

**DIRECCION
METEOROLOGICA
DE CHILE**

**INFORME
SOLARIMETRICO
SEMESTRAL
I SEMESTRE 2002**



SUBDIRECCION CLIMATOLOGIA Y MET. APLICADA

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

Month: ENERO

Years: 2002

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	24.35	.	21.27	.
2	24.38	.	21.91	.
3	24.77	.	21.76	.
4	24.90	.	20.83	.
5	24.72	.	18.87	.
6	24.83	.	20.73	.
7	24.46	.	21.62	.
8	24.59	.	21.10	.
9	24.53	.	21.45	.
10	22.28	.	20.74	.
11	24.01	.	20.91	.
12	23.69	.	21.62	.
13	23.96	.	20.65	.
14	24.31	.	20.75	.
15	24.20	.	20.75	.
16	23.05	.	20.98	.
17	23.86	.	21.50	.
18	23.82	.	21.59	.
19	24.60	.	21.38	.
20	22.86	.	21.59	.
21	24.56	.	21.63	.
22	24.40	.	21.46	.
23	24.48	.	21.54	.
24	22.54	.	22.47	.
25	24.24	.	22.49	.
26	23.75	.	22.27	.
27	24.11	.	22.36	.
28	24.23	.	21.67	.
29	23.31	.	21.19	.
30	22.68	.	20.99	.
31	23.27	.	20.50	.
TT Monthly Totals	743.74	.	660.56	.
 Daily Means	23.99	.	21.31	.
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: ENERO

Years: 2002

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	29.72	20.30	27.26	.
2	33.54	24.27	29.48	.
3	34.06	24.07	26.95	30.35
4	34.73	23.84	27.31	29.73
5	37.29	23.69	29.72	30.41
6	35.98	23.19	29.60	30.07
7	27.83	23.28	29.59	30.86
8	25.52	23.23	29.65	30.88
9	31.13	23.62	29.48	30.60
10	29.56	21.00	29.61	30.54
11	30.42	22.18	29.44	30.94
12	27.66	21.00	29.47	30.10
13	31.00	22.79	29.07	30.57
14	26.65	22.92	29.94	31.02
15	25.77	19.10	28.68	28.59
16	27.51	22.99	28.45	25.47
17	30.96	22.79	27.96	24.75
18	32.03	22.96	24.48	11.19
19	32.48	23.01	27.85	26.61
20	32.79	23.18	28.04	26.75
21	32.59	22.91	28.76	27.88
22	29.74	22.56	28.07	25.75
23	32.26	22.76	28.45	28.60
24	24.82	21.55	28.13	29.30
25	22.52	16.37	27.55	27.17
26	31.48	22.63	27.08	28.30
27	32.26	22.36	27.89	28.78
28	31.31	22.41	27.70	28.81
29	27.85	22.14	27.86	28.68
30	26.63	20.05	27.89	28.89
31	32.06	22.21	27.95	28.40
TT Monthly Totals	940.15	691.38	879.39	.
 Daily Means	30.33	22.30	28.37	28.28
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: ENERO

Years: 2002

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	23.44	.	.	.
2	25.45	.	.	.
3	26.96	.	.	.
4	21.95	.	.	.
5	25.94	.	.	.
6	25.95	.	.	.
7	26.05	.	.	.
8	25.92	.	.	.
9	26.09	.	.	.
10	26.15	.	.	.
11	26.22	.	.	.
12	25.65	.	.	.
13	25.12	.	.	.
14	26.51	.	.	.
15	25.33	.	.	.
16	24.81	.	.	.
17	24.83	.	.	.
18	23.52	.	.	.
19	24.54	.	.	.
20	24.80	.	.	.
21	24.91	.	.	.
22	24.91	.	.	.
23	24.82	.	.	.
24	25.02	.	.	.
25	23.76	.	.	.
26	21.96	.	.	.
27	24.75	.	.	.
28	24.83	.	.	.
29	24.46	.	.	.
30	20.67	.	.	.
31	24.39	.	.	.
TT Monthly Totals	769.70	.	.	.
 Daily Means	24.83	.	.	.
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: ENERO

Years: 2002

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	23.55	.	28.99	27.19
2	19.63	.	23.55	25.04
3	25.34	.	30.52	28.04
4	28.71	.	29.66	12.28
5	28.47	.	16.90	22.04
6	12.42	.	11.00	11.68
7	6.14	.	8.53	22.07
8	19.34	.	20.68	20.92
9	21.78	.	18.69	14.28
10	21.98	.	11.76	15.99
11	22.37	.	20.52	20.74
12	12.66	.	24.92	25.55
13	16.30	.	24.45	9.45
14	28.00	.	26.01	12.35
15	26.58	.	29.02	8.09
16	26.39	.	25.64	27.29
17	26.05	.	29.55	21.70
18	20.08	.	29.62	13.13
19	25.63	.	29.80	23.34
20	27.87	.	29.17	15.56
21	28.67	.	11.40	27.56
22	10.37	.	14.73	27.60
23	14.60	.	19.37	27.56
24	15.42	.	15.84	17.71
25	14.34	.	15.29	13.57
26	20.22	.	17.56	19.54
27	13.41	.	.	20.45
28	14.03	.	21.65	28.25
29	25.96	.	22.36	13.79
30	9.55	.	12.89	23.73
31	9.37	.	27.67	20.84
TT Monthly Totals	615.26	.	.	617.35
 Daily Means	19.85	.	21.59	19.91
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: FEBRERO

Years: 2002

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	21.09	.	18.15	.
2	20.39	.	20.43	.
3	21.43	.	21.02	.
4	17.07	.	17.65	.
5	13.59	.	19.90	.
6	19.89	.	20.18	.
7	23.45	.	20.37	.
8	25.08	.	20.59	.
9	24.19	.	20.68	.
10	23.66	.	20.70	.
11	24.37	.	20.77	.
12	17.27	.	20.17	.
13	24.89	.	19.77	.
14	23.99	.	19.96	.
15	18.30	.	19.55	.
16	21.33	.	18.88	.
17	17.26	.	18.94	.
18	23.49	.	17.72	.
19	24.00	.	19.09	.
20	20.09	.	18.97	.
21	22.50	.	19.04	.
22	15.54	.	19.32	.
23	24.07	.	19.32	.
24	14.27	.	18.56	.
25	24.31	.	19.08	.
26	22.25	.	18.73	.
27	17.86	.	18.08	.
28	22.27	.	18.66	.
29				
30				
31				
TT Monthly Totals	587.88	.	544.29	.
 Daily Means	21.00	.	19.44	.
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: FEBRERO

Years: 2002

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	29.83	21.92	26.84	27.98
2	30.04	22.13	26.10	26.31
3	30.13	21.06	26.69	25.63
4	29.38	19.48	27.12	28.54
5	28.55	17.92	26.73	21.83
6	27.86	16.77	25.70	27.45
7	29.57	21.22	24.96	26.67
8	29.87	20.76	25.51	19.22
9	29.86	21.15	25.55	27.15
10	30.16	21.47	25.70	26.28
11	28.87	21.60	26.83	27.04
12	25.02	21.24	26.23	26.78
13	29.40	20.39	25.94	26.32
14	23.54	17.55	25.95	26.51
15	28.82	21.12	25.25	25.12
16	26.06	21.02	25.03	25.61
17	26.14	21.16	25.56	23.72
18	25.35	16.53	25.69	26.30
19	27.66	20.73	25.29	24.71
20	23.37	20.58	24.41	8.23
21	27.37	20.36	22.05	20.62
22	27.91	20.26	23.79	24.30
23	22.59	19.49	23.07	22.96
24	24.50	18.30	23.51	24.41
25	27.64	19.79	23.62	23.51
26	25.52	18.92	23.74	24.52
27	24.69	15.45	23.73	13.45
28	22.76	18.30	16.24	24.98
29				
30				
31				
TT Monthly Totals	762.45	556.68	696.82	676.16
 Daily Means	27.23	19.88	24.89	24.15
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: FEBRERO

Years: 2002

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	24.48	.	.	.
2	22.84	.	.	.
3	23.95	.	.	.
4	24.35	.	.	.
5	23.40	.	.	.
6	23.30	.	.	.
7	22.89	.	.	.
8	22.53	.	.	.
9	22.98	.	.	.
10	22.86	.	.	.
11	23.52	.	.	.
12	23.11	.	.	.
13	22.99	.	.	.
14	22.99	.	.	.
15	22.72	.	.	.
16	22.69	.	.	.
17	22.87	.	.	.
18	21.98	.	.	.
19	22.02	.	.	.
20	21.92	.	.	.
21	13.86	.	.	.
22	20.96	.	.	.
23	21.93	.	.	.
24	22.68	.	.	.
25	22.64	.	.	.
26	20.80	.	.	.
27	15.21	.	.	.
28	14.10	.	.	.
29				
30				
31				
TT Monthly Totals	612.56	.	.	.
 Daily Means	21.88	.	.	.
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: FEBRERO

Years: 2002

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	27.36	.	13.68	24.87
2	26.41	.	26.21	6.23
3	12.31	.	22.23	22.19
4	26.61	.	27.31	17.27
5	26.62	.	26.99	24.67
6	22.64	.	25.81	15.69
7	20.19	.	25.22	23.72
8	13.11	.	15.76	21.13
9	17.70	.	10.95	14.17
10	12.50	.	26.88	18.96
11	24.60	.	6.30	10.71
12	16.27	.	9.15	21.80
13	13.17	.	26.13	17.13
14	24.62	.	23.41	13.59
15	23.40	.	24.86	17.88
16	20.85	.	24.43	17.32
17	15.65	.	20.93	22.22
18	10.84	.	18.45	6.68
19	23.98	.	22.42	16.04
20	23.17	.	22.85	18.80
21	23.85	.	23.97	9.70
22	17.21	.	24.28	18.12
23	24.75	.	22.51	16.74
24	12.56	.	6.28	12.60
25	3.93	.	17.54	15.42
26	10.79	.	11.32	13.85
27	9.81	.	7.11	7.62
28	13.83	.	21.11	15.58
29				
30				
31				
TT Monthly Totals	518.73	.	554.10	460.70
 Daily Means	18.53	.	19.79	16.45
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: MARZO

Years: 2002

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	20.51	.	18.44	.
2	12.26	.	17.90	.
3	19.56	.	18.00	.
4	20.80	.	17.55	.
5	23.09	.	18.22	.
6	22.01	.	17.69	.
7	21.21	.	16.56	.
8	17.10	.	17.23	.
9	22.64	.	16.50	.
10	28.56	.	17.62	.
11	25.63	.	17.22	.
12	.	.	17.10	.
13	29.74	.	16.31	.
14	9.40	.	.	.
15	21.70	.	.	.
16	22.25	.	.	.
17	22.03	.	.	.
18	22.83	.	.	.
19	22.10	.	14.48	.
20	13.19	.	18.19	.
21	20.69	.	16.19	.
22	21.37	.	18.94	.
23	21.18	.	18.74	.
24	21.21	.	18.29	.
25	21.07	.	18.47	.
26	20.95	.	14.74	.
27	16.61	.	16.74	.
28	12.61	.	15.92	.
29	15.96	.	17.17	.
30	18.66	.	17.86	.
31	20.23	.	17.82	.
TT Monthly Totals	.	.	.	.
 Daily Means	20.24	.	17.30	.
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: MARZO

Years: 2002

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	27.27	19.76	22.92	25.40
2	25.94	19.89	22.72	24.34
3	26.23	19.52	22.85	24.60
4	28.76	19.58	22.34	24.68
5	27.60	19.29	22.49	24.30
6	22.51	19.02	22.13	24.13
7	21.44	18.79	21.87	22.76
8	25.25	17.86	21.52	23.37
9	23.25	18.65	21.43	23.31
10	24.17	17.71	21.54	22.80
11	24.48	18.15	21.42	23.03
12	22.11	18.39	21.11	22.79
13	22.43	16.58	10.96	8.07
14	21.62	12.75	11.68	6.43
15	24.38	18.27	12.48	.
16	20.77	17.77	15.82	16.08
17	22.29	17.60	13.44	13.81
18	20.16	16.03	15.15	17.21
19	24.15	17.69	20.62	21.34
20	24.81	17.84	20.68	20.30
21	17.91	13.49	19.91	21.19
22	20.48	11.41	19.41	20.54
23	22.84	17.18	17.91	19.51
24	18.98	17.06	18.83	20.97
25	18.11	17.13	19.84	20.78
26	25.22	17.05	19.49	19.94
27	23.08	16.96	18.62	20.09
28	19.18	16.70	19.00	16.36
29	24.58	15.73	11.29	10.98
30	25.54	16.81	19.53	19.82
31	23.37	16.55	19.57	19.90
TT Monthly Totals	718.92	537.21	588.60	.
 Daily Means	23.19	17.33	18.99	19.96
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: MARZO
Years: 2002
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	24.28	.	.	.
2	22.24	.	.	.
3	23.44	.	.	.
4	21.38	.	.	.
5	24.03	.	.	.
6	23.78	.	.	.
7	21.64	.	.	.
8	20.11	.	.	.
9	16.08	.	.	.
10	14.64	.	.	.
11	16.09	.	.	.
12	15.90	.	.	.
13	2.23	.	.	.
14	4.96	.	.	.
15	1.24	.	.	.
16	9.37	.	.	.
17	7.07	.	.	.
18	10.59	.	.	.
19	15.82	.	.	.
20	21.24	.	.	.
21	20.36	.	.	.
22	17.69	.	.	.
23	19.15	.	.	.
24	18.47	.	.	.
25	20.71	.	.	.
26	16.80	.	.	.
27	18.01	.	.	.
28	16.71	.	.	.
29	12.51	.	.	.
30	19.47	.	.	.
31	17.51	.	.	.
TT Monthly Totals	513.51	.	.	.
 Daily Means	16.56	.	.	.
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: MARZO

Years: 2002

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	15.30	.	14.45	14.22
2	12.13	.	14.41	10.11
3	12.06	.	10.64	18.25
4	21.53	.	20.52	16.80
5	7.33	.	8.60	7.86
6	7.19	.	11.14	17.55
7	8.94	.	16.85	11.91
8	8.40	.	10.17	13.52
9	9.88	.	9.50	9.88
10	8.65	.	18.07	14.96
11	22.09	.	19.94	10.90
12	12.15	.	11.72	11.98
13	6.22	.	5.80	3.17
14	6.96	.	3.48	6.74
15	5.16	.	13.13	8.03
16	13.34	.	16.56	15.78
17	11.88	.	11.57	15.62
18	11.94	.	7.73	6.53
19	17.63	.	12.03	9.31
20	8.76	.	5.57	6.86
21	15.20	.	11.38	10.46
22	8.17	.	9.02	7.04
23	7.73	.	11.75	5.44
24	10.42	.	11.31	7.82
25	14.17	.	13.63	7.86
26	10.86	.	16.68	12.87
27	11.47	.	15.85	9.41
28	11.05	.	10.62	8.67
29	4.71	.	7.31	10.54
30	10.29	.	14.10	7.77
31	13.87	.	13.95	8.27
TT Monthly Totals	345.49	.	377.47	326.12
Daily Means	11.14	.	12.18	10.52
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: ABRIL

Years: 2002

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	19.27	.	17.73	.
2	13.43	.	16.91	.
3	16.57	.	17.50	.
4	14.96	.	17.61	.
5	13.65	.	15.95	.
6	9.52	.	17.26	.
7	11.85	.	16.50	.
8	17.11	.	16.61	.
9	18.95	.	15.55	.
10	7.60	.	9.70	.
11	19.43	.	15.96	.
12	13.15	.	13.63	.
13	10.81	.	15.99	.
14	15.54	.	16.08	.
15	16.25	.	15.07	.
16	13.03	.	16.55	.
17	15.21	.	16.35	.
18	9.83	.	14.41	.
19	15.73	.	15.16	.
20	12.09	.	15.81	.
21	16.61	.	14.55	.
22	9.86	.	14.58	.
23	6.59	.	15.16	.
24	8.35	.	15.34	.
25	12.58	.	13.69	.
26	15.27	.	14.93	.
27	16.14	.	5.94	.
28	17.40	.	13.38	.
29	6.13	.	14.70	.
30	.	.	11.95	.
31				
TT Monthly Totals	.	.	450.55	.
 Daily Means	13.55	.	15.02	.
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: ABRIL
Years: 2002
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	15.03	15.84	18.54	.
2	21.21	15.99	15.03	.
3	20.21	15.96	17.64	.
4	26.04	16.05	13.30	.
5	9.16	4.76	.	.
6	20.75	15.58	.	.
7	20.53	15.37	.	.
8	11.90	10.22	.	.
9	20.78	13.69	.	.
10	3.55	3.43	.	.
11	19.69	14.75	.	.
12	27.10	14.63	.	.
13	27.43	14.40	.	.
14	19.55	14.20	.	.
15	19.70	14.08	.	.
16	19.81	14.40	.	.
17	29.95	14.39	.	.
18	22.85	13.93	15.64	.
19	13.16	8.11	15.10	.
20	18.60	13.56	15.31	.
21	9.83	5.00	11.00	.
22	16.18	11.95	4.86	.
23	21.27	13.38	14.00	.
24	19.66	13.04	10.67	.
25	18.26	13.07	14.16	.
26	21.30	12.89	14.59	.
27	13.04	8.96	13.91	.
28	18.96	10.48	3.18	.
29	17.71	12.20	8.81	.
30	17.62	12.32	12.93	.
31				
TT Monthly Totals	560.80	376.65	.	.
 Daily Means	18.69	12.56	.	.
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: ABRIL

Years: 2002

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	8.11	.	.	.
2	17.30	.	.	.
3	12.85	.	.	.
4	16.15	.	.	.
5	17.18	.	.	.
6	5.95	.	.	.
7	16.78	.	.	.
8	6.35	.	.	.
9	8.38	.	.	.
10	3.39	.	.	.
11	3.41	.	.	.
12	5.18	.	.	.
13	15.40	.	.	.
14	12.61	.	.	.
15	7.41	.	.	.
16	13.91	.	.	.
17	12.51	.	.	.
18	11.26	.	.	.
19	9.68	.	.	.
20	15.16	.	.	.
21	14.73	.	.	.
22	9.63	.	.	.
23	10.11	.	.	.
24	7.41	.	.	.
25	12.38	.	.	.
26	11.52	.	.	.
27	9.46	.	.	.
28	2.54	.	.	.
29	7.27	.	.	.
30	9.16	.	.	.
31				
TT Monthly Totals	313.17	.	.	.
 Daily Means	10.44	.	.	.
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: ABRIL

Years: 2002

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	4.23	.	7.66	4.80
2	10.57	.	4.84	10.19
3	6.30	.	5.80	5.47
4	5.47	.	10.64	7.01
5	8.18	.	5.44	3.73
6	8.94	.	7.29	3.93
7	11.58	.	6.95	5.16
8	10.59	.	12.22	8.72
9	15.08	.	13.03	1.48
10	6.44	.	3.01	6.45
11	4.62	.	9.67	9.23
12	12.96	.	10.53	7.50
13	14.30	.	9.92	3.30
14	10.12	.	7.89	8.74
15	10.30	.	5.77	3.26
16	3.32	.	4.47	4.64
17	10.56	.	11.17	7.48
18	7.58	.	8.56	5.92
19	6.68	.	6.86	4.68
20	7.92	.	9.46	2.73
21	3.52	.	6.53	4.38
22	7.92	.	10.87	7.59
23	2.87	.	4.70	4.01
24	5.86	.	4.63	5.97
25	8.85	.	8.92	6.03
26	6.62	.	3.46	2.85
27	4.02	.	3.54	6.70
28	6.70	.	5.41	3.27
29	3.49	.	5.41	3.12
30	4.20	.	8.33	4.44
31				
TT Monthly Totals	229.80	.	223.00	162.76
 Daily Means	7.66	.	7.43	5.43
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: MAYO

Years: 2002

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	.	.	14.57	.
2	11.41	.	14.19	.
3	11.41	.	13.55	.
4	12.18	.	13.30	.
5	17.22	.	13.49	.
6	14.04	.	13.11	.
7	16.66	.	12.78	.
8	.	.	12.32	.
9	.	.	10.80	.
10	.	.	12.16	.
11	.	.	13.24	.
12	.	.	12.99	.
13	.	.	8.51	.
14	.	.	4.96	.
15	.	.	11.19	.
16	.	.	5.05	.
17	.	.	9.01	.
18	.	.	11.61	.
19	.	.	8.87	.
20	.	.	12.93	.
21	.	.	12.45	.
22	.	.	11.35	.
23	.	.	12.02	.
24	.	.	11.10	.
25	.	.	6.20	.
26	.	.	11.01	.
27	.	.	4.21	.
28	.	.	8.94	.
29	.	.	10.35	.
30	.	.	11.29	.
31	.	.	11.40	.
TT Monthly Totals	.	.	338.94	.
 Daily Means	.	.	10.93	.
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: MAYO

Years: 2002

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	13.22	8.34	12.55	.
2	20.63	12.57	13.08	14.50
3	15.65	10.86	12.87	14.26
4	10.13	3.37	10.70	13.28
5	23.28	11.93	12.45	13.85
6	22.68	11.83	12.81	14.01
7	15.61	10.86	12.26	5.43
8	16.50	11.98	12.38	8.00
9	14.50	11.79	12.04	13.06
10	12.64	10.00	10.32	5.38
11	13.56	8.52	11.13	3.25
12	17.68	10.84	4.67	3.81
13	4.16	2.86	2.88	2.59
14	14.71	7.34	5.31	2.24
15	14.57	9.95	6.43	3.93
16	13.96	9.14	5.90	10.11
17	3.59	1.93	6.09	11.39
18	11.11	6.04	8.36	6.31
19	1.95	4.53	5.56	7.68
20	15.53	10.65	11.97	12.28
21	7.71	9.68	6.39	5.61
22	12.32	8.20	5.57	8.48
23	13.19	9.50	10.24	3.44
24	10.83	6.37	5.48	5.76
25	4.83	2.86	0.63	1.65
26	7.97	6.01	2.09	4.19
27	9.27	5.69	3.92	5.42
28	5.02	7.91	7.08	11.10
29	12.70	7.71	7.26	10.95
30	14.49	9.01	7.83	10.87
31	14.35	9.79	1.33	.
TT Monthly Totals	388.36	258.05	247.59	.
 Daily Means	12.53	8.32	7.99	8.03
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: MAYO
Years: 2002
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	7.67	.	.	.
2	11.65	.	.	.
3	10.59	.	.	.
4	5.26	.	.	.
5	7.89	.	.	.
6	7.68	.	.	.
7	6.97	.	.	.
8	3.07	.	.	.
9	7.39	.	.	.
10	7.77	.	.	.
11	9.66	.	.	.
12	2.16	.	.	.
13	1.81	.	.	.
14	2.65	.	.	.
15	3.30	.	.	.
16	6.71	.	.	.
17	10.89	.	.	.
18	6.41	.	.	.
19	5.73	.	.	.
20	9.35	.	.	.
21	3.34	.	.	.
22	5.05	.	.	.
23	7.06	.	.	.
24	3.93	.	.	.
25	0.47	.	.	.
26	1.30	.	.	.
27	2.69	.	.	.
28	9.66	.	.	.
29	5.96	.	.	.
30	8.76	.	.	.
31	0.87	.	.	.
TT Monthly Totals	183.69	.	.	.
 Daily Means	5.93	.	.	.
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: MAYO

Years: 2002

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	2.34	.	3.30	5.42
2	1.04	.	6.88	2.79
3	2.07	.	2.88	5.43
4	2.67	.	3.18	4.94
5	4.60	.	2.77	5.78
6	9.53	.	6.62	0.99
7	5.33	.	2.84	5.00
8	4.30	.	7.03	5.33
9	2.82	.	3.32	4.03
10	7.03	.	2.87	4.74
11	2.11	.	1.98	4.64
12	1.87	.	1.60	2.24
13	1.76	.	0.95	2.44
14	3.64	.	0.41	4.45
15	0.94	.	1.93	4.51
16	2.90	.	2.40	4.15
17	6.67	.	3.71	4.03
18	4.33	.	4.78	2.61
19	3.97	.	7.42	3.27
20	3.81	.	3.01	3.41
21	3.83	.	3.81	1.18
22	0.89	.	2.13	4.58
23	1.05	.	2.83	2.10
24	1.65	.	1.31	2.65
25	1.81	.	3.21	1.18
26	5.05	.	4.91	1.57
27	5.81	.	6.57	3.09
28	5.36	.	6.06	2.60
29	7.47	.	5.81	3.01
30	6.40	.	4.49	1.54
31	2.98	.	3.14	1.88
TT Monthly Totals	116.03	.	114.16	105.61
Daily Means	3.74	.	3.68	3.41
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: JUNIO

Years: 2002

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	.	.	10.22	.
2	.	.	11.23	.
3	.	.	7.61	.
4	.	.	10.99	.
5	.	.	11.28	.
6	.	.	5.79	.
7	.	.	8.00	.
8	.	.	8.82	.
9	.	.	10.03	.
10	.	.	10.32	.
11	.	.	11.01	.
12	.	.	8.80	.
13	.	.	10.74	.
14	.	.	11.06	.
15	.	.	10.73	.
16	.	.	8.68	.
17	.	.	8.41	.
18	.	.	11.26	.
19	.	.	10.99	.
20	.	.	10.73	.
21	.	.	10.47	.
22	.	.	10.08	.
23	.	.	9.10	.
24	.	.	6.49	.
25	.	.	4.93	.
26	.	.	9.04	.
27	.	.	9.80	.
28	.	.	6.65	.
29	.	.	8.94	.
30	.	.	6.94	.
31				
TT Monthly Totals	.	.	279.13	.
Daily Means	.	.	9.30	.
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: JUNIO

Years: 2002

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	14.38	.	0.69	.
2	14.07	9.30	3.30	.
3	13.96	9.59	0.43	.
4	13.42	6.64	0.77	.
5	12.63	7.88	5.91	.
6	12.85	9.02	6.90	.
7	12.34	9.07	10.42	.
8	10.79	9.70	10.34	.
9	13.93	8.97	9.58	.
10	10.70	7.97	8.59	.
11	11.79	5.29	5.18	.
12	11.03	3.92	8.31	.
13	11.18	8.25	4.64	.
14	13.96	9.49	9.27	.
15	14.24	9.36	9.42	.
16	9.85	2.09	6.10	.
17	12.45	8.39	9.16	.
18	13.50	9.56	9.82	.
19	14.34	9.56	9.75	.
20	11.94	9.44	9.85	.
21	11.37	7.60	8.57	.
22	6.89	7.56	10.37	.
23	11.49	7.81	9.48	.
24	13.70	8.42	3.92	.
25	7.32	8.22	5.58	.
26	3.53	2.59	6.34	.
27	11.86	8.80	7.59	.
28	10.10	9.05	4.17	.
29	.	5.42	7.53	.
30	.	6.84	3.79	.
31				
TT Monthly Totals	.	.	205.76	.
 Daily Means	11.77	7.79	6.86	.
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: JUNIO
Years: 2002
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	2.03	.	.	.
2	2.03	.	.	.
3	0.59	.	.	.
4	2.19	.	.	.
5	3.51	.	.	.
6	5.41	.	.	.
7	3.45	.	.	.
8	6.13	.	.	.
9	9.79	.	.	.
10	7.32	.	.	.
11	4.83	.	.	.
12	3.68	.	.	.
13	7.06	.	.	.
14	2.77	.	.	.
15	2.92	.	.	.
16	3.65	.	.	.
17	2.17	.	.	.
18	6.60	.	.	.
19	4.98	.	.	.
20	3.85	.	.	.
21	3.79	.	.	.
22	9.48	.	.	.
23	9.09	.	.	.
24	2.83	.	.	.
25	6.27	.	.	.
26	5.64	.	.	.
27	2.02	.	.	.
28	3.55	.	.	.
29	7.52	.	.	.
30	7.80	.	.	.
31				
TT Monthly Totals	142.96	.	.	.
 Daily Means	4.77	.	.	.
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: JUNIO

Years: 2002

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	6.51	.	3.36	1.57
2	1.60	.	1.37	1.53
3	3.34	.	2.09	3.79
4	2.73	.	1.69	1.08
5	2.00	.	3.61	3.46
6	3.80	.	3.75	2.68
7	3.58	.	3.84	3.62
8	4.65	.	1.70	1.20
9	5.53	.	6.21	1.33
10	5.89	.	5.79	2.81
11	4.69	.	4.96	3.14
12	3.15	.	5.15	2.70
13	3.81	.	5.31	2.55
14	2.46	.	3.62	1.32
15	1.71	.	2.49	2.39
16	4.87	.	2.41	0.58
17	1.57	.	4.13	3.07
18	0.73	.	4.90	1.76
19	1.21	.	0.25	2.03
20	6.27	.	4.11	2.62
21	6.26	.	4.52	2.74
22	7.95	.	4.46	1.48
23	7.82	.	4.44	2.81
24	5.27	.	3.28	3.46
25	3.04	.	2.51	0.80
26	3.66	.	5.81	1.40
27	3.27	.	3.80	2.67
28	5.40	.	3.96	2.92
29	5.72	.	6.36	1.24
30	3.73	.	5.19	2.72
31				
TT Monthly Totals	122.23	.	115.05	67.48
Daily Means	4.07	.	3.84	2.25
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: ENERO
Years: 2002
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	11.6	12.1	12.6	10.4
2	11.9	11.9	12.5	10.9
3	11.8	11.9	12.8	11.2
4	11.9	11.9	12.6	10.2
5	11.1	12.0	12.6	10.7
6	11.9	12.0	12.4	10.7
7	11.9	12.1	12.4	12.0
8	11.8	12.1	12.5	9.7
9	11.9	16.5	12.4	11.9
10	8.5	11.0	12.4	11.2
11	11.7	.	12.5	10.8
12	11.3	11.9	12.2	11.8
13	11.6	11.9	11.9	11.0
14	11.6	11.9	12.2	11.4
15	11.7	11.9	12.3	11.4
16	10.7	11.9	12.0	11.8
17	11.6	12.1	12.2	12.0
18	11.2	11.9	12.4	11.9
19	11.8	12.0	12.6	11.3
20	10.4	11.9	12.6	12.1
21	11.9	11.9	12.4	11.0
22	11.6	11.9	12.6	12.1
23	11.1	11.9	12.5	11.9
24	7.8	11.8	12.5	11.8
25	10.2	11.8	12.4	13.1
26	10.6	11.8	12.4	11.6
27	10.6	11.8	12.4	11.7
28	10.7	11.7	12.3	12.5
29	10.0	11.7	11.5	11.2
30	9.0	8.5	12.0	11.6
31	8.4	11.0	12.1	10.8
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	339.8	.	383.2	353.7
 Daily Means	11.0	11.9	12.4	11.4
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ENERO

Years: 2002

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	4.6	7.8	.	5.9
2	13.0	9.0	12.6	8.3
3	10.7	12.3	11.2	5.0
4	8.0	10.0	11.1	9.7
5	8.7	12.1	.	7.0
6	13.4	10.9	.	4.2
7	12.9	7.7	10.1	2.5
8	10.5	7.3	12.5	12.5
9	8.6	9.3	12.5	9.3
10	9.2	9.0	9.1	0.7
11	10.0	9.4	9.5	7.5
12	11.5	8.1	9.1	4.6
13	11.1	12.3	12.6	12.3
14	12.6	7.6	12.1	12.0
15	8.3	7.7	7.8	8.0
16	6.3	8.5	12.6	5.4
17	12.7	12.2	12.5	6.8
18	5.4	12.4	12.9	12.4
19	10.7	12.3	.	12.6
20	10.9	12.6	.	12.9
21	9.7	12.3	12.6	13.1
22	11.9	9.0	12.7	6.5
23	8.9	12.3	12.8	11.7
24	8.2	7.5	10.4	6.3
25	8.3	6.3	7.1	6.7
26	12.5	11.8	.	8.7
27	8.4	11.9	.	11.5
28	9.5	10.3	12.8	12.3
29	9.4	6.1	12.7	5.4
30	12.0	8.0	8.8	8.5
31	12.1	12.2	12.5	11.5
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	310.0	306.2	.	261.8
 Daily Means	10.0	9.9	.	8.4
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ENERO

Years: 2002

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	10.3	10.6	9.2	6.4
2	11.7	12.6	11.4	6.0
3	11.7	10.2	8.6	10.4
4	9.7	10.0	9.3	8.9
5	11.7	12.9	11.3	11.0
6	11.7	12.8	11.4	10.6
7	11.6	12.6	11.2	7.0
8	11.3	12.3	11.3	2.3
9	11.6	12.7	11.5	10.0
10	11.6	12.5	11.3	10.3
11	11.6	12.5	11.2	9.4
12	11.5	12.8	11.3	6.8
13	11.5	12.4	11.0	5.5
14	11.5	12.6	11.1	10.1
15	11.3	12.4	11.0	10.4
16	11.4	12.3	10.9	10.8
17	11.4	12.1	11.0	9.9
18	10.7	8.5	7.6	2.3
19	11.3	10.9	10.8	1.6
20	11.4	12.1	10.9	1.8
21	11.4	11.8	10.9	0.0
22	11.4	10.6	10.7	8.8
23	11.3	11.8	11.0	5.1
24	11.3	12.1	11.0	7.6
25	11.0	11.5	10.3	10.0
26	11.2	11.2	10.6	5.7
27	11.3	12.1	11.0	6.2
28	11.3	12.0	10.9	0.9
29	11.3	12.1	10.9	0.8
30	11.3	12.1	11.1	8.8
31	11.3	12.1	11.1	6.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	350.6	367.2	332.8	211.8
 Daily Means	11.3	11.8	10.7	6.8
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ENERO**Years: 2002****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	4.1	.	12.1	11.7
2	8.8	12.6	13.2	12.3
3	12.6	11.6	10.6	11.4
4	11.3	12.8	10.0	12.6
5	12.3	.	13.1	13.3
6	9.5	.	13.0	13.2
7	7.9	12.3	12.9	13.3
8	12.7	12.2	12.7	11.5
9	11.9	12.6	13.0	12.5
10	12.8	12.5	13.0	13.3
11	12.6	13.0	13.1	13.3
12	12.7	.	12.9	13.1
13	12.5	.	12.0	13.2
14	12.8	11.0	13.1	13.3
15	9.4	10.0	13.0	13.0
16	4.5	8.6	11.0	11.9
17	0.5	6.5	12.9	12.4
18	3.8	9.0	11.8	11.6
19	7.5	.	12.2	8.3
20	0.0	.	12.7	12.5
21	0.0	9.5	12.1	12.4
22	2.8	.	12.6	12.8
23	5.2	11.3	12.3	11.2
24	7.6	10.6	13.1	12.5
25	7.5	12.5	10.0	3.5
26	11.5	.	11.2	12.5
27	12.5	.	13.0	12.8
28	11.8	12.2	11.8	10.7
29	9.3	11.8	12.9	12.5
30	10.2	12.3	9.4	9.9
31	12.5	12.5	13.0	12.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	271.1	.	379.7	370.5
 Daily Means	8.7	.	12.2	12.0
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ENERO
Years: 2002
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	10.6	10.0	7.3	10.9
2	13.0	8.5	11.6	10.1
3	10.4	4.6	10.6	12.3
4	13.1	12.1	13.7	12.5
5	13.1	13.0	12.0	3.6
6	13.1	12.9	3.4	2.2
7	4.7	2.3	0.7	2.5
8	2.3	4.8	8.4	8.0
9	13.0	9.2	10.0	5.2
10	13.3	11.8	9.4	1.7
11	13.4	11.5	11.7	9.8
12	12.8	5.9	3.3	8.3
13	13.0	10.8	8.3	9.8
14	13.1	12.1	12.6	9.2
15	11.7	13.1	9.8	11.9
16	4.4	12.4	7.9	9.8
17	0.2	12.2	9.4	13.1
18	0.3	13.0	5.2	13.0
19	10.4	9.1	9.4	12.5
20	12.2	13.0	10.7	12.9
21	10.7	12.8	11.0	0.6
22	10.6	13.0	1.6	0.6
23	11.9	8.5	6.3	6.0
24	11.4	3.3	5.9	5.0
25	5.1	0.9	3.5	3.5
26	12.4	11.0	11.5	5.3
27	12.6	9.0	4.1	3.8
28	11.1	12.8	5.1	7.5
29	12.7	12.1	12.9	6.0
30	6.6	1.3	1.8	0.3
31	6.8	5.0	1.3	12.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	310.0	292.0	240.4	229.9
 Daily Means	10.0	9.4	7.8	7.4
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ENERO

Years: 2002

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	.	11.6	0.0	
2	.	7.7	6.6	
3	.	12.3	7.1	
4	.	2.6	1.6	
5	.	8.5	0.0	
6	.	2.4	0.0	
7	.	8.0	0.0	
8	.	7.1	6.5	
9	.	2.5	7.7	
10	.	4.2	4.1	
11	.	7.5	8.9	
12	.	12.4	0.0	
13	.	2.0	0.0	
14	.	3.2	2.3	
15	.	3.2	0.8	
16	.	10.9	10.6	
17	.	7.6	6.7	
18	.	5.3	4.6	
19	.	10.7	0.0	
20	.	2.4	0.0	
21	.	15.7	6.5	
22	.	11.9	8.9	
23	.	13.9	9.0	
24	.	7.1	4.3	
25	.	5.1	8.9	
26	.	8.5	0.0	
27	.	9.7	.	
28	.	14.7	5.4	
29	.	3.4	4.8	
30	.	12.3	4.2	
31	.	6.3	6.3	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	240.7	.	
 Daily Means	.	7.8	4.2	
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	
Instruments	CAMPELL	CAMPELL	CAMPELL	
	STOKES	STOKES	STOKES	

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

Month: FEBRERO

Years: 2002

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	8.6	10.0	6.9	9.6
2	7.3	8.2	11.5	11.1
3	8.2	11.4	11.6	11.1
4	3.1	11.0	12.1	7.9
5	2.0	5.6	10.8	10.7
6	4.4	7.1	9.9	11.3
7	10.6	11.2	8.7	11.2
8	11.4	11.6	11.0	11.4
9	11.1	11.7	11.3	11.7
10	10.9	11.6	11.4	11.2
11	9.7	10.7	12.2	11.5
12	3.1	11.4	12.0	11.5
13	11.3	11.5	11.7	11.3
14	10.7	11.1	7.3	11.5
15	4.9	11.4	10.3	11.3
16	8.0	8.5	4.8	10.8
17	3.1	8.9	8.1	10.1
18	9.4	8.5	10.7	7.7
19	10.0	8.1	11.3	11.0
20	7.4	11.1	11.7	11.4
21	8.8	9.0	11.8	11.6
22	4.6	10.4	10.6	11.0
23	10.7	11.0	11.0	11.5
24	2.9	10.8	6.8	11.2
25	9.2	10.8	11.8	11.4
26	9.5	10.3	10.3	11.4
27	4.8	10.4	10.1	10.7
28	8.0	10.7	10.8	11.5
29				
30				
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	213.7	284.0	288.5	305.6
 Daily Means	7.6	10.1	10.3	10.9
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: FEBRERO**Years: 2002****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	8.3	9.7	12.5	11.6
2	2.6	9.0	.	6.3
3	9.7	8.6	.	7.3
4	10.7	8.6	8.9	7.2
5	11.7	8.4	7.6	3.0
6	10.1	8.7	8.3	12.4
7	9.7	11.8	12.3	12.4
8	9.3	11.9	12.3	6.0
9	6.0	11.8	.	13.3
10	11.1	12.0	.	12.1
11	7.3	10.8	12.0	12.3
12	7.5	8.0	12.2	7.4
13	4.3	11.7	12.0	8.1
14	11.9	7.5	7.7	5.3
15	11.7	10.0	12.9	6.3
16	11.1	8.5	.	8.8
17	10.3	8.2	.	6.1
18	7.1	7.9	12.1	8.1
19	10.8	9.0	12.9	8.7
20	8.3	7.9	11.7	10.4
21	9.1	10.5	12.1	13.1
22	8.5	11.7	12.0	10.5
23	9.0	7.4	.	4.1
24	9.8	8.8	.	3.9
25	9.8	11.3	9.8	4.8
26	4.0	8.8	9.5	5.8
27	6.0	7.2	6.3	2.6
28	11.7	7.7	11.0	12.0
29				
30				
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	247.4	263.4	.	229.9
 Daily Means	8.8	9.4	.	8.2
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: FEBRERO

Years: 2002

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	11.5	11.0	9.3
2	10.7	11.6	10.8	10.5
3	11.2	11.8	10.9	9.9
4	11.1	12.0	10.8	8.5
5	11.2	11.9	10.9	8.2
6	11.0	11.6	10.7	2.2
7	10.9	11.6	10.7	0.8
8	10.9	11.7	10.7	4.6
9	11.2	11.7	10.8	7.1
10	11.2	11.6	10.8	7.0
11	11.1	11.9	11.0	7.6
12	11.1	11.8	10.9	5.7
13	11.0	11.6	10.8	8.3
14	11.0	11.6	10.9	1.0
15	11.0	11.5	10.9	5.5
16	11.0	11.3	10.6	4.2
17	11.0	11.5	10.9	3.3
18	11.0	11.6	10.6	10.0
19	10.9	11.6	10.5	10.4
20	10.9	11.3	10.3	8.5
21	10.8	8.6	8.7	9.8
22	10.8	10.0	9.8	7.3
23	10.8	10.1	9.6	10.2
24	11.7	10.3	10.2	10.9
25	10.8	11.3	10.0	7.5
26	10.5	11.0	9.9	1.9
27	8.2	10.1	9.2	6.8
28	8.4	4.8	6.4	10.2
29				
30				
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	302.6	308.9	289.3	197.2
 Daily Means	10.8	11.0	10.3	7.0
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: FEBRERO
Years: 2002
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	10.4	12.4	12.0	11.9
2	6.0	.	12.1	12.5
3	0.9	.	12.9	12.4
4	10.3	11.0	13.0	12.5
5	6.3	7.0	12.6	12.3
6	11.7	11.0	12.5	11.6
7	10.8	11.2	12.4	11.8
8	11.2	11.6	12.2	7.9
9	6.5	.	12.1	11.4
10	9.3	.	10.6	10.1
11	9.8	11.3	12.7	12.2
12	9.8	11.2	12.5	12.1
13	9.2	10.5	12.5	12.0
14	6.2	11.0	12.4	11.8
15	7.9	11.8	12.4	11.8
16	2.7	.	11.8	11.7
17	7.0	.	11.8	11.2
18	10.6	8.6	12.0	9.0
19	1.0	.	12.4	11.7
20	5.3	0.0	10.8	11.8
21	7.9	7.5	6.2	7.5
22	2.3	11.4	11.1	10.1
23	7.3	.	12.3	11.7
24	8.9	.	12.2	11.8
25	1.8	8.8	11.7	8.5
26	10.1	9.4	10.4	0.0
27	7.4	2.2	3.9	0.0
28	10.3	11.0	6.2	10.2
29				
30				
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	208.9	.	317.7	289.5
 Daily Means	7.5	.	11.3	10.3
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: FEBRERO

Years: 2002

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	12.5	10.7	11.8	4.5
2	10.3	12.3	10.1	12.3
3	12.6	9.7	4.3	8.9
4	12.6	12.5	11.0	12.8
5	7.2	12.8	12.7	12.0
6	5.8	11.0	11.4	12.3
7	8.8	9.3	7.7	11.2
8	4.0	5.6	3.5	8.4
9	12.3	10.5	7.4	1.8
10	10.9	11.6	3.7	12.1
11	12.5	11.6	10.5	0.0
12	12.5	12.4	6.8	1.5
13	12.5	6.3	6.1	12.2
14	12.1	12.3	11.6	9.1
15	12.3	9.5	9.4	12.4
16	9.5	12.5	11.7	11.4
17	11.2	2.5	4.2	9.8
18	12.0	10.8	3.9	7.9
19	11.5	12.6	11.4	12.2
20	2.4	12.3	9.1	11.9
21	0.0	12.5	11.6	11.4
22	9.3	10.4	6.7	11.9
23	12.2	12.2	11.8	10.5
24	11.3	8.3	6.1	1.3
25	3.7	0.0	0.3	6.6
26	0.0	2.0	3.3	6.0
27	5.0	3.1	3.3	0.9
28	10.7	11.0	5.1	10.4
29				
30				
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	257.7	268.3	216.5	243.7
 Daily Means	9.2	9.6	7.7	8.7
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: FEBRERO

Years: 2002

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	.	12.1	7.5	
2	.	0.3	0.0	
3	.	10.4	0.0	
4	.	6.4	4.0	
5	.	13.8	2.1	
6	.	8.3	2.3	
7	.	11.8	10.5	
8	.	9.2	7.1	
9	.	6.1	0.0	
10	.	10.0	0.0	
11	.	2.5	1.9	
12	.	11.3	6.3	
13	.	8.0	5.3	
14	.	6.2	1.0	
15	.	5.7	5.5	
16	.	7.6	0.0	
17	.	12.2	0.0	
18	.	0.8	2.4	
19	.	7.2	2.8	
20	.	9.9	7.5	
21	.	5.0	4.1	
22	.	10.1	7.5	
23	.	7.0	0.0	
24	.	5.8	0.0	
25	.	7.3	4.2	
26	.	4.1	7.6	
27	.	2.0	6.7	
28	.	7.6	3.9	
29				
30				
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	208.7	100.2	
 Daily Means	.	7.5	3.6	
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	
Instruments	CAMPELL	CAMPELL	CAMPELL	
	STOKES	STOKES	STOKES	

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

Month: MARZO**Years: 2002****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	6.8	10.4	11.0	10.7
2	1.4	7.0	9.3	10.4
3	0.0	5.8	7.9	10.4
4	9.1	8.5	9.7	10.0
5	10.8	10.4	10.2	10.5
6	9.5	9.8	9.6	10.8
7	9.0	9.6	11.3	9.4
8	7.1	10.4	8.5	10.7
9	8.8	9.4	3.5	8.9
10	7.9	10.5	9.8	10.8
11	10.8	10.9	8.1	10.7
12	10.7	10.1	10.7	10.9
13	10.3	6.6	9.9	8.4
14	8.8	9.1	8.1	6.3
15	9.3	9.3	9.4	8.9
16	10.3	10.4	10.1	10.2
17	9.2	9.7	9.5	10.3
18	10.5	10.5	9.9	5.8
19	10.4	10.6	10.8	5.2
20	3.1	7.5	10.4	9.1
21	9.0	9.7	11.1	7.5
22	9.8	10.5	11.2	10.9
23	8.3	10.5	11.2	10.7
24	10.3	10.5	11.1	9.6
25	9.9	10.3	11.2	10.4
26	10.3	10.3	10.9	5.6
27	5.7	3.8	11.0	8.2
28	1.7	0.0	10.9	6.2
29	3.5	7.7	11.1	9.2
30	6.9	7.5	11.2	9.3
31	8.3	10.0	11.2	9.9
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	247.5	277.3	309.8	285.9
 Daily Means	8.0	8.9	10.0	9.2
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MARZO**Years: 2002****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	8.8	11.0	11.3	11.5
2	11.5	10.5	10.8	11.2
3	8.9	9.5	11.4	10.3
4	9.1	10.5	11.4	11.5
5	7.4	10.5	11.0	7.7
6	10.5	7.7	9.3	8.6
7	9.1	7.7	10.8	11.1
8	6.5	10.5	8.8	9.5
9	10.9	8.7	11.1	10.7
10	8.6	10.2	11.1	9.3
11	9.7	9.7	10.7	8.5
12	11.5	7.0	10.2	7.6
13	10.9	8.2	8.0	7.5
14	10.2	7.7	5.7	5.7
15	10.9	9.9	10.9	11.1
16	11.6	10.7	10.7	10.6
17	10.4	7.9	10.1	10.7
18	10.2	6.4	11.1	1.7
19	0.8	9.5	9.8	10.0
20	5.7	8.7	10.2	9.4
21	2.9	8.2	7.7	7.1
22	4.1	7.7	5.2	4.8
23	1.9	9.7	10.7	6.7
24	0.0	7.7	9.3	8.0
25	9.2	9.5	9.9	10.5
26	10.5	9.5	10.6	10.7
27	9.9	9.8	10.8	10.5
28	9.4	7.6	10.2	8.4
29	9.8	9.9	8.2	8.3
30	8.2	9.6	.	10.4
31	0.0	9.7	.	10.8
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	249.1	281.4	.	280.4
 Daily Means	8.0	9.1	9.9	9.0
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MARZO

Years: 2002

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	10.3	10.6	10.0	9.7
2	10.2	11.1	10.2	7.9
3	10.3	11.0	10.3	9.1
4	10.2	11.1	10.1	3.9
5	10.2	10.9	9.8	10.2
6	10.2	10.9	9.8	6.2
7	10.1	10.9	9.6	8.5
8	10.1	10.9	9.9	7.1
9	10.0	11.0	9.9	0.1
10	10.0	10.9	9.8	8.6
11	10.0	10.8	9.5	5.4
12	10.0	10.8	9.6	5.0
13	4.3	2.0	2.8	3.8
14	2.0	3.2	1.0	7.8
15	5.5	1.9	0.8	7.1
16	9.4	5.6	3.7	5.8
17	9.4	2.8	3.0	0.0
18	4.2	5.5	3.8	0.3
19	9.8	10.7	8.6	0.0
20	9.9	10.5	8.7	7.0
21	9.9	10.6	8.6	3.5
22	9.6	10.3	8.6	9.0
23	9.3	9.6	8.3	8.2
24	6.8	7.4	5.6	6.6
25	10.0	10.4	8.5	5.5
26	10.0	10.5	8.6	3.2
27	9.2	10.3	9.3	7.4
28	10.0	10.3	9.3	6.6
29	2.8	4.4	3.8	1.9
30	9.9	10.2	8.7	5.0
31	10.0	9.9	8.7	0.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	273.6	277.0	238.9	170.7
 Daily Means	8.8	8.9	7.7	5.5
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MARZO
Years: 2002
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	10.8	11.8	11.8	11.2
2	9.6	.	10.6	11.1
3	11.0	.	11.0	9.3
4	11.1	11.0	9.0	10.1
5	11.1	11.6	11.5	11.0
6	8.4	11.1	11.5	9.8
7	9.0	11.2	9.7	10.7
8	10.7	11.1	11.6	10.9
9	10.6	.	11.1	7.6
10	10.4	.	7.8	10.7
11	11.2	9.6	11.3	10.6
12	6.5	9.4	10.8	10.7
13	1.6	0.8	0.0	4.4
14	4.2	0.6	0.3	0.0
15	1.9	8.3	0.0	0.0
16	6.5	.	1.0	1.7
17	7.5	.	0.0	0.0
18	7.9	6.9	1.6	0.0
19	10.4	10.7	6.0	8.4
20	10.7	10.7	10.8	10.3
21	9.0	10.5	10.7	6.9
22	8.1	10.7	7.9	10.0
23	10.3	.	8.9	7.8
24	10.9	.	8.1	9.8
25	11.1	9.7	10.1	10.3
26	10.8	10.1	7.3	9.6
27	10.7	10.2	10.0	8.8
28	6.2	6.3	9.1	3.4
29	7.8	.	6.1	7.3
30	11.0	.	9.8	9.9
31	10.2	.	7.6	9.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	277.2	.	243.0	241.6
 Daily Means	8.9	.	7.8	7.8
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MARZO**Years: 2002****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	12.1	9.0	6.1	4.8
2	12.0	8.5	2.0	7.1
3	5.3	8.2	2.9	3.7
4	8.0	11.2	10.5	10.3
5	10.0	6.5	1.0	3.1
6	4.2	6.7	1.6	4.1
7	11.2	0.7	2.6	5.2
8	9.9	0.0	1.3	3.7
9	2.6	0.0	0.6	2.7
10	11.6	6.4	0.2	7.6
11	11.2	11.2	11.1	11.1
12	10.0	7.5	3.6	2.9
13	0.2	0.0	0.2	0.1
14	0.1	0.1	1.3	0.0
15	2.2	7.0	1.9	6.4
16	4.8	6.6	7.2	7.9
17	0.2	5.7	5.1	4.1
18	0.8	8.9	6.4	0.4
19	9.9	9.4	7.8	4.9
20	11.0	9.2	1.7	0.3
21	6.1	6.7	7.4	5.0
22	10.8	7.7	2.3	3.4
23	9.7	1.2	1.8	5.5
24	10.6	3.2	4.4	4.2
25	9.7	4.7	7.6	5.6
26	10.5	1.9	4.1	8.9
27	10.5	6.4	5.2	7.5
28	5.6	1.8	5.7	5.3
29	7.4	4.9	0.0	2.1
30	10.4	4.6	4.7	8.6
31	10.5	8.4	6.4	7.1
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	239.1	174.3	124.7	153.6
 Daily Means	7.7	5.6	4.0	5.0
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MARZO

Years: 2002

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	.	7.8	3.6	
2	.	3.5	0.0	
3	.	10.0	0.0	
4	.	8.5	4.1	
5	.	2.9	2.1	
6	.	11.0	0.0	
7	.	5.8	9.1	
8	.	8.4	8.8	
9	.	5.0	0.0	
10	.	9.3	0.0	
11	.	4.3	7.3	
12	.	4.2	3.6	
13	.	0.0	4.2	
14	.	0.0	9.8	
15	.	2.5	0.0	
16	.	11.2	0.0	
17	.	11.0	0.0	
18	.	0.9	5.7	
19	.	3.0	7.3	
20	.	2.6	4.2	
21	.	6.3	5.4	
22	.	3.9	2.0	
23	.	0.4	0.0	
24	.	3.1	0.0	
25	.	5.1	4.1	
26	.	9.9	7.6	
27	.	8.2	9.9	
28	.	3.1	0.2	
29	.	6.5	0.0	
30	.	4.6	0.0	
31	.	5.6	0.0	
TT Monthly Totals				
Daily Means				
SS Monthly Totals	.	168.6	99.0	
Daily Means	.	5.4	3.2	
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	
Instruments	CAMPELL	CAMPELL	CAMPELL	
	STOKES	STOKES	STOKES	

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

Month: ABRIL
Years: 2002
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	7.4	10.0	11.3	10.0
2	3.9	5.5	11.2	8.7
3	6.2	8.8	11.2	10.5
4	5.3	4.4	11.2	9.0
5	4.6	4.5	11.2	7.5
6	0.9	5.1	10.9	10.3
7	0.6	2.3	10.8	9.0
8	5.8	8.4	10.8	10.0
9	8.4	10.1	10.6	8.8
10	0.1	2.8	7.1	5.1
11	9.3	6.4	10.4	9.6
12	4.7	5.8	10.8	6.1
13	2.9	7.5	9.9	9.7
14	5.3	5.5	6.4	10.2
15	5.4	3.8	3.2	8.2
16	4.6	7.8	11.3	10.7
17	6.1	7.5	11.3	10.7
18	2.4	0.0	11.3	7.6
19	5.6	7.8	11.0	9.5
20	4.6	7.7	11.2	10.4
21	7.2	7.3	11.2	9.0
22	0.7	4.0	8.4	7.9
23	0.0	3.2	6.4	9.6
24	0.6	7.5	10.6	10.5
25	3.3	7.3	10.3	8.3
26	7.5	5.9	10.3	10.2
27	7.3	1.7	10.8	0.9
28	9.9	10.1	10.7	9.2
29	10.5	11.2	11.0	9.6
30	3.3	6.4	10.0	6.8
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	144.4	186.3	302.8	263.6
 Daily Means	4.8	6.2	10.1	8.8
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ABRIL
Years: 2002
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	10.2	5.6	8.1	0.0
2	10.1	8.7	10.4	10.5
3	10.7	7.9	10.7	10.2
4	9.1	7.9	10.3	9.4
5	9.3	1.5	0.0	0.0
6	10.2	6.2	.	8.9
7	9.9	8.8	.	10.3
8	7.4	4.1	5.0	10.2
9	8.1	8.6	8.8	4.3
10	9.7	0.3	0.0	0.0
11	8.3	8.8	9.8	10.2
12	8.9	8.8	10.2	10.2
13	10.1	8.8	.	9.1
14	10.0	8.5	.	9.0
15	9.7	8.9	8.2	9.3
16	3.4	9.0	10.2	10.6
17	7.8	9.0	10.0	10.6
18	10.0	6.4	10.5	7.1
19	7.8	4.0	4.6	0.0
20	9.8	9.1	.	9.6
21	9.5	3.8	.	0.0
22	5.3	8.5	6.6	5.7
23	8.6	9.0	10.0	9.8
24	7.0	9.0	9.5	9.5
25	4.3	6.8	10.2	10.0
26	4.3	6.2	8.5	9.4
27	9.9	5.2	.	2.8
28	0.5	8.1	.	2.6
29	9.0	8.9	9.7	7.5
30	9.6	8.3	9.1	9.5
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	248.5	214.7	.	216.3
 Daily Means	8.3	7.2	.	7.2
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ABRIL

Years: 2002

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	10.2	8.4	5.0
2	9.8	6.8	6.8	5.8
3	9.9	9.5	8.5	7.7
4	10.0	9.3	8.5	8.0
5	9.9	9.6	8.5	2.6
6	7.3	5.7	6.2	2.8
7	10.0	6.4	6.0	3.0
8	8.3	7.7	7.0	2.8
9	3.0	1.4	1.3	4.8
10	2.2	1.6	1.4	3.0
11	6.6	5.3	4.9	0.4
12	4.2	5.1	6.2	5.7
13	5.6	7.9	7.3	6.6
14	3.7	0.6	7.6	0.1
15	0.6	0.5	0.0	5.9
16	9.5	9.2	8.1	6.3
17	9.4	8.8	8.1	2.0
18	9.9	8.9	8.2	1.4
19	9.5	8.9	8.2	2.5
20	8.5	9.3	8.2	5.9
21	1.5	4.7	5.0	0.2
22	0.0	0.0	0.0	3.4
23	10.0	8.5	8.2	7.4
24	5.7	5.5	6.1	1.6
25	9.8	7.7	8.4	4.2
26	9.8	9.0	8.5	5.9
27	9.8	9.2	8.5	5.6
28	1.4	0.0	0.1	0.3
29	3.7	3.9	4.3	4.4
30	9.7	8.2	8.4	4.5
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	209.3	189.4	186.9	119.8
 Daily Means	7.0	6.3	6.2	4.0
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ABRIL

Years: 2002

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	0.5	.	2.1	9.6
2	7.2	.	9.1	9.4
3	10.6	.	5.6	7.6
4	10.5	.	7.4	7.0
5	2.4	.	10.0	9.6
6	1.4	.	1.4	2.5
7	10.7	.	9.9	4.6
8	7.0	.	0.4	1.3
9	3.9	.	0.6	0.9
10	3.6	.	0.0	3.3
11	1.8	.	0.0	0.0
12	2.8	.	0.5	4.0
13	9.3	.	7.5	5.5
14	8.8	.	7.3	8.7
15	5.2	.	1.8	4.2
16	10.4	.	8.6	6.4
17	9.7	.	6.6	7.0
18	10.2	.	5.4	8.6
19	10.4	.	4.7	9.6
20	10.3	.	8.5	9.4
21	7.8	.	9.0	6.0
22	2.9	.	3.2	3.1
23	9.9	.	4.6	3.2
24	6.4	.	3.4	5.8
25	10.3	.	7.1	7.7
26	10.4	.	6.4	9.9
27	7.6	.	5.2	6.3
28	0.7	.	0.0	0.5
29	7.9	.	2.5	0.9
30	9.8	.	5.1	7.9
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	210.4	.	143.9	170.5
 Daily Means	7.0	.	4.8	5.7
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ABRIL

Years: 2002

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	0.0	.	0.4	4.5
2	10.2	.	5.9	1.1
3	10.5	.	0.6	0.4
4	10.4	.	1.6	5.4
5	7.8	.	2.0	4.2
6	0.7	.	3.9	2.1
7	3.9	.	6.8	1.5
8	4.4	.	6.0	8.1
9	0.1	.	8.0	8.9
10	9.1	.	0.0	0.0
11	0.0	.	0.0	4.7
12	4.9	.	8.5	5.9
13	9.8	.	8.3	5.1
14	8.7	.	5.5	2.3
15	1.9	.	5.7	3.0
16	3.0	.	0.3	1.8
17	8.9	.	7.9	7.1
18	9.1	.	3.9	5.5
19	8.8	.	1.0	5.8
20	8.2	.	4.4	5.0
21	8.2	.	0.2	2.7
22	5.7	.	5.3	8.4
23	3.2	.	0.0	0.7
24	6.2	.	2.7	1.2
25	6.3	.	6.6	5.9
26	9.3	.	0.9	0.1
27	9.2	.	0.0	0.0
28	0.0	.	2.7	3.7
29	6.3	.	0.0	2.3
30	9.2	.	0.8	5.6
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	184.0	.	99.9	113.0
 Daily Means	6.1	.	3.3	3.8
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: ABRIL

Years: 2002

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	6.5	3.1	2.4	
2	7.3	8.1	5.7	
3	2.3	3.2	4.5	
4	4.5	3.9	5.1	
5	5.2	0.4	3.7	
6	4.7	0.6	0.0	
7	4.9	0.9	0.0	
8	7.1	6.4	7.7	
9	8.5	0.0	0.0	
10	0.0	6.1	1.5	
11	8.0	8.2	1.2	
12	8.4	5.4	4.7	
13	5.6	1.3	0.0	
14	4.5	9.2	0.0	
15	5.8	0.0	2.1	
16	5.8	4.0	2.4	
17	9.2	7.4	5.7	
18	9.0	3.2	2.1	
19	5.8	2.8	0.3	
20	7.1	0.8	0.0	
21	5.6	1.4	0.0	
22	8.4	8.8	0.0	
23	2.6	2.4	4.3	
24	7.5	4.3	0.0	
25	6.6	5.4	1.7	
26	0.2	0.0	1.8	
27	2.1	7.1	0.0	
28	8.0	0.0	0.0	
29	5.3	1.1	3.7	
30	7.2	4.0	4.7	
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	173.7	109.5	65.3	
 Daily Means	5.8	3.7	2.2	
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	
Instruments	CAMPELL	CAMPELL	CAMPELL	
	STOKES	STOKES	STOKES	

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

Month: MAYO

Years: 2002

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	5.4	10.0	10.5	9.3
2	4.8	9.7	10.5	9.2
3	3.9	1.5	9.8	8.1
4	4.2	5.7	4.6	9.2
5	9.9	10.0	10.9	8.9
6	6.1	5.9	10.7	8.1
7	9.5	10.1	11.0	6.9
8	5.7	9.5	10.9	7.5
9	6.2	5.3	10.8	4.7
10	6.3	1.0	10.8	7.1
11	9.4	9.8	10.7	9.5
12	7.4	8.5	10.1	9.5
13	1.9	0.8	9.8	4.0
14	9.3	9.3	9.2	2.0
15	10.0	9.9	10.5	7.6
16	6.3	2.9	10.6	0.3
17	2.1	4.4	10.7	3.5
18	7.3	9.9	10.5	7.4
19	4.6	1.3	10.3	5.8
20	5.3	10.0	10.5	10.1
21	11.1	9.9	10.6	9.3
22	4.3	9.2	9.4	6.8
23	10.0	8.7	7.1	8.7
24	10.2	8.1	10.5	8.0
25	10.0	9.1	4.0	2.8
26	7.8	2.7	5.2	9.6
27	9.8	8.2	10.5	0.4
28	2.6	5.5	9.1	5.1
29	4.0	9.8	9.5	6.7
30	5.1	8.0	9.0	9.0
31	7.3	8.0	7.9	8.1
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	207.8	222.7	296.2	213.2
 Daily Means	6.7	7.2	9.6	6.9
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MAYO**Years: 2002****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	9.7	4.8	.	3.2
2	7.8	6.7	.	7.5
3	4.4	4.0	.	1.7
4	0.1	0.8	.	1.4
5	7.7	8.8	.	9.3
6	8.3	8.4	.	2.7
7	9.3	5.3	.	3.8
8	9.6	8.6	.	6.1
9	7.1	6.6	.	0.2
10	8.1	5.4	.	3.2
11	8.5	5.5	.	2.2
12	5.7	8.9	.	2.6
13	8.9	0.2	.	0.0
14	3.4	6.9	.	0.5
15	5.7	8.0	.	3.0
16	8.9	7.9	.	2.4
17	2.3	0.0	.	0.4
18	0.2	4.1	.	3.9
19	9.6	0.0	.	2.7
20	8.7	8.8	.	9.7
21	5.4	7.5	.	6.8
22	8.4	6.4	.	6.5
23	7.4	6.5	.	2.2
24	4.8	5.5	.	2.0
25	1.1	0.3	.	0.0
26	4.1	2.6	.	2.3
27	8.1	4.6	.	0.0
28	7.5	0.6	.	0.4
29	9.4	6.7	.	2.8
30	4.9	8.6	.	8.8
31	8.8	8.7	.	7.6
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	203.9	167.7	.	105.9
 Daily Means	6.6	5.4	.	3.4
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MAYO**Years: 2002****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	5.3	8.6	8.4	1.4
2	9.6	8.9	8.4	2.5
3	9.3	8.9	7.8	0.3
4	2.0	7.6	7.4	5.2
5	9.7	9.0	8.1	7.1
6	9.6	9.2	8.3	4.8
7	9.5	9.1	8.0	0.0
8	9.5	8.7	8.0	3.4
9	9.5	8.8	7.9	6.4
10	8.2	7.5	5.9	0.0
11	8.6	8.4	7.1	0.0
12	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	2.4
14	1.7	1.8	1.1	2.7
15	3.4	2.8	1.0	5.5
16	0.8	1.8	1.1	2.3
17	0.0	0.9	0.0	1.6
18	6.1	4.5	4.1	1.5
19	1.8	0.7	0.7	6.2
20	9.3	8.4	8.0	6.2
21	0.2	1.5	1.0	0.5
22	4.3	1.4	1.5	0.0
23	7.8	7.0	6.3	0.0
24	1.4	1.6	1.7	0.1
25	0.0	1.9	0.0	0.6
26	0.0	0.0	0.0	4.3
27	0.0	0.0	0.3	4.4
28	1.9	1.9	0.0	2.9
29	2.2	3.3	3.1	2.7
30	8.6	4.7	5.2	1.4
31	0.0	0.0	0.0	4.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	140.3	138.9	120.4	80.8
 Daily Means	4.5	4.5	3.9	2.6
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MAYO

Years: 2002

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	9.6	.	2.8	5.5
2	10.1	9.5	7.3	9.4
3	9.6	9.5	6.4	6.2
4	8.3	.	2.5	6.3
5	9.7	.	4.7	7.0
6	8.0	8.9	4.4	5.9
7	.	2.3	2.9	0.0
8	2.1	4.7	0.0	3.3
9	5.0	8.5	4.6	2.1
10	7.1	6.1	4.6	2.4
11	0.8	.	5.9	0.0
12	.	.	0.0	0.0
13	1.8	0.0	0.0	0.0
14	2.7	0.0	0.2	0.1
15	5.8	0.8	1.9	0.0
16	0.1	5.0	1.7	7.9
17	3.9	7.6	8.1	7.0
18	5.7	.	2.8	2.4
19	4.0	.	1.6	5.4
20	8.5	2.1	5.8	7.6
21	1.0	.	0.0	0.4
22	2.5	2.1	1.1	0.2
23	.	0.0	2.5	2.8
24	2.0	1.0	0.4	0.0
25	.	.	0.0	0.0
26	0.1	.	0.0	1.7
27	0.1	.	0.7	3.4
28	3.0	.	6.8	6.0
29	7.0	.	3.6	5.9
30	7.4	.	6.4	3.8
31	.	.	0.0	0.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	.	89.7	102.7
 Daily Means	4.8	.	2.9	3.3
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MAYO

Years: 2002

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	8.2	.	0.0	0.0
2	5.4	.	0.0	4.4
3	6.9	.	0.0	0.0
4	8.8	.	0.0	0.0
5	9.1	.	0.7	0.0
6	8.7	.	6.2	5.2
7	0.0	.	1.8	0.0
8	3.9	.	0.2	5.6
9	5.5	.	0.1	0.0
10	5.4	.	3.8	1.4
11	0.0	.	0.0	0.1
12	0.0	.	0.0	4.3
13	0.6	.	0.0	0.0
14	0.0	.	0.9	0.0
15	0.0	.	0.0	0.0
16	5.6	.	0.0	0.0
17	0.0	.	3.2	0.0
18	4.9	.	1.6	1.5
19	8.5	.	0.4	5.3
20	8.8	.	0.0	0.0
21	4.1	.	0.3	0.0
22	0.0	.	0.0	0.0
23	0.6	.	0.0	0.0
24	0.0	.	0.0	0.0
25	0.0	.	0.1	0.0
26	2.6	.	2.4	5.5
27	2.6	.	4.8	5.6
28	7.8	.	3.6	7.1
29	8.7	.	4.8	5.3
30	7.7	.	4.1	3.8
31	0.5	.	1.0	0.2
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	124.9	.	40.0	55.3
 Daily Means	4.0	.	1.3	1.8
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: MAYO
Years: 2002
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	1.9	5.7	0.0	
2	7.3	1.9	2.4	
3	2.7	8.2	1.7	
4	0.0	5.7	0.0	
5	0.0	7.2	0.0	
6	7.1	0.0	0.5	
7	0.2	7.1	1.3	
8	5.0	8.1	1.7	
9	1.3	5.0	0.6	
10	5.6	6.1	6.8	
11	4.2	7.2	0.0	
12	8.6	1.3	0.0	
13	0.0	0.9	2.6	
14	0.0	8.1	0.9	
15	0.0	5.4	0.1	
16	0.0	7.9	0.3	
17	0.3	7.8	0.0	
18	0.0	3.1	0.0	
19	1.6	4.7	0.0	
20	6.9	4.2	7.0	
21	6.6	0.4	0.0	
22	0.7	5.6	6.4	
23	0.0	1.1	7.2	
24	0.0	3.0	2.3	
25	0.0	0.0	0.0	
26	7.0	0.0	0.0	
27	6.2	6.3	0.0	
28	8.2	3.7	0.0	
29	4.7	5.6	1.9	
30	3.8	0.9	0.0	
31	1.4	0.0	4.2	
TT Monthly Totals				
Daily Means				
SS Monthly Totals	91.3	132.2	47.9	
Daily Means	2.9	4.3	1.5	
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	
Instruments	CAMPELL	CAMPELL	CAMPELL	
	STOKES	STOKES	STOKES	

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

Month: JUNIO

Years: 2002

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	4.6	8.1	7.8	8.0
2	6.2	8.9	10.5	9.1
3	3.6	1.2	10.6	1.5
4	7.5	9.9	10.6	9.5
5	3.9	10.0	10.6	9.7
6	2.7	5.6	9.4	1.5
7	5.0	9.6	9.2	3.0
8	4.7	1.3	9.9	5.6
9	5.0	6.3	10.3	6.6
10	6.1	3.9	10.6	7.0
11	2.3	7.4	10.6	9.0
12	5.2	2.4	10.6	4.7
13	4.9	6.5	10.3	9.1
14	3.7	9.7	10.6	9.1
15	4.4	9.0	10.6	7.8
16	1.3	5.8	10.1	5.4
17	0.0	6.8	10.4	5.6
18	6.1	9.8	10.2	8.7
19	6.5	2.2	10.2	5.8
20	3.2	0.9	10.4	8.3
21	7.9	6.1	10.4	7.8
22	5.0	9.2	10.4	7.2
23	4.3	9.7	9.7	5.5
24	5.9	8.6	7.0	1.9
25	7.7	9.0	10.1	0.1
26	4.5	6.7	10.2	5.8
27	7.6	9.6	10.3	6.3
28	1.8	5.0	9.7	2.0
29	1.5	3.9	4.9	3.8
30	1.5	5.2	5.2	3.4
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	134.6	198.3	291.4	178.8
 Daily Means	4.5	6.6	9.7	6.0
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: JUNIO**Years: 2002****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	0.5	8.7	.	5.0
2	0.6	8.5	.	1.3
3	0.1	8.5	.	3.4
4	0.0	8.7	.	0.0
5	0.0	6.9	.	5.8
6	0.0	7.3	.	9.3
7	0.0	6.7	.	9.4
8	5.6	7.5	.	9.7
9	8.9	9.6	.	9.3
10	7.1	5.7	.	0.0
11	8.0	6.3	.	0.0
12	7.1	5.7	.	0.0
13	6.4	6.0	.	9.3
14	8.9	3.1	.	8.5
15	8.8	8.5	.	4.1
16	6.7	4.6	.	0.0
17	0.0	6.7	.	5.0
18	8.2	8.6	.	9.1
19	6.7	8.6	.	9.6
20	0.2	6.4	.	9.3
21	5.4	6.9	.	0.0
22	5.3	3.9	.	0.0
23	7.6	4.8	.	2.1
24	1.6	6.2	.	5.7
25	1.5	3.6	.	3.5
26	0.0	0.1	.	2.8
27	6.3	8.3	.	2.5
28	6.6	5.4	.	0.0
29	5.1	6.3	.	1.5
30	8.1	0.2	.	4.1
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	131.3	188.3	.	130.3
 Daily Means	4.4	6.3	.	4.3
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: JUNIO

Years: 2002

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	.	0.0	0.0	2.7
2	.	0.3	0.0	0.4
3	.	0.0	0.0	0.8
4	.	0.0	0.0	1.7
5	.	2.7	1.2	3.5
6	.	4.1	3.2	3.1
7	.	8.4	7.7	3.5
8	.	8.4	7.6	1.3
9	.	10.0	7.5	2.1
10	.	5.0	5.3	0.2
11	.	0.6	1.0	2.3
12	.	7.1	6.9	5.5
13	.	2.2	2.5	4.7
14	.	6.3	6.2	4.9
15	.	6.2	6.9	0.1
16	.	1.2	0.3	1.4
17	.	7.7	7.4	0.7
18	.	8.1	7.5	2.2
19	.	8.1	5.9	5.0
20	.	8.4	7.6	4.0
21	.	5.3	4.5	5.1
22	.	8.8	7.5	5.9
23	.	8.5	7.4	5.7
24	.	2.4	2.9	0.0
25	.	4.4	4.2	4.9
26	.	4.4	5.0	0.0
27	.	4.9	4.2	3.1
28	.	0.6	0.0	2.6
29	.	4.6	4.0	.
30	.	1.0	0.0	2.9
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	139.7	124.4	.
 Daily Means	.	4.7	4.1	2.8
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: JUNIO

Years: 2002

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
2	.	.	0.0	0.0
3	.	0.0	0.0	0.0
4	.	0.8	0.0	2.2
5	.	3.5	0.8	4.3
6	.	5.3	0.9	0.2
7	.	8.5	0.0	0.0
8	.	.	3.0	0.3
9	.	.	8.6	8.4
10	.	8.3	4.6	5.2
11	.	7.1	3.1	8.9
12	.	4.3	0.0	1.9
13	.	8.1	3.7	0.0
14	.	7.7	0.2	4.7
15	.	.	0.0	1.5
16	.	.	2.5	6.2
17	.	8.0	0.0	4.9
18	.	8.4	4.5	2.7
19	.	7.1	3.4	2.9
20	.	7.8	2.1	5.8
21	.	8.3	1.7	5.0
22	.	.	7.4	7.0
23	.	.	7.5	7.2
24	.	1.5	0.0	0.0
25	.	1.0	3.5	0.0
26	.	0.9	2.4	2.8
27	.	0.0	0.1	1.5
28	.	8.5	0.5	6.0
29	.	.	5.4	6.9
30	.	.	5.6	7.2
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	.	71.5	103.7
 Daily Means	.	.	2.4	3.5
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: JUNIO

Years: 2002

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	2.1	3.1	5.0	1.7
2	0.0	1.6	0.0	0.0
3	1.3	0.4	0.1	0.7
4	4.9	0.0	0.4	0.0
5	4.8	1.4	0.0	2.6
6	1.6	0.9	15.6	2.7
7	2.0	3.1	2.2	1.3
8	0.0	0.0	3.0	0.7
9	7.9	5.4	4.1	2.4
10	8.4	7.9	6.0	6.4
11	8.4	8.1	3.1	3.5
12	8.2	.	0.3	1.4
13	8.3	3.1	0.8	6.8
14	8.1	4.1	0.1	0.0
15	3.3	0.0	0.0	0.5
16	8.4	7.7	1.3	0.0
17	6.5	0.6	0.0	4.3
18	4.6	0.0	0.0	6.4
19	3.1	0.0	0.0	0.0
20	5.3	0.0	4.5	5.1
21	6.8	7.1	3.9	3.0
22	8.0	6.2	7.2	2.3
23	8.6	8.4	7.2	2.9
24	0.0	1.8	2.9	0.0
25	0.4	0.2	0.2	0.5
26	0.0	1.0	0.7	4.8
27	1.6	2.6	7.8	4.2
28	7.2	4.1	3.2	1.1
29	8.0	4.6	5.3	6.1
30	7.9	3.5	2.2	6.3
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	145.7	.	87.1	77.7
 Daily Means	4.9	3.0	2.9	2.6
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO
Instruments	CAMPELL	CAMPELL	CAMPELL	CAMPELL
	STOKES	STOKES	STOKES	STOKES

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

Month: JUNIO
Years: 2002
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	5.5	0.0	0.0	
2	0.0	0.0	0.0	
3	2.6	4.9	0.0	
4	0.0	0.0	1.4	
5	2.5	5.3	0.6	
6	6.3	5.4	0.3	
7	7.4	5.3	2.1	
8	3.1	0.0	0.0	
9	2.5	0.0	0.0	
10	7.9	5.8	0.0	
11	4.8	6.5	0.0	
12	0.5	5.7	2.5	
13	7.7	5.1	0.0	
14	0.7	0.4	2.6	
15	0.0	3.6	0.0	
16	1.9	0.0	0.0	
17	5.9	6.2	0.7	
18	5.5	1.6	0.0	
19	0.0	4.6	0.1	
20	5.8	5.8	0.0	
21	0.0	6.7	0.0	
22	5.0	0.0	0.0	
23	4.7	5.9	0.0	
24	2.5	2.5	6.4	
25	3.7	0.0	0.0	
26	5.2	0.7	0.0	
27	7.6	6.0	4.3	
28	4.8	7.1	4.9	
29	6.0	0.5	0.0	
30	7.6	5.7	0.0	
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	117.7	101.3	25.9	
 Daily Means	3.9	3.4	0.9	
Types of	HELIOGRAFO	HELIOGRAFO	HELIOGRAFO	
Instruments	CAMPELL	CAMPELL	CAMPELL	
	STOKES	STOKES	STOKES	