14' W	73°03' W	72°26' W	72°38' W
Elevation	228 m	12 m	109 m	114 m
Station	CURICO	CONCEPCION	LOS ANGELES	TEMUCO
Date				
1	1.32	.	.	.
2	3.07	.	.	.
3	4.98	.	.	.
4	1.49	.	.	.
5	2.37	.	.	.
6	2.27	.	.	.
7	4.17	.	.	.
8	3.21	.	.	.
9	1.92	.	.	.
10	3.58	.	.	.
11	2.52	.	.	.
12	1.69	.	.	.
13	1.25	.	.	.
14	0.52	.	.	.
15	8.71	.	.	.
16	7.94	.	.	.
17	2.59	.	.	.
18	1.88	.	.	.
19	3.04	.	.	.
20	0.95	.	.	.
21	3.11	.	.	.
22	1.39	.	.	.
23	7.60	.	.	.
24	7.02	.	.	.
25	9.01	.	.	.
26	2.78	.	.	.
27	8.17	.	.	.
28	4.95	.	.	.
29	4.85	.	.	.
30	3.85	.	.	.
TT|Monthly Totals	112.20	.	.	.
|Daily Means	3.74	.	.	.
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

Country: CHILE

Daily Totals				
Latitude	41°25' S	42°55' S	45°35' S	53°00' S
Longitude	73°05' W	72°43' W	72°07' W	70°51' W
Elevation	85 m	7 m	310 m	37 m
Station	PUERTO MONTT	CHAITEN	COYHAIQUE	PUNTA ARENAS
Date				
1	3.27	.	.	2.57
2	7.88	.	.	2.52
3	4.39	.	.	1.32
4	1.41	.	.	1.06
5	4.33	.	.	1.60
6	6.49	.	.	1.80
7	6.63	.	.	2.75
8	4.96	.	.	2.65
9	5.47	.	.	2.84
10	2.16	.	.	3.21
11	2.30	.	.	1.56
12	1.92	.	.	2.42
13	1.34	.	.	0.76
14	0.62	.	.	1.79
15	1.63	.	.	1.22
16	4.12	.	.	2.83
17	2.30	.	.	0.67
18	1.82	.	.	0.88
19	2.15	.	.	1.39
20	6.19	.	.	2.92
21	4.13	.	.	1.33
22	5.61	.	.	1.05
23	4.89	.	.	1.74
24	5.85	.	.	2.63
25	2.05	.	.	2.84
26	2.07	.	.	2.87
27	4.40	.	.	1.88
28	5.21	.	.	1.53
29	1.71	.	.	0.69
30	2.94	.	.	2.80
TT|Monthly Totals	110.25	.	.	58.13
|Daily Means	3.68	.	.	1.94
SS|Monthly Totals				
|Daily Means				
Types of	PYRANOMETER	PYRANOMETER	PYRANOMETER	PYRANOMETER
Instruments	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: 2003

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	8.8	11.7	.
2	8.6	8.2	11.7	.
3	6.6	6.3	11.7	.
4	11.2	11.0	12.0	7.8
5	11.1	12.0	11.9	11.7
6	11.4	12.0	11.9	7.3
7	3.6	8.5	11.2	10.0
8	5.3	9.2	11.1	6.5
9	10.7	11.7	10.8	9.6
10	9.8	11.6	11.2	8.7
11	11.3	11.7	11.2	10.2
12	10.3	7.7	11.0	10.0
13	10.3	9.4	11.6	11.5
14	4.4	11.9	11.6	11.2
15	10.8	11.6	11.5	11.3
16	9.0	11.8	10.3	11.5
17	7.3	9.7	4.7	8.4
18	10.4	9.3	11.6	2.3
19	0.6	0.1	11.5	6.8
20	7.4	2.7	10.3	11.1
21	8.5	10.9	11.5	11.2
22	6.1	11.6	12.0	11.0
23	8.4	11.5	11.8	10.8
24	8.0	8.9	11.8	10.2
25	7.9	11.6	11.8	11.2
26	10.0	11.2	11.9	9.2
27	10.1	9.2	11.9	9.7
28	6.1	9.5	11.9	5.7
29	.	8.7	11.8	8.4
30	11.1	10.2	11.7	8.9
31	10.4	11.0	11.6	10.5
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	.	299.5	350.2	.
|Daily Means	8.6	9.7	11.3	9.4
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: JANUARY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	28°35' S	29°57' S
Longitude	109°26' W	70°25' W	70°46' W	71°22' W
Elevation	47 m	291 m	469 m	25 m
Station	ISLA DE PASCUA	COPIAPO	VALLENAR	LA SERENA
Date				
1	8.0	8.0	.	5.8
2	10.2	8.5	9.7	4.2
3	7.8	9.1	10.5	3.2
4	12.8	9.2	.	0.0
5	7.7	9.3	.	5.7
6	11.1	8.9	11.0	0.5
7	6.7	8.6	10.3	5.3
8	11.7	8.5	8.9	4.6
9	12.0	8.4	8.5	3.0
10	10.8	8.3	10.4	6.1
11	7.1	10.8	.	7.8
12	3.8	9.0	.	7.7
13	11.7	7.7	8.2	6.6
14	11.4	8.7	11.5	5.2
15	11.1	12.5	12.6	6.0
16	12.6	9.3	12.6	1.4
17	4.8	11.6	12.6	9.7
18	3.0	9.5	.	10.5
19	7.5	10.6	.	11.0
20	8.3	10.0	9.6	10.0
21	13.0	11.5	12.7	7.2
22	12.8	10.5	12.8	9.8
23	7.5	12.1	12.7	12.9
24	6.3	9.2	9.5	6.3
25	9.8	9.4	.	7.0
26	7.0	11.6	.	9.4
27	9.7	9.0	11.0	2.1
28	10.0	8.6	9.3	5.4
29	10.0	7.6	6.1	4.5
30	12.7	10.2	10.2	12.6
31	10.1	12.3	11.5	10.5
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	289.0	298.5	.	202.0
|Daily Means	9.3	9.6	.	6.5
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: JANUARY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	32°51' S	33°23' S	33°27' S	33°37' S
Longitude	70°37' W	70°47' W	70°42' W	78°50' W
Elevation	880 m	474 m	520 m	30 m
Station	CALLE LARGA	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE
Date				
1	11.7	12.4	12.0	7.3
2	11.7	12.4	11.9	1.3
3	11.7	12.3	11.6	5.5
4	11.7	12.5	11.8	3.9
5	11.7	12.4	11.9	5.1
6	11.7	12.5	11.9	3.1
7	11.6	11.5	11.4	4.6
8	11.6	12.5	11.5	2.4
9	11.6	12.4	11.9	5.7
10	11.6	12.4	11.9	5.7
11	11.6	12.3	11.9	8.7
12	11.6	12.4	11.8	8.0
13	9.6	12.0	11.2	5.6
14	11.5	11.7	11.4	8.9
15	11.5	12.1	11.6	9.0
16	11.5	12.2	11.6	6.1
17	11.5	12.0	11.5	2.3
18	11.4	12.1	11.5	9.8
19	11.4	12.2	11.5	5.4
20	8.2	3.4	2.7	5.8
21	7.1	3.8	3.9	0.6
22	3.6	5.5	5.9	7.3
23	11.4	12.1	11.1	9.0
24	11.3	12.5	11.6	5.7
25	11.3	12.1	11.4	0.0
26	11.4	11.9	11.1	9.0
27	11.3	12.0	11.3	3.3
28	11.4	12.0	11.3	8.3
29	11.3	12.0	11.3	9.8
30	11.2	12.1	11.2	4.5
31	11.3	11.8	11.3	6.0
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	339.0	353.5	335.9	177.7
|Daily Means	10.9	11.4	10.8	5.7
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: 2003

