



DIRECCIÓN METEOROLÓGICA DE CHILE

INFORME
SOLARIMÉTRICO
II SEMESTRE 2009

CLIMATOLOGÍA Y METEOROLOGÍA APLICADA

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

Month: JULY Year: 2009 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	DESIERTO ATACAMA
Date				
1	15.76	17.15	15.22	14.93
2	12.75	16.81	14.06	15.47
3	10.38	17.31	14.29	9.29
4	13.28	17.23	14.57	13.43
5	14.72	17.18	15.04	14.69
6	13.25	17.23	15.16	15.07
7	15.41	17.22	14.85	14.31
8	16.07	17.35	14.03	11.61
9	11.68	17.35	14.60	12.46
10	12.97	16.43	15.04	13.83
11	13.47	16.65	14.57	15.65
12	10.02	12.57	6.25	5.10
13	15.11	16.51	13.45	5.30
14	10.45	10.48	7.89	5.23
15	11.53	16.15	16.44	15.62
16	11.54	13.98	15.83	13.35
17	10.02	14.91	11.27	12.06
18	4.94	12.63	14.49	15.82
19	6.87	14.29	11.18	15.86
20	5.15	17.47	10.04	12.33
21	11.44	15.24	17.32	7.36
22	8.55	18.38	17.64	16.84
23	7.63	18.20	17.82	16.21
24	16.48	18.41	17.19	13.65
25	9.56	17.58	18.00	16.63
26	7.75	18.53	16.58	15.32
27	6.70	18.35	17.78	14.78
28	10.68	18.38	15.73	17.23
29	11.31	18.71	15.29	16.16
30	13.82	17.99	15.60	8.96
31	10.82	16.43	11.09	16.65
TT Monthly Totals	350.12	513.10	448.31	411.20
 Daily Means	11.29	16.55	14.46	13.26
SS Monthly Totals				
 Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

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

Month: AUGUST Year: 2009 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	DESIERTO ATACAMA
Date				
1	15.07	18.79	17.78	15.24
2	14.07	18.82	14.10	14.34
3	9.65	19.65	13.89	9.92
4	15.87	19.83	16.47	4.13
5	12.95	19.75	17.17	17.69
6	9.20	19.68	17.99	15.04
7	10.95	19.38	5.49	9.98
8	12.69	19.39	10.52	5.98
9	15.60	20.03	18.83	18.08
10	18.37	20.29	18.37	18.46
11	14.67	20.39	18.31	14.43
12	17.48	20.38	17.17	7.63
13	16.10	20.54	17.16	15.97
14	12.57	20.78	17.84	9.24
15	12.05	20.79	18.63	15.66
16	15.79	20.77	19.92	12.95
17	14.49	20.87	18.61	13.56
18	13.44	20.95	16.86	18.03
19	16.39	21.29	19.20	19.56
20	17.39	21.69	11.89	20.01
21	15.02	21.88	8.89	5.14
22	18.41	21.76	14.89	.
23	17.75	21.80	20.98	.
24	19.51	22.32	20.91	.
25	20.18	22.60	18.45	.
26	19.76	22.57	20.14	.
27	17.50	22.58	19.87	.
28	17.29	22.66	20.44	.
29	12.54	22.73	19.38	.
30	20.35	22.85	19.39	.
31	19.38	22.63	17.80	.
TT Monthly Totals	482.44	650.44	527.31	.
 Daily Means	15.56	20.98	17.01	.
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: 2009 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
Date				
1	11.37	4.81	2.20	1.24
2	10.64	1.79	4.29	4.37
3	10.90	3.28	6.24	1.76
4	7.01	3.39	6.49	2.96
5	7.98	3.63	4.23	4.27
6	2.51	.	.	5.16
7	12.16	5.60	5.43	4.22
8	12.75	3.91	3.95	2.30
9	12.55	2.69	7.03	3.93
10	12.43	1.49	0.62	2.81
11	11.21	1.48	2.54	5.30
12	1.98	4.49	3.32	2.42
13	6.16	3.43	6.46	2.83
14	.	3.55	3.37	3.34
15	.	8.25	5.43	1.28
16	.	7.28	6.41	1.93
17	.	8.02	9.63	4.15
18	.	5.98	9.46	3.41
19	.	4.61	4.49	6.00
20	.	5.74	7.02	6.99
21	.	8.77	4.74	1.42
22	.	2.87	6.10	2.90
23	.	2.70	10.51	6.54
24	.	2.51	5.27	6.99
25	.	1.21	2.19	4.49
26	.	4.85	7.18	2.99
27	.	3.22	3.27	8.56
28	.	1.97	5.47	4.71
29	.	7.00	4.40	6.82
30	.	9.69	9.66	8.49
31	.	9.65	12.13	7.22
TT Monthly Totals	.	.	.	131.80
 Daily Means	.	4.59	5.65	4.25
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: 2009 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	DESIERTO ATACAMA
Date				
1	17.18	21.92	17.80	.
2	13.27	22.67	20.15	.
3	16.85	23.23	18.92	.
4	16.14	23.28	22.05	.
5	16.95	23.48	19.86	.
6	13.97	23.95	21.52	.
7	14.41	23.95	22.20	.
8	12.78	24.76	16.69	.
9	14.84	25.39	23.04	.
10	18.97	25.76	23.45	.
11	14.75	25.37	23.48	.
12	17.70	25.62	23.36	.
13	18.24	26.27	23.09	.
14	21.52	25.80	22.81	.
15	16.62	19.34	15.70	.
16	17.44	21.64	18.30	14.64
17	16.31	25.98	23.83	21.84
18	14.22	26.66	21.67	24.31
19	15.64	26.86	23.01	15.89
20	17.85	26.93	22.74	13.38
21	12.78	27.67	23.07	16.60
22	16.14	27.43	21.08	24.12
23	21.66	27.80	23.77	24.56
24	21.95	27.88	23.28	11.94
25	22.51	28.02	23.99	20.08
26	18.68	28.11	22.09	17.82
27	12.58	27.57	19.97	22.74
28	15.22	27.60	20.93	26.68
29	13.42	27.29	21.60	26.75
30	12.40	27.74	0.00	25.08
31				
TT Monthly Totals	492.98	765.99	623.44	.
 Daily Means	16.43	25.53	20.78	.
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: 2009 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station				
Date	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
1	3.83	7.41	12.36	9.65
2	1.27	7.25	12.19	7.59
3	8.77	13.35	12.76	3.87
4	7.08	1.31	3.95	4.44
5	2.02	3.62	6.53	9.05
6	4.48	7.19	5.94	9.34
7	5.28	10.82	13.16	9.74
8	10.58	9.00	7.86	8.65
9	16.98	9.36	6.88	10.91
10	17.42	11.87	7.29	6.90
11	17.81	9.93	6.57	4.42
12	18.62	4.13	4.52	11.71
13	12.26	1.55	7.94	12.03
14	10.36	7.97	12.31	12.13
15	13.60	12.29	7.63	6.93
16	17.88	15.88	11.22	5.46
17	7.69	3.92	10.21	5.09
18	16.75	9.30	13.09	4.68
19	19.37	8.69	9.39	3.09
20	20.05	11.45	10.79	3.99
21	3.08	14.29	14.37	10.11
22	19.17	10.60	13.12	10.17
23	20.52	9.23	13.48	9.38
24	17.63	11.20	11.10	7.65
25	20.45	9.20	15.21	12.73
26	7.11	16.77	15.94	6.06
27	8.52	20.22	16.69	11.84
28	20.67	18.89	17.14	8.24
29	21.18	19.61	17.91	8.71
30	21.46	19.68	19.30	6.11
31				
TT Monthly Totals	391.88	315.99	336.85	240.66
 Daily Means	13.06	10.53	11.23	8.02
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: 2009 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	DESIERTO ATACAMA
Date				
1	16.93	28.07	24.68	25.51
2	14.98	28.42	24.32	17.68
3	23.56	28.87	23.65	21.63
4	21.33	28.89	23.36	5.46
5	22.88	29.23	24.62	24.36
6	22.74	29.39	25.10	21.30
7	26.29	29.40	26.27	18.06
8	21.44	29.62	24.75	10.84
9	23.84	29.79	26.41	7.25
10	14.24	29.81	21.80	22.59
11	18.97	29.62	17.75	22.05
12	23.21	29.67	24.69	26.93
13	26.68	29.87	25.85	11.17
14	25.81	29.28	26.30	25.55
15	18.74	29.46	18.56	18.18
16	23.39	29.97	25.23	28.41
17	15.24	30.62	22.36	24.12
18	16.76	30.25	27.64	27.51
19	13.68	30.82	24.24	18.28
20	17.02	30.90	25.59	18.84
21	22.36	30.95	25.57	24.51
22	18.88	31.22	26.10	22.76
23	25.72	30.85	26.30	14.56
24	26.77	30.82	27.91	22.82
25	20.97	30.90	23.69	23.44
26	21.55	31.35	25.05	19.32
27	21.78	31.29	27.72	20.86
28	21.63	31.19	27.19	22.45
29	23.91	30.55	27.69	11.48
30	25.94	30.51	27.28	29.88
31	21.28	30.20	27.85	28.77
TT Monthly Totals	658.48	931.79	775.51	636.56
 Daily Means	21.24	30.06	25.02	20.53
SS Monthly Totals				
 Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

**DIRECCION METEOROLOGICA DE CHILE
SUBDIRECCION DE CLIMAT. Y MET. APLICADA
DEPTO. CLIMATOLOGIA**

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

Month: OCTOBER

Year: 2009

Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
Date				
1	21.67	6.25	12.58	11.99
2	17.54	9.52	12.08	8.24
3	10.80	13.13	15.33	10.14
4	17.85	4.38	15.12	11.75
5	18.15	12.01	13.85	14.53
6	20.50	22.50	19.63	12.74
7	21.59	18.54	20.30	16.60
8	21.06	11.44	10.72	7.98
9	17.74	14.11	8.77	10.10
10	4.87	9.43	10.32	9.89
11	16.17	13.40	20.46	11.25
12	23.88	10.11	13.31	15.67
13	13.77	12.32	7.94	6.72
14	17.65	11.77	20.09	18.72
15	15.81	23.34	21.51	20.18
16	23.72	6.64	21.57	19.86
17	24.37	12.76	21.82	16.69
18	18.19	7.26	14.92	19.95
19	24.81	10.75	15.40	17.00
20	16.13	17.90	18.33	20.60
21	9.05	4.59	8.98	5.77
22	12.62	4.70	6.32	16.61
23	6.39	16.74	9.18	12.44
24	11.45	9.98	10.06	10.46
25	24.67	16.59	20.16	19.09
26	25.04	3.19	6.47	8.59
27	6.42	6.21	5.71	16.28
28	23.64	3.44	24.62	19.28
29	23.03	6.94	18.06	17.71
30	24.54	18.82	6.28	23.14
31	21.35	17.14	23.94	20.06
TT Monthly Totals	554.50	355.88	453.83	450.02
 Daily Means	17.89	11.48	14.64	14.52
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: 2009 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	DESIERTO ATACAMA
Date				
1	27.04	30.34	27.34	29.36
2	28.20	30.42	28.15	27.33
3	24.79	30.73	24.56	22.86
4	20.03	30.55	13.44	20.05
5	20.82	30.94	13.93	22.69
6	20.27	30.67	21.96	19.10
7	26.82	31.60	24.91	29.55
8	24.15	31.67	26.79	29.69
9	22.47	31.84	24.64	24.68
10	26.75	32.31	26.11	28.46
11	24.84	32.47	28.22	18.13
12	24.46	32.14	29.43	18.24
13	22.82	24.63	24.30	22.57
14	26.23	31.18	19.11	24.29
15	24.92	32.39	26.04	19.66
16	28.46	27.64	23.42	18.85
17	27.49	25.46	28.57	26.38
18	25.14	30.37	28.15	24.85
19	25.52	32.10	23.17	29.74
20	18.40	32.07	27.05	26.66
21	23.74	32.16	26.41	26.40
22	27.44	32.04	27.08	25.32
23	27.33	31.71	23.59	22.25
24	19.34	31.27	20.84	24.30
25	17.08	30.59	27.85	27.97
26	21.09	30.79	25.92	15.92
27	20.74	30.94	28.39	19.01
28	26.58	31.19	27.43	19.94
29	27.82	28.65	27.39	18.22
30	23.67	31.21	27.34	26.67
31				
TT Monthly Totals	724.46	922.04	751.54	709.12
 Daily Means	24.15	30.73	25.05	23.64
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: 2009 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
Date				
1	11.42	15.38	25.62	13.41
2	8.74	10.31	11.41	18.14
3	18.68	13.93	13.51	16.42
4	27.82	17.67	12.20	20.60
5	27.46	3.33	23.13	15.47
6	26.16	17.91	12.38	14.20
7	27.29	19.36	25.28	10.48
8	26.55	13.33	18.49	21.83
9	17.25	14.31	18.52	12.01
10	26.86	6.05	16.74	12.56
11	27.28	14.90	23.20	9.17
12	25.87	16.69	13.19	19.76
13	27.86	11.13	20.24	17.53
14	25.83	17.35	13.80	19.17
15	29.25	10.52	12.67	15.65
16	14.61	7.32	9.91	10.33
17	4.63	20.71	19.03	17.94
18	9.49	11.17	17.89	15.07
19	14.60	12.50	7.06	24.96
20	6.44	9.11	8.47	14.04
21	21.66	15.34	20.76	15.70
22	9.69	12.38	22.19	20.17
23	27.68	8.30	26.60	18.92
24	27.66	10.88	14.71	21.88
25	19.99	14.44	27.18	21.78
26	21.27	21.70	29.00	16.79
27	28.32	11.15	14.14	15.77
28	26.77	11.18	16.43	24.23
29	14.18	21.22	18.51	24.37
30	27.48	5.61	13.77	25.02
31				
TT Monthly Totals	628.80	395.16	526.03	523.36
 Daily Means	20.96	13.17	17.53	17.45
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: 2009 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	27°15' S
Longitude	70°19' W	68°54' W	70°26' W	70°46' W
Elevation	58 m	2270 m	135 m	204 m
Station	ARICA	CALAMA	ANTOFAGASTA	DESIERTO ATACAMA
Date				
1	28.35	31.45	28.47	24.37
2	28.05	31.60	30.75	24.41
3	22.76	31.73	27.21	14.68
4	.	31.17	22.85	7.95
5	.	31.75	25.31	13.04
6	.	31.94	26.65	14.30
7	.	31.61	30.62	22.21
8	.	31.94	30.45	24.57
9	.	30.75	30.47	23.20
10	.	30.36	30.90	24.08
11	.	32.11	30.32	27.74
12	.	32.18	29.21	22.82
13	.	32.11	24.38	11.99
14	.	32.21	31.09	23.72
15	.	31.14	29.98	21.42
16	.	30.45	29.66	26.38
17	.	27.97	30.79	27.23
18	.	29.20	29.22	28.63
19	.	29.99	28.45	26.76
20	.	31.35	26.63	21.73
21	.	26.91	28.64	18.85
22	.	31.23	30.06	31.08
23	.	29.29	28.16	17.81
24	.	32.04	28.70	27.38
25	.	28.63	23.37	20.79
26	.	31.40	30.30	20.33
27	.	31.63	26.27	21.91
28	.	30.55	30.55	24.19
29	.	31.17	29.73	31.06
30	.	31.31	30.55	29.63
31				
TT Monthly Totals	.	927.16	859.76	674.25
 Daily Means	.	30.91	28.66	22.48
SS Monthly Totals				
 Daily Means				
Types of Instruments	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY	PYRANOMETER PSP EPPLEY

**DIRECCION METEOROLOGICA DE CHILE
SUBDIRECCION DE CLIMAT. Y MET. APLICADA
DEPTO. CLIMATOLOGIA**

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

Month: DECEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	33°27' S	41°25' S	45°35' S	53°00' S
Longitude	70°42' W	73°05' W	72°07' W	70°51' W
Elevation	520 m	85 m	310 m	37 m
Station	QUINTA NORMAL	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS
Date				
1	25.60	15.98	22.36	22.90
2	28.87	11.28	17.78	18.21
3	28.83	30.18	27.92	17.23
4	25.99	23.80	27.83	21.81
5	27.98	9.76	27.64	21.56
6	27.58	29.56	28.58	28.73
7	28.97	28.94	28.50	30.44
8	29.12	12.51	28.65	28.60
9	28.90	9.91	19.40	12.17
10	28.07	21.29	26.64	28.24
11	27.85	20.73	28.54	13.98
12	29.13	11.37	11.66	28.31
13	25.51	9.39	16.06	27.69
14	29.57	24.70	8.92	26.17
15	29.50	29.86	29.53	10.53
16	29.59	18.88	21.57	18.11
17	26.69	12.57	9.10	29.44
18	29.47	24.95	13.47	12.90
19	21.17	16.11	13.78	12.69
20	29.61	10.87	10.37	24.40
21	29.84	23.86	14.70	24.10
22	29.68	9.17	6.97	25.21
23	29.50	11.49	13.29	30.34
24	29.25	15.72	14.11	9.16
25	29.25	6.76	14.26	29.05
26	30.05	14.44	14.56	25.28
27	27.57	10.51	6.01	19.73
28	26.00	9.60	22.88	24.96
29	26.63	16.85	22.43	19.15
30	29.05	17.18	21.06	26.92
31	28.66	7.96	13.63	14.77
TT Monthly Totals	873.50	516.18	582.17	682.82
 Daily Means	28.18	16.65	18.78	22.03
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: JULY

Year: 2009

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	7.3	9.9	8.7
2	5.1	6.9	9.9	8.2
3	3.3	1.7	9.7	7.4
4	5.1	6.6	.	7.4
5	6.1	8.8	10.0	7.6
6	4.9	5.6	10.0	8.3
7	6.1	4.1	9.8	8.8
8	7.1	8.8	9.9	6.3
9	4.8	4.2	9.9	7.0
10	5.2	7.9	9.8	8.3
11	4.5	4.3	.	9.5
12	3.2	2.7	4.5	0.0
13	6.6	8.5	9.3	8.2
14	3.4	4.8	3.3	1.5
15	3.8	5.6	10.0	9.4
16	3.3	3.2	8.0	9.0
17	1.9	2.5	8.6	1.9
18	0.0	1.8	.	8.0
19	0.9	0.7	7.6	3.5
20	0.0	0.0	9.6	3.0
21	3.1	9.9	7.1	9.9
22	2.9	9.3	10.1	9.5
23	3.1	8.2	10.1	9.8
24	7.3	6.4	10.2	8.5
25	3.7	7.3	.	9.8
26	0.1	7.4	.	8.4
27	0.0	9.5	10.3	9.2
28	4.0	2.3	10.2	7.4
29	2.3	0.0	10.3	6.8
30	5.3	3.4	10.0	7.4
31	1.3	4.6	8.0	2.7
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	115.2	164.3	.	221.4
 Daily Means	3.7	5.3	9.1	7.1
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: JULY Year: 2009 Country: CHILE

Daily Totals				
Latitude	27°10' S	29°57' S	33°23' S	33°27' S
Longitude	109°26' W	71°22' W	70°47' W	70°42' W
Elevation	47 m	25 m	474 m	520 m
Station	ISLA DE PASCUA	LA SERENA	PUDAHUEL	QUINTA NORMAL
Date				
1	5.4	9.2	6.1	5.4
2	6.1	9.5	7.1	6.5
3	8.6	4.2	1.2	0.0
4	7.5	3.1	0.1	0.0
5	6.6	8.4	0.0	0.0
6	9.1	9.2	7.8	7.2
7	6.9	9.3	6.2	5.6
8	6.7	7.6	6.8	6.6
9	8.5	3.8	8.1	7.1
10	5.7	9.0	8.9	7.5
11	7.3	9.6	8.1	7.5
12	3.5	3.4	0.1	0.1
13	9.3	8.8	8.5	8.0
14	7.6	0.0	3.5	2.2
15	5.9	9.6	7.8	6.8
16	5.0	8.5	8.2	7.2
17	1.3	1.4	5.0	5.3
18	2.8	9.4	7.7	7.2
19	4.7	9.4	0.0	7.2
20	7.8	2.2	1.5	2.8
21	4.8	6.4	0.8	0.2
22	5.6	9.4	7.6	5.5
23	0.0	9.4	8.2	7.7
24	8.2	9.8	8.3	7.8
25	2.4	8.9	6.7	4.4
26	7.0	8.7	7.9	8.1
27	7.7	6.4	0.4	0.0
28	7.0	9.5	8.2	7.8
29	7.6	7.9	8.4	7.8
30	8.9	0.0	8.6	6.9
31	7.2	7.5	2.1	6.9
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	192.7	219.5	169.9	163.3
 Daily Means	6.2	7.1	5.5	5.3
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: JULY Year: 2009 Country: CHILE

Daily Totals				
Latitude	33°37' S	33°39' S	34°58' S	36°36' S
Longitude	78°50' W	71°36' W	71°12' W	72°26' W
Elevation	30 m	74 m	225 m	124 m
Station	ROBINSON CRUSOE	SANTO DOMINGO	CURICO	CHILLAN
Date				
1	2.8	6.9	5.6	4.2
2	3.1	6.5	5.0	0.2
3	2.7	3.2	0.4	0.0
4	0.0	0.0	0.0	0.0
5	2.8	4.5	0.0	0.0
6	0.0	4.5	4.5	2.6
7	0.1	5.8	0.0	8.4
8	3.9	9.2	3.8	8.6
9	2.1	9.4	5.0	5.0
10	2.6	9.3	4.0	9.6
11	7.2	9.3	4.6	7.1
12	5.0	0.0	0.0	4.8
13	2.6	9.2	5.3	9.1
14	7.1	2.0	1.9	4.4
15	6.0	8.3	6.6	7.7
16	0.0	7.5	7.0	4.6
17	5.8	4.8	6.0	4.4
18	6.5	2.6	0.4	1.2
19	5.6	2.9	3.2	1.4
20	6.9	2.8	2.1	2.6
21	1.2	0.6	0.2	3.4
22	2.9	9.0	8.7	7.7
23	2.8	9.1	7.8	7.1
24	4.9	9.5	5.9	8.2
25	3.8	9.5	5.0	8.7
26	5.1	8.3	3.3	4.4
27	5.3	1.2	0.0	0.3
28	3.7	9.5	4.1	6.7
29	6.1	9.6	4.5	4.3
30	3.7	5.0	3.7	1.0
31	2.9	0.0	0.2	0.5
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	115.2	180.0	108.8	138.2
 Daily Means	3.7	5.8	3.5	4.5
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: JULY Year: 2009 Country: CHILE

Daily Totals				
Latitude	36°46' S	38°45' S	39°41' S	41°26' S
Longitude	73°03' W	72°38' W	73°04' W	73°07' W
Elevation	12 m	114 m	19 m	81 m
Station	CONCEPCION	TEMUCO	VALDIVIA	PUERTO MONTT
Date				
1	2.2	1.9	0.6	0.3
2	0.0	3.6	1.4	0.0
3	0.0	0.0	0.0	0.0
4	0.1	0.0	0.0	0.0
5	0.0	2.2	0.9	2.4
6	0.0	0.8	0.2	0.6
7	8.2	5.5	5.7	3.5
8	8.8	4.2	1.0	0.0
9	0.0	0.0	0.6	0.7
10	8.8	7.5	4.3	2.9
11	8.9	3.7	0.0	0.1
12	7.5	5.9	7.0	4.3
13	9.1	7.4	5.7	6.6
14	8.6	7.8	7.7	6.1
15	6.4	7.2	1.6	3.0
16	5.6	4.8	1.7	1.6
17	7.2	7.9	5.3	7.5
18	1.7	0.0	0.0	1.9
19	0.5	4.2	2.6	4.5
20	6.9	6.0	3.4	4.0
21	7.6	4.9	5.9	4.3
22	5.0	7.6	5.4	6.3
23	8.9	5.5	4.7	0.9
24	9.1	6.7	3.7	1.7
25	9.4	2.9	3.7	4.8
26	8.3	6.3	1.8	0.1
27	1.9	5.8	4.3	2.3
28	9.4	7.3	8.3	8.5
29	6.0	3.7	3.1	3.0
30	0.0	3.5	0.0	4.4
31	1.6	0.8	6.4	5.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	157.7	135.6	97.0	91.3
 Daily Means	5.1	4.4	3.1	2.9
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: JULY

Year: 2009

Country: CHILE

Daily Totals				
Latitude	45°35' S	53°08' S		
Longitude	72°07'W	70°58' W		
Elevation	310 m	37 m		
Station	COYHAIQUE	PUNTA ARENAS		
Date				
1	2.6	0.0		
2	2.7	4.4		
3	0.0	0.0		
4	3.0	3.5		
5	0.3	0.0		
6	4.1	0.4		
7	3.5	6.3		
8	0.0	0.8		
9	0.0	6.1		
10	0.1	0.0		
11	1.6	4.0		
12	5.5	6.3		
13	5.5	6.1		
14	2.0	1.6		
15	4.8	0.0		
16	5.9	4.7		
17	5.5	1.6		
18	0.0	0.0		
19	0.0	0.0		
20	0.6	5.0		
21	1.3	5.8		
22	0.6	1.2		
23	3.9	3.4		
24	2.2	5.6		
25	6.6	4.0		
26	6.9	2.2		
27	7.4	6.9		
28	2.8	6.2		
29	6.4	8.1		
30	5.3	7.6		
31	7.1	0.0		
TT Monthly Totals				
Daily Means				
SS Monthly Totals	98.2	101.8		
Daily Means	3.2	3.3		
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES		

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

Month: AUGUST

Year: 2009

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	5.8	7.4	.	9.5
2	5.3	0.0	10.6	5.5
3	2.1	0.0	10.5	5.8
4	5.4	7.7	10.6	7.3
5	3.3	6.0	10.6	7.3
6	2.1	0.0	10.7	8.6
7	1.3	0.0	10.5	0.0
8	3.1	4.1	.	2.9
9	5.4	10.0	10.6	9.7
10	7.4	7.7	10.6	8.0
11	5.1	2.4	10.5	9.3
12	6.7	6.6	10.5	7.4
13	6.0	9.8	10.7	7.8
14	3.1	3.4	10.6	8.4
15	4.5	5.5	.	8.5
16	5.2	9.4	10.8	10.2
17	5.1	7.7	10.8	8.1
18	4.5	6.2	10.7	7.0
19	6.0	8.7	.	9.4
20	5.1	5.6	11.1	3.9
21	5.5	0.0	11.0	0.7
22	7.0	7.3	.	4.6
23	6.5	10.2	11.1	10.5
24	6.9	7.4	.	9.8
25	7.7	2.0	11.2	6.5
26	7.7	9.6	11.2	8.7
27	5.8	10.2	11.1	8.5
28	5.0	8.3	11.1	8.8
29	4.3	8.4	.	7.9
30	7.8	8.3	11.1	8.0
31	6.2	8.1	11.1	8.5
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	162.9	188.0	.	227.1
 Daily Means	5.3	6.1	.	7.3
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL
	STOKES	STOKES	STOKES	STOKES

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

Month: AUGUST Year: 2009 Country: CHILE

Daily Totals				
Latitude	27°10' S	29°57' S	33°23' S	33°27' S
Longitude	109°26' W	71°22' W	70°47' W	70°42' W
Elevation	47 m	25 m	474 m	520 m
Station	ISLA DE PASCUA	LA SERENA	PUDAHUEL	QUINTA NORMAL
Date				
1	7.3	9.8	8.7	8.0
2	4.9	5.9	6.6	6.6
3	4.8	5.3	7.2	6.9
4	9.5	6.4	3.1	2.1
5	0.1	9.7	5.6	2.4
6	7.7	7.7	0.0	0.0
7	9.8	1.4	8.3	7.5
8	7.1	3.9	9.1	8.1
9	4.0	8.8	9.0	7.6
10	3.1	8.6	8.3	7.5
11	3.7	4.7	6.9	6.4
12	7.3	0.0	0.0	0.0
13	8.3	3.9	1.9	1.2
14	8.1	1.5	0.4	0.0
15	0.3	1.5	0.0	0.0
16	5.5	7.1	9.1	8.0
17	9.0	3.8	0.9	0.4
18	6.5	6.0	0.1	0.0
19	9.8	5.7	5.9	6.8
20	8.7	9.1	6.1	3.8
21	5.3	4.8	0.0	0.0
22	4.2	3.6	4.0	4.4
23	1.6	6.1	1.0	0.9
24	6.6	8.0	0.9	0.1
25	8.2	9.6	7.0	6.0
26	9.2	1.2	8.4	7.1
27	8.9	0.0	10.1	8.2
28	4.5	0.0	11.0	8.9
29	6.5	0.0	5.1	6.5
30	6.9	4.2	1.2	4.2
31	2.9	2.5	0.0	0.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	190.3	150.8	145.9	129.6
 Daily Means	6.1	4.9	4.7	4.2
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: AUGUST

Year: 2009

Country: CHILE

Daily Totals				
Latitude	33°37' S	33°39' S	34°58' S	36°36' S
Longitude	78°50' W	71°36' W	71°12' W	72°26' W
Elevation	30 m	74 m	225 m	124 m
Station	ROBINSON CRUSOE	SANTO DOMINGO	CURICO	CHILLAN
Date				
1	3.5	8.2	8.8	5.3
2	2.0	7.5	4.4	0.0
3	0.0	0.8	6.5	2.2
4	6.9	0.1	0.0	1.4
5	4.9	7.3	4.0	1.3
6	5.1	0.2	0.0	2.3
7	4.4	9.5	4.7	8.9
8	6.7	9.5	5.6	6.3
9	7.0	8.5	9.0	8.9
10	5.0	8.3	7.8	7.6
11	1.4	7.3	0.9	0.3
12	5.8	0.0	0.0	2.2
13	2.1	3.7	2.1	0.6
14	3.4	0.0	0.0	0.0
15	5.3	0.7	3.7	6.2
16	5.8	10.2	9.4	1.7
17	0.0	0.9	0.0	6.6
18	0.4	0.0	1.0	0.0
19	5.6	4.9	0.0	0.4
20	7.2	5.2	5.5	1.5
21	7.7	0.0	0.0	1.1
22	7.7	7.1	4.0	3.9
23	5.6	1.1	0.0	0.0
24	4.0	2.2	0.3	0.0
25	5.4	6.6	4.3	3.1
26	5.3	11.0	6.5	4.6
27	4.3	9.2	6.1	4.2
28	0.0	0.0	7.9	4.2
29	3.1	6.3	0.0	0.0
30	0.1	3.5	0.0	0.0
31	0.4	2.2	0.0	6.5
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	126.1	142.0	102.5	91.3
 Daily Means	4.1	4.6	3.3	2.9
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: 2009 Country: CHILE

Daily Totals				
Latitude	36°46' S	38°45' S	39°41' S	41°26' S
Longitude	73°03' W	72°38' W	73°04' W	73°07' W
Elevation	12 m	114 m	19 m	81 m
Station	CONCEPCION	TEMUCO	VALDIVIA	PUERTO MONTT
Date				
1	7.3	7.8	2.9	1.8
2	0.3	3.6	1.2	0.1
3	0.0	0.0	0.0	0.0
4	4.4	3.2	2.4	0.7
5	4.8	3.3	6.6	6.7
6	5.5	4.0	5.5	4.8
7	9.3	5.9	3.5	4.2
8	7.4	2.4	0.5	0.2
9	6.6	2.4	0.0	0.0
10	1.1	2.8	0.2	0.0
11	0.4	0.0	0.0	0.0
12	4.9	4.8	5.2	2.6
13	1.8	0.2	0.2	0.0
14	0.0	0.0	0.0	0.9
15	6.9	5.6	5.1	5.0
16	5.9	5.3	4.7	5.2
17	8.1	0.0	2.0	6.8
18	0.0	0.0	0.0	0.8
19	1.3	0.0	0.0	0.0
20	0.9	0.9	1.0	1.7
21	1.2	3.5	2.8	5.5
22	5.6	2.6	3.2	0.0
23	0.6	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0
25	0.8	0.0	0.0	0.0
26	3.7	0.0	0.0	0.7
27	6.5	5.4	0.1	0.0
28	0.3	0.0	0.0	0.0
29	0.0	0.0	3.0	4.1
30	2.7	2.8	5.9	5.6
31	7.5	9.4	8.0	5.5
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	105.8	75.9	64.0	62.9
 Daily Means	3.4	2.4	2.1	2.0
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: AUGUST

Year: 2009

Country: CHILE

Daily Totals				
Latitude	45°35' S	53°08' S		
Longitude	72°07'W	70°58' W		
Elevation	310 m	37 m		
Station	COYHAIQUE	PUNTA ARENAS		
Date				
1	0.2	0.0		
2	2.4	6.0		
3	4.0	0.2		
4	5.4	2.6		
5	5.8	5.6		
6	2.3	6.3		
7	4.2	3.5		
8	1.2	0.7		
9	6.1	3.4		
10	0.0	0.0		
11	0.0	6.4		
12	0.8	0.1		
13	4.7	1.0		
14	0.3	0.0		
15	0.9	0.0		
16	3.9	0.0		
17	8.1	1.8		
18	4.7	0.6		
19	0.2	2.8		
20	4.6	7.6		
21	1.4	0.4		
22	4.6	0.0		
23	8.3	4.0		
24	1.1	6.6		
25	0.0	0.8		
26	5.3	0.9		
27	0.4	8.6		
28	0.8	2.7		
29	0.9	6.1		
30	5.9	8.5		
31	9.2	5.3		
TT Monthly Totals				
Daily Means				
SS Monthly Totals	97.7	92.5		
Daily Means	3.2	3.0		
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES		

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

Month: SEPTEMBER Year: 2009 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	3.7	9.1	.	6.7
2	2.4	7.6	11.0	5.9
3	5.6	7.0	11.1	7.3
4	6.1	5.8	11.1	9.2
5	4.8	7.4	.	6.8
6	4.1	2.7	11.1	8.4
7	4.4	5.4	11.0	8.5
8	1.8	0.5	11.1	4.4
9	0.7	5.1	11.0	10.0
10	5.6	8.2	10.9	9.6
11	3.1	8.1	10.6	9.5
12	6.5	7.8	10.6	10.0
13	6.2	5.2	10.6	9.2
14	6.4	6.7	9.4	8.5
15	6.1	6.5	6.8	3.7
16	3.7	5.0	7.9	6.5
17	3.1	5.1	10.7	9.7
18	1.0	3.5	10.7	7.3
19	5.0	6.8	.	7.9
20	4.5	8.3	10.8	8.8
21	0.1	7.6	.	7.8
22	5.0	8.7	10.8	6.2
23	7.1	6.4	10.8	6.9
24	7.4	6.6	10.8	8.2
25	6.5	8.3	10.8	9.0
26	5.8	7.2	.	7.4
27	0.1	2.4	10.6	6.6
28	2.9	3.7	11.1	6.7
29	0.6	6.3	10.4	6.7
30	0.1	6.9	10.8	6.0
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	120.4	185.9	.	229.4
 Daily Means	4.0	6.2	10.5	7.6
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL
	STOKES	STOKES	STOKES	STOKES

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

Month: SEPTEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	27°10' S	29°57' S	33°23' S	33°27' S
Longitude	109°26' W	71°22' W	70°47' W	70°42' W
Elevation	47 m	25 m	474 m	520 m
Station	ISLA DE PASCUA	LA SERENA	PUDAHUEL	QUINTA NORMAL
Date				
1	0.8	0.0	0.0	0.1
2	0.3	8.5	0.0	0.0
3	3.7	7.3	6.0	3.9
4	8.7	7.3	1.0	1.3
5	0.0	4.7	0.0	0.0
6	2.5	5.2	1.4	0.0
7	6.3	8.7	0.8	0.2
8	0.0	10.0	7.2	3.9
9	0.5	10.7	9.8	8.9
10	8.7	10.5	9.8	8.7
11	6.1	9.0	10.1	8.8
12	2.1	3.3	9.8	9.8
13	3.5	5.3	3.2	3.3
14	5.1	4.4	2.9	1.4
15	3.6	1.1	6.2	6.1
16	3.2	0.0	9.4	8.6
17	6.6	6.2	2.9	2.6
18	5.4	10.7	7.9	7.1
19	8.1	4.6	9.3	8.4
20	10.5	0.0	10.3	8.5
21	7.9	0.1	0.0	0.0
22	10.5	11.5	10.6	7.8
23	9.3	11.0	9.8	8.8
24	7.5	0.9	6.9	6.7
25	7.6	0.0	10.1	7.9
26	1.4	5.4	0.9	0.2
27	3.5	.	3.9	1.4
28	2.4	11.4	10.2	9.2
29	0.0	11.4	10.3	9.5
30	1.2	11.4	10.2	9.7
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	137.0	.	180.9	152.8
 Daily Means	4.6	6.2	6.0	5.1
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: SEPTEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	33°37' S	33°39' S	34°58' S	36°36' S
Longitude	78°50' W	71°36' W	71°12' W	72°26' W
Elevation	30 m	74 m	225 m	124 m
Station	ROBINSON CRUSOE	SANTO DOMINGO	CURICO	CHILLAN
Date				
1	4.2	7.8	7.0	8.3
2	5.8	0.0	1.3	8.6
3	5.1	8.7	8.9	9.5
4	0.0	1.2	0.0	0.0
5	0.0	0.0	0.0	0.0
6	6.6	0.0	2.5	7.5
7	4.9	9.4	7.6	10.1
8	5.6	10.4	9.6	11.5
9	5.6	10.8	7.6	10.2
10	4.8	10.3	5.9	10.1
11	4.1	9.4	6.9	11.5
12	7.0	2.6	9.9	7.5
13	0.9	0.3	0.0	0.0
14	5.0	4.0	0.0	0.4
15	7.7	0.6	2.5	7.0
16	1.1	7.6	3.8	10.6
17	2.8	0.3	0.3	0.0
18	7.6	10.7	6.7	10.1
19	9.1	9.1	4.4	5.9
20	1.8	10.6	7.1	10.7
21	6.2	1.6	1.3	7.2
22	7.6	10.9	7.5	10.6
23	0.4	10.9	7.4	8.6
24	6.1	8.3	4.4	10.4
25	6.0	3.0	10.8	3.8
26	6.8	7.1	1.4	8.7
27	2.8	8.4	3.5	11.2
28	8.1	11.0	10.5	11.4
29	3.8	11.2	10.4	11.4
30	9.4	7.6	10.8	11.1
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	146.9	193.8	160.0	233.9
Daily Means	4.9	6.5	5.3	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: SEPTEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	36°46' S	38°45' S	39°41' S	41°26' S
Longitude	73°03' W	72°38' W	73°04' W	73°07' W
Elevation	12 m	114 m	19 m	81 m
Station	CONCEPCION	TEMUCO	VALDIVIA	PUERTO MONTT
Date				
1	10.1	8.4	5.2	4.0
2	9.2	5.6	7.2	2.4
3	9.6	8.0	6.8	7.4
4	0.0	0.0	0.0	0.0
5	0.0	4.9	2.3	0.7
6	8.1	3.2	6.1	3.7
7	9.8	8.0	5.3	5.9
8	10.2	8.7	7.2	5.0
9	8.9	2.8	4.2	3.8
10	10.3	9.5	9.9	5.5
11	10.1	8.7	7.1	2.3
12	6.0	1.0	0.6	0.0
13	0.0	0.0	0.0	0.0
14	7.6	6.9	8.1	2.8
15	9.7	8.8	10.5	6.5
16	10.1	8.8	10.0	8.3
17	0.1	0.4	0.0	0.0
18	9.7	6.9	4.0	4.4
19	7.9	5.6	1.6	2.2
20	9.9	6.5	5.8	2.9
21	6.4	9.0	10.7	9.8
22	10.6	10.0	9.2	4.1
23	8.4	8.3	9.9	1.8
24	10.0	7.9	7.2	2.2
25	7.9	3.7	6.3	1.2
26	8.1	8.7	.	10.1
27	11.5	9.7	10.8	10.6
28	10.3	10.0	10.6	8.9
29	10.8	10.1	10.3	8.7
30	9.2	10.3	10.9	8.2
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	240.5	200.4	.	133.4
 Daily Means	8.0	6.7	6.5	4.4
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: SEPTEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	45°35' S	53°08' S		
Longitude	72°07'W	70°58' W		
Elevation	310 m	37 m		
Station	COYHAIQUE	PUNTA ARENAS		
Date				
1	9.4	9.2		
2	9.6	5.1		
3	8.7	0.5		
4	0.4	0.5		
5	3.3	7.5		
6	2.9	5.9		
7	7.2	8.2		
8	4.3	6.6		
9	3.3	8.8		
10	2.2	2.1		
11	2.0	1.0		
12	2.3	8.2		
13	0.8	10.1		
14	7.6	9.8		
15	2.9	3.1		
16	6.0	0.7		
17	6.9	2.2		
18	8.8	1.7		
19	4.7	0.0		
20	5.7	0.0		
21	8.2	6.3		
22	7.7	5.7		
23	6.9	4.9		
24	4.8	1.9		
25	6.9	8.2		
26	8.5	1.3		
27	8.5	6.0		
28	10.0	2.2		
29	10.3	1.1		
30	10.6	2.4		
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	181.4	131.2		
Daily Means	6.0	4.4		
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES		

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

Month: OCTOBER Year: 2009 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	3.1	.	11.1	8.9
2	2.9	.	11.2	8.6
3	8.1	.	11.3	8.0
4	6.6	.	11.2	8.6
5	5.2	.	11.2	8.6
6	8.7	.	11.0	9.2
7	11.0	.	11.3	9.3
8	6.7	.	11.2	8.1
9	7.8	.	11.1	9.2
10	0.0	.	11.2	6.1
11	6.0	.	11.4	3.6
12	8.0	.	10.7	8.1
13	10.8	.	11.3	8.7
14	8.2	.	11.6	9.8
15	4.8	.	11.6	3.1
16	7.7	.	11.6	8.0
17	3.9	.	11.7	6.6
18	2.9	.	11.5	10.3
19	1.3	.	11.8	8.0
20	3.8	.	11.8	8.4
21	6.9	.	11.9	8.9
22	5.9	.	11.8	8.5
23	9.1	.	11.8	8.6
24	9.7	.	11.6	8.8
25	5.8	.	11.9	8.3
26	5.7	.	11.8	7.6
27	7.1	.	11.8	9.5
28	5.9	.	11.8	9.4
29	7.1	.	11.7	10.5
30	9.1	.	11.7	10.2
31	6.4	.	11.7	11.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	196.2	.	356.3	260.9
 Daily Means	6.3	.	11.5	8.4
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: OCTOBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	27°10' S	29°57' S	33°23' S	33°27' S
Longitude	109°26' W	71°22' W	70°47' W	70°42' W
Elevation	47 m	25 m	474 m	520 m
Station	ISLA DE PASCUA	LA SERENA	PUDAHUEL	QUINTA NORMAL
Date				
1	10.2	11.4	10.5	8.8
2	8.0	3.2	9.1	7.9
3	9.4	0.0	1.5	2.0
4	0.0	3.6	7.5	6.8
5	8.0	7.6	6.2	6.3
6	11.4	1.5	9.4	9.1
7	5.9	2.8	11.4	10.1
8	9.8	3.7	11.2	10.5
9	9.3	0.7	8.5	9.0
10	11.2	7.5	1.8	1.1
11	2.2	9.3	8.8	5.8
12	2.9	11.0	10.9	10.6
13	3.7	0.0	3.5	3.5
14	8.6	10.2	8.1	6.4
15	0.0	0.0	4.5	6.8
16	0.0	12.7	10.9	10.5
17	4.8	8.0	11.1	10.4
18	0.7	9.4	7.5	7.0
19	4.3	9.7	11.2	11.6
20	8.6	4.9	5.4	4.7
21	7.0	11.7	0.6	0.0
22	3.7	12.1	3.8	3.1
23	0.0	10.7	0.3	3.1
24	0.3	10.0	0.0	0.0
25	7.9	9.2	11.4	10.6
26	9.9	8.5	11.9	10.6
27	10.1	8.2	0.9	0.2
28	11.8	12.3	10.8	10.8
29	6.2	6.5	10.6	10.4
30	11.8	4.5	11.1	10.6
31	10.9	5.3	8.9	8.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	198.6	216.2	229.3	216.6
 Daily Means	6.4	7.0	7.4	7.0
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: OCTOBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	33°37' S	33°39' S	34°58' S	36°36' S
Longitude	78°50' W	71°36' W	71°12' W	72°26' W
Elevation	30 m	74 m	225 m	124 m
Station	ROBINSON CRUSOE	SANTO DOMINGO	CURICO	CHILLAN
Date				
1	.	10.7	7.7	7.0
2	6.1	10.4	7.9	8.5
3	.	7.4	8.3	8.0
4	.	4.9	5.7	1.4
5	2.3	10.8	5.1	6.4
6	9.8	10.3	5.0	10.1
7	.	9.8	9.1	3.4
8	.	8.3	11.3	10.4
9	8.7	7.6	9.6	1.9
10	8.7	8.3	1.5	4.8
11	6.3	11.1	10.3	3.0
12	2.9	11.0	9.0	8.6
13	1.8	3.1	2.5	11.6
14	0.6	6.4	9.8	11.7
15	4.5	4.6	10.8	8.1
16	1.6	10.8	11.5	7.3
17	1.3	1.4	9.7	8.0
18	.	8.7	6.3	7.4
19	.	11.7	6.1	10.8
20	.	9.1	2.9	3.0
21	6.5	2.8	0.0	1.8
22	1.4	3.8	0.0	0.0
23	.	2.1	4.1	8.7
24	4.8	5.5	1.7	5.2
25	.	11.7	10.1	11.6
26	10.0	12.2	11.2	10.8
27	.	4.1	2.3	0.0
28	5.4	11.0	8.9	9.2
29	7.7	10.6	4.9	4.8
30	2.4	7.9	2.2	2.5
31	2.1	3.4	3.7	0.9
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	241.5	199.2	196.9
 Daily Means	.	7.8	6.4	6.4
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: OCTOBER

Year: 2009

Country: CHILE

Daily Totals				
Latitude	36°46' S	38°45' S	39°41' S	41°26' S
Longitude	73°03' W	72°38' W	73°04' W	73°07' W
Elevation	12 m	114 m	19 m	81 m
Station	CONCEPCION	TEMUCO	VALDIVIA	PUERTO MONTT
Date				
1	9.7	1.0	1.0	1.6
2	9.4	3.2	6.2	1.4
3	8.7	8.1	7.6	5.5
4	0.2	1.9	0.5	0.1
5	8.3	9.1	11.0	5.7
6	11.4	9.9	9.8	10.5
7	7.3	1.9	5.9	7.7
8	9.1	7.1	6.1	4.0
9	0.5	7.1	6.7	5.3
10	7.2	3.7	4.6	1.7
11	8.4	6.1	5.3	5.1
12	11.8	2.9	3.3	2.0
13	11.9	9.9	7.8	5.1
14	11.9	10.6	10.5	3.9
15	11.1	11.1	10.6	10.9
16	6.6	5.0	0.0	0.7
17	10.8	10.1	7.9	4.9
18	11.5	4.8	7.3	0.0
19	8.8	4.8	5.2	2.2
20	4.1	8.7	9.2	10.6
21	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0
23	11.2	8.8	9.9	8.7
24	10.1	2.6	1.6	2.7
25	11.4	7.7	10.1	6.1
26	9.8	4.9	1.8	0.0
27	0.7	0.0	0.0	0.6
28	9.1	2.6	1.9	0.0
29	0.0	1.5	0.8	0.2
30	8.8	0.0	0.0	8.3
31	0.1	0.0	1.0	6.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	229.9	155.1	153.6	121.9
 Daily Means	7.4	5.0	5.0	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: 2009

Country: CHILE

Daily Totals				
Latitude	45°35' S	53°08' S		
Longitude	72°07'W	70°58' W		
Elevation	310 m	37 m		
Station	COYHAIQUE	PUNTA ARENAS		
Date				
1	6.4	5.9		
2	5.7	3.9		
3	7.5	3.3		
4	6.7	5.5		
5	5.1	8.0		
6	11.3	5.6		
7	9.6	9.1		
8	5.1	1.0		
9	5.2	0.9		
10	3.2	4.5		
11	8.5	5.9		
12	5.9	7.5		
13	1.9	2.8		
14	10.8	11.6		
15	10.7	11.4		
16	11.8	11.6		
17	10.6	8.2		
18	7.1	10.8		
19	6.4	8.0		
20	8.8	10.0		
21	2.5	0.7		
22	1.6	5.8		
23	2.3	4.0		
24	2.0	1.8		
25	10.5	8.7		
26	0.3	3.4		
27	0.2	7.1		
28	10.8	9.9		
29	7.4	8.3		
30	0.0	11.2		
31	11.4	10.2		
TT Monthly Totals				
Daily Means				
SS Monthly Totals	197.3	206.6		
Daily Means	6.4	6.7		
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES		

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

Month: NOVEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	18°21' S	20°32' S	22°28' S	23°26' S
Longitude	70°19'W	72°10' W	68°55' W	70°26' W
Elevation	58 m	52 m	270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	9.6	.	11.8	10.6
2	8.8	.	11.7	11.4
3	9.1	.	11.7	8.4
4	6.5	.	11.7	1.0
5	7.8	.	11.8	0.3
6	8.9	.	11.7	6.9
7	6.2	.	11.9	9.4
8	8.2	.	11.7	7.2
9	7.3	.	11.8	6.8
10	6.2	.	11.4	8.5
11	6.2	.	11.9	9.9
12	5.4	.	11.9	10.5
13	1.1	.	5.2	7.7
14	5.4	.	12.0	4.1
15	4.5	.	12.1	8.3
16	1.5	.	11.6	5.6
17	9.2	.	7.9	10.3
18	10.7	.	11.4	10.4
19	8.1	.	12.2	6.4
20	9.1	.	11.7	7.7
21	6.5	.	12.0	8.4
22	5.5	.	11.7	9.3
23	7.7	.	12.1	7.6
24	11.4	.	11.5	4.5
25	10.1	.	11.6	8.8
26	6.5	.	12.6	6.9
27	7.4	.	11.6	9.8
28	5.4	.	10.9	8.7
29	5.3	.	9.4	8.4
30	9.4	.	11.4	10.0
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	215.0	.	339.9	233.8
 Daily Means	7.2	.	11.3	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: NOVEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	27°10' S	29°57' S	33°23' S	33°27' S
Longitude	109°26' W	71°22' W	70°47' W	70°42' W
Elevation	47 m	25 m	474 m	520 m
Station	ISLA DE PASCUA	LA SERENA	PUDAHUEL	QUINTA NORMAL
Date				
1	3.8	4.0	0.8	0.8
2	0.2	5.5	0.2	0.2
3	0.0	6.9	8.2	7.4
4	0.0	11.9	13.2	10.9
5	0.1	11.9	12.7	11.1
6	2.1	7.0	11.9	10.9
7	8.6	9.6	11.7	10.9
8	4.4	12.4	9.4	8.6
9	2.2	8.5	4.9	4.7
10	11.4	10.5	11.5	9.8
11	8.1	11.2	12.5	11.4
12	7.1	4.5	10.6	10.0
13	1.5	6.3	12.5	11.1
14	0.3	9.8	11.0	11.3
15	0.2	11.4	12.6	11.3
16	0.0	9.7	3.5	1.8
17	0.0	8.8	0.0	0.0
18	0.8	6.1	2.4	1.1
19	0.9	13.0	2.5	1.7
20	10.1	12.2	0.5	0.1
21	11.2	11.8	10.4	8.5
22	7.2	12.5	0.0	0.0
23	9.3	5.8	12.6	11.4
24	4.7	10.2	12.5	11.0
25	4.6	10.1	8.2	7.5
26	0.7	11.7	8.7	6.0
27	9.4	8.4	12.6	11.9
28	10.1	7.8	12.5	10.7
29	11.5	8.5	4.1	3.8
30	11.9	12.5	12.7	11.0
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	142.4	280.5	246.9	216.9
 Daily Means	4.7	9.4	8.2	7.2
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: NOVEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	33°37' S	33°39' S	34°58' S	36°36' S
Longitude	78°50' W	71°36' W	71°12' W	72°26' W
Elevation	30 m	74 m	225 m	124 m
Station	ROBINSON CRUSOE	SANTO DOMINGO	CURICO	CHILLAN
Date				
1	4.5	0.8	0.3	0.0
2	7.8	0.0	4.3	11.8
3	7.4	11.8	10.5	12.3
4	7.7	12.5	11.8	1.4
5	1.6	12.4	9.6	12.2
6	5.5	12.4	10.7	8.9
7	0.9	11.3	12.9	12.6
8	.	11.6	12.0	9.6
9	3.0	9.5	10.6	9.3
10	7.1	12.7	9.1	13.2
11	3.1	12.5	9.0	10.9
12	0.0	8.6	12.2	8.2
13	1.2	9.1	12.0	9.7
14	10.1	12.7	11.3	13.0
15	11.4	12.9	12.6	13.1
16	4.3	5.8	0.5	0.3
17	0.0	0.7	0.0	0.0
18	7.0	1.3	1.3	2.4
19	7.9	8.5	2.9	4.6
20	4.8	3.5	0.0	2.7
21	2.8	11.9	3.5	0.0
22	3.9	3.9	4.3	9.3
23	3.7	11.5	9.3	4.9
24	7.3	0.9	0.3	4.6
25	4.3	8.9	7.4	10.3
26	6.4	10.5	3.9	12.8
27	7.8	12.7	9.6	13.0
28	2.8	10.8	11.3	6.5
29	6.6	7.4	9.2	8.6
30	3.1	12.4	13.4	12.9
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	.	261.5	225.8	239.1
Daily Means	5.0	8.7	7.5	8.0
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: NOVEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	36°46' S	38°45' S	39°41' S	41°26' S
Longitude	73°03' W	72°38' W	73°04' W	73°07' W
Elevation	12 m	114 m	19 m	81 m
Station	CONCEPCION	TEMUCO	VALDIVIA	PUERTO MONTT
Date				
1	0.0	4.8	11.3	7.5
2	12.0	8.6	7.2	2.8
3	12.0	5.3	4.6	3.3
4	7.6	7.6	8.7	6.2
5	9.7	0.9	0.6	0.0
6	11.4	11.1	10.4	8.4
7	12.1	5.7	7.7	8.7
8	7.3	5.1	7.1	0.0
9	11.5	9.6	5.6	5.7
10	12.6	10.7	7.2	0.0
11	12.4	10.1	9.3	3.1
12	10.8	4.1	7.8	5.1
13	12.1	2.1	6.9	1.1
14	12.9	10.2	6.9	5.8
15	11.1	9.3	5.1	1.2
16	0.5	0.0	0.6	3.4
17	6.9	7.1	9.9	8.3
18	0.5	0.0	0.2	2.4
19	4.3	3.1	4.0	5.5
20	9.8	9.6	9.4	2.2
21	6.6	4.4	3.8	4.9
22	9.5	5.3	1.9	3.2
23	4.3	3.1	1.2	0.5
24	8.7	4.7	1.5	3.3
25	12.0	5.6	7.4	2.8
26	13.0	10.6	10.0	7.2
27	12.9	10.5	7.4	0.4
28	9.1	1.4	2.6	2.0
29	11.3	9.2	8.5	9.9
30	12.6	.	3.5	0.0
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	277.5	.	178.3	114.9
 Daily Means	9.3	6.2	5.9	3.8
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: NOVEMBER Year: 2009 Country: CHILE

Daily Totals			
Latitude	45°35' S	53°08' S	
Longitude	72°07'W	70°58' W	
Elevation	310 m	37 m	
Station	COYHAIQUE	PUNTA ARENAS	
Date			
1	12.2	6.8	
2	2.1	7.0	
3	5.2	5.0	
4	3.7	10.9	
5	11.4	7.6	
6	3.0	6.2	
7	10.6	3.8	
8	6.7	10.7	
9	8.5	4.9	
10	4.7	2.1	
11	8.5	0.5	
12	4.4	11.4	
13	8.2	7.9	
14	2.6	7.2	
15	4.2	5.0	
16	1.9	0.4	
17	8.6	4.8	
18	8.1	2.9	
19	0.5	9.3	
20	3.2	4.1	
21	6.9	6.9	
22	8.7	7.1	
23	11.3	5.0	
24	2.9	7.3	
25	11.5	8.9	
26	10.5	5.6	
27	2.8	6.5	
28	6.1	7.9	
29	6.6	10.3	
30	2.6	11.6	
31			
TT Monthly Totals			
Daily Means			
SS Monthly Totals	188.2	195.6	
Daily Means	6.3	6.5	
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	

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

Month: DECEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	18°21' S	20°32' S	22°28' S	23°26' S
Longitude	70°19'W	72°10' W	68°55' W	70°26' W
Elevation	58 m	52 m	270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	9.7	.	11.8	9.6
2	12.1	.	11.8	11.1
3	8.0	.	11.9	8.6
4	6.0	.	11.9	5.4
5	6.0	.	12.1	6.0
6	6.4	.	12.4	7.5
7	9.5	.	12.3	11.5
8	7.6	.	12.3	11.1
9	7.2	.	11.5	11.3
10	8.5	.	10.9	11.5
11	8.2	.	11.8	10.8
12	8.0	.	11.7	9.9
13	7.0	.	11.9	6.0
14	8.8	.	12.0	11.4
15	8.4	.	11.1	10.2
16	12.1	.	11.0	10.3
17	11.1	.	8.9	11.3
18	8.6	.	9.0	11.7
19	8.5	.	11.2	10.0
20	5.3	.	10.4	8.5
21	6.5	.	7.2	9.9
22	11.0	.	11.8	11.1
23	11.0	.	9.6	8.2
24	3.4	.	11.5	9.3
25	0.5	.	9.8	6.0
26	6.0	.	11.5	9.9
27	5.3	.	11.7	9.1
28	9.5	.	8.6	11.0
29	11.7	.	11.7	10.0
30	7.7	.	11.7	11.7
31	11.8	.	11.8	10.5
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	251.4	.	344.8	300.4
 Daily Means	8.1	.	11.1	9.7
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: 2009 Country: CHILE

Daily Totals				
Latitude	27°10' S	29°57' S	33°23' S	33°27' S
Longitude	109°26' W	71°22' W	70°47' W	70°42' W
Elevation	47 m	25 m	474 m	520 m
Station	ISLA DE PASCUA	LA SERENA	PUDAHUEL	QUINTA NORMAL
Date				
1	8.9	12.2	11.8	10.7
2	6.9	12.6	12.6	11.9
3	0.5	6.5	12.6	12.2
4	0.4	0.0	9.9	9.7
5	7.1	0.6	9.7	10.6
6	12.5	2.4	10.7	10.5
7	11.1	4.5	12.6	12.2
8	4.7	9.9	12.7	12.3
9	0.6	10.5	12.8	12.4
10	0.0	4.9	12.6	12.3
11	0.0	9.4	12.6	11.3
12	0.0	1.2	12.0	12.1
13	3.5	4.6	11.9	8.2
14	0.0	6.7	12.8	12.4
15	0.0	6.3	12.7	12.5
16	0.0	4.6	12.8	12.5
17	0.0	5.7	11.7	12.4
18	1.3	6.0	12.7	12.3
19	7.6	10.9	8.1	8.7
20	8.7	12.3	11.8	12.4
21	9.4	9.1	12.4	12.0
22	8.8	10.8	12.7	12.3
23	8.1	7.6	12.5	12.3
24	6.7	12.4	12.6	12.3
25	9.8	7.8	12.7	12.6
26	8.9	10.3	13.0	12.4
27	9.9	8.7	11.2	11.4
28	12.1	12.2	9.0	9.2
29	12.2	13.0	11.8	9.9
30	11.1	12.8	12.3	12.5
31	10.8	8.9	12.5	12.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	181.6	245.4	369.8	358.8
 Daily Means	5.9	7.9	11.9	11.6
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: 2009 Country: CHILE

Daily Totals				
Latitude	33°37' S	33°39' S	34°58' S	36°36' S
Longitude	78°50' W	71°36' W	71°12' W	72°26' W
Elevation	30 m	74 m	225 m	124 m
Station	ROBINSON CRUSOE	SANTO DOMINGO	CURICO	CHILLAN
Date				
1	2.5	11.7	9.0	12.8
2	2.9	12.6	10.6	13.1
3	0.3	12.6	13.7	13.4
4	8.9	0.0	13.2	12.8
5	1.5	8.1	8.7	8.6
6	5.9	0.0	13.6	9.4
7	7.4	11.6	13.5	12.1
8	2.5	11.8	13.5	7.3
9	0.7	1.2	10.4	10.4
10	0.2	6.3	13.8	11.5
11	2.5	5.0	13.4	13.1
12	12.9	9.0	12.1	12.2
13	7.5	11.6	8.0	10.1
14	10.5	12.8	13.8	11.3
15	10.9	11.5	13.8	13.1
16	8.1	11.3	13.5	10.8
17	5.8	7.6	1.6	7.9
18	5.5	12.7	9.3	0.3
19	8.3	9.4	10.0	12.0
20	2.6	12.9	13.8	13.0
21	9.6	11.5	12.3	12.9
22	8.7	11.4	13.3	11.3
23	1.5	11.7	3.4	0.0
24	3.6	12.6	13.1	12.5
25	6.0	12.5	13.9	11.1
26	8.9	12.1	13.7	12.5
27	8.6	11.4	8.8	10.3
28	7.4	12.3	10.3	9.0
29	2.6	12.5	5.5	1.9
30	5.7	12.2	13.7	12.7
31	4.2	8.1	12.1	10.8
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	174.2	308.0	349.4	320.2
 Daily Means	5.6	9.9	11.3	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: 2009 Country: CHILE

Daily Totals				
Latitude	36°46' S	38°45' S	39°41' S	41°26' S
Longitude	73°03' W	72°38' W	73°04' W	73°07' W
Elevation	12 m	114 m	19 m	81 m
Station	CONCEPCION	TEMUCO	VALDIVIA	PUERTO MONTT
Date				
1	10.4	0.4	10.2	4.9
2	12.8	10.1	10.2	0.7
3	12.9	11.1	11.8	12.8
4	10.8	9.5	7.0	8.0
5	12.8	4.2	4.7	1.0
6	10.1	7.9	11.5	11.9
7	3.4	4.4	8.6	12.4
8	1.8	0.0	5.9	2.3
9	10.6	2.9	5.4	2.0
10	13.0	11.0	12.5	7.9
11	13.0	11.0	9.6	6.8
12	12.0	5.1	5.8	1.5
13	7.8	7.0	11.6	1.3
14	12.3	9.1	.	6.4
15	13.0	10.7	11.8	12.3
16	10.1	6.6	9.1	3.1
17	11.8	5.3	7.0	3.4
18	3.0	4.0	7.7	7.4
19	13.1	9.9	7.2	6.8
20	13.0	10.7	8.5	2.8
21	12.8	8.5	8.8	12.0
22	10.7	10.1	7.8	1.3
23	0.2	0.0	1.9	4.5
24	8.4	6.2	8.7	5.9
25	13.1	9.3	5.4	0.8
26	11.3	2.9	9.1	2.5
27	11.7	7.4	4.8	1.5
28	5.2	2.8	4.0	2.0
29	6.4	1.8	4.9	6.2
30	5.2	9.3	4.7	6.3
31	9.3	2.8	0.7	0.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	302.0	202.0	.	159.0
 Daily Means	9.7	6.5	7.6	5.1
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: DECEMBER Year: 2009 Country: CHILE

Daily Totals				
Latitude	45°35' S	53°08' S		
Longitude	72°07'W	70°58' W		
Elevation	310 m	37 m		
Station	COYHAIQUE	PUNTA ARENAS		
Date				
1	7.9	9.5		
2	5.9	5.9		
3	12.6	5.3		
4	11.9	10.2		
5	12.5	7.5		
6	12.8	12.6		
7	12.2	13.9		
8	13.1	14.1		
9	6.2	3.8		
10	12.0	12.6		
11	11.6	3.5		
12	1.1	12.9		
13	4.3	13.7		
14	1.2	9.7		
15	13.1	1.9		
16	8.8	5.7		
17	1.9	13.9		
18	6.8	1.7		
19	5.2	5.0		
20	1.6	10.7		
21	6.9	12.1		
22	0.0	13.1		
23	3.5	14.8		
24	5.1	0.9		
25	3.4	13.3		
26	3.4	9.1		
27	0.0	7.6		
28	9.9	12.6		
29	8.5	10.5		
30	6.9	13.1		
31	3.2	1.7		
TT Monthly Totals				
Daily Means				
SS Monthly Totals	213.5	282.9		
Daily Means	6.9	9.1		
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES		