



DIRECCIÓN METEOROLÓGICA DE CHILE

INFORME
SOLARIMÉTRICO

II SEMESTRE 2004



SUBDIRECCIÓN DE CLIMATOLOGÍA Y MET APLICADA

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

Month: JULY Year: 2004 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°23' S
Longitude	70°19'W	68°54' W	70°26' W	70°47' W
Elevation	58 m	2270 m	135 m	475 m
Station	ARICA	CALAMA	ANTOFAGASTA	PUDAHUEL
Date				
1	.	.	.	9.63
2	.	.	.	9.61
3	.	.	.	9.22
4	.	.	.	9.99
5	.	.	.	10.14
6	.	.	.	9.64
7	.	.	.	7.30
8	.	.	6.82	8.38
9	.	.	7.62	3.69
10	.	.	15.97	10.17
11	.	.	15.85	6.53
12	.	.	6.34	3.88
13	.	.	17.10	1.83
14	.	.	16.68	9.86
15	.	.	16.22	10.65
16	.	.	16.70	4.89
17	.	.	14.79	9.01
18	.	.	17.72	9.57
19	.	.	17.46	9.66
20	.	.	3.79	2.43
21	.	.	17.77	4.85
22	.	.	15.63	2.81
23	.	.	18.21	11.77
24	.	.	17.94	5.96
25	.	.	17.18	1.22
26	.	.	10.75	4.60
27	.	.	11.47	2.85
28	.	.	18.66	10.81
29	.	.	18.73	12.60
30	.	.	16.25	13.19
31	.	.	16.95	10.70
TT Monthly Totals	.	.	352.60	237.44
 Daily Means	.	.	14.69	7.66
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: JULY Year: 2004 Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	41°25' S	45°35' S
Longitude	71°14' W	73°03' W	73°05' W	72°07' W
Elevation	228 m	12 m	85 m	310 m
Station	CURICO	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	7.79	.	0.83	1.51
2	2.90	.	3.41	4.22
3	7.44	.	4.13	4.07
4	2.19	.	2.99	2.59
5	6.90	.	2.50	0.61
6	5.91	.	3.99	4.90
7	7.54	.	5.03	4.49
8	8.99	.	0.72	4.63
9	3.85	.	7.07	4.29
10	7.27	.	5.42	3.07
11	5.20	.	1.16	1.93
12	1.11	.	2.01	1.26
13	4.40	.	5.56	0.82
14	9.04	.	6.60	5.56
15	10.20	.	8.11	7.63
16	2.90	.	7.93	7.95
17	6.89	.	6.76	4.26
18	7.68	.	2.24	2.97
19	8.40	.	6.35	6.66
20	4.44	.	7.67	3.51
21	3.70	.	4.69	5.17
22	1.71	.	2.92	0.51
23	7.83	.	5.29	5.76
24	3.44	.	1.89	.
25	1.59	.	2.41	7.43
26	6.64	.	3.90	6.88
27	3.11	.	5.10	5.10
28	9.79	.	6.36	5.18
29	10.15	.	5.19	3.79
30	9.30	.	4.69	6.49
31	7.38	.	5.94	3.03
TT Monthly Totals	185.68	.	138.86	126.26
 Daily Means	5.99	.	4.48	4.21
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: JULY

Year: 2004

Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	0.30			
2	1.85			
3	2.54			
4	3.86			
5	0.85			
6	2.74			
7	1.95			
8	2.29			
9	2.38			
10	1.94			
11	3.01			
12	2.92			
13	3.07			
14	2.21			
15	3.37			
16	1.29			
17	3.75			
18	2.19			
19	3.35			
20	1.21			
21	2.60			
22	3.46			
23	3.16			
24	2.03			
25	3.99			
26	1.16			
27	1.54			
28	4.29			
29	4.49			
30	2.16			
31	1.01			
TT Monthly Totals	76.97			
Daily Means	2.48			
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY			

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

Month: AUGUST Year: 2004 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°23' S
Longitude	70°19'W	68°54' W	70°26' W	70°47' W
Elevation	58 m	2270 m	135 m	475 m
Station	ARICA	CALAMA	ANTOFAGASTA	PUDAHUEL
Date				
1	.	.	16.42	2.01
2	.	.	15.60	3.12
3	.	.	19.18	6.98
4	.	.	17.96	4.53
5	.	.	19.82	13.41
6	.	.	19.02	14.22
7	.	.	19.30	14.61
8	.	.	17.61	4.97
9	.	.	13.82	2.71
10	.	.	16.96	13.90
11	.	.	19.67	11.14
12	.	.	14.31	14.26
13	.	.	13.17	3.04
14	.	.	17.85	9.70
15	.	.	16.37	9.13
16	.	.	19.55	5.59
17	.	.	21.11	14.68
18	.	.	21.11	14.24
19	.	.	21.17	13.08
20	.	.	19.12	15.53
21	.	.	16.28	16.10
22	.	.	15.53	15.78
23	.	.	14.03	15.74
24	.	.	9.36	15.30
25	.	.	12.94	15.61
26	.	.	21.93	3.98
27	.	.	22.07	13.92
28	.	.	20.75	14.92
29	.	.	22.37	16.64
30	.	.	21.61	17.20
31	.	.	21.36	16.68
TT Monthly Totals	.	.	557.36	352.71
 Daily Means	.	.	17.98	11.38
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: AUGUST Year: 2004 Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	41°25' S	45°35' S
Longitude	71°14' W	73°03' W	73°05' W	72°07' W
Elevation	228 m	12 m	85 m	310 m
Station	CURICO	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	2.94	8.80	2.56	4.01
2	1.81	3.30	5.44	3.62
3	5.59	2.99	4.71	1.73
4	9.27	2.32	2.85	4.42
5	12.57	3.87	7.24	8.14
6	10.93	2.38	10.08	6.85
7	12.83	5.18	9.92	5.79
8	2.60	10.19	9.68	5.78
9	3.42	10.54	9.70	5.65
10	10.96	4.91	8.37	7.72
11	9.68	3.28	2.27	6.07
12	12.98	4.45	3.35	4.57
13	7.07	7.20	4.49	6.00
14	2.53	10.29	9.72	8.67
15	5.24	1.22	4.35	8.51
16	12.49	9.14	11.65	9.43
17	14.00	10.47	12.03	10.82
18	12.94	11.23	12.24	10.92
19	9.88	11.49	12.21	10.88
20	14.84	11.63	6.45	8.54
21	13.11	5.82	12.45	10.77
22	14.59	.	7.73	7.76
23	14.26	.	0.94	4.06
24	15.11	.	7.52	6.08
25	12.85	.	9.62	9.22
26	5.23	.	3.95	3.40
27	7.10	.	6.62	6.51
28	12.64	.	1.76	6.39
29	11.29	.	6.09	6.66
30	13.40	.	7.34	6.09
31	11.11	.	6.43	6.93
TT Monthly Totals	305.26	.	219.77	211.98
 Daily Means	9.85	.	7.09	6.84
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: AUGUST

Year: 2004

Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	2.88			
2	0.98			
3	5.09			
4	4.33			
5	4.24			
6	4.38			
7	1.99			
8	3.62			
9	4.58			
10	3.66			
11	1.07			
12	3.87			
13	4.76			
14	6.33			
15	6.52			
16	6.41			
17	5.37			
18	3.96			
19	6.72			
20	7.33			
21	2.55			
22	2.43			
23	5.48			
24	5.71			
25	8.78			
26	8.05			
27	4.15			
28	3.92			
29	6.48			
30	8.85			
31	4.82			
TT Monthly Totals	149.30			
Daily Means	4.82			
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY			