Country: CHILE

Daily Totals				
Latitude	33°39' S	34°06' S	34°58' S	36°36' S
Longitude	71°36' W	71°45' W	71°12' W	72°26' W
Elevation	74 m	296 m	225 m	124 m
Station	SANTO DOMINGO	HIDANGO	CURICO	CHILLAN
Date				
1	12.4	.	12.9	13.3
2	3.7	.	13.0	9.7
3	6.9	.	11.8	13.1
4	7.9	.	12.9	13.3
5	11.2	.	13.0	13.3
6	0.0	.	13.1	12.9
7	7.6	.	12.5	13.1
8	12.5	.	7.5	9.3
9	11.0	.	13.0	10.8
10	12.6	.	13.0	13.3
11	12.4	.	12.9	12.5
12	12.4	.	13.1	12.5
13	1.1	.	11.6	11.2
14	0.2	.	12.8	9.8
15	9.3	.	13.0	13.0
16	6.4	.	12.0	10.1
17	11.7	.	11.2	12.7
18	12.5	.	12.9	13.8
19	12.8	.	8.7	0.0
20	3.5	.	1.5	1.6
21	3.6	.	1.2	7.6
22	8.4	.	10.4	12.5
23	13.2	.	12.8	12.8
24	12.7	.	12.8	13.0
25	11.5	.	12.8	10.2
26	5.0	.	11.9	12.4
27	12.8	.	8.9	12.6
28	12.3	.	12.8	12.8
29	12.9	.	12.8	12.7
30	12.7	.	10.8	12.2
31	9.2	.	11.0	12.4
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	282.4	.	350.6	350.5
|Daily Means	9.1	.	11.3	11.3
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: JANUARY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	36°46' S	39°41' S	41°26' S	45°35' S
Longitude	73°03' W	73°04' W	73°07' W	72°07'W
Elevation	12 m	19 m	81 m	310 m
Station	CONCEPCION	VALDIVIA	PUERTO MONTT	COYHAIQUE
Date				
1	13.0	10.2	8.4	13.4
2	13.1	12.6	8.0	12.6
3	13.1	11.8	12.2	12.9
4	12.8	13.7	5.5	7.0
5	13.1	11.0	11.2	13.1
6	13.1	13.5	13.0	11.2
7	4.0	10.1	3.4	10.7
8	10.7	4.6	1.4	10.7
9	13.0	12.1	8.3	5.3
10	13.2	12.7	10.5	11.8
11	13.2	13.4	11.4	5.6
12	13.0	4.7	0.0	2.1
13	13.1	8.6	2.2	11.7
14	12.7	7.4	8.3	2.3
15	11.5	1.0	0.8	9.4
16	8.9	0.6	5.0	5.6
17	13.0	10.8	5.7	11.4
18	11.4	9.1	1.2	1.0
19	3.1	2.5	0.2	6.7
20	0.6	0.2	0.0	1.7
21	7.2	8.1	7.8	7.5
22	12.6	9.8	7.3	11.4
23	12.9	8.8	1.3	1.2
24	12.9	6.0	0.3	7.7
25	12.6	9.5	11.4	12.1
26	12.9	3.2	0.0	5.2
27	12.8	9.2	10.6	4.9
28	12.7	10.6	6.9	4.6
29	12.8	11.1	1.6	0.1
30	12.5	7.7	5.7	5.4
31	12.5	4.4	0.0	4.6
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	354.0	259.0	169.6	230.9
|Daily Means	11.4	8.4	5.5	7.4
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: JANUARY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	45°54' S	53°08' S	54°56' S	
Longitude	71°43' W	70°58' W	67°58' W	
Elevation	520 m	37 m	36 m	
Station	BALMACEDA	PUNTA ARENAS	PUERTO WILLIAMS	
Date				
1	.	4.9	.	
2	.	6.8	.	
3	.	2.5	.	
4	.	13.1	.	
5	.	5.1	.	
6	.	11.2	.	
7	.	6.9	.	
8	.	11.8	.	
9	.	4.8	.	
10	.	9.7	.	
11	.	5.0	.	
12	.	13.4	.	
13	.	11.2	.	
14	.	7.2	.	
15	.	5.7	.	
16	.	0.8	.	
17	.	11.9	.	
18	.	3.3	.	
19	.	4.4	.	
20	.	5.2	.	
21	.	12.2	.	
22	.	8.9	.	
23	.	2.9	.	
24	.	12.4	.	
25	.	7.0	.	
26	.	6.0	.	
27	.	9.8	.	
28	.	6.7	.	
29	.	11.2	.	
30	.	4.9	.	
31	.	10.6	.	
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	.	237.5	.	
|Daily Means	.	7.7	.	
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: 2003

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	11.0	11.4	11.6	9.9
2	11.1	11.3	11.6	10.0
3	11.3	11.5	11.7	9.2
4	7.1	10.8	11.7	8.2
5	7.1	8.2	11.9	9.6
6	8.4	11.2	11.2	10.4
7	7.1	8.2	11.0	10.6
8	9.1	10.6	10.9	7.7
9	10.9	11.4	11.4	9.9
10	7.8	8.8	11.4	6.7
11	10.2	11.1	11.6	9.6
12	9.5	11.0	11.6	10.6
13	10.3	11.0	11.4	10.6
14	7.9	6.7	11.4	7.9
15	9.9	11.4	10.9	10.3
16	10.9	11.4	11.3	10.7
17	11.1	11.5	11.3	10.2
18	11.0	11.4	11.3	10.8
19	9.2	8.2	9.7	10.8
20	10.5	9.1	9.1	11.0
21	11.1	11.5	11.5	10.3
22	11.4	11.5	11.1	11.1
23	11.0	11.5	11.5	11.0
24	11.2	11.4	11.7	11.0
25	5.9	8.1	11.7	10.3
26	5.6	8.4	11.7	10.8
27	10.4	11.1	11.4	10.9
28	11.0	11.2	11.4	11.0
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	269.0	290.9	316.0	281.1
|Daily Means	9.6	10.4	11.3	10.0
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: 2003

Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	28°35' S	29°57' S
Longitude	109°26' W	70°25' W	70°46' W	71°22' W
Elevation	47 m	291 m	469 m	25 m
Station	ISLA DE PASCUA	COPIAPO	VALLENAR	LA SERENA
Date				
1	12.0	11.2	.	3.2
2	6.0	9.3	.	5.7
3	5.5	8.9	10.4	12.0
4	12.5	6.9	8.2	7.5
5	10.3	7.3	10.6	5.7
6	11.5	8.7	10.6	7.3
7	12.0	9.6	12.3	10.6
8	9.4	7.4	.	5.9
9	11.2	8.9	.	9.1
10	11.4	7.7	11.6	1.1
11	11.5	10.8	9.9	3.3
12	11.1	8.7	10.3	5.0
13	11.2	8.5	8.6	4.2
14	8.9	8.7	6.9	5.2
15	11.6	9.5	.	12.3
16	11.2	11.3	.	11.9
17	10.0	8.3	11.8	5.0
18	10.3	7.4	10.8	6.9
19	9.0	8.9	8.5	10.6
20	7.8	10.0	8.5	10.6
21	8.5	11.4	11.9	12.0
22	2.0	9.6	.	12.0
23	5.0	11.7	.	11.7
24	5.0	8.7	9.2	3.1
25	8.9	7.0	7.0	2.9
26	9.3	5.3	6.1	5.5
27	10.3	7.2	7.4	7.1
28	9.8	7.6	7.6	5.4
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	263.2	246.5	.	202.8
|Daily Means	9.4	8.8	.	7.2
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: 2003

Country: CHILE

Daily Totals				
Latitude	32°51' S	33°23' S	33°27' S	33°37' S
Longitude	70°37' W	70°47' W	70°42' W	78°50' W
Elevation	880 m	474 m	520 m	30 m
Station	CALLE LARGA	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE
Date				
1	11.2	11.8	11.3	8.3
2	11.3	11.8	11.2	10.9
3	11.2	11.8	11.1	7.4
4	11.2	11.8	11.1	7.7
5	11.2	11.8	11.0	7.1
6	11.1	11.8	11.0	8.5
7	11.2	11.8	11.0	7.6
8	11.2	11.8	11.0	5.4
9	11.2	11.7	11.0	4.7
10	11.1	11.7	11.0	8.2
11	11.1	10.8	10.8	4.2
12	11.1	11.6	10.9	6.1
13	11.0	11.6	10.9	9.0
14	9.5	9.2	8.7	4.6
15	11.1	11.6	11.1	9.4
16	11.1	11.8	11.2	6.0
17	11.0	11.7	11.2	10.3
18	11.0	11.5	11.1	4.0
19	10.4	10.7	10.9	6.3
20	11.0	11.5	10.9	7.5
21	10.8	11.8	10.7	0.3
22	10.8	11.7	10.5	1.9
23	10.9	11.6	10.5	4.5
24	10.8	11.5	10.4	4.2
25	10.8	11.0	10.4	5.8
26	10.8	10.4	10.3	5.2
27	10.7	10.8	10.3	9.7
28	10.6	11.2	10.4	4.4
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	306.4	319.8	301.9	179.2
|Daily Means	10.9	11.4	10.8	6.4
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAFO
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: 2003

Country: CHILE

Daily Totals				
Latitude	33°39' S	34°06' S	34°58' S	36°36' S
Longitude	71°36' W	71°45' W	71°12' W	72°26' W
Elevation	74 m	296 m	225 m	124 m
Station	SANTO DOMINGO	HIDANGO	CURICO	CHILLAN
Date				
1	12.4	.	12.9	12.2
2	12.5	.	12.8	12.1
3	12.4	.	9.7	12.1
4	11.5	.	12.5	12.0
5	12.1	.	12.5	12.3
6	12.2	.	12.8	12.5
7	11.8	.	12.7	12.5
8	10.9	.	12.6	12.3
9	7.0	.	12.7	11.1
10	0.0	.	12.6	12.0
11	1.6	.	12.0	12.0
12	7.1	.	12.7	12.2
13	0.0	.	12.6	12.2
14	10.5	.	9.5	11.9
15	12.4	.	12.7	12.3
16	11.9	.	12.7	11.7
17	8.5	.	12.4	11.5
18	12.2	.	11.7	5.7
19	11.7	.	9.6	12.0
20	11.6	.	12.6	11.8
21	11.7	.	12.5	11.9
22	10.4	.	12.5	11.8
23	0.4	.	12.4	11.6
24	0.0	.	12.5	11.2
25	7.2	.	8.0	0.7
26	9.3	.	11.3	11.4
27	11.1	.	12.2	11.6
28	11.2	.	12.2	11.7
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	251.6	.	335.9	316.3
|Daily Means	9.0	.	12.0	11.3
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: 2003

Country: CHILE

Daily Totals				
Latitude	36°46' S	39°41' S	41°26' S	45°35' S
Longitude	73°03' W	73°04' W	73°07' W	72°07' W
Elevation	12 m	19 m	81 m	310 m
Station	CONCEPCION	VALDIVIA	PUERTO MONTT	COYHAIQUE
Date				
1	12.7	5.9	1.4	8.6
2	7.9	4.5	8.4	5.0
3	11.7	6.6	3.7	6.1
4	10.7	6.9	2.8	4.5
5	12.6	8.7	5.4	6.4
6	12.5	10.0	8.8	8.6
7	12.5	12.6	11.3	2.8
8	12.3	9.3	1.2	9.0
9	12.5	8.8	12.2	9.6
10	12.1	12.0	9.3	12.0
11	12.2	12.0	3.2	9.4
12	12.2	12.6	11.8	10.9
13	12.5	12.2	11.8	8.1
14	11.9	12.4	5.3	2.4
15	12.4	4.1	11.4	11.0
16	12.3	11.6	6.8	10.3
17	10.3	11.4	2.4	10.4
18	10.5	12.2	9.6	8.2
19	12.2	12.4	11.6	11.4
20	12.2	6.2	11.6	8.8
21	12.2	10.8	8.7	7.5
22	9.7	10.7	7.5	11.3
23	8.4	0.0	2.1	11.2
24	8.9	4.6	7.5	0.0
25	5.2	9.7	0.5	10.5
26	6.5	6.4	5.3	2.7
27	12.0	.	2.1	2.0
28	12.1	.	2.0	1.1
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	311.2	.	185.7	209.8
|Daily Means	11.1	9.0	6.6	7.5
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: 2003

Country: CHILE

Daily Totals				
Latitude	45°54' S	53°08' S	54°56' S	
Longitude	71°43' W	70°58' W	67°58' W	
Elevation	520 m	37 m	36 m	
Station	BALMACEDA	PUNTA ARENAS	PUERTO WILLIAMS	
Date				
1	.	4.7	.	
2	.	3.0	.	
3	.	1.1	.	
4	.	3.5	.	
5	.	6.6	.	
6	.	5.0	.	
7	.	2.1	.	
8	.	8.4	.	
9	.	7.0	.	
10	.	4.1	.	
11	.	11.7	.	
12	.	13.6	.	
13	.	2.4	.	
14	.	13.0	.	
15	.	9.4	.	
16	.	8.6	.	
17	.	1.3	.	
18	.	8.1	.	
19	.	8.6	.	
20	.	5.4	.	
21	.	1.8	.	
22	.	10.2	.	
23	.	2.5	.	
24	.	4.0	.	
25	.	8.8	.	
26	.	0.7	.	
27	.	3.3	.	
28	.	7.0	.	
29				
30				
31				
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	.	165.9	.	
|Daily Means	.	5.9	.	
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: 2003

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	11.1	11.0	11.0	10.9
2	10.8	11.0	11.0	10.6
3	9.9	11.0	11.1	9.3
4	9.2	11.0	7.8	9.0
5	7.5	10.9	10.7	10.4
6	11.5	9.8	10.8	9.6
7	10.1	10.3	8.5	10.1
8	11.1	10.5	11.3	10.8
9	10.8	10.9	11.3	8.6
10	6.4	7.1	11.4	9.2
11	10.5	10.7	11.4	10.5
12	10.3	10.8	10.9	10.7
13	10.6	10.5	9.5	7.2
14	8.6	10.5	10.0	11.3
15	9.0	10.5	11.2	10.9
16	9.7	10.6	11.1	10.0
17	3.2	3.9	11.0	10.4
18	7.1	4.1	10.7	8.1
19	6.6	9.2	8.1	5.7
20	6.2	9.4	11.0	9.4
21	7.9	9.6	10.7	10.3
22	10.2	10.0	10.6	6.1
23	8.9	9.7	10.1	9.8
24	9.7	9.2	11.1	6.4
25	8.7	9.4	11.1	10.5
26	5.8	0.9	11.3	6.4
27	10.3	9.1	11.3	9.7
28	8.8	10.4	11.2	10.6
29	8.5	8.8	11.0	9.4
30	9.0	10.3	11.0	9.3
31	7.7	9.9	11.1	10.4
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	275.7	291.0	330.3	291.6
|Daily Means	8.9	9.4	10.7	9.4
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: MARCH

Year: 2003

Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	28°35' S	29°57' S
Longitude	109°26' W	70°25' W	70°46' W	71°22' W
Elevation	47 m	291 m	469 m	25 m
Station	ISLA DE PASCUA	COPIAPO	VALLENAR	LA SERENA
Date				
1	5.3	8.2	.	9.1
2	7.7	8.0	.	6.3
3	11.2	7.6	8.9	0.0
4	11.7	8.5	7.4	0.0
5	10.8	10.6	10.8	11.3
6	10.0	10.7	11.1	9.1
7	6.6	7.5	6.2	2.5
8	9.1	10.7	.	11.3
9	4.3	9.4	.	9.3
10	9.5	7.4	6.0	0.0
11	8.3	7.5	7.3	0.0
12	10.7	6.5	6.8	0.3
13	8.8	6.8	8.3	0.6
14	10.5	7.7	7.4	4.1
15	8.2	10.9	.	11.0
16	4.2	10.6	.	8.8
17	1.6	7.8	9.1	0.1
18	4.7	7.2	5.7	4.2
19	1.1	10.7	8.5	5.0
20	9.6	10.6	10.8	8.2
21	9.7	6.6	7.2	0.0
22	9.6	8.7	.	5.8
23	11.1	9.8	.	6.9
24	10.9	10.1	10.9	10.6
25	3.0	8.4	10.5	1.9
26	4.0	8.1	8.7	2.6
27	6.7	7.0	7.1	2.6
28	10.1	6.7	6.9	0.0
29	4.3	7.1	.	0.0
30	9.3	7.4	.	0.0
31	6.2	6.7	10.7	0.7
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	238.8	261.5	.	132.3
|Daily Means	7.7	8.4	.	4.3
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: MARCH

Year: 2003

Country: CHILE

Daily Totals				
Latitude	32°51' S	33°23' S	33°27' S	33°37' S
Longitude	70°37' W	70°47' W	70°42' W	78°50' W
Elevation	880 m	474 m	520 m	30 m
Station	CALLE LARGA	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE
Date				
1	10.8	11.1	10.4	4.4
2	10.5	11.2	10.5	6.0
3	10.4	10.6	10.0	7.5
4	8.8	8.4	9.0	3.1
5	3.5	0.4	0.7	6.6
6	8.7	10.0	10.0	9.3
7	9.0	9.7	9.6	10.3
8	10.1	8.0	8.3	8.3
9	10.1	10.7	9.6	5.7
10	10.1	10.1	10.0	2.6
11	10.1	10.6	9.5	1.5
12	9.5	9.1	9.4	7.4
13	10.0	10.1	9.7	6.0
14	6.7	8.1	8.2	5.8
15	10.0	10.5	9.2	8.6
16	10.0	10.7	9.6	5.7
17	9.9	10.7	9.0	9.2
18	9.9	9.4	9.0	2.0
19	6.7	5.8	5.8	3.7
20	10.0	9.2	8.8	5.3
21	10.0	10.2	8.8	3.0
22	8.1	7.4	7.5	0.0
23	7.3	6.3	6.1	6.6
24	10.0	9.8	8.7	8.5
25	8.1	9.4	7.9	5.6
26	10.0	10.4	8.8	7.1
27	10.0	8.5	8.8	4.0
28	9.9	7.0	6.3	3.2
29	10.0	10.0	8.7	4.7
30	10.0	9.6	8.7	4.0
31	10.1	8.1	6.3	5.0
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	288.3	281.1	262.9	170.7
|Daily Means	9.3	9.1	8.5	5.5
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: 2003

Country: CHILE

Daily Totals				
Latitude	33°39' S	34°06' S	34°58' S	36°36' S
Longitude	71°36' W	71°45' W	71°12' W	72°26' W
Elevation	74 m	296 m	225 m	124 m
Station	SANTO DOMINGO	HIDANGO	CURICO	CHILLAN
Date				
1	12.1	.	11.8	11.1
2	9.8	.	11.9	10.7
3	4.4	.	11.7	11.3
4	2.5	.	6.9	11.0
5	0.0	.	3.5	9.2
6	0.6	.	11.8	10.9
7	2.4	.	5.3	10.6
8	0.1	.	5.0	5.7
9	4.0	.	7.6	5.6
10	3.3	.	7.5	11.0
11	0.0	.	11.1	10.6
12	0.0	.	10.5	10.9
13	1.9	.	8.7	10.0
14	10.4	.	0.3	6.9
15	7.2	.	8.9	9.6
16	10.8	.	9.5	10.5
17	9.7	.	10.9	10.6
18	0.0	.	8.1	9.4
19	0.0	.	0.0	5.1
20	6.2	.	6.9	8.4
21	2.6	.	10.7	10.6
22	8.3	.	6.2	7.4
23	9.4	.	6.0	4.3
24	10.4	.	9.7	9.0
25	4.4	.	8.1	8.0
26	6.0	.	8.4	2.3
27	0.0	.	3.9	6.4
28	9.1	.	6.6	9.3
29	7.5	.	8.6	6.2
30	8.3	.	9.9	9.2
31	6.5	.	6.3	5.7
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	157.9	.	242.3	267.5
|Daily Means	5.1	.	7.8	8.6
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: MARCH

Year: 2003

Country: CHILE

Daily Totals				
Latitude	36°46' S	39°41' S	41°26' S	45°35' S
Longitude	73°03' W	73°04' W	73°07' W	72°07' W
Elevation	12 m	19 m	81 m	310 m
Station	CONCEPCION	VALDIVIA	PUERTO MONTT	COYHAIQUE
Date				
1	11.7	7.6	4.2	10.3
2	11.0	9.1	8.3	7.6
3	11.4	11.2	8.0	3.4
4	1.5	10.5	7.7	7.6
5	5.5	10.3	10.6	0.8
6	11.0	11.2	7.5	7.9
7	0.0	11.3	6.5	9.0
8	0.0	7.6	7.2	11.1
9	0.0	8.4	6.7	9.9
10	11.2	9.5	9.3	10.3
11	10.4	8.4	7.6	7.5
12	10.5	8.8	5.5	6.8
13	10.0	4.8	2.4	3.0
14	7.3	4.7	10.9	10.5
15	6.9	8.6	10.7	3.8
16	11.3	10.7	10.4	8.4
17	6.7	10.6	8.2	7.9
18	0.2	8.6	0.2	0.6
19	2.0	2.8	3.0	7.7
20	6.4	5.6	2.6	0.0
21	10.9	9.1	2.0	2.4
22	7.7	3.8	3.5	5.3
23	2.9	0.0	1.0	5.4
24	8.1	5.4	7.9	1.2
25	7.1	0.5	0.4	0.4
26	2.6	1.8	5.9	4.9
27	10.1	3.4	3.8	3.7
28	10.4	7.0	7.9	1.3
29	7.4	10.3	9.7	9.7
30	9.0	10.4	10.3	9.3
31	6.2	9.3	10.0	9.4
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	217.4	231.3	199.9	187.1
|Daily Means	7.0	7.5	6.4	6.0
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: MARCH

Year: 2003

Country: CHILE

Daily Totals				
Latitude	45°54' S	53°08' S	54°56' S	
Longitude	71°43' W	70°58' W	67°58' W	
Elevation	520 m	37 m	36 m	
Station	BALMACEDA	PUNTA ARENAS	PUERTO WILLIAMS	
Date				
1	.	8.2	.	
2	.	11.9	.	
3	.	0.2	.	
4	.	7.7	.	
5	.	0.0	.	
6	.	9.1	.	
7	.	7.8	.	
8	.	0.0	.	
9	.	1.4	.	
10	.	8.9	.	
11	.	8.0	.	
12	.	7.6	.	
13	.	0.0	.	
14	.	9.1	.	
15	.	6.3	.	
16	.	0.0	.	
17	.	6.3	.	
18	.	0.4	.	
19	.	7.6	.	
20	.	3.9	.	
21	.	8.0	.	
22	.	0.0	.	
23	.	0.0	.	
24	.	1.4	.	
25	.	0.8	.	
26	.	0.0	.	
27	.	7.2	.	
28	.	10.7	.	
29	.	6.6	.	
30	.	5.1	.	
31	.	4.5	.	
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	.	148.7	.	
|Daily Means	.	4.8	.	
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: APRIL

Year: 2003

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	6.0	6.2	10.9	8.3
2	9.8	8.0	9.8	10.0
3	4.6	6.4	10.8	9.7
4	3.0	7.5	10.6	9.0
5	7.4	7.8	11.0	10.5
6	9.5	9.9	11.0	9.8
7	6.5	8.4	11.0	9.0
8	4.0	2.3	11.2	7.1
9	7.0	8.1	11.0	9.1
10	10.2	10.3	11.0	10.4
11	7.4	10.2	11.1	9.6
12	7.7	10.2	11.0	9.0
13	7.6	10.3	11.0	9.8
14	5.8	8.0	11.1	9.5
15	8.0	7.3	11.0	9.3
16	8.4	4.3	11.0	7.4
17	7.2	8.5	11.0	10.3
18	10.2	10.4	10.9	10.8
19	12.0	10.4	11.2	10.7
20	7.6	10.3	11.2	9.3
21	10.8	10.2	11.2	10.4
22	9.3	8.2	9.7	10.1
23	10.9	.	2.1	8.1
24	10.6	9.7	10.2	9.1
25	10.7	9.2	8.2	8.0
26	4.1	4.5	8.2	3.0
27	10.1	7.6	9.8	9.7
28	5.9	1.8	9.5	3.8
29	10.1	10.2	10.4	7.3
30	5.6	5.3	10.2	9.4
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	238.0	.	308.3	267.5
|Daily Means	7.9	8.0	10.3	8.9
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: APRIL

Year: 2003

Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	28°35' S	29°57' S
Longitude	109°26' W	70°25' W	70°46' W	71°22' W
Elevation	47 m	291 m	469 m	25 m
Station	ISLA DE PASCUA	COPIAPO	VALLENAR	LA SERENA
Date				
1	6.4	5.6	6.2	2.0
2	6.9	6.2	7.3	5.5
3	7.7	8.8	10.7	9.9
4	7.1	7.2	10.8	10.2
5	3.4	5.7	.	7.3
6	0.3	5.7	.	4.6
7	3.1	6.2	9.9	0.4
8	9.4	6.7	9.0	6.1
9	7.3	6.2	5.7	3.7
10	9.7	6.1	8.8	0.0
11	5.1	6.3	8.0	1.6
12	8.8	6.1	.	0.0
13	10.3	5.8	.	0.0
14	10.1	4.2	5.2	0.0
15	10.5	3.0	3.2	0.0
16	10.4	4.4	2.3	2.3
17	10.3	7.7	7.5	1.4
18	8.0	8.7	.	10.3
19	10.3	9.0	.	10.3
20	9.3	7.9	.	8.2
21	9.3	6.1	5.4	5.8
22	9.1	9.0	10.1	7.7
23	9.7	7.7	6.6	2.7
24	10.1	9.0	8.8	9.6
25	4.2	5.1	7.4	4.4
26	8.3	4.5	.	0.0
27	7.4	6.6	.	7.8
28	4.8	4.7	7.3	8.7
29	7.5	7.0	9.2	8.5
30	8.9	8.6	10.0	9.5
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	233.7	195.8	.	148.5
|Daily Means	7.8	6.5	.	5.0
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: APRIL

Year: 2003

Country: CHILE

Daily Totals				
Latitude	32°51' S	33°23' S	33°27' S	33°37' S
Longitude	70°37' W	70°47' W	70°42' W	78°50' W
Elevation	880 m	474 m	520 m	30 m
Station	CALLE LARGA	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE
Date				
1	10.0	10.3	8.7	6.9
2	7.8	5.5	5.4	6.9
3	10.0	7.6	8.6	2.1
4	9.8	10.1	8.5	5.8
5	10.0	10.0	8.4	7.1
6	10.0	10.0	8.6	1.7
7	9.9	10.0	8.6	2.3
8	9.7	9.7	8.4	6.1
9	9.9	9.9	8.6	7.8
10	9.9	10.0	8.6	8.2
11	10.0	9.8	8.5	8.1
12	10.1	9.3	8.6	8.2
13	10.0	7.8	8.4	8.4
14	7.9	4.3	6.0	4.3
15	5.5	4.8	4.1	4.1
16	0.0	0.0	0.0	4.5
17	0.5	1.2	0.4	1.7
18	8.6	8.5	8.1	7.9
19	9.8	9.0	8.2	6.2
20	2.9	3.2	1.3	3.9
21	1.4	1.3	1.4	3.5
22	8.9	8.1	6.9	5.4
23	5.6	4.3	4.1	3.7
24	5.7	7.1	6.1	4.9
25	3.6	4.8	4.1	5.4
26	7.1	7.9	8.2	7.6
27	9.6	8.0	8.3	0.6
28	6.8	8.1	8.3	3.7
29	9.4	8.3	8.3	5.4
30	8.3	6.8	7.3	5.3
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	228.7	215.7	199.0	157.7
|Daily Means	7.6	7.2	6.6	5.3
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: 2003

Country: CHILE

Daily Totals				
Latitude	33°39' S	34°06' S	34°58' S	36°36' S
Longitude	71°36' W	71°45' W	71°12' W	72°26' W
Elevation	74 m	296 m	225 m	124 m
Station	SANTO DOMINGO	HIDANGO	CURICO	CHILLAN
Date				
1	0.0	.	9.6	8.6
2	0.0	.	4.3	7.5
3	9.8	.	9.4	6.0
4	10.4	.	10.0	8.4
5	10.2	.	7.5	8.4
6	10.5	.	9.7	9.1
7	10.4	.	10.1	9.7
8	10.5	.	7.0	7.0
9	10.4	.	6.2	8.7
10	1.1	.	10.1	8.3
11	0.2	.	9.4	9.4
12	0.0	.	7.5	7.2
13	0.0	.	7.0	7.4
14	0.0	.	0.0	4.0
15	0.0	.	1.2	2.8
16	0.5	.	3.8	2.0
17	5.2	.	5.2	5.0
18	9.5	.	9.1	9.3
19	10.0	.	6.4	3.4
20	8.4	.	1.8	2.2
21	5.0	.	1.7	4.8
22	8.3	.	4.8	8.4
23	3.4	.	0.5	4.2
24	8.3	.	3.5	5.4
25	5.5	.	2.1	3.9
26	10.0	.	7.0	7.3
27	9.9	.	8.6	7.3
28	9.0	.	8.9	0.8
29	6.1	.	2.3	0.8
30	8.9	.	6.7	8.3
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	181.5	.	181.4	185.6
|Daily Means	6.1	.	6.0	6.2
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: 2003

Country: CHILE

Daily Totals				
Latitude	36°46' S	39°41' S	41°26' S	45°35' S
Longitude	73°03' W	73°04' W	73°07' W	72°07' W
Elevation	12 m	19 m	81 m	310 m
Station	CONCEPCION	VALDIVIA	PUERTO MONTT	COYHAIQUE
Date				
1	8.6	5.3	7.7	8.9
2	7.4	4.2	7.4	7.1
3	8.2	6.1	6.0	7.5
4	10.3	8.5	6.2	8.3
5	10.4	5.2	4.0	2.1
6	10.0	8.5	7.3	6.4
7	10.0	8.4	1.8	3.1
8	2.5	0.0	5.7	7.8
9	10.2	8.8	8.6	9.0
10	10.5	8.7	8.3	7.2
11	0.2	6.1	8.5	7.4
12	2.9	4.7	8.0	4.4
13	0.0	5.5	4.7	1.4
14	5.2	3.5	2.9	1.7
15	3.4	2.8	7.2	7.7
16	2.5	2.7	5.9	2.0
17	5.7	4.7	.	8.5
18	10.0	10.0	5.1	8.3
19	3.6	0.0	.	8.8
20	1.1	3.1	3.9	4.6
21	4.4	5.5	5.1	0.0
22	9.5	4.8	6.8	2.7
23	8.1	4.4	6.6	2.6
24	8.9	8.1	7.1	9.0
25	7.8	0.0	1.1	5.4
26	9.5	5.7	8.6	8.2
27	9.8	4.3	3.5	8.6
28	5.0	3.7	7.2	8.9
29	0.3	0.0	4.4	2.7
30	9.0	3.7	1.5	4.3
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	195.0	147.0	.	174.6
|Daily Means	6.5	4.9	5.8	5.8
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: 2003

Country: CHILE

Daily Totals				
Latitude	45°54' S	53°08' S	54°56' S	
Longitude	71°43' W	70°58' W	67°58' W	
Elevation	520 m	37 m	36 m	
Station	BALMACEDA	PUNTA ARENAS	PUERTO WILLIAMS	
Date				
1	.	10.5	.	
2	.	9.1	.	
3	.	4.6	.	
4	.	3.0	.	
5	.	1.7	.	
6	.	6.5	.	
7	.	3.1	.	
8	.	1.9	.	
9	.	6.7	.	
10	.	5.5	.	
11	.	1.3	.	
12	.	0.9	.	
13	.	9.1	.	
14	.	0.4	.	
15	8.9	1.7	.	
16	5.2	4.9	.	
17	7.0	1.7	.	
18	9.6	6.4	.	
19	7.5	6.2	.	
20	4.0	1.3	.	
21	4.2	1.4	.	
22	3.1	8.9	.	
23	5.9	5.1	.	
24	9.4	8.8	.	
25	3.5	4.4	.	
26	9.0	5.4	.	
27	9.0	6.2	.	
28	8.7	7.5	.	
29	3.0	0.0	.	
30	7.1	1.7	.	
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	.	135.9	.	
|Daily Means	.	4.5	.	
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: MAY

Year: 2003

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	6.2	7.6	10.8	8.9
2	2.9	6.2	10.9	9.4
3	7.3	6.2	9.4	7.0
4	7.5	9.8	10.8	8.0
5	5.2	4.5	11.0	8.1
6	5.0	4.8	10.8	8.4
7	9.9	6.8	10.8	9.1
8	10.0	10.0	10.7	9.7
9	4.8	8.5	10.0	8.1
10	4.5	7.8	10.3	7.6
11	5.2	5.7	10.0	7.6
12	10.2	9.7	10.0	5.7
13	7.0	5.5	8.6	6.1
14	8.6	9.4	8.1	0.3
15	5.6	2.8	4.6	1.1
16	6.8	2.8	8.2	2.7
17	3.9	1.2	10.5	3.6
18	2.5	1.0	5.9	0.0
19	4.6	2.8	3.9	0.5
20	4.0	0.0	10.5	7.8
21	5.1	5.2	10.5	1.2
22	2.1	6.1	10.5	4.8
23	2.2	6.8	10.5	6.8
24	5.4	7.6	10.5	6.5
25	5.2	0.0	10.1	4.9
26	6.0	6.1	9.7	5.4
27	5.5	8.2	10.5	7.1
28	4.8	4.3	10.5	7.0
29	5.5	8.0	10.5	7.4
30	9.2	9.6	10.5	7.0
31	5.0	9.0	10.6	7.6
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	177.7	184.0	300.2	185.4
|Daily Means	5.7	5.9	9.7	6.0
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: MAY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	28°35' S	29°57' S
Longitude	109°26' W	70°25' W	70°46' W	71°22' W
Elevation	47 m	291 m	469 m	25 m
Station	ISLA DE PASCUA	COPIAPO	VALLENAR	LA SERENA
Date				
1	7.7	5.2	.	9.6
2	7.6	8.7	9.4	6.0
3	0.0	3.5	.	2.9
4	6.9	8.7	.	9.3
5	7.3	8.0	9.5	4.7
6	0.6	5.3	9.5	0.0
7	6.8	4.6	5.2	0.9
8	9.0	6.7	8.2	4.4
9	3.0	3.2	8.9	7.6
10	2.6	5.3	.	8.8
11	2.2	5.0	.	0.0
12	9.3	6.1	5.9	0.0
13	9.5	2.9	2.0	0.0
14	2.5	0.6	5.3	9.1
15	8.7	6.4	6.6	8.8
16	8.7	8.3	9.1	7.7
17	5.5	5.5	.	9.4
18	5.8	4.0	.	9.4
19	2.0	8.3	5.0	1.7
20	1.7	5.6	.	0.0
21	7.4	4.6	.	0.0
22	6.9	8.5	9.5	8.7
23	1.3	8.8	9.2	9.7
24	0.0	6.3	.	0.6
25	7.8	2.8	.	0.0
26	6.9	6.2	6.6	1.7
27	9.1	6.2	9.3	1.2
28	8.1	5.7	8.5	0.0
29	6.7	5.5	4.2	0.0
30	1.8	3.7	4.1	3.5
31	3.9	8.4	.	4.0
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	167.3	178.6	.	129.7
|Daily Means	5.4	5.8	.	4.2
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: MAY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	32°51' S	33°23' S	33°27' S	33°37' S
Longitude	70°37' W	70°47' W	70°42' W	78°50' W
Elevation	880 m	474 m	520 m	30 m
Station	CALLE LARGA	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE
Date				
1	9.7	8.7	8.1	7.7
2	9.6	8.8	7.6	7.4
3	7.1	7.7	7.5	6.4
4	7.9	6.5	6.6	6.6
5	9.6	9.1	8.2	5.6
6	9.7	8.9	7.9	1.4
7	9.2	9.1	8.1	2.2
8	2.6	1.1	1.1	0.0
9	0.3	0.0	0.0	5.0
10	8.8	6.7	6.6	3.9
11	8.1	7.7	6.5	3.7
12	7.9	8.2	7.2	3.1
13	1.7	0.1	0.0	5.1
14	8.3	8.4	8.0	5.8
15	8.2	7.5	6.6	4.3
16	8.7	8.3	7.8	4.5
17	7.1	5.2	5.7	3.2
18	0.1	0.1	0.1	3.5
19	0.0	0.3	0.1	0.0
20	0.0	0.0	0.0	0.7
21	2.1	1.3	1.1	3.3
22	5.9	4.3	3.9	4.2
23	9.3	8.8	8.0	5.6
24	9.3	8.6	8.0	5.8
25	6.5	6.5	5.3	1.1
26	9.2	8.8	7.8	0.0
27	9.2	8.6	7.7	1.7
28	6.8	5.5	4.8	0.5
29	2.6	1.0	1.2	1.5
30	7.7	2.9	4.5	0.0
31	6.8	5.4	5.8	0.0
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	200.0	174.1	161.8	103.8
|Daily Means	6.5	5.6	5.2	3.3
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: MAY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	33°39' S	34°06' S	34°58' S	36°36' S
Longitude	71°36' W	71°45' W	71°12' W	72°26' W
Elevation	74 m	296 m	225 m	124 m
Station	SANTO DOMINGO	HIDANGO	CURICO	CHILLAN
Date				
1	9.7	.	5.7	8.4
2	9.7	.	6.8	8.3
3	7.4	.	7.9	6.3
4	8.1	.	6.5	8.2
5	9.3	.	5.3	6.7
6	9.1	.	9.2	7.5
7	0.0	.	9.0	3.1
8	0.0	.	0.3	0.3
9	3.3	.	4.4	4.6
10	8.6	.	5.1	4.6
11	6.8	.	2.4	4.3
12	6.0	.	4.4	5.2
13	4.2	.	0.0	0.0
14	9.6	.	7.7	7.0
15	5.7	.	2.3	6.0
16	8.2	.	5.4	4.5
17	8.4	.	7.8	3.9
18	0.0	.	3.7	6.2
19	0.0	.	0.0	0.0
20	0.0	.	0.0	0.0
21	0.8	.	0.0	0.0
22	5.5	.	4.1	4.0
23	8.5	.	5.9	4.8
24	8.7	.	4.0	6.8
25	4.4	.	3.5	0.2
26	8.8	.	4.5	5.8
27	8.0	.	4.6	6.5
28	3.8	.	0.5	5.1
29	0.0	.	0.0	0.7
30	0.0	.	0.0	0.0
31	5.6	.	1.4	3.9
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	168.2	.	122.4	132.9
|Daily Means	5.4	.	3.9	4.3
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: 2003

Country: CHILE

Daily Totals				
Latitude	36°46' S	39°41' S	41°26' S	45°35' S
Longitude	73°03' W	73°04' W	73°07' W	72°07'W
Elevation	12 m	19 m	81 m	310 m
Station	CONCEPCION	VALDIVIA	PUERTO MONTT	COYHAIQUE
Date				
1	9.8	4.9	2.6	0.0
2	9.7	3.8	5.1	0.0
3	7.1	2.6	2.1	0.8
4	8.9	1.1	5.5	7.3
5	7.5	2.0	2.7	3.0
6	9.4	0.0	2.4	8.2
7	5.3	0.0	0.8	0.5
8	0.1	1.0	4.4	0.5
9	0.0	4.1	3.3	1.3
10	7.8	2.8	5.1	4.0
11	6.7	5.6	3.7	5.4
12	6.5	0.0	5.5	4.7
13	1.1	0.0	0.4	3.5
14	8.2	5.4	4.9	1.8
15	9.0	3.8	4.5	6.8
16	8.7	8.4	5.7	7.2
17	9.0	0.0	0.2	5.7
18	8.6	5.7	7.8	6.1
19	0.2	0.0	6.5	5.1
20	0.0	0.0	0.0	0.0
21	0.9	2.6	0.0	0.0
22	7.1	1.9	0.8	0.8
23	8.5	0.0	0.8	0.5
24	8.3	1.1	1.9	2.9
25	3.4	6.8	4.0	1.2
26	7.8	3.7	0.2	2.5
27	7.8	0.4	0.0	6.5
28	6.1	0.1	0.0	0.0
29	0.0	0.0	4.0	0.3
30	0.0	0.0	1.8	6.7
31	1.6	0.0	1.1	3.9
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	175.1	67.8	87.8	97.2
|Daily Means	5.6	2.2	2.8	3.1
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: MAY

Year: 2003

Country: CHILE

Daily Totals				
Latitude	45°54' S	53°08' S	54°56' S	
Longitude	71°43' W	70°58' W	67°58' W	
Elevation	520 m	37 m	36 m	
Station	BALMACEDA	PUNTA ARENAS	PUERTO WILLIAMS	
Date				
1	0.0	9.3	.	
2	0.0	0.0	.	
3	0.9	0.0	.	
4	8.8	4.7	.	
5	1.2	0.0	.	
6	7.6	1.3	.	
7	2.4	1.6	.	
8	3.0	0.0	.	
9	1.9	0.0	.	
10	8.2	6.6	.	
11	5.8	6.5	.	
12	6.5	8.1	.	
13	6.0	4.7	.	
14	5.6	3.3	.	
15	6.6	6.6	.	
16	7.8	4.2	.	
17	5.8	2.0	.	
18	7.3	0.0	.	
19	4.8	6.1	.	
20	0.0	3.8	.	
21	0.0	0.0	.	
22	2.2	0.0	.	
23	1.3	0.0	.	
24	4.7	0.7	.	
25	3.0	0.0	.	
26	4.4	6.1	.	
27	6.1	6.0	.	
28	0.0	1.8	.	
29	0.0	1.5	.	
30	1.3	1.0	.	
31	6.1	3.4	.	
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	119.3	89.3	.	
|Daily Means	3.8	2.9	.	
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: 2003

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	4.7	1.1	10.3	2.6
2	4.9	7.4	10.2	5.8
3	3.8	7.0	9.2	9.5
4	9.8	9.6	10.4	9.5
5	6.5	8.5	9.8	9.4
6	6.6	3.7	10.4	5.0
7	8.5	9.6	10.5	9.1
8	9.3	8.7	9.7	7.2
9	0.9	4.3	10.4	2.2
10	8.5	9.8	10.4	7.2
11	4.8	5.6	10.4	7.7
12	4.6	6.0	10.4	6.8
13	8.3	6.5	10.5	8.4
14	7.9	4.2	10.4	3.4
15	9.6	9.6	10.3	8.3
16	4.9	4.3	10.3	7.2
17	7.9	9.7	10.4	9.2
18	4.8	6.1	10.3	9.6
19	6.5	6.0	10.3	8.2
20	5.3	8.3	10.4	8.1
21	5.2	5.4	10.4	6.8
22	5.7	3.0	10.5	5.1
23	9.7	9.6	10.4	9.3
24	9.4	9.0	10.4	9.3
25	7.6	6.2	10.3	6.1
26	5.0	5.5	10.3	6.0
27	3.5	7.0	10.4	8.4
28	3.6	5.4	10.4	7.2
29	4.3	4.6	10.4	3.9
30	6.4	7.0	10.4	7.3
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	188.5	198.7	308.9	213.8
|Daily Means	6.3	6.6	10.3	7.1
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: JUNE

Year: 2003

Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	28°35' S	29°57' S
Longitude	109°26' W	70°25' W	70°46' W	71°22' W
Elevation	47 m	291 m	469 m	25 m
Station	ISLA DE PASCUA	COPIAPO	VALLENAR	LA SERENA
Date				
1	6.7	4.4	.	0.0
2	3.5	7.9	.	7.4
3	5.4	8.2	8.9	2.9
4	0.0	7.0	5.7	4.5
5	8.6	8.5	8.9	6.2
6	6.5	8.6	8.2	6.4
7	5.8	6.5	.	0.5
8	6.8	0.7	.	0.0
9	1.4	0.5	0.0	0.0
10	6.0	5.9	0.0	1.1
11	6.5	8.5	8.7	0.2
12	0.6	8.7	7.0	3.7
13	2.6	8.6	8.8	2.9
14	1.2	3.9	.	2.0
15	0.0	8.2	.	7.9
16	8.4	8.4	.	6.2
17	1.9	5.1	2.3	0.4
18	2.0	8.7	9.4	9.3
19	0.3	8.7	9.3	9.4
20	0.0	6.4	9.3	5.8
21	3.5	8.2	.	9.4
22	4.7	5.6	.	4.2
23	6.4	6.3	6.7	9.5
24	3.3	8.6	8.9	5.2
25	7.7	8.6	9.2	7.5
26	5.9	6.4	8.9	0.0
27	6.5	8.4	8.1	9.1
28	9.3	8.4	.	6.5
29	6.4	5.7	.	0.0
30	6.9	8.6	7.6	9.1
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	134.8	208.2	.	137.3
|Daily Means	4.5	6.9	.	4.6
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: 2003

Country: CHILE

Daily Totals				
Latitude	32°51' S	33°23' S	33°27' S	33°37' S
Longitude	70°37' W	70°47' W	70°42' W	78°50' W
Elevation	880 m	474 m	520 m	30 m
Station	CALLE LARGA	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE
Date				
1	3.6	0.5	0.4	0.5
2	4.4	2.8	2.6	0.2
3	9.0	6.5	7.5	4.2
4	0.1	0.0	0.0	0.0
5	0.0	0.0	0.0	2.3
6	0.2	0.0	0.0	0.6
7	4.3	3.7	3.2	2.9
8	0.0	0.9	1.1	1.1
9	0.0	0.4	0.6	1.2
10	5.7	3.6	2.7	0.9
11	0.0	0.6	0.3	1.5
12	0.0	0.8	0.0	4.1
13	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	4.0
15	6.7	7.1	6.5	4.1
16	7.6	6.9	6.9	2.0
17	0.8	0.1	0.1	2.2
18	0.4	0.8	0.5	0.0
19	9.0	8.0	7.3	0.0
20	0.2	0.0	0.0	3.1
21	8.3	6.1	6.0	0.0
22	9.0	7.5	7.0	3.0
23	8.9	5.1	5.4	3.9
24	3.3	4.4	3.6	0.0
25	9.0	8.2	7.1	0.0
26	7.6	5.4	3.1	3.6
27	0.4	0.5	1.3	4.6
28	8.2	6.3	6.0	2.6
29	8.5	6.7	7.1	0.0
30	6.8	0.3	1.3	0.2
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	.	93.2	87.6	52.8
|Daily Means	.	3.1	2.9	1.8
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: 2003

Country: CHILE

Daily Totals				
Latitude	33°39' S	34°06' S	34°58' S	36°36' S
Longitude	71°36' W	71°45' W	71°12' W	72°26' W
Elevation	74 m	296 m	225 m	124 m
Station	SANTO DOMINGO	HIDANGO	CURICO	CHILLAN
Date				
1	0.0	.	0.0	1.4
2	7.7	.	0.9	0.0
3	7.1	.	2.4	3.9
4	0.0	.	0.0	0.0
5	0.0	.	0.0	1.2
6	2.8	.	0.0	9.1
7	6.9	.	2.1	7.2
8	0.7	.	0.8	6.7
9	0.1	.	0.0	0.0
10	0.8	.	1.8	3.1
11	0.1	.	0.1	0.0
12	0.0	.	0.0	4.4
13	0.0	.	0.0	0.0
14	0.0	.	7.0	0.0
15	5.9	.	0.0	3.4
16	6.6	.	6.3	0.4
17	0.0	.	0.0	3.2
18	2.9	.	0.0	0.0
19	5.5	.	0.0	0.0
20	0.0	.	0.0	3.6
21	5.8	.	1.7	0.0
22	2.5	.	0.0	2.2
23	7.0	.	5.5	5.2
24	5.8	.	6.8	3.8
25	6.9	.	7.4	1.1
26	3.0	.	0.3	0.0
27	4.8	.	7.7	3.5
28	5.5	.	3.5	0.0
29	0.0	.	3.2	0.0
30	0.9	.	1.5	0.3
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	89.3	.	59.0	63.7
|Daily Means	3.0	.	2.0	2.1
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: JUNE

Year: 2003

Country: CHILE

Daily Totals				
Latitude	36°46' S	39°41' S	41°26' S	45°35' S
Longitude	73°03' W	73°04' W	73°07' W	72°07' W
Elevation	12 m	19 m	81 m	310 m
Station	CONCEPCION	VALDIVIA	PUERTO MONTT	COYHAIQUE
Date				
1	4.6	4.0	0.2	6.1
2	8.2	8.4	7.4	2.5
3	5.3	0.0	1.1	0.0
4	0.0	0.0	0.0	0.0
5	0.6	1.7	3.7	4.2
6	8.4	2.8	5.8	4.0
7	8.0	7.8	6.4	6.8
8	3.6	2.7	1.1	0.0
9	0.0	1.1	4.1	0.0
10	1.9	0.0	0.0	0.0
11	0.0	0.1	0.9	0.5
12	0.0	0.2	0.3	0.0
13	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	1.3
15	1.9	0.0	0.0	1.6
16	0.2	0.1	1.1	2.2
17	0.2	0.4	0.0	0.7
18	0.0	0.0	0.0	0.0
19	0.0	0.0	0.1	0.5
20	4.7	7.1	4.7	4.0
21	0.0	0.0	2.2	0.0
22	4.5	2.8	3.6	0.0
23	6.3	3.4	2.1	2.1
24	6.7	2.1	4.6	5.7
25	0.0	0.0	0.0	0.0
26	0.0	0.4	0.7	0.0
27	0.1	1.4	2.7	0.5
28	5.4	0.6	4.0	0.0
29	0.0	0.0	0.0	3.3
30	0.0	3.2	1.4	0.9
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	70.6	50.3	58.2	46.9
|Daily Means	2.4	1.7	1.9	1.6
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: 2003

Country: CHILE

Daily Totals				
Latitude	45°54' S	53°08' S	54°56' S	
Longitude	71°43' W	70°58' W	67°58' W	
Elevation	520 m	37 m	36 m	
Station	BALMACEDA	PUNTA ARENAS	PUERTO WILLIAMS	
Date				
1	8.0	3.6	.	
2	3.1	4.1	.	
3	2.8	0.1	.	
4	2.3	0.0	.	
5	5.2	0.6	.	
6	6.9	2.0	.	
7	7.5	6.1	.	
8	0.0	5.1	.	
9	0.0	6.6	.	
10	0.0	6.4	.	
11	0.0	0.7	.	
12	1.8	2.5	.	
13	0.0	0.0	.	
14	0.4	0.7	.	
15	3.2	0.0	.	
16	5.5	6.2	.	
17	3.9	0.1	.	
18	0.1	1.0	.	
19	1.9	0.2	.	
20	7.0	6.5	.	
21	0.1	0.0	.	
22	0.6	0.0	.	
23	3.0	2.7	.	
24	7.8	6.3	.	
25	0.0	4.5	.	
26	0.0	7.0	.	
27	1.0	2.2	.	
28	0.0	0.0	.	
29	4.7	0.0	.	
30	6.5	5.4	.	
TT|Monthly Totals				
|Daily Means				
SS|Monthly Totals	83.3	80.6	.	
|Daily Means	2.8	2.7	.	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	