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

Month: SEPTEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°23' S
Longitude	70°19'W	68°54' W	70°26' W	70°47' W
Elevation	58 m	2270 m	135 m	475 m
Station	ARICA	CALAMA	ANTOFAGASTA	PUDAHUEL
Date				
1	.	.	22.50	16.72
2	.	.	21.51	9.15
3	.	.	20.65	5.68
4	.	.	23.51	8.22
5	.	.	17.68	8.16
6	.	.	17.02	6.19
7	.	.	22.34	6.81
8	.	.	18.85	18.86
9	.	.	18.08	18.65
10	.	.	15.23	18.83
11	.	.	20.47	19.45
12	.	.	21.17	19.86
13	.	.	23.75	19.04
14	.	.	22.63	16.62
15	.	.	22.91	19.19
16	.	.	24.52	19.38
17	.	.	24.19	14.89
18	.	.	22.13	13.14
19	.	.	25.11	18.57
20	.	.	.	20.37
21	.	.	.	17.11
22	.	.	.	21.38
23	.	.	.	21.80
24	.	.	.	21.77
25	.	.	.	21.33
26	.	.	.	14.02
27	.	.	.	17.92
28	.	.	25.62	20.94
29	.	.	25.55	13.28
30	.	.	26.96	22.15
TT Monthly Totals	.	.	.	489.46
 Daily Means	.	.	.	16.32
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: SEPTEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	41°25' S	45°35' S
Longitude	71°14' W	73°03' W	73°05' W	72°07' W
Elevation	228 m	12 m	85 m	310 m
Station	CURICO	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	8.82	.	10.42	9.69
2	8.04	.	8.86	7.31
3	2.56	.	4.82	7.86
4	2.58	.	9.35	10.58
5	2.03	.	5.02	7.95
6	3.06	.	12.89	6.52
7	16.48	.	13.15	11.76
8	16.04	.	10.29	8.29
9	14.87	.	13.41	14.24
10	14.24	.	16.61	15.37
11	18.01	.	14.81	0.00
12	18.42	.	12.62	3.75
13	18.34	.	7.95	3.19
14	12.17	.	9.02	15.27
15	14.09	.	17.24	11.67
16	18.38	.	12.85	10.26
17	8.53	.	10.03	3.70
18	3.97	.	7.70	8.66
19	20.75	.	13.71	12.83
20	15.54	.	12.24	10.55
21	18.67	.	10.74	11.85
22	17.69	.	12.20	12.29
23	18.67	.	3.04	9.44
24	19.76	.	4.91	11.99
25	20.39	.	7.43	7.66
26	11.30	.	11.68	13.77
27	14.63	.	12.53	13.91
28	13.50	.	14.97	18.09
29	14.08	.	10.26	9.29
30	20.00	.	7.81	12.32
TT Monthly Totals	405.61	.	318.57	300.03
 Daily Means	13.52	.	10.62	10.00
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: SEPTEMBER

Year: 2004

Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	4.87			
2	9.05			
3	1.59			
4	5.25			
5	8.15			
6	7.74			
7	11.32			
8	10.31			
9	7.63			
10	11.02			
11	3.26			
12	10.70			
13	10.12			
14	11.31			
15	7.02			
16	5.02			
17	8.54			
18	10.24			
19	8.92			
20	11.54			
21	13.10			
22	8.63			
23	13.84			
24	8.76			
25	13.01			
26	10.11			
27	5.80			
28	12.27			
29	14.83			
30	8.18			
TT Monthly Totals	272.13			
Daily Means	9.07			
SS Monthly Totals				
Daily Means				
Types of	PYRANOMETER			
Instruments	PSP EPPLEY			

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

Month: OCTOBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°23' S
Longitude	70°19'W	68°54' W	70°26' W	70°47' W
Elevation	58 m	2270 m	135 m	475 m
Station	ARICA	CALAMA	ANTOFAGASTA	PUDAHUEL
Date				
1	.	.	25.81	22.42
2	.	.	26.74	17.58
3	.	.	25.81	19.33
4	.	.	.	21.35
5	.	.	.	6.93
6	.	.	.	8.03
7	.	.	.	5.61
8	.	.	.	22.87
9	.	.	26.92	16.70
10	.	.	26.44	8.18
11	.	.	12.26	12.66
12	.	.	22.97	24.52
13	.	.	23.40	17.76
14	.	30.38	25.57	19.69
15	.	31.44	27.40	21.58
16	.	29.72	29.81	23.91
17	.	27.91	24.83	22.67
18	.	31.63	23.86	24.50
19	.	29.46	27.88	24.24
20	.	31.56	28.84	21.41
21	.	31.86	29.50	13.47
22	26.46	32.08	27.86	23.76
23	23.22	32.44	29.26	24.54
24	20.82	32.58	27.17	25.24
25	25.32	32.20	29.59	12.05
26	27.17	32.35	28.09	21.31
27	19.87	31.91	26.99	26.02
28	25.49	32.00	31.35	20.24
29	21.08	32.21	27.51	23.20
30	22.64	32.96	26.11	26.58
31	24.15	33.35	26.19	27.44
TT Monthly Totals	236.22	.	.	605.79
 Daily Means	23.62	.	.	19.54
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: OCTOBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	41°25' S	45°35' S
Longitude	71°14' W	73°03' W	73°05' W	72°07' W
Elevation	228 m	12 m	85 m	310 m
Station	CURICO	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	19.37	9.78	5.82	7.87
2	18.96	15.22	13.61	18.15
3	16.02	8.15	10.07	16.82
4	15.49	8.14	6.56	18.06
5	4.52	7.52	9.80	17.26
6	8.83	13.79	7.46	14.68
7	11.56	18.52	10.44	5.52
8	19.28	14.99	4.44	20.20
9	10.60	11.40	13.10	13.43
10	7.38	4.40	4.93	5.40
11	8.24	11.73	16.54	8.88
12	24.31	19.28	12.37	15.51
13	16.07	10.02	9.68	11.21
14	14.66	13.62	9.56	15.75
15	10.57	4.26	6.12	11.96
16	19.92	9.82	15.07	0.00
17	13.95	12.22	10.50	15.48
18	21.39	16.38	9.00	14.41
19	21.37	20.38	18.62	10.78
20	22.77	16.45	11.51	11.38
21	7.59	5.12	3.90	9.01
22	11.58	17.76	7.98	11.41
23	22.97	13.01	7.07	15.55
24	24.52	14.50	6.67	15.16
25	3.79	2.45	10.95	23.19
26	18.72	19.81	13.59	19.85
27	23.54	19.76	19.35	16.05
28	16.11	17.39	9.70	12.29
29	16.83	21.46	18.60	22.37
30	24.30	21.64	5.39	14.24
31	26.14	14.42	17.18	13.08
TT Monthly Totals	501.34	413.38	325.56	424.95
 Daily Means	16.17	13.33	10.50	13.71
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: OCTOBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	1.35			
2	13.61			
3	14.31			
4	9.35			
5	9.61			
6	5.31			
7	16.96			
8	16.09			
9	17.98			
10	18.20			
11	18.62			
12	14.98			
13	16.42			
14	10.25			
15	16.08			
16	9.91			
17	12.60			
18	7.34			
19	14.07			
20	17.67			
21	15.23			
22	19.51			
23	14.04			
24	6.58			
25	15.18			
26	15.97			
27	6.41			
28	7.75			
29	16.34			
30	22.65			
31	21.53			
TT Monthly Totals	421.92			
Daily Means	13.61			
SS Monthly Totals				
Daily Means				
Types of	PYRANOMETER			
Instruments	PSP EPPLEY			

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

Month: NOVEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°23' S
Longitude	70°19'W	68°54' W	70°26' W	70°47' W
Elevation	58 m	2270 m	135 m	475 m
Station	ARICA	CALAMA	ANTOFAGASTA	PUDAHUEL
Date				
1	25.02	33.19	27.32	23.27
2	25.96	33.16	31.14	10.40
3	24.89	32.74	29.32	19.60
4	29.66	32.72	30.11	24.43
5	29.85	31.77	28.49	28.69
6	26.98	30.06	27.98	26.86
7	18.81	29.86	31.20	19.37
8	27.26	32.88	31.47	13.97
9	24.33	33.30	28.33	24.57
10	20.88	33.53	27.55	27.67
11	18.13	33.36	21.37	8.01
12	27.15	33.27	26.75	5.31
13	29.55	33.14	32.08	14.04
14	27.68	32.87	30.13	28.60
15	29.12	32.31	23.35	29.45
16	21.46	33.34	27.37	29.84
17	24.08	33.68	26.31	29.50
18	26.15	34.32	30.56	29.25
19	21.69	34.26	30.62	28.07
20	26.12	34.08	29.07	29.16
21	24.58	34.35	29.66	29.07
22	26.25	34.51	33.60	21.80
23	22.34	34.45	30.43	25.96
24	27.37	34.09	31.66	24.81
25	29.40	34.11	31.51	28.36
26	31.47	34.66	32.11	27.44
27	26.91	34.92	32.00	29.93
28	29.26	34.51	30.68	28.85
29	29.39	34.54	31.97	29.44
30	28.29	34.63	31.91	29.44
TT Monthly Totals	780.03	1002.61	886.07	725.17
Daily Means	26.00	33.42	29.54	24.17
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: NOVEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	41°25' S	45°35' S
Longitude	71°14' W	73°03' W	73°05' W	72°07' W
Elevation	228 m	12 m	85 m	310 m
Station	CURICO	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	15.06	13.24	14.15	12.40
2	5.41	6.14	12.35	16.56
3	9.93	16.04	12.48	22.67
4	23.79	22.30	12.77	20.64
5	26.29	23.01	15.42	26.50
6	21.94	20.93	23.55	21.41
7	19.42	18.43	19.31	27.36
8	11.81	14.77	22.76	25.34
9	24.36	22.65	20.18	21.97
10	22.07	22.63	25.04	26.53
11	7.32	10.86	8.09	8.13
12	3.04	5.89	3.38	13.90
13	19.55	21.92	16.58	18.45
14	25.54	18.27	13.96	21.58
15	27.00	23.92	12.11	18.76
16	22.16	24.20	12.57	23.45
17	22.64	23.98	24.19	27.24
18	25.09	21.31	19.64	13.63
19	26.75	23.67	12.86	20.98
20	26.98	19.67	14.33	9.94
21	18.31	23.17	26.42	30.08
22	19.20	22.11	28.76	29.60
23	21.64	23.22	28.33	24.71
24	18.63	18.77	29.36	21.88
25	20.68	10.99	27.58	18.79
26	18.04	16.46	12.93	17.00
27	25.05	22.47	15.87	8.67
28	25.88	23.54	12.00	18.30
29	26.98	22.06	21.58	23.03
30	26.20	10.22	3.92	11.49
TT Monthly Totals	606.77	566.84	522.45	600.97
Daily Means	20.23	18.89	17.41	20.03
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: NOVEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	24.02			
2	21.12			
3	21.07			
4	17.98			
5	15.08			
6	20.56			
7	20.71			
8	21.83			
9	24.71			
10	23.37			
11	14.68			
12	8.58			
13	6.93			
14	9.17			
15	26.15			
16	23.98			
17	23.05			
18	13.32			
19	17.99			
20	21.42			
21	15.73			
22	19.28			
23	18.78			
24	21.12			
25	26.57			
26	5.31			
27	24.53			
28	22.70			
29	12.29			
30	13.47			
TT Monthly Totals	555.50			
Daily Means	18.52			
SS Monthly Totals				
Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY			

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

Month: DECEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°23' S
Longitude	70°19'W	68°54' W	70°26' W	70°47' W
Elevation	58 m	2270 m	135 m	475 m
Station	ARICA	CALAMA	ANTOFAGASTA	PUDAHUEL
Date				
1	.	34.57	32.64	27.75
2	.	34.36	32.97	20.66
3	.	34.29	30.73	29.79
4	.	34.25	33.43	27.27
5	.	33.98	22.92	25.50
6	.	33.77	30.68	21.58
7	.	33.88	30.87	29.84
8	.	33.61	32.65	29.13
9	.	33.10	32.66	29.29
10	.	32.38	31.76	30.14
11	.	32.74	32.44	26.51
12	.	32.54	31.92	30.94
13	.	32.91	32.05	27.85
14	.	31.33	30.93	30.03
15	.	33.07	32.49	29.67
16	.	33.20	32.08	30.64
17	.	33.39	31.36	28.84
18	.	33.70	31.32	31.02
19	.	33.88	32.33	30.32
20	.	33.90	32.61	30.84
21	.	33.88	33.24	29.82
22	.	33.32	30.59	30.26
23	.	33.56	33.50	30.21
24	.	33.30	31.96	31.08
25	.	33.86	32.35	30.20
26	.	33.24	31.64	30.01
27	.	33.20	32.75	19.07
28	.	33.51	31.23	17.32
29	.	32.63	32.02	29.37
30	.	27.59	33.11	29.74
31	.	32.47	33.07	29.16
TT Monthly Totals	.	1029.41	986.32	873.82
 Daily Means	.	33.21	31.82	28.19
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: DECEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	34°58' S	36°46' S	41°25' S	45°35' S
Longitude	71°14' W	73°03' W	73°05' W	72°07' W
Elevation	228 m	12 m	85 m	310 m
Station	CURICO	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	17.36	4.39	23.68	23.55
2	6.78	13.10	9.14	17.12
3	21.10	17.75	13.87	19.47
4	25.69	25.16	12.95	20.85
5	24.48	21.61	14.80	22.25
6	22.97	20.86	16.00	30.97
7	27.96	24.40	23.66	30.14
8	25.31	24.31	29.69	29.77
9	27.96	15.28	26.62	25.58
10	27.99	24.37	15.51	22.09
11	26.80	25.28	12.86	10.75
12	28.68	25.18	10.75	14.69
13	26.16	24.71	15.94	14.16
14	27.41	21.09	9.23	15.72
15	18.20	24.17	15.12	17.60
16	28.48	25.36	18.22	18.76
17	27.42	16.97	11.55	14.89
18	27.97	23.33	21.16	17.54
19	27.54	24.94	15.48	22.31
20	28.13	24.97	19.51	13.70
21	27.78	24.92	16.65	13.39
22	28.14	24.64	17.88	13.58
23	25.78	14.48	10.07	11.76
24	25.04	24.74	19.21	23.42
25	27.88	25.17	29.47	30.57
26	27.33	22.19	29.32	29.49
27	21.83	16.63	23.94	29.00
28	15.22	16.02	14.02	20.63
29	26.78	23.41	4.84	8.99
30	25.55	10.91	12.53	20.36
31	24.87	24.37	14.07	20.12
TT Monthly Totals	770.60	654.72	527.75	623.25
 Daily Means	24.86	21.12	17.02	20.10
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: DECEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	25.65			
2	27.92			
3	17.41			
4	22.20			
5	16.18			
6	20.79			
7	18.54			
8	12.03			
9	18.89			
10	17.73			
11	19.21			
12	24.92			
13	7.87			
14	10.15			
15	17.22			
16	11.04			
17	26.87			
18	12.40			
19	20.74			
20	11.01			
21	13.56			
22	24.21			
23	29.83			
24	18.23			
25	10.00			
26	21.54			
27	14.69			
28	13.66			
29	23.97			
30	25.81			
31	20.95			
TT Monthly Totals	575.23			
Daily Means	18.56			
SS Monthly Totals				
Daily Means				
Types of	PYRANOMETER			
Instruments	PSP EPPLEY			

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

Month: JULY Year: 2004 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	2.7	2.6	1.9	0.7
2	2.2	0.3	1.5	1.9
3	0.0	5.0	9.5	0.2
4	0.0	0.1	7.9	2.4
5	0.0	0.0	9.3	1.4
6	0.0	0.0	10.2	3.4
7	0.0	9.0	10.3	7.5
8	4.4	1.5	10.4	6.0
9	4.1	0.3	10.5	1.0
10	5.0	7.9	10.6	7.5
11	7.7	9.5	10.4	7.3
12	6.7	8.8	9.7	7.5
13	5.8	8.1	10.4	9.3
14	0.8	8.7	10.4	7.1
15	3.5	6.7	10.4	7.3
16	5.1	6.2	10.6	6.3
17	4.2	4.6	10.3	6.8
18	9.5	9.7	10.3	9.9
19	2.4	5.0	10.5	8.5
20	2.7	1.2	10.5	0.0
21	3.3	9.5	10.3	9.7
22	3.4	4.2	10.6	7.2
23	5.1	8.2	10.4	10.9
24	5.1	7.5	10.4	10.6
25	1.1	6.0	10.5	8.0
26	1.6	0.0	9.9	1.5
27	2.1	6.4	9.1	10.1
28	3.9	9.3	10.5	10.3
29	2.9	7.3	10.4	9.7
30	3.4	6.5	10.6	6.8
31	4.4	5.4	10.6	6.5
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	103.1	165.5	298.9	193.3
 Daily Means	3.3	5.3	9.6	6.2
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: JULY Year: 2004 Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	29°57' S	32°51' S
Longitude	109°26' W	70°25' W	71°22' W	70°37' W
Elevation	47 m	291 m	25 m	880 m
Station	ISLA DE PASCUA	COPIAPO	LA SERENA	CALLE LARGA
Date				
1	6.2	5.7	9.0	8.6
2	7.7	8.6	8.6	8.5
3	6.6	8.4	8.8	8.3
4	2.3	8.8	9.4	9.0
5	4.7	2.3	2.6	9.0
6	0.4	7.1	1.4	8.3
7	9.5	0.0	1.5	5.4
8	7.7	9.5	8.7	5.3
9	9.0	4.6	5.0	0.0
10	1.6	6.6	5.5	8.7
11	1.2	7.9	0.0	2.9
12	1.6	6.5	6.0	0.0
13	6.6	5.5	7.9	.
14	4.9	8.7	9.1	.
15	1.3	8.4	7.4	8.6
16	7.7	8.8	9.4	1.3
17	6.4	6.7	3.0	6.6
18	4.7	8.2	6.7	6.0
19	4.4	8.8	8.7	8.1
20	0.7	5.2	2.1	0.0
21	0.0	1.8	4.7	0.4
22	1.6	5.9	5.3	0.0
23	4.0	8.9	9.4	9.3
24	5.1	8.8	3.4	3.0
25	4.6	8.0	2.6	0.0
26	4.8	7.9	6.4	7.2
27	1.2	8.8	0.0	0.5
28	7.8	8.8	10.4	8.6
29	6.4	9.1	10.0	9.6
30	9.6	7.2	4.6	9.5
31	9.1	4.9	0.0	9.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	149.4	216.4	177.6	.
 Daily Means	4.8	7.0	5.7	5.6
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: JULY Year: 2004 Country: CHILE

Daily Totals				
Latitude	33°23' S	33°27' S	33°37' S	33°39' S
Longitude	70°47' W	70°42' W	78°50' W	71°36' W
Elevation	474 m	520 m	30 m	74 m
Station	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO
Date				
1	7.1	6.9	5.0	9.2
2	7.7	6.9	4.2	8.1
3	7.7	7.3	1.6	8.1
4	8.3	7.6	4.1	9.3
5	8.3	7.4	1.5	9.3
6	7.0	6.0	4.1	7.5
7	3.6	2.0	5.9	8.2
8	6.0	4.5	6.3	7.9
9	0.3	0.4	2.1	5.2
10	7.6	6.7	4.4	7.3
11	2.8	1.7	0.0	0.1
12	0.0	0.0	2.7	0.0
13	0.0	0.0	2.7	0.1
14	6.0	4.2	3.4	9.4
15	7.3	5.0	2.1	9.3
16	0.1	0.4	1.7	3.3
17	5.5	5.2	0.0	5.5
18	4.6	4.5	0.7	5.0
19	7.6	7.0	6.0	7.5
20	0.1	0.0	3.5	2.5
21	0.8	0.2	1.1	2.3
22	0.2	0.0	3.4	0.0
23	9.0	7.8	3.5	6.1
24	0.1	0.0	0.8	1.3
25	0.0	0.0	2.6	0.0
26	0.7	0.8	5.8	1.3
27	0.0	0.0	4.1	0.0
28	5.7	6.4	5.6	9.0
29	8.6	8.0	5.2	9.8
30	8.9	8.3	5.9	9.1
31	7.8	6.8	0.5	0.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	139.4	122.0	100.5	161.7
 Daily Means	4.5	3.9	3.2	5.2
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: JULY Year: 2004 Country: CHILE

Daily Totals				
Latitude	34°58' S	36°36' S	36°46' S	38°45' S
Longitude	71°12' W	72°26' W	73°03' W	72°38' W
Elevation	225 m	124 m	12 m	114 m
Station	CURICO	CHILLAN	CONCEPCION	TEMUCO
Date				
1	5.7	1.0	0.0	0.0
2	0.0	0.0	5.1	0.2
3	5.2	0.4	1.5	0.0
4	0.0	4.6	0.3	1.1
5	5.2	8.5	8.3	0.0
6	4.2	6.0	4.8	5.7
7	6.2	8.0	8.4	6.7
8	8.0	5.8	7.8	0.0
9	1.9	7.3	8.0	6.3
10	4.6	3.2	4.1	0.5
11	0.0	1.3	1.9	0.5
12	0.0	0.0	0.0	0.0
13	2.2	0.3	3.3	2.6
14	7.6	0.3	1.9	0.2
15	8.2	7.9	8.1	5.4
16	0.0	2.5	4.4	7.3
17	2.4	1.8	3.1	5.9
18	4.1	2.0	2.4	1.0
19	6.2	4.4	6.5	5.2
20	2.3	0.0	0.0	1.9
21	1.0	0.6	1.1	2.4
22	0.0	0.0	0.4	0.6
23	6.1	1.4	4.2	3.8
24	0.0	4.8	0.0	0.0
25	0.0	0.0	0.6	1.8
26	2.7	0.0	6.1	0.6
27	0.0	0.0	6.3	0.8
28	6.1	7.4	9.2	3.2
29	6.9	7.8	7.6	8.2
30	5.2	6.7	0.6	3.8
31	2.6	1.7	0.0	0.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	104.6	95.7	116.0	75.7
 Daily Means	3.4	3.1	3.7	2.4
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: JULY Year: 2004 Country: CHILE

Daily Totals				
Latitude	39°41' S	41°26' S	45°35' S	53°08' S
Longitude	73°04' W	73°07' W	72°07'W	70°58' W
Elevation	19 m	81 m	310 m	37 m
Station	VALDIVIA	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
Date				
1	0.0	0.0	0.3	0.0
2	0.0	2.5	3.5	5.7
3	0.0	1.2	4.4	0.0
4	0.0	0.2	0.0	2.6
5	0.9	0.0	0.0	0.4
6	3.9	1.7	6.3	6.6
7	4.7	5.2	4.9	4.6
8	0.0	0.0	3.4	4.9
9	6.2	5.6	5.0	3.9
10	0.0	1.6	1.0	3.1
11	0.0	0.0	0.0	5.9
12	0.0	0.0	0.0	5.9
13	2.7	4.9	0.0	7.3
14	0.0	5.8	6.4	3.9
15	5.7	7.3	4.5	6.9
16	5.7	6.8	6.6	0.0
17	3.5	4.3	0.0	6.8
18	0.4	0.0	0.4	1.2
19	6.4	5.7	4.5	6.6
20	0.5	5.8	0.4	0.0
21	1.5	3.5	2.6	3.1
22	0.0	0.4	0.0	6.5
23	1.6	2.8	5.0	5.4
24	0.0	0.0	0.6	1.3
25	0.5	0.0	6.6	7.6
26	1.3	0.9	6.6	0.0
27	4.2	2.2	3.8	1.1
28	5.3	4.7	5.5	6.6
29	4.4	1.7	0.6	6.6
30	1.4	1.3	6.0	0.3
31	1.6	3.1	0.0	0.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	62.4	79.2	88.9	114.8
 Daily Means	2.0	2.6	2.9	3.7
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: AUGUST Year: 2004 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	4.9	0.2	10.6	7.0
2	0.0	6.6	10.7	6.9
3	0.2	4.2	10.5	9.6
4	5.2	7.8	9.6	10.1
5	4.8	2.8	10.4	10.0
6	4.3	6.6	9.2	9.8
7	5.9	4.0	10.1	9.4
8	0.0	1.6	8.4	7.5
9	0.0	0.9	7.1	5.0
10	0.0	8.8	5.9	8.2
11	6.0	8.4	10.6	10.1
12	3.4	2.1	10.7	5.0
13	4.0	0.8	10.7	2.6
14	1.1	3.9	4.9	7.2
15	1.1	2.1	5.4	6.4
16	7.1	5.1	9.3	8.3
17	3.3	4.8	10.8	9.6
18	2.6	5.3	10.6	10.3
19	0.0	3.8	7.3	10.0
20	1.5	5.3	10.5	8.2
21	2.1	0.0	9.6	5.4
22	0.0	3.2	5.8	5.4
23	0.9	0.0	0.3	4.4
24	0.0	0.4	4.6	4.3
25	7.2	7.9	9.3	5.8
26	10.6	10.4	8.9	10.5
27	10.5	10.3	10.7	9.4
28	8.5	5.2	11.1	8.7
29	2.4	0.0	11.3	9.8
30	7.3	2.9	11.0	9.5
31	6.4	9.3	10.9	8.9
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	111.3	134.7	276.8	243.3
 Daily Means	3.6	4.3	8.9	7.8
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: AUGUST Year: 2004 Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	29°57' S	32°51' S
Longitude	109°26' W	70°25' W	71°22' W	70°37' W
Elevation	47 m	291 m	25 m	880 m
Station	ISLA DE PASCUA	COPIAPO	LA SERENA	CALLE LARGA
Date				
1	8.1	5.9	1.0	1.6
2	3.4	6.7	6.2	0.0
3	8.1	8.0	4.2	0.8
4	2.7	8.5	3.5	0.0
5	8.2	8.9	9.1	9.2
6	4.8	9.0	10.4	9.4
7	7.3	4.8	4.9	9.5
8	1.8	9.1	3.4	9.5
9	8.0	4.6	0.1	0.0
10	4.5	6.6	7.4	9.4
11	7.3	8.8	10.1	7.1
12	5.0	9.1	8.9	9.7
13	4.5	3.6	0.0	3.3
14	3.1	5.6	8.9	3.6
15	0.6	8.0	6.6	3.2
16	0.0	6.0	6.3	0.4
17	2.5	6.1	7.0	9.6
18	7.1	7.8	0.0	7.5
19	4.3	6.6	8.0	7.3
20	4.1	9.2	10.4	10.0
21	7.4	9.0	10.4	10.1
22	3.2	5.9	10.2	10.0
23	0.3	9.0	10.4	10.0
24	1.7	7.2	3.5	10.0
25	6.3	0.0	0.0	10.0
26	0.1	8.9	6.7	2.4
27	6.3	8.9	3.4	7.9
28	8.6	9.0	10.1	8.3
29	7.4	6.8	4.2	10.3
30	9.7	3.5	0.0	10.2
31	1.9	8.7	0.0	10.2
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	148.3	219.8	175.3	210.5
 Daily Means	4.8	7.1	5.7	6.8
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: AUGUST Year: 2004 Country: CHILE

Daily Totals				
Latitude	33°23' S	33°27' S	33°37' S	33°39' S
Longitude	70°47' W	70°42' W	78°50' W	71°36' W
Elevation	474 m	520 m	30 m	74 m
Station	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO
Date				
1	0.0	0.0	6.0	0.2
2	0.1	0.0	5.1	0.0
3	1.2	1.4	0.9	0.8
4	0.8	0.8	5.1	6.7
5	8.7	8.3	4.1	8.9
6	8.6	8.1	6.8	10.3
7	9.2	8.0	6.1	10.2
8	0.2	0.1	0.2	0.0
9	0.0	0.0	1.4	0.0
10	7.8	7.1	1.9	6.8
11	6.0	4.9	2.5	7.8
12	8.7	8.3	1.0	8.6
13	0.0	0.0	6.7	2.3
14	4.6	4.1	6.8	0.2
15	2.0	1.7	6.7	0.0
16	0.2	0.0	2.6	9.5
17	8.6	8.4	6.0	9.9
18	8.0	8.2	4.2	10.2
19	6.6	6.7	5.2	9.2
20	9.1	8.3	4.2	9.9
21	8.7	8.2	0.7	10.1
22	9.0	8.3	5.0	10.5
23	8.5	8.3	7.5	10.5
24	9.6	8.3	7.5	10.6
25	9.3	8.3	4.7	3.2
26	0.0	0.0	0.6	2.4
27	6.5	6.5	2.4	2.2
28	7.5	7.0	6.3	8.8
29	9.3	8.2	5.8	9.7
30	10.1	8.7	3.3	0.0
31	10.7	8.4	2.4	3.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	179.6	164.6	129.7	182.9
 Daily Means	5.8	5.3	4.2	5.9
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: AUGUST

Year: 2004

Country: CHILE

Daily Totals				
Latitude	34°58' S	36°36' S	36°46' S	38°45' S
Longitude	71°12' W	72°26' W	73°03' W	72°38' W
Elevation	225 m	124 m	12 m	114 m
Station	CURICO	CHILLAN	CONCEPCION	TEMUCO
Date				
1	0.0	0.0	0.3	1.0
2	0.0	0.0	0.0	2.0
3	2.5	2.2	2.3	1.7
4	5.0	1.9	0.4	2.1
5	7.3	7.3	3.5	0.1
6	4.5	8.7	9.6	6.6
7	8.4	8.8	9.4	8.5
8	0.0	0.0	0.0	6.2
9	0.0	0.0	0.0	1.7
10	6.6	5.3	1.7	1.2
11	4.8	1.8	4.2	0.0
12	7.8	8.0	7.2	2.8
13	2.2	0.1	0.0	0
14	0.0	6.0	5.2	6.6
15	0.0	7.3	8.3	4.3
16	7.2	7.6	9.7	7.8
17	9.2	8.1	9.4	8.7
18	9.2	9.4	10.0	8.7
19	6.1	6.5	9.8	8.9
20	9.2	8.8	9.7	8.2
21	7.2	9.2	9.9	6.1
22	8.7	8.8	9.8	7.6
23	7.9	8.7	9.0	0.4
24	9.8	9.3	9.9	7.1
25	7.0	4.7	8.7	7.7
26	0.0	4.0	5.2	6.2
27	0.5	0.0	0.0	0.0
28	5.8	3.2	0.5	0.0
29	4.1	5.1	8.6	4.2
30	6.3	7.8	5.1	7.1
31	7.3	5.9	0.1	0.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	154.6	164.5	167.5	133.8
 Daily Means	5.0	5.3	5.4	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: AUGUST Year: 2004 Country: CHILE

Daily Totals				
Latitude	39°41' S	41°26' S	45°35' S	53°08' S
Longitude	73°04' W	73°07' W	72°07'W	70°58' W
Elevation	19 m	81 m	310 m	37 m
Station	VALDIVIA	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
Date				
1	0.0	0.0	0.5	2.8
2	3.8	2.5	0.5	0.0
3	2.3	1.0	0.0	6.0
4	1.2	0.0	1.5	2.1
5	0.8	7.4	6.5	4.9
6	5.8	9.0	4.4	3.5
7	6.9	7.6	1.2	0.0
8	7.3	7.7	3.4	2.7
9	0.4	7.1	5.2	4.4
10	0.8	5.5	6.1	3.3
11	1.4	0.0	4.5	0.0
12	0.0	0.0	1.9	2.5
13	0.0	3.1	5.9	5.5
14	6.6	6.4	8.0	7.5
15	5.9	0.3	8.4	7.9
16	9.5	6.7	7.4	7.1
17	8.7	9.2	8.0	5.6
18	9.3	8.2	8.1	2.5
19	4.7	7.6	6.6	5.4
20	3.8	2.3	6.0	8.8
21	5.6	8.0	6.9	0.2
22	5.5	4.0	4.0	0.1
23	0.0	0.0	2.0	4.2
24	9.9	5.5	3.6	3.7
25	3.5	4.6	4.6	8.9
26	0.8	0.1	0.0	7.9
27	0.3	0.4	4.8	1.1
28	0.0	0.0	2.8	1.0
29	3.3	1.1	2.2	2.4
30	1.9	2.9	2.2	9.8
31	0.3	0.6	4.0	0.2
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	110.3	118.8	131.2	122.0
 Daily Means	3.6	3.8	4.2	3.9
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: OCTOBER Year: 2004 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	8.2	10.7	11.4	8.7
2	7.0	8.7	11.5	9.8
3	6.3	8.4	11.4	7.9
4	4.7	8.9	11.5	9.5
5	8.3	10.5	11.4	10.2
6	8.3	8.2	11.5	5.0
7	0.2	3.8	11.2	5.3
8	4.9	7.7	11.6	6.7
9	5.4	5.8	11.7	7.8
10	5.5	4.1	11.7	8.5
11	6.4	5.1	11.6	0.0
12	7.6	8.5	11.8	4.4
13	8.4	11.0	11.8	5.9
14	6.6	9.4	11.8	6.3
15	5.4	11.2	11.6	9.0
16	6.5	10.5	11.4	10.1
17	6.1	10.8	11.7	6.7
18	4.0	9.1	9.1	6.8
19	5.9	8.4	11.5	8.3
20	3.9	7.1	12.0	9.0
21	6.1	5.6	12.1	9.7
22	8.0	9.0	12.2	9.2
23	6.1	8.0	11.7	8.4
24	4.5	7.1	12.3	8.2
25	8.0	0.0	11.6	9.3
26	8.5	8.8	12.4	8.2
27	5.2	9.0	12.2	8.2
28	6.6	10.2	12.2	10.9
29	4.0	6.5	12.3	7.6
30	3.8	9.8	11.1	6.7
31	6.3	8.4	12.4	6.6
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	186.7	250.3	361.7	238.9
 Daily Means	6.0	8.1	11.7	7.7
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: OCTOBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	29°57' S	32°51' S
Longitude	109°26' W	70°25' W	71°22' W	70°37' W
Elevation	47 m	291 m	25 m	880 m
Station	ISLA DE PASCUA	COPIAPO	LA SERENA	CALLE LARGA
Date				
1	10.5	8.1	0.9	9.7
2	10.6	8.4	0.4	3.0
3	9.4	8.9	0.8	8.0
4	2.1	7.3	0.0	10.0
5	3.1	6.7	3.5	7.8
6	1.2	7.7	0.0	5.6
7	6.4	6.2	2.0	0.0
8	4.7	11.2	11.7	9.6
9	8.6	10.3	11.2	5.6
10	10.5	8.3	10.7	.
11	7.9	6.9	8.3	4.0
12	7.3	10.8	11.3	10.4
13	8.4	10.8	7.8	5.8
14	3.4	7.9	7.1	7.9
15	2.0	8.4	11.7	9.5
16	8.8	9.7	12.4	11.3
17	10.5	10.5	9.8	10.7
18	10.5	10.7	11.9	8.0
19	8.6	9.1	9.5	9.5
20	10.0	7.6	5.7	6.7
21	11.8	7.8	3.5	0.0
22	11.8	8.2	4.2	10.3
23	10.9	10.9	12.0	10.5
24	9.3	9.9	11.9	9.5
25	10.6	11.3	11.0	1.4
26	10.9	9.5	8.0	5.7
27	7.5	11.8	10.0	10.5
28	5.5	8.6	1.5	10.6
29	7.7	8.5	6.6	10.0
30	6.0	9.0	8.5	11.2
31	9.0	9.8	10.1	11.2
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	245.5	280.8	224.0	.
 Daily Means	7.9	9.1	7.2	7.8
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: OCTOBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	33°23' S	33°27' S	33°37' S	33°39' S
Longitude	70°47' W	70°42' W	78°50' W	71°36' W
Elevation	474 m	520 m	30 m	74 m
Station	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO
Date				
1	9.9	9.4	4.7	9.0
2	5.8	5.7	4.1	5.0
3	8.2	7.0	4.6	0.0
4	9.4	9.5	1.8	0.0
5	0.0	0.0	1.0	2.3
6	0.6	0.5	8.2	1.0
7	0.7	0.6	5.7	0.0
8	10.6	10.4	7.0	10.6
9	6.4	6.9	6.3	8.9
10	0.0	0.0	4.8	6.0
11	6.2	5.2	5.5	7.5
12	10.2	10.4	5.9	12.0
13	5.5	4.2	0.3	8.0
14	7.1	5.9	6.0	6.9
15	7.9	8.1	7.2	6.8
16	10.6	10.4	1.7	10.5
17	9.5	9.9	6.2	11.5
18	9.7	9.6	2.2	12.3
19	10.4	10.2	4.3	11.1
20	10.3	9.3	5.5	0.0
21	3.8	3.7	3.5	3.5
22	9.3	8.1	6.0	11.2
23	8.4	8.0	4.7	11.1
24	11.1	10.7	5.7	12.0
25	1.4	0.7	0.0	1.3
26	7.4	7.0	3.6	7.2
27	11.3	11.0	1.5	11.9
28	10.0	10.0	7.5	9.7
29	9.4	8.8	3.9	11.6
30	11.6	10.9	8.8	12.1
31	11.7	11.5	5.0	12.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	234.4	223.6	143.2	233.4
 Daily Means	7.6	7.2	4.6	7.5
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: OCTOBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	34°58' S	36°36' S	36°46' S	38°45' S
Longitude	71°12' W	72°26' W	73°03' W	72°38' W
Elevation	225 m	124 m	12 m	114 m
Station	CURICO	CHILLAN	CONCEPCION	TEMUCO
Date				
1	9.2	7.0	5.1	5.9
2	7.4	7.9	8.6	6.5
3	5.6	4.4	0.2	0.0
4	6.8	0.6	1.0	0.5
5	0.0	0.0	1.0	0.9
6	2.3	3.4	4.8	3.0
7	3.0	8.8	11.3	6.0
8	10.4	9.6	8.4	0.4
9	3.1	6.8	5.3	1.4
10	1.1	1.2	0.0	0.0
11	2.3	6.0	5.8	5.0
12	11.5	10.4	11.3	10.8
13	2.5	1.8	1.3	0.6
14	5.1	3.2	4.1	5.8
15	5.0	0.1	0.7	0.5
16	9.9	5.3	1.8	8.8
17	7.0	6.2	6.0	2.4
18	9.2	7.8	7.7	6.5
19	8.8	11.2	12.1	9.5
20	10.6	5.8	6.3	3.5
21	0.0	1.9	0.5	0.0
22	4.7	5.9	10.0	0.4
23	8.6	4.8	5.3	1.4
24	11.3	9.3	7.5	2.4
25	0.0	0.0	0.0	0.0
26	7.5	8.4	10.6	5.1
27	10.2	9.5	10.2	4.9
28	4.6	3.9	8.8	5.9
29	6.0	11.2	12.5	5.7
30	10.2	10.9	12.1	8.6
31	12.2	11.3	8.9	0.2
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	196.1	184.6	189.2	112.6
 Daily Means	6.3	6.0	6.1	3.6
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: OCTOBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	39°41' S	41°26' S	45°35' S	53°08' S
Longitude	73°04' W	73°07' W	72°07'W	70°58' W
Elevation	19 m	81 m	310 m	37 m
Station	VALDIVIA	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
Date				
1	1.0	0.1	1.7	0.0
2	8.6	6.2	10.5	5.5
3	3.6	3.2	9.2	8.5
4	3.6	0.5	10.8	2.4
5	0.3	2.1	7.8	5.0
6	0.0	1.1	6.4	0.0
7	5.6	2.6	0.6	9.0
8	2.4	0.0	9.4	9.0
9	0.0	5.5	2.8	10.8
10	0.0	0.0	0.0	12.4
11	2.5	6.9	2.4	12.7
12	8.2	5.7	7.5	6.2
13	2.2	0.4	1.8	8.4
14	9.2	1.8	5.7	3.4
15	0.4	0.8	5.7	9.1
16	8.5	7.2	6.8	3.4
17	2.6	3.6	6.1	7.2
18	6.9	1.8	6.1	1.4
19	8.8	9.1	3.5	6.7
20	5.5	1.2	3.6	9.5
21	0.2	0.3	2.9	8.1
22	1.5	2.4	4.0	10.3
23	0.9	0.2	4.9	4.6
24	2.4	0.1	5.9	0.0
25	0.3	3.5	10.4	8.3
26	6.2	3.3	8.3	9.4
27	8.9	9.6	5.4	0.0
28	3.4	1.5	3.6	1.8
29	5.1	7.5	9.0	8.4
30	3.9	0.0	4.5	13.0
31	0.0	4.3	4.4	12.9
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	112.7	92.5	171.7	207.4
 Daily Means	3.6	3.0	5.5	6.7
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: NOVEMBER		Year: 2004		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	7.5	8.0	12.5	7.9	
2	7.0	6.3	12.4	10.6	
3	5.9	1.3	12.5	9.0	
4	11.4	11.5	12.2	9.5	
5	10.9	11.4	12.4	8.9	
6	8.0	8.7	11.2	7.7	
7	5.0	5.2	11.1	10.6	
8	7.3	8.7	10.7	11.1	
9	6.9	11.6	12.0	7.4	
10	6.1	8.5	12.5	6.4	
11	3.8	4.0	12.6	5.0	
12	8.3	7.4	12.6	7.8	
13	10.5	11.6	12.3	10.8	
14	8.3	9.2	12.5	8.7	
15	9.8	11.7	12.4	6.0	
16	5.5	9.4	12.5	6.4	
17	6.3	5.6	12.3	6.7	
18	6.5	10.0	12.4	9.1	
19	4.5	8.1	12.6	8.0	
20	6.4	9.1	12.6	8.4	
21	7.1	11.1	12.7	7.5	
22	7.0	11.5	12.7	11.3	
23	5.0	3.7	12.6	9.4	
24	7.1	11.6	12.6	10.3	
25	10.9	11.7	12.7	9.6	
26	11.9	12.0	12.6	9.8	
27	8.2	10.2	12.8	9.8	
28	8.4	11.9	12.7	8.8	
29	9.4	10.9	12.7	9.1	
30	8.9	11.9	12.7	10.0	
31					
TT Monthly Totals					
 Daily Means					
SS Monthly Totals	229.8	273.8	371.1	261.6	
 Daily Means	7.7	9.1	12.4	8.7	
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	

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

Month: DECEMBER		Year: 2004		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	6.1	9.4	12.8	10.3	
2	8.4	11.8	12.7	10.8	
3	8.6	10.9	12.7	8.4	
4	8.2	12.0	12.8	10.5	
5	7.3	10.8	12.6	4.6	
6	8.7	11.8	12.8	10.8	
7	9.8	12.0	12.8	9.1	
8	10.8	9.8	12.8	11.0	
9	11.5	9.2	12.5	10.7	
10	3.6	10.1	12.3	10.1	
11	11.3	8.8	12.2	10.8	
12	10.3	10.6	12.4	10.6	
13	11.5	11.0	12.4	10.7	
14	9.1	11.4	12.4	8.6	
15	6.2	10.5	11.5	11.0	
16	7.9	12.0	12.1	10.4	
17	5.1	9.5	12.5	11.3	
18	8.8	11.7	11.5	9.0	
19	10.2	9.7	12.6	9.7	
20	6.0	8.6	12.6	10.5	
21	4.6	6.9	12.7	10.9	
22	7.4	8.9	12.7	8.9	
23	8.7	12.0	12.6	11.5	
24	9.5	11.9	12.6	10.3	
25	8.8	11.5	11.8	10.4	
26	10.6	12.0	12.6	10.1	
27	11.6	11.9	12.6	11.4	
28	8.5	11.7	12.6	9.7	
29	10.4	11.9	12.6	10.8	
30	8.5	11.3	12.4	11.6	
31	9.7	9.3	10.2	11.1	
TT Monthly Totals					
 Daily Means					
SS Monthly Totals	267.7	330.9	384.4	315.6	
 Daily Means	8.6	10.7	12.4	10.2	
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: DECEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	27°10' S	27°18' S	29°57' S	32°51' S
Longitude	109°26' W	70°25' W	71°22' W	70°37' W
Elevation	47 m	291 m	25 m	880 m
Station	ISLA DE PASCUA	COPIAPO	LA SERENA	CALLE LARGA
Date				
1	0.0	11.1	1.5	11.3
2	0.0	7.8	4.5	10.3
3	1.9	8.7	11.7	11.5
4	11.1	11.9	13.0	9.2
5	7.8	9.2	11.1	9.5
6	11.6	9.2	6.8	7.8
7	8.7	11.4	9.5	11.5
8	10.4	12.2	10.5	11.5
9	5.1	5.4	0.0	11.6
10	7.1	11.9	4.2	11.5
11	4.8	9.7	7.4	11.6
12	5.0	10.1	12.5	11.6
13	12.8	9.0	10.0	9.7
14	11.1	10.1	6.8	11.7
15	8.3	9.5	8.8	10.3
16	5.1	12.3	10.7	11.7
17	13.1	10.0	9.6	10.9
18	11.0	10.3	12.9	11.7
19	10.7	8.5	11.1	10.5
20	11.0	6.3	0.9	11.6
21	11.2	8.3	1.0	11.6
22	7.4	8.6	5.7	11.6
23	7.1	12.6	5.9	11.4
24	4.9	12.4	13.2	11.6
25	10.0	7.8	9.0	11.5
26	12.6	8.0	4.0	11.5
27	12.9	12.5	12.3	3.6
28	11.6	6.7	2.1	3.5
29	4.7	7.0	3.9	11.6
30	12.6	9.9	6.0	11.6
31	5.2	10.8	9.8	10.8
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	256.8	299.2	236.4	327.3
 Daily Means	8.3	9.7	7.6	10.6
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: DECEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	33°23' S	33°27' S	33°37' S	33°39' S
Longitude	70°47' W	70°42' W	78°50' W	71°36' W
Elevation	474 m	520 m	30 m	74 m
Station	PUDAHUEL	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO
Date				
1	11.1	10.2	0.3	5.9
2	4.4	4.5	7.7	0.4
3	12.1	12.0	9.5	13.1
4	9.2	8.1	8.5	10.8
5	9.4	7.9	6.3	9.9
6	7.4	7.5	8.2	10.3
7	12.4	12.0	3.4	13.1
8	11.8	11.7	0.5	7.6
9	12.1	12.0	6.0	0.0
10	12.3	12.1	8.7	12.9
11	11.6	11.0	10.8	11.6
12	12.6	12.0	8.8	12.9
13	10.4	10.6	4.7	12.0
14	12.5	11.9	0.7	7.8
15	11.2	11.1	7.0	12.9
16	12.6	11.9	3.0	12.8
17	12.3	11.9	3.9	13.0
18	12.4	11.5	5.4	12.6
19	11.7	11.7	3.7	12.4
20	12.2	12.0	8.1	13.0
21	12.3	11.9	7.3	13.0
22	12.4	11.9	8.8	12.9
23	12.3	12.0	9.7	11.1
24	12.7	11.6	6.1	13.3
25	12.6	12.1	9.5	12.7
26	12.4	12.3	4.6	6.1
27	3.2	2.6	1.3	0.8
28	2.2	3.0	4.3	6.4
29	12.9	12.4	10.4	12.8
30	11.2	12.2	7.8	11.2
31	12.3	11.9	9.7	12.7
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	338.2	327.5	194.7	318.0
 Daily Means	10.9	10.6	6.3	10.3
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: DECEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	34°58' S	36°36' S	36°46' S	38°45' S
Longitude	71°12' W	72°26' W	73°03' W	72°38' W
Elevation	225 m	124 m	12 m	114 m
Station	CURICO	CHILLAN	CONCEPCION	TEMUCO
Date				
1	4.2	0.0	0.0	0.0
2	0.0	0.0	2.4	6.8
3	10.1	8.2	10.7	4.5
4	8.6	12.3	13.0	8.9
5	7.5	10.6	9.2	9.5
6	8.5	4.0	7.6	1.2
7	13.2	12.6	11.9	9.0
8	11.8	9.8	11.6	11.8
9	12.5	13.0	6.4	5.9
10	13.2	12.4	12.2	8.4
11	12.3	13.3	13.4	11.6
12	13.2	13.4	12.9	10.1
13	12.0	12.9	13.2	10.6
14	11.5	8.7	9.7	5.6
15	8.6	9.4	12.5	9.3
16	13.4	13.1	13.4	8.5
17	13.2	12.5	7.6	2.4
18	12.9	11.7	12.8	2.8
19	12.2	12.4	13.3	11.1
20	13.2	13.1	13.4	11.6
21	13.2	13.3	13.1	9.9
22	13.2	12.5	12.0	11.4
23	10.6	10.1	6.4	3.7
24	9.7	12.2	12.8	11.3
25	13.3	12.9	12.6	11.8
26	12.9	10.3	9.8	10.3
27	9.6	12.4	5.7	8.1
28	3.4	10.1	7.6	6.9
29	12.3	12.2	12.2	6.6
30	12.1	12.2	5.6	3.1
31	10.0	11.5	12.6	11.8
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	332.4	333.1	317.6	244.5
 Daily Means	10.7	10.7	10.2	7.9
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: DECEMBER Year: 2004 Country: CHILE

Daily Totals				
Latitude	39°41' S	41°26' S	45°35' S	53°08' S
Longitude	73°04' W	73°07' W	72°07'W	70°58' W
Elevation	19 m	81 m	310 m	37 m
Station	VALDIVIA	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
Date				
1	6.0	10.1	9.5	13.7
2	8.7	2.5	5.9	15.1
3	7.4	3.5	7.3	6.7
4	6.7	2.3	7.0	9.7
5	10.7	4.2	7.4	4.4
6	2.1	4.4	11.0	8.3
7	10.6	10.7	13.8	6.5
8	13.3	11.6	12.6	1.8
9	10.1	11.2	12.2	6.1
10	11.7	6.1	8.0	6.0
11	8.5	5.3	0.9	7.4
12	10.9	1.4	5.9	12.3
13	12.7	3.1	3.2	1.7
14	3.3	1.2	3.5	4.0
15	8.7	4.4	6.2	6.3
16	4.2	5.3	5.6	3.9
17	5.1	2.1	3.9	11.3
18	4.7	6.8	6.8	1.8
19	10.4	4.6	8.7	10.1
20	12.7	8.1	2.3	1.0
21	12.0	4.4	5.3	3.0
22	6.2	5.3	5.3	9.9
23	4.0	3.3	1.3	14.3
24	10.2	7.6	7.8	4.0
25	13.1	13.0	12.4	0.0
26	10.3	13.3	12.6	11.9
27	11.0	8.8	12.8	3.0
28	5.9	1.1	5.2	2.5
29	2.6	0.0	0.9	9.0
30	5.5	1.6	6.9	11.3
31	5.5	3.6	7.3	8.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	254.8	170.9	219.5	215.3
 Daily Means	8.2	5.5	7.1	6.9
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES