



DIRECCIÓN METEOROLÓGICA DE CHILE



INFORME
SOLARIMÉTRICO
II SEMESTRE 2010



CLIMATOLOGÍA Y METEOROLOGÍA APLICADA

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

Month: JULY

Year: 2010

Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	2.09			
2	2.27			
3	2.79			
4	2.80			
5	3.22			
6	0.43			
7	2.88			
8	2.45			
9	2.46			
10	2.42			
11	1.92			
12	2.09			
13	1.91			
14	2.92			
15	1.63			
16	1.61			
17	1.09			
18	1.96			
19	3.45			
20	3.84			
21	2.23			
22	1.20			
23	3.64			
24	2.44			
25	1.32			
26	2.93			
27	2.35			
28	3.01			
29	4.30			
30	4.33			
31	4.63			
TT Monthly Totals	78.60			
 Daily Means	2.54			
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: AUGUST

Year: 2010

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	12.80	18.44	17.66	16.64
2	13.23	18.54	17.42	16.10
3	15.86	17.95	17.79	8.93
4	13.60	18.60	16.37	17.73
5	12.47	18.88	16.38	13.06
6	14.50	18.80	14.52	7.41
7	10.14	18.61	14.61	6.20
8	13.78	18.74	17.25	17.18
9	15.66	19.21	16.34	12.67
10	16.30	19.01	18.28	6.43
11	17.26	18.60	3.67	4.95
12	16.37	19.42	19.76	18.70
13	10.45	20.00	17.27	19.21
14	19.17	19.92	19.11	8.24
15	18.57	19.91	18.11	3.67
16	17.31	19.58	18.42	19.29
17	11.79	19.83	16.69	19.38
18	13.06	20.17	18.15	18.29
19	16.30	20.59	18.49	10.99
20	13.03	20.53	18.45	10.21
21	20.80	20.50	20.18	9.61
22	16.24	20.73	17.85	17.46
23	10.97	20.51	12.89	16.02
24	10.63	20.31	16.75	18.82
25	11.77	22.19	20.17	17.70
26	11.92	22.42	17.91	19.07
27	15.27	22.81	21.24	19.73
28	12.07	23.15	18.80	18.62
29	17.94	23.68	19.62	8.33
30	16.63	23.17	19.46	4.39
31	10.96	19.27	12.34	8.84
TT Monthly Totals	446.86	624.09	531.95	413.85
 Daily Means	14.41	20.13	17.16	13.35
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: 2010

Country: CHILE

Daily Totals				
Latitude	33°27' S	36°46' S	41°25' S	45°35' S
Longitude	70°42' W	73°03' W	73°05' W	72°07' W
Elevation	520 m	12 m	85 m	310 m
Station	QUINTA NORMAL	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	2.29	.	5.66	8.26
2	9.70	.	9.84	9.03
3	11.32	.	10.64	6.61
4	9.81	.	10.19	8.68
5	7.44	.	2.60	4.18
6	10.46	.	7.67	6.31
7	9.19	.	8.97	6.57
8	8.90	.	7.00	4.91
9	13.19	.	6.26	7.43
10	11.19	.	6.87	8.21
11	1.58	.	4.83	7.35
12	11.38	.	10.74	9.14
13	12.12	.	11.56	9.63
14	13.17	.	11.41	10.08
15	3.64	.	4.20	7.68
16	4.13	.	2.66	4.37
17	7.25	.	3.77	6.70
18	13.28	.	6.85	3.55
19	13.48	.	10.38	4.38
20	13.98	.	6.34	5.40
21	13.66	.	9.08	8.62
22	11.41	.	8.96	7.24
23	9.97	.	4.48	1.74
24	14.14	.	3.37	1.91
25	14.50	.	2.68	2.68
26	13.16	.	9.53	5.06
27	14.31	.	2.16	1.56
28	8.87	.	10.42	8.78
29	15.33	.	12.96	7.73
30	6.91	.	10.09	9.72
31	4.26	.	12.96	6.85
TT Monthly Totals	314.01	.	235.13	200.36
 Daily Means	10.13	.	7.58	6.46
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: 2010

Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	4.16			
2	4.36			
3	1.22			
4	0.89			
5	3.27			
6	4.86			
7	3.40			
8	4.77			
9	4.64			
10	4.29			
11	5.25			
12	5.24			
13	2.22			
14	6.13			
15	5.55			
16	3.59			
17	0.98			
18	1.37			
19	2.36			
20	5.74			
21	2.85			
22	7.48			
23	5.80			
24	7.87			
25	2.82			
26	6.34			
27	4.19			
28	8.47			
29	8.40			
30	5.74			
31	6.83			
TT Monthly Totals	141.08			
Daily Means	4.55			
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: 2010 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	5.39	23.17	14.95	13.74
2	5.28	21.82	18.13	16.01
3	10.96	24.11	22.83	22.22
4	9.94	24.19	22.09	22.28
5	16.61	24.11	22.37	18.75
6	16.41	24.96	19.72	22.35
7	20.54	25.65	20.45	13.89
8	18.67	25.50	22.39	7.83
9	8.44	25.39	17.95	6.03
10	19.02	25.21	23.05	17.15
11	14.38	25.80	22.62	13.78
12	14.87	25.69	16.43	9.46
13	18.78	25.99	24.07	23.52
14	19.24	26.32	22.78	24.12
15	15.91	26.83	22.19	22.41
16	19.49	26.84	23.05	21.15
17	21.88	26.81	24.05	17.69
18	20.30	26.48	23.80	17.86
19	20.15	26.48	22.31	23.41
20	11.98	26.56	7.64	16.02
21	11.91	26.71	17.19	15.16
22	14.23	26.45	19.93	15.99
23	20.47	26.98	22.14	20.22
24	11.76	27.64	8.52	15.42
25	16.90	27.38	23.57	21.08
26	17.41	27.30	20.29	25.20
27	15.86	27.53	25.22	25.95
28	13.63	27.90	23.04	23.12
29	19.61	27.90	25.92	23.92
30	24.70	28.04	22.74	12.73
31				
TT Monthly Totals	474.71	781.71	621.39	548.44
 Daily Means	15.82	26.06	20.71	18.28
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: 2010 Country: CHILE

Daily Totals				
Latitude	33°27' S	36°46' S	41°25' S	45°35' S
Longitude	70°42' W	73°03' W	73°05' W	72°07' W
Elevation	520 m	12 m	85 m	310 m
Station	QUINTA NORMAL	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	9.28	.	14.51	6.11
2	9.47	.	9.07	9.77
3	12.38	.	4.67	11.68
4	16.30	.	4.59	8.04
5	16.64	.	13.12	10.03
6	16.37	.	10.45	5.37
7	16.60	.	9.64	6.58
8	16.77	.	7.62	4.55
9	14.73	.	8.56	6.60
10	11.53	.	11.04	4.33
11	12.34	.	5.96	5.75
12	3.46	.	14.04	5.96
13	18.04	.	9.09	8.74
14	12.02	.	15.30	8.17
15	17.14	.	9.88	8.20
16	17.72	.	10.33	9.28
17	19.31	.	8.91	9.38
18	15.48	.	8.70	8.12
19	19.58	.	4.11	11.18
20	17.66	.	7.99	9.00
21	19.99	.	10.35	11.97
22	18.55	.	8.47	9.26
23	19.23	.	16.76	16.05
24	18.29	.	9.70	10.78
25	12.43	.	13.53	13.36
26	18.71	.	8.85	10.90
27	17.09	.	6.36	5.73
28	20.57	.	5.64	16.00
29	19.82	.	12.41	8.39
30	18.77	.	13.23	16.19
31				
TT Monthly Totals	476.24	.	292.89	275.45
 Daily Means	15.87	.	9.76	9.18
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: 2010

Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	2.12			
2	7.58			
3	7.96			
4	6.85			
5	8.54			
6	9.17			
7	10.24			
8	2.38			
9	3.29			
10	4.35			
11	4.34			
12	11.48			
13	2.64			
14	7.46			
15	11.25			
16	8.17			
17	10.06			
18	11.17			
19	12.43			
20	6.51			
21	8.61			
22	4.93			
23	11.82			
24	5.20			
25	14.39			
26	9.34			
27	10.84			
28	9.57			
29	14.25			
30	8.06			
31				
TT Monthly Totals	245.01			
Daily Means	8.17			
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: 2010 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	18.43	27.66	8.58	18.76
2	18.83	27.44	21.56	19.49
3	18.87	24.60	24.20	23.00
4	21.79	28.64	26.39	26.70
5	18.03	28.81	23.54	20.19
6	21.11	28.70	23.25	23.85
7	23.48	29.53	25.04	25.55
8	21.35	29.43	25.36	19.74
9	18.29	29.59	24.09	7.69
10	23.71	29.67	25.92	12.61
11	14.61	29.61	24.67	21.45
12	22.54	27.76	25.98	26.04
13	21.45	29.59	27.68	28.13
14	20.32	29.60	27.17	26.76
15	18.73	29.51	25.77	23.82
16	19.48	29.83	20.27	15.72
17	20.47	29.89	25.61	18.24
18	25.38	29.91	25.25	16.91
19	23.10	30.14	26.73	14.70
20	26.09	29.86	26.79	23.65
21	22.39	29.59	23.86	27.81
22	22.50	29.35	20.74	25.89
23	18.11	30.04	24.02	26.65
24	20.64	30.39	25.63	27.27
25	22.81	30.68	26.62	22.87
26	25.41	30.43	29.22	6.16
27	19.35	30.41	29.41	29.41
28	19.42	30.71	28.44	13.95
29	20.51	30.44	29.62	29.63
30	22.05	30.77	25.28	30.44
31	26.57	29.96	26.56	22.70
TT Monthly Totals	655.81	912.54	773.25	675.79
 Daily Means	21.16	29.44	24.94	21.80
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: 2010

Country: CHILE

Daily Totals				
Latitude	33°27' S	36°46' S	41°25' S	45°35' S
Longitude	70°42' W	73°03' W	73°05' W	72°07' W
Elevation	520 m	12 m	85 m	310 m
Station	QUINTA NORMAL	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	21.61	.	10.90	9.88
2	21.83	.	11.23	8.64
3	20.88	.	5.47	3.16
4	9.35	.	3.12	18.16
5	11.10	.	7.07	14.82
6	20.44	.	15.60	15.11
7	21.98	.	16.73	14.82
8	21.89	.	15.65	20.09
9	22.01	.	20.52	19.73
10	22.24	.	21.41	7.09
11	10.00	.	13.19	9.44
12	12.35	.	14.71	7.72
13	12.31	.	21.59	17.26
14	10.14	.	22.48	17.90
15	15.65	.	14.17	21.08
16	22.02	.	22.73	21.30
17	24.23	.	3.00	5.42
18	20.85	.	11.84	14.31
19	22.68	.	8.89	13.47
20	19.47	.	9.65	15.48
21	22.26	.	17.16	23.22
22	17.02	.	18.37	14.97
23	16.12	.	13.49	18.55
24	24.79	.	13.77	14.81
25	24.58	.	25.50	23.06
26	24.30	.	21.01	13.48
27	24.46	.	14.72	12.46
28	15.87	.	9.27	12.46
29	18.30	.	12.45	17.19
30	26.40	.	5.69	17.07
31	26.41	.	6.31	11.89
TT Monthly Totals	603.55	.	427.70	454.02
 Daily Means	19.47	.	13.80	14.65
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: 2010

Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	15.07			
2	6.12			
3	10.75			
4	11.29			
5	15.91			
6	14.75			
7	10.69			
8	11.24			
9	10.31			
10	8.29			
11	13.97			
12	18.74			
13	17.30			
14	8.13			
15	8.96			
16	16.72			
17	14.17			
18	7.66			
19	17.07			
20	17.82			
21	9.11			
22	13.10			
23	15.00			
24	12.34			
25	8.33			
26	14.53			
27	13.57			
28	15.77			
29	17.23			
30	20.67			
31	12.73			
TT Monthly Totals	407.34			
Daily Means	13.14			
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: 2010 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	20.71	31.04	27.22	25.20
2	21.59	30.96	28.60	17.07
3	24.67	31.18	27.30	15.74
4	25.43	31.31	27.15	20.80
5	24.66	31.61	28.06	24.69
6	26.01	31.24	12.12	18.63
7	27.80	30.76	29.72	25.51
8	24.83	30.87	28.80	24.13
9	26.63	31.45	24.69	31.02
10	25.20	31.48	26.40	23.23
11	20.54	31.82	27.25	21.03
12	20.88	31.66	27.30	18.81
13	21.35	31.75	29.21	25.11
14	21.74	31.84	28.57	17.80
15	21.18	31.77	29.81	13.14
16	27.22	31.67	27.43	14.87
17	28.15	31.54	30.38	28.36
18	26.79	31.06	31.18	30.28
19	27.39	31.17	27.18	31.24
20	24.62	31.09	30.06	25.47
21	24.22	31.57	32.30	31.76
22	22.67	31.60	29.38	21.85
23	24.94	31.91	31.46	26.19
24	27.72	32.22	31.81	23.16
25	27.66	32.00	32.29	24.97
26	23.72	31.27	29.90	19.90
27	27.71	31.81	31.61	22.52
28	27.42	31.62	29.57	20.24
29	20.80	30.43	32.27	22.14
30	24.41	32.08	28.52	20.79
31				
TT Monthly Totals	738.68	943.78	857.56	685.64
 Daily Means	24.62	31.46	28.59	22.85
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: 2010 Country: CHILE

Daily Totals				
Latitude	33°27' S	36°46' S	41°25' S	45°35' S
Longitude	70°42' W	73°03' W	73°05' W	72°07' W
Elevation	520 m	12 m	85 m	310 m
Station	QUINTA NORMAL	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	26.51	.	13.48	14.08
2	26.19	.	19.68	19.32
3	9.51	.	11.73	14.93
4	22.64	.	15.89	23.71
5	25.37	.	4.83	10.75
6	27.15	.	3.11	8.60
7	1.47	.	17.18	15.82
8	15.18	.	14.36	20.76
9	28.02	.	21.08	25.77
10	27.63	.	26.24	25.80
11	27.49	.	11.66	21.84
12	26.93	.	18.80	26.51
13	27.44	.	22.25	25.16
14	27.98	.	27.43	25.81
15	27.48	.	24.02	21.46
16	27.92	.	11.53	9.30
17	25.70	.	16.23	20.60
18	27.16	.	7.15	13.60
19	18.29	.	10.58	20.05
20	26.43	.	3.78	12.48
21	26.77	.	22.76	21.89
22	27.40	.	23.64	14.45
23	27.70	.	11.29	10.88
24	27.60	.	24.16	26.51
25	27.95	.	12.37	22.73
26	27.52	.	9.75	17.92
27	27.91	.	23.86	26.65
28	28.28	.	26.82	19.20
29	25.90	.	18.41	22.10
30	26.78	.	17.83	17.98
31				
TT Monthly Totals	746.27	.	491.88	576.66
Daily Means	24.88	.	16.40	19.22
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: 2010 Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	17.12			
2	16.75			
3	10.76			
4	21.31			
5	11.06			
6	13.56			
7	17.18			
8	21.87			
9	17.19			
10	24.69			
11	13.59			
12	17.84			
13	25.74			
14	20.05			
15	15.92			
16	11.59			
17	12.07			
18	19.89			
19	23.30			
20	9.61			
21	23.55			
22	23.42			
23	24.89			
24	24.62			
25	16.43			
26	27.98			
27	18.98			
28	14.54			
29	26.23			
30	19.00			
31				
TT Monthly Totals	560.75			
Daily Means	18.69			
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: 2010 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	23.32	32.24	31.04	24.71
2	25.50	32.17	30.69	24.51
3	26.81	31.80	30.51	28.65
4	27.09	30.41	31.35	25.76
5	24.80	30.44	32.00	27.16
6	26.94	31.53	32.12	32.27
7	19.98	31.72	28.10	27.84
8	27.07	31.49	28.54	19.99
9	25.08	31.27	31.77	21.78
10	26.91	28.60	32.18	26.92
11	23.66	31.58	26.50	32.74
12	24.64	31.81	29.84	30.51
13	19.69	31.40	29.01	30.88
14	23.77	26.84	30.47	24.92
15	27.34	31.23	31.87	31.36
16	27.30	31.47	27.51	31.56
17	27.51	31.55	30.89	30.88
18	27.52	31.53	31.49	26.07
19	26.09	31.11	31.10	24.80
20	25.32	31.02	31.16	22.68
21	26.42	29.41	28.76	12.78
22	25.37	31.12	30.99	18.60
23	27.13	30.70	31.66	24.24
24	27.08	31.10	30.67	29.22
25	25.34	31.15	32.10	26.50
26	24.64	31.03	29.89	25.90
27	26.57	31.00	29.57	20.69
28	26.78	31.29	30.44	29.37
29	25.09	31.40	31.26	24.89
30	27.02	31.25	32.34	21.30
31	26.74	31.47	31.69	26.34
TT Monthly Totals	794.52	962.16	947.50	805.81
 Daily Means	25.63	31.04	30.56	25.99
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: 2010 Country: CHILE

Daily Totals				
Latitude	33°27' S	36°46' S	41°25' S	45°35' S
Longitude	70°42' W	73°03' W	73°05' W	72°07' W
Elevation	520 m	12 m	85 m	310 m
Station	QUINTA NORMAL	CONCEPCION	PUERTO MONTT	COYHAIQUE
Date				
1	28.40	.	14.31	20.54
2	23.53	.	17.28	19.84
3	24.65	.	14.67	15.45
4	29.45	.	10.89	29.35
5	29.54	.	25.19	28.02
6	28.52	.	9.79	12.53
7	29.51	.	25.51	21.88
8	29.59	.	13.45	17.81
9	30.14	.	4.59	12.63
10	30.12	.	13.72	20.15
11	25.77	.	24.41	27.73
12	30.74	.	6.00	20.98
13	29.63	.	11.82	26.40
14	27.90	.	26.56	30.11
15	28.35	.	20.79	25.52
16	28.92	.	12.26	14.46
17	28.38	.	16.52	24.15
18	28.98	.	13.83	14.41
19	29.62	.	13.81	21.74
20	29.28	.	17.68	18.54
21	29.08	.	23.51	29.79
22	28.17	.	30.14	13.28
23	22.76	.	8.70	25.22
24	28.63	.	8.95	19.11
25	28.59	.	8.41	10.16
26	28.50	.	13.47	6.49
27	28.06	.	27.00	22.09
28	27.49	.	30.00	28.69
29	17.76	.	20.05	28.56
30	27.80	.	27.99	28.68
31	27.12	.	26.87	28.45
TT Monthly Totals	864.95	.	538.16	662.75
 Daily Means	27.90	.	17.36	21.38
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: DECEMBER Year: 2010 Country: CHILE

Daily Totals				
Latitude	53°00' S			
Longitude	70°51' W			
Elevation	37 m			
Station	PUNTA ARENAS			
Date				
1	26.27			
2	25.98			
3	19.55			
4	23.24			
5	17.95			
6	18.26			
7	16.91			
8	23.01			
9	22.90			
10	20.55			
11	16.50			
12	23.38			
13	28.87			
14	17.01			
15	20.71			
16	26.78			
17	28.22			
18	10.99			
19	11.77			
20	19.37			
21	17.97			
22	10.88			
23	14.09			
24	25.46			
25	26.95			
26	12.98			
27	19.74			
28	14.20			
29	21.63			
30	27.21			
31	23.77			
TT Monthly Totals	633.10			
Daily Means	20.42			
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: JULY

Year: 2010

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	2270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	7.2	.	9.4	9.2
2	6.4	.	9.4	7.8
3	3.5	.	9.4	6.3
4	3.8	.	9.4	7.8
5	6.1	.	9.3	7.9
6	3.5	.	9.0	9.0
7	3.9	.	9.4	7.3
8	4.9	.	9.4	8.1
9	4.8	.	9.6	9.2
10	8.1	.	9.4	8.0
11	3.1	.	9.4	8.1
12	5.0	.	9.5	7.3
13	6.7	.	9.5	5.2
14	4.3	.	9.3	5.4
15	3.9	.	9.6	6.4
16	3.8	.	9.6	5.8
17	5.6	.	9.4	9.6
18	8.2	.	9.4	9.7
19	0.0	10.2	9.4	9.9
20	0.0	0.3	9.5	2.6
21	5.3	10.3	9.6	10.0
22	6.7	9.8	9.5	9.8
23	4.2	0.0	9.7	8.0
24	4.0	6.5	9.6	8.6
25	3.8	2.3	10.0	9.3
26	6.3	3.5	9.9	6.6
27	6.5	7.1	9.9	9.1
28	4.4	8.3	10.0	7.4
29	6.9	6.5	10.0	8.4
30	4.4	9.1	9.9	8.8
31	4.9	4.7	9.8	9.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	150.2	.	296.2	246.0
 Daily Means	4.8	.	9.6	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: JULY

Year: 2010

Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	2.5	2.2	0.0	7.3
2	6.5	5.7	5.2	6.2
3	3.8	7.3	0.0	7.9
4	4.3	2.7	5.2	7.7
5	8.8	6.9	7.8	3.5
6	9.1	1.4	5.3	0.0
7	9.6	5.0	9.0	5.0
8	6.0	6.6	9.2	7.5
9	4.7	7.7	9.3	7.7
10	3.2	0.0	0.0	5.8
11	5.7	6.7	5.0	0.8
12	6.3	7.4	7.9	6.4
13	6.8	5.1	8.3	7.5
14	3.8	6.4	1.7	7.6
15	0.3	7.1	4.7	7.6
16	8.5	2.9	8.2	7.4
17	9.1	9.0	5.9	6.9
18	9.0	5.3	9.3	6.7
19	9.3	7.0	9.3	7.3
20	5.0	7.9	8.2	0.0
21	9.0	8.3	9.0	0.0
22	9.0	7.7	9.4	6.7
23	8.5	7.3	8.4	1.1
24	9.3	7.2	8.1	0.9
25	9.3	6.8	9.8	6.1
26	7.5	4.2	9.6	7.1
27	5.8	8.7	3.3	1.3
28	5.7	7.8	9.4	8.0
29	0.0	7.7	0.0	0.0
30	4.8	6.8	8.4	0.9
31	8.8	5.5	9.6	4.7
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	200.0	188.3	204.5	153.6
 Daily Means	6.5	6.1	6.6	5.0
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: JULY

Year: 2010

Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
Date				
1	6.4	0.1	0.0	0.0
2	7.3	3.7	2.3	4.6
3	7.0	2.3	0.0	5.5
4	7.4	4.6	1.5	3.3
5	3.4	0.8	0.6	1.9
6	0.0	3.2	0.0	0.0
7	3.8	3.1	8.4	0.5
8	6.9	1.6	8.7	8.3
9	7.7	6.9	9.3	4.3
10	5.7	1.5	8.4	6.1
11	0.0	3.5	3.5	5.8
12	5.6	2.1	9.2	5.9
13	7.4	4.3	8.1	2.8
14	7.5	5.7	8.0	0.0
15	7.5	6.9	8.7	4.3
16	7.3	7.1	8.7	9.3
17	6.9	6.8	9.1	8.1
18	7.6	0.3	8.4	8.3
19	7.4	1.0	8.4	8.5
20	0.0	4.6	0.0	0.0
21	0.0	3.8	3.0	0.0
22	7.6	2.3	9.5	7.2
23	0.3	2.6	0.3	0.0
24	1.5	4.5	4.3	3.9
25	8.0	4.2	9.5	8.9
26	8.1	4.0	9.5	6.5
27	1.1	5.9	0.1	0.0
28	8.1	2.8	8.9	7.4
29	0.0	3.4	0.0	0.0
30	1.2	2.7	4.3	5.2
31	4.5	3.2	7.3	4.7
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	153.2	109.5	168.0	131.3
 Daily Means	4.9	3.5	5.4	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: JULY

Year: 2010

Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	0.0	0.0	0.0	0.0
2	0.6	0.0	2.4	4.0
3	1.3	7.4	6.2	3.3
4	0.0	0.4	0.2	1.0
5	0.5	6.2	3.7	0.0
6	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0
8	1.4	2.5	5.2	7.5
9	5.4	8.4	6.9	1.7
10	6.4	0.0	1.4	0.0
11	6.0	7.5	4.0	2.5
12	8.5	8.9	2.4	3.7
13	8.4	8.2	7.6	1.9
14	3.8	8.2	8.3	8.4
15	8.8	9.2	8.8	8.3
16	9.0	9.2	7.6	7.9
17	7.5	9.0	8.8	6.3
18	4.4	4.8	7.1	4.8
19	7.0	0.0	0.4	0.0
20	2.1	7.3	2.4	2.4
21	1.0	5.1	4.5	2.4
22	5.9	6.2	5.4	4.3
23	.	0.4	0.0	0.0
24	.	0.2	6.1	5.4
25	.	3.2	0.9	0.0
26	7.2	8.6	2.2	0.6
27	0.4	3.5	2.9	5.2
28	4.6	6.2	2.9	1.6
29	0.0	0.0	1.6	2.1
30	3.5	6.5	4.6	6.7
31	6.3	4.4	4.8	7.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	141.5	119.3	99.0
 Daily Means	3.9	4.6	3.8	3.2
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: 2010

Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
Date				
1	2.5	2.2	4.1	
2	1.9	5.0	4.7	
3	0.9	0.0	6.3	
4	2.0	1.3	6.3	
5	2.7	1.3	7.1	
6	0.0	0.0	7.1	
7	1.0	0.0	1.2	
8	5.3	3.3	3.7	
9	0.0	0.0	4.6	
10	0.0	.	5.4	
11	1.5	4.1	2.1	
12	1.1	2.2	3.5	
13	0.3	1.6	2.0	
14	7.2	4.3	1.4	
15	6.4	0.0	0.9	
16	6.0	1.2	0.8	
17	6.9	0.0	0.5	
18	6.7	0.0	0.2	
19	0.0	0.5	7.3	
20	2.2	0.0	7.1	
21	2.8	5.9	1.3	
22	0.8	2.4	0.0	
23	0.0	1.1	6.7	
24	7.7	2.1	2.6	
25	0.0	3.0	1.6	
26	0.0	1.7	4.7	
27	5.3	2.5	2.2	
28	0.0	4.6	2.1	
29	3.4	3.0	6.8	
30	1.9	6.3	7.3	
31	4.1	7.6	8.1	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	80.6	.	119.7	
 Daily Means	2.6	2.2	3.9	
Types of Instruments	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: 2010

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	2270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	3.3	5.1	10.1	9.0
2	3.2	6.6	9.9	7.3
3	5.7	5.6	9.5	8.8
4	4.1	5.6	10.0	7.3
5	5.2	0.0	10.1	6.5
6	5.2	6.7	9.8	5.8
7	0.4	6.0	9.9	4.9
8	4.7	6.4	10.0	7.2
9	5.9	0.3	10.0	7.1
10	5.2	9.1	9.8	6.9
11	7.6	0.0	9.6	0.0
12	6.2	10.4	9.9	10.3
13	2.3	0.0	10.0	7.7
14	8.0	7.9	10.2	9.2
15	6.7	10.1	10.3	7.4
16	6.3	9.8	10.3	8.2
17	2.6	1.0	10.3	6.8
18	3.1	5.7	10.1	6.9
19	5.5	1.1	10.2	8.0
20	3.8	0.0	10.5	7.3
21	10.8	10.1	10.5	9.9
22	4.1	7.5	10.5	7.9
23	0.2	6.8	10.4	2.1
24	0.3	2.8	10.5	6.6
25	2.4	7.2	10.5	8.4
26	3.5	0.0	10.5	6.5
27	3.6	3.9	10.6	9.9
28	3.7	0.0	10.7	6.9
29	6.2	6.0	10.8	8.0
30	4.4	0.5	10.7	6.9
31	0.7	2.4	8.0	2.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	134.9	144.6	314.2	218.0
 Daily Means	4.4	4.7	10.1	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: AUGUST

Year: 2010

Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	9.4	7.1	9.6	0.0
2	7.5	0.0	9.0	5.9
3	3.9	9.4	0.0	8.6
4	9.4	8.6	9.5	5.2
5	5.6	8.4	7.1	4.0
6	0.1	6.4	7.4	7.3
7	0.2	0.8	0.6	3.8
8	7.6	9.4	9.1	3.4
9	5.2	4.6	1.0	8.4
10	1.3	0.0	0.0	6.5
11	0.0	7.6	0.5	0.0
12	10.0	5.8	9.6	8.4
13	10.2	6.0	10.0	8.8
14	1.8	6.4	2.1	8.8
15	0.0	7.5	0.1	0.8
16	10.0	8.0	10.0	0.1
17	10.0	6.8	8.1	1.7
18	8.3	2.7	9.4	9.5
19	3.6	0.0	8.0	8.6
20	3.5	9.3	0.0	9.5
21	4.0	8.1	0.0	9.8
22	7.4	3.0	0.4	5.4
23	5.5	4.8	4.1	7.2
24	7.8	8.4	9.8	8.5
25	7.0	7.0	10.2	8.9
26	8.2	1.8	9.8	6.8
27	8.3	3.9	10.2	8.9
28	7.7	4.3	9.9	5.4
29	0.7	7.8	6.7	7.3
30	0.0	3.0	0.0	2.7
31	0.7	6.7	1.6	0.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	164.9	173.6	173.8	180.2
 Daily Means	5.3	5.6	5.6	5.8
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: 2010

Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
Date				
1	0.0	4.1	4.2	1.3
2	6.7	6.8	9.4	6.6
3	8.1	7.8	9.1	8.6
4	4.9	2.8	5.2	7.8
5	1.3	1.6	8.2	0.0
6	7.5	7.0	8.6	2.1
7	3.9	5.2	5.4	2.2
8	2.7	6.8	8.2	4.7
9	8.1	7.7	10.0	7.9
10	5.6	1.3	0.0	4.6
11	0.0	0.8	0.1	0.5
12	7.5	1.9	9.4	8.4
13	8.4	2.8	9.4	8.6
14	8.4	0.2	5.3	10.3
15	0.5	0.0	1.5	1.2
16	0.0	0.0	3.7	0.0
17	0.2	8.1	4.4	0.0
18	8.2	3.8	7.9	8.8
19	8.4	5.8	10.0	8.1
20	8.2	3.2	6.7	9.2
21	8.3	1.4	0.0	7.4
22	4.5	5.0	0.0	3.3
23	5.6	8.6	8.6	7.3
24	7.9	2.1	9.2	9.7
25	8.5	5.9	10.0	9.7
26	5.7	1.2	3.9	2.0
27	7.7	5.0	7.8	3.1
28	4.2	5.2	1.1	0.0
29	8.8	4.9	10.2	7.9
30	1.7	5.3	6.4	0.7
31	0.0	7.3	0.6	1.2
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	161.5	129.6	184.5	153.2
 Daily Means	5.2	4.2	6.0	4.9
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: 2010

Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	6.4	9.5	5.8	2.6
2	8.3	9.0	7.8	8.3
3	9.6	9.5	8.7	8.5
4	8.4	8.4	8.3	9.0
5	0.0	0.0	0.0	0.1
6	7.1	9.1	3.4	3.1
7	3.7	8.6	2.6	2.5
8	7.8	9.5	5.2	3.1
9	8.8	9.2	8.4	8.1
10	9.2	8.1	5.2	6.7
11	0.0	0.3	0.0	0.2
12	4.6	1.9	6.6	8.7
13	8.6	9.8	8.5	8.3
14	9.5	10.0	9.1	8.7
15	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0
17	3.9	2.6	2.3	2.1
18	7.4	5.9	3.3	3.7
19	9.2	9.3	6.4	5.8
20	7.6	6.8	1.7	1.2
21	4.9	3.9	0.2	0.0
22	0.0	0.2	5.1	8.5
23	6.5	7.8	6.8	5.9
24	8.4	6.9	0.7	0.3
25	7.9	1.2	0.0	0.0
26	0.0	1.0	0.7	1.0
27	0.0	0.0	0.0	0.0
28	3.8	9.2	7.8	0.0
29	9.4	9.8	7.6	5.6
30	1.0	7.3	5.4	5.2
31	7.8	9.6	9.4	10.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	169.8	184.4	137.0	127.5
 Daily Means	5.5	5.9	4.4	4.1
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: AUGUST

Year: 2010

Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
Date				
1	1.6	7.2	4.9	
2	9.1	4.7	3.4	
3	7.5	2.0	0.2	
4	9.2	4.1	0.0	
5	0.5	1.1	4.3	
6	6.0	3.3	6.3	
7	5.4	5.2	1.8	
8	4.0	4.5	5.1	
9	5.1	7.5	4.5	
10	4.5	7.2	1.8	
11	1.3	5.6	7.8	
12	7.2	7.5	6.5	
13	8.1	5.5	4.7	
14	8.1	6.5	7.6	
15	1.7	2.1	5.3	
16	0.0	0.7	0.5	
17	1.2	3.8	0.0	
18	3.7	4.3	0.0	
19	7.2	0.7	0.0	
20	3.8	3.5	5.7	
21	4.5	5.8	1.1	
22	5.5	6.5	7.4	
23	1.3	0.0	5.5	
24	0.2	0.2	9.0	
25	0.0	0.9	0.9	
26	4.9	3.6	5.4	
27	0.0	0.0	1.6	
28	6.7	7.3	9.4	
29	7.3	3.8	7.8	
30	6.6	4.7	2.2	
31	8.1	8.8	6.3	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	140.3	128.6	127.0	
 Daily Means	4.5	4.1	4.1	
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	
	STOKES	STOKES	STOKES	

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

Month: SEPTEMBER

Year: 2010

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	2270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	0.0	1.3	9.0	5.0
2	0.0	2.2	9.2	6.8
3	0.2	7.4	10.3	10.2
4	0.0	6.5	10.5	9.1
5	5.7	6.9	10.5	9.0
6	3.0	8.6	10.5	6.5
7	4.4	6.6	10.6	8.2
8	0.2	9.5	10.8	9.4
9	6.2	2.8	11.2	5.3
10	7.2	10.4	11.2	9.9
11	4.7	3.6	11.3	9.2
12	3.8	6.2	11.1	4.4
13	6.1	10.4	11.2	10.7
14	5.8	3.8	11.3	8.9
15	5.6	0.0	11.3	8.8
16	6.2	6.2	11.4	8.9
17	7.5	7.4	11.4	10.5
18	7.2	8.8	11.3	10.6
19	6.2	9.6	11.3	8.4
20	1.4	3.0	11.0	0.0
21	2.0	3.5	11.1	4.3
22	2.1	7.9	10.9	5.8
23	6.3	8.7	11.2	8.2
24	0.6	0.0	11.3	0.0
25	1.5	5.1	11.3	9.4
26	3.7	3.8	11.3	6.1
27	3.4	8.0	11.2	9.7
28	0.3	0.0	11.3	8.1
29	5.8	8.4	11.3	10.8
30	8.7	8.1	10.3	7.9
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	115.8	174.7	327.6	230.1
 Daily Means	3.9	5.8	10.9	7.7
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: SEPTEMBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	4.6	8.8	0.6	2.4
2	6.9	7.4	2.6	3.9
3	10.4	0.1	10.3	8.5
4	11.4	8.5	10.1	11.3
5	7.0	7.2	9.4	9.0
6	9.6	4.9	5.2	8.0
7	4.4	9.0	5.5	9.5
8	2.5	10.2	1.3	10.6
9	0.0	2.9	0.0	7.6
10	6.2	2.6	4.0	7.4
11	3.7	7.8	6.0	3.6
12	1.2	9.7	7.3	1.0
13	10.4	2.9	10.7	9.2
14	10.7	6.8	10.6	3.4
15	7.8	8.1	10.9	9.9
16	7.6	6.1	10.7	9.1
17	6.2	8.9	9.4	10.3
18	6.8	10.4	6.8	9.3
19	9.0	4.6	9.4	10.8
20	3.8	2.6	9.3	9.3
21	4.6	6.6	8.1	10.7
22	4.9	1.3	7.3	9.2
23	6.6	10.6	7.8	9.8
24	3.3	7.8	8.9	8.0
25	7.3	2.7	5.7	5.2
26	9.5	6.7	9.3	9.4
27	11.2	10.9	10.7	5.5
28	7.4	9.1	10.7	10.8
29	8.5	11.1	5.7	8.7
30	3.1	8.1	4.1	9.7
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	196.6	204.4	218.4	241.1
 Daily Means	6.6	6.8	7.3	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: SEPTEMBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
Date				
1	2.4	5.1	3.4	8.6
2	2.4	1.7	5.2	6.7
3	6.7	3.4	9.7	4.1
4	9.0	6.2	10.3	6.5
5	9.0	4.0	10.2	4.7
6	8.3	5.5	2.5	9.5
7	8.7	5.7	8.6	10.2
8	8.7	2.4	7.0	10.2
9	6.6	7.0	8.7	7.4
10	4.8	8.2	9.6	5.0
11	4.8	3.7	6.5	1.8
12	0.6	5.8	6.0	1.7
13	8.5	2.1	10.6	10.3
14	2.8	3.1	5.4	0.4
15	8.8	1.6	10.3	0.7
16	8.1	9.1	10.5	7.8
17	8.8	9.5	10.5	10.3
18	8.0	3.3	10.5	9.8
19	8.6	4.8	10.9	7.7
20	7.8	6.6	9.0	9.1
21	8.6	.	7.1	5.5
22	8.5	5.2	8.4	7.3
23	8.4	1.5	1.8	10.2
24	8.0	2.9	0.0	9.6
25	4.4	5.5	7.3	4.8
26	7.6	5.6	3.6	6.2
27	6.4	7.4	4.3	6.7
28	8.7	0.9	11.0	10.6
29	8.0	0.1	10.8	4.6
30	8.2	3.8	10.8	7.0
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	210.2	.	230.5	205.0
 Daily Means	7.0	4.5	7.7	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: SEPTEMBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	9.1	8.9	9.0	9.8
2	2.9	1.7	9.3	9.6
3	8.4	7.2	3.9	0.8
4	10.0	10.1	1.8	4.4
5	9.5	10.2	8.8	9.8
6	9.7	1.9	5.5	4.0
7	7.4	8.1	5.4	0.8
8	9.2	8.8	3.5	3.7
9	7.3	9.0	5.3	7.0
10	9.2	8.6	7.7	7.4
11	7.0	6.9	5.0	0.8
12	6.7	9.8	5.6	7.5
13	9.2	6.2	3.4	2.1
14	0.7	0.0	4.2	9.5
15	5.0	9.6	7.7	4.0
16	9.8	10.5	9.1	6.4
17	9.5	10.3	8.9	5.1
18	8.2	4.9	3.0	2.7
19	10.3	9.5	4.4	0.7
20	9.8	6.6	0.0	1.4
21	2.3	6.5	2.1	3.4
22	9.7	10.0	9.2	7.0
23	9.5	10.2	8.8	6.4
24	4.9	8.1	4.0	2.1
25	0.3	1.4	1.0	3.6
26	2.0	0.0	0.1	1.0
27	2.3	2.6	0.9	2.4
28	9.9	9.9	4.3	5.7
29	9.9	9.7	8.8	8.8
30	10.6	10.4	6.0	9.2
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	220.3	217.6	156.7	147.1
 Daily Means	7.3	7.3	5.2	4.9
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: SEPTEMBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
Date				
1	9.9	5.2	0.0	
2	3.5	6.0	5.2	
3	0.1	8.0	7.0	
4	1.3	6.4	5.0	
5	8.5	6.6	5.9	
6	5.1	0.8	7.4	
7	2.3	2.2	9.2	
8	2.1	0.3	0.0	
9	3.3	3.7	0.0	
10	5.1	3.0	0.0	
11	1.0	1.4	0.0	
12	7.9	2.6	9.7	
13	3.3	3.8	0.0	
14	8.3	4.3	4.0	
15	6.2	8.0	7.7	
16	5.4	7.8	3.3	
17	2.7	4.1	4.6	
18	3.1	4.7	6.6	
19	0.0	5.8	8.6	
20	2.0	3.1	0.9	
21	5.2	7.0	2.7	
22	2.3	5.7	0.1	
23	9.3	9.3	6.6	
24	0.9	2.1	0.0	
25	6.8	6.5	10.2	
26	0.9	2.2	4.6	
27	0.4	0.0	5.2	
28	0.7	7.3	3.5	
29	7.0	1.1	11.1	
30	8.0	8.2	1.9	
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	122.6	137.2	131.0	
 Daily Means	4.1	4.6	4.4	
Types of Instruments	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: 2010

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	2270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	4.6	2.8	11.3	0.0
2	5.9	5.8	.	6.9
3	6.4	6.2	11.0	9.1
4	7.0	10.7	11.4	10.9
5	5.1	4.7	11.4	6.6
6	6.2	6.5	11.4	8.5
7	6.9	9.1	11.4	8.4
8	7.6	10.6	11.4	9.3
9	5.5	6.3	11.5	8.1
10	7.5	10.6	11.5	10.2
11	3.8	5.0	10.6	7.9
12	6.6	10.7	10.2	8.8
13	7.1	10.9	11.5	11.0
14	6.5	10.5	11.5	10.2
15	4.7	9.2	11.7	9.2
16	6.3	6.3	.	3.9
17	6.5	6.9	11.7	8.7
18	9.1	7.8	11.7	7.1
19	7.4	11.5	11.7	9.2
20	11.4	11.2	11.8	9.7
21	7.4	7.3	11.7	8.0
22	5.9	7.0	11.6	6.2
23	6.0	6.6	11.6	7.2
24	6.9	7.5	11.6	8.0
25	7.5	6.8	11.7	8.4
26	8.8	9.8	11.7	10.8
27	6.2	8.8	11.8	11.1
28	5.9	8.0	11.8	10.0
29	6.5	8.2	11.7	11.6
30	8.3	8.8	11.7	7.6
31	11.1	11.3	11.7	8.8
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	212.6	253.4	.	261.4
 Daily Means	6.9	8.2	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: 2010

Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	6.5	6.9	10.3	11.0
2	5.5	11.0	6.0	10.8
3	7.9	0.2	0.0	10.3
4	11.1	6.6	9.0	0.5
5	5.4	6.0	3.0	4.8
6	7.8	4.1	11.0	10.6
7	8.6	8.6	11.2	10.2
8	6.8	.	1.1	11.3
9	0.0	6.1	0.0	11.4
10	2.4	12.0	0.0	10.7
11	6.2	4.2	3.0	4.1
12	8.2	.	3.2	4.5
13	10.5	5.3	11.1	3.7
14	9.4	6.9	9.1	0.8
15	6.9	9.6	7.2	6.5
16	2.6	10.5	11.1	9.6
17	5.1	12.3	8.4	11.7
18	4.0	12.2	2.6	9.2
19	3.4	5.5	0.3	11.3
20	7.2	2.8	0.3	7.7
21	9.5	4.2	3.9	8.6
22	8.5	6.4	6.8	4.4
23	8.5	9.4	11.7	6.6
24	8.4	9.9	10.7	11.9
25	6.3	10.8	6.1	11.8
26	0.0	6.5	0.0	11.7
27	10.9	0.2	11.5	11.0
28	2.2	8.4	8.6	4.5
29	12.1	3.9	10.3	8.7
30	12.2	2.0	11.1	11.6
31	7.2	.	10.7	12.1
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	211.3	.	199.3	263.6
 Daily Means	6.8	6.9	6.4	8.5
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: 2010

Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
Date				
1	9.7	3.2	11.3	8.5
2	9.7	2.1	11.2	8.9
3	9.5	1.4	0.0	7.7
4	0.1	0.7	0.0	0.0
5	4.0	6.4	9.3	7.3
6	10.0	6.1	10.5	6.0
7	10.1	6.6	11.4	8.9
8	10.1	2.6	11.4	9.8
9	10.4	9.0	2.4	11.3
10	10.2	9.4	0.0	11.1
11	3.9	7.7	0.0	0.0
12	4.6	1.3	0.7	3.2
13	4.2	0.0	3.8	2.2
14	1.0	4.7	0.7	0.0
15	6.1	4.8	9.9	10.3
16	10.2	7.8	11.2	7.8
17	10.6	10.8	.	11.7
18	7.8	5.0	.	8.9
19	10.2	6.6	.	7.2
20	8.7	0.1	0.0	7.4
21	8.8	0.7	8.8	8.1
22	5.5	3.0	0.0	3.6
23	5.1	6.0	10.1	8.4
24	9.7	9.8	12.1	12.3
25	11.1	2.5	5.9	12.2
26	11.2	0.1	7.2	11.2
27	10.3	9.1	8.4	4.3
28	4.0	8.6	4.6	0.1
29	7.8	6.8	10.1	3.2
30	10.9	0.4	12.0	11.7
31	11.0	9.0	12.5	11.7
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	246.5	152.3	.	225.0
 Daily Means	8.0	4.9	6.6	7.3
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: OCTOBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	10.1	10.6	8.8	1.7
2	10.0	10.3	8.7	5.2
3	2.4	2.6	5.3	10.1
4	3.3	6.9	8.3	9.3
5	6.8	5.4	5.7	10.0
6	0.0	0.3	3.5	4.4
7	9.2	10.9	10.0	7.6
8	10.2	10.5	8.9	9.6
9	9.9	10.2	10.1	0.2
10	11.7	11.5	10.3	0.7
11	10.9	0.0	10.2	6.9
12	0.0	0.0	1.1	2.3
13	0.5	1.5	0.0	6.7
14	0.0	0.0	1.4	8.9
15	6.9	8.5	6.8	8.2
16	10.8	11.5	10.1	6.7
17	10.1	9.1	3.5	4.3
18	4.5	3.5	2.5	10.3
19	6.8	1.7	7.5	4.6
20	8.8	0.5	1.1	10.6
21	11.4	9.7	9.6	7.9
22	.	5.2	6.5	10.9
23	.	6.4	3.0	7.2
24	.	12.1	8.0	6.7
25	11.3	11.7	7.8	8.1
26	8.0	7.7	7.4	2.4
27	4.0	9.0	3.4	8.7
28	0.0	3.8	1.0	9.5
29	5.1	7.5	8.1	9.0
30	10.4	10.4	0.0	2.2
31	13.3	12.0	3.5	5.8
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	211.0	182.1	206.7
 Daily Means	7.0	6.8	5.9	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: OCTOBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station				
Date	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
1	3.1	3.9	9.8	
2	3.3	3.9	2.3	
3	0.0	0.0	4.1	
4	0.0	8.6	3.9	
5	0.6	8.6	9.1	
6	8.9	7.5	8.3	
7	8.4	6.9	3.7	
8	7.5	11.4	8.0	
9	9.1	11.3	1.0	
10	9.4	0.4	3.4	
11	5.4	2.9	9.2	
12	5.9	1.7	11.0	
13	11.2	8.6	9.2	
14	10.7	10.8	2.1	
15	5.2	11.0	0.5	
16	11.3	11.0	8.3	
17	0.0	1.2	7.2	
18	4.5	6.4	1.2	
19	1.9	4.9	8.8	
20	3.0	7.0	9.6	
21	8.4	11.5	2.6	
22	7.5	4.8	4.4	
23	4.4	5.9	4.6	
24	5.2	6.4	2.4	
25	12.5	12.2	0.0	
26	7.9	2.4	4.6	
27	6.5	3.9	6.3	
28	3.6	2.7	6.5	
29	3.9	6.3	7.6	
30	0.0	7.3	9.8	
31	0.0	4.0	3.3	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	169.3	195.4	172.8	
 Daily Means	5.5	6.3	5.6	
Types of Instruments	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: 2010 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	2270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	6.0	9.7	11.7	9.1
2	6.3	7.8	11.8	9.5
3	8.5	10.0	11.8	9.2
4	8.5	9.5	11.7	9.2
5	7.9	9.8	11.7	9.1
6	9.2	9.0	11.8	1.2
7	11.8	10.8	11.8	11.6
8	8.4	11.0	11.8	9.6
9	11.0	11.4	11.6	7.3
10	11.0	10.5	11.7	9.6
11	5.4	10.7	11.9	8.7
12	7.0	9.7	11.8	8.9
13	6.7	7.7	11.8	9.8
14	5.9	8.3	11.9	9.9
15	6.8	10.0	11.8	9.1
16	10.3	11.6	11.8	9.0
17	11.9	12.6	11.8	10.3
18	10.1	11.6	11.6	11.3
19	11.7	6.4	11.6	7.4
20	6.0	10.2	11.5	10.0
21	8.1	9.1	11.7	11.7
22	6.9	11.1	11.7	9.1
23	8.4	11.6	12.0	10.4
24	11.7	11.9	12.0	11.4
25	11.8	11.8	11.8	11.1
26	7.7	9.5	11.2	9.9
27	11.7	11.7	11.4	10.9
28	11.8	11.9	11.9	9.7
29	5.7	11.7	11.8	11.1
30	8.3	11.8	11.7	8.1
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	262.5	310.4	352.1	283.2
 Daily Means	8.8	10.3	11.7	9.4
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: NOVEMBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	8.1	8.9	7.9	12.3
2	4.7	6.5	0.0	12.1
3	2.9	.	0.0	0.5
4	5.0	10.9	3.9	8.6
5	6.9	10.8	9.0	12.1
6	4.4	.	2.9	12.3
7	7.8	9.2	0.0	.
8	7.7	8.6	9.0	7.8
9	11.3	10.2	12.7	12.3
10	6.9	8.8	12.4	12.4
11	6.2	2.1	6.7	10.7
12	5.4	7.2	4.9	12.2
13	6.9	12.6	3.9	12.4
14	4.1	.	4.3	12.5
15	0.0	12.4	1.9	12.2
16	2.1	11.6	3.3	12.3
17	10.0	11.6	3.9	11.0
18	10.9	.	6.4	10.1
19	12.4	3.7	11.2	5.6
20	8.6	7.2	9.6	10.6
21	12.8	7.1	12.8	10.6
22	5.5	.	9.1	11.9
23	7.0	1.6	3.3	12.8
24	5.9	7.3	0.0	12.5
25	7.7	11.0	4.2	12.7
26	4.8	9.4	3.1	12.6
27	6.8	7.5	4.0	12.2
28	5.7	10.3	5.8	12.4
29	6.2	11.5	9.4	9.6
30	5.4	5.3	8.1	12.0
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	200.1	.	173.7	.
 Daily Means	6.7	8.5	5.8	11.0
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: NOVEMBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station				
Date	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
1	11.0	10.6	5.7	8.1
2	10.9	8.2	.	11.5
3	0.1	9.0	3.0	8.1
4	8.5	5.3	10.8	9.8
5	11.0	11.2	11.5	12.7
6	11.1	9.4	12.0	10.5
7	.	5.6	0.6	0.0
8	6.7	1.4	11.2	10.2
9	11.3	1.0	12.4	10.6
10	11.3	2.7	12.0	13.1
11	11.0	0.0	6.9	9.3
12	11.0	5.5	5.5	8.6
13	11.1	8.3	10.6	12.8
14	11.1	0.7	12.2	12.1
15	10.6	7.7	7.3	12.9
16	11.2	3.6	.	12.6
17	10.3	7.4	0.7	11.7
18	10.6	3.8	6.9	10.3
19	5.1	1.5	6.5	3.0
20	9.1	10.8	11.1	12.5
21	9.5	0.7	10.1	9.1
22	11.2	0.9	12.0	9.4
23	11.5	1.7	5.4	13.5
24	11.7	0.7	1.9	13.5
25	11.5	6.9	.	13.5
26	11.4	1.3	.	13.6
27	11.4	4.4	1.2	13.5
28	11.4	2.2	.	13.8
29	8.9	6.6	7.4	13.2
30	11.6	1.9	12.5	13.6
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	.	141.0	.	327.1
Daily Means	10.1	4.7	7.9	10.9
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: NOVEMBER Year: 2010 Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	11.2	12.5	8.0	10.3
2	7.7	9.4	4.6	6.2
3	11.9	12.1	6.0	4.7
4	11.5	12.2	10.3	9.0
5	11.5	10.6	0.0	0.0
6	9.4	4.7	3.9	1.2
7	0.6	10.7	9.7	10.6
8	8.7	11.4	2.0	3.5
9	12.1	12.7	9.3	9.5
10	11.2	11.1	9.3	11.6
11	6.3	4.9	0.4	4.0
12	10.8	12.7	10.7	10.9
13	12.4	12.5	8.0	8.0
14	11.8	12.1	10.2	11.9
15	10.6	11.8	7.2	6.6
16	10.7	11.6	7.9	9.9
17	9.9	10.7	3.2	8.5
18	6.6	3.3	2.9	1.0
19	7.1	0.0	0.0	2.1
20	7.1	0.2	0.0	0.0
21	0.0	0.6	0.3	1.6
22	11.1	12.4	9.3	12.4
23	11.0	12.7	7.2	11.2
24	11.4	9.3	4.0	9.5
25	13.5	12.5	9.8	8.1
26	13.5	12.8	9.3	8.9
27	12.9	12.7	8.3	8.3
28	11.9	12.3	10.1	11.4
29	13.6	12.8	4.5	8.9
30	13.5	13.0	10.0	11.7
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	301.5	298.3	186.4	221.5
 Daily Means	10.1	9.9	6.2	7.4
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: NOVEMBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
Date				
1	4.6	2.2	7.8	
2	8.2	7.1	7.8	
3	1.5	4.3	1.5	
4	5.5	11.7	12.8	
5	0.0	3.0	1.5	
6	0.0	1.0	6.0	
7	9.5	6.1	7.1	
8	7.6	9.0	11.2	
9	7.8	12.0	3.8	
10	10.0	11.8	13.4	
11	1.6	9.7	4.5	
12	10.2	12.3	7.1	
13	12.1	11.5	13.0	
14	12.1	11.3	7.2	
15	9.3	7.7	3.5	
16	0.5	0.7	4.1	
17	4.5	5.2	3.8	
18	0.1	4.3	7.7	
19	1.5	6.9	12.3	
20	0.0	4.0	1.6	
21	11.2	7.9	10.9	
22	11.7	2.2	9.6	
23	2.5	5.4	11.3	
24	11.1	12.7	11.6	
25	3.2	9.6	3.8	
26	3.6	5.3	13.8	
27	8.6	12.4	6.3	
28	12.2	7.5	1.8	
29	9.5	9.0	9.8	
30	4.6	6.2	3.6	
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	184.8	220.0	220.2	
 Daily Means	6.2	7.3	7.3	
Types of Instruments	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: 2010 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	2270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	7.7	11.8	11.6	9.8
2	8.4	11.4	11.7	11.3
3	10.5	12.1	11.7	9.5
4	11.3	11.1	.	10.1
5	9.2	11.9	10.9	10.7
6	11.7	11.4	11.6	10.8
7	6.1	11.4	11.7	8.0
8	11.7	11.3	11.8	8.5
9	8.6	11.5	11.7	11.0
10	11.6	11.4	11.3	11.1
11	8.7	10.6	.	6.8
12	7.8	7.4	11.6	8.9
13	5.4	7.5	11.7	8.4
14	7.8	8.4	11.8	10.4
15	11.6	11.4	11.6	11.4
16	11.6	11.3	11.6	8.3
17	11.6	11.2	11.6	8.7
18	11.9	11.5	.	10.5
19	9.9	11.6	11.8	10.6
20	8.5	11.3	11.6	10.2
21	10.8	11.2	11.7	8.8
22	8.7	10.8	11.6	11.1
23	11.7	11.1	11.5	11.0
24	11.3	11.5	11.6	10.1
25	8.6	11.4	11.3	10.2
26	8.7	11.5	11.7	10.1
27	11.4	11.7	11.8	9.0
28	11.7	11.7	11.7	9.4
29	10.8	11.8	11.9	10.7
30	11.9	11.8	11.8	11.4
31	11.8	11.8	11.8	11.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	309.0	343.8	.	308.2
 Daily Means	10.0	11.1	11.6	9.9
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL
	STOKES	STOKES	STOKES	STOKES

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

Month: DECEMBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	27°15'S	27°10' S	29°57' S	33°23' S
Longitude	70°46'W	109°26' W	71°22' W	70°47' W
Elevation	204 m	47 m	25 m	474 m
Station	CALDERA	ISLA DE PASCUA	LA SERENA	PUDAHUEL
Date				
1	6.6	9.0	3.3	12.3
2	7.7	11.1	7.8	9.2
3	9.2	10.2	12.9	10.6
4	7.7	11.0	12.6	11.6
5	7.2	3.3	6.9	10.8
6	12.4	12.1	8.5	11.0
7	8.5	11.0	11.1	10.8
8	5.6	.	8.2	12.7
9	6.3	8.3	6.8	12.8
10	10.0	.	12.1	12.7
11	11.6	7.6	13.1	11.8
12	10.0	3.8	13.0	12.4
13	10.4	10.6	12.2	12.9
14	7.2	4.4	8.4	12.7
15	10.7	11.7	12.3	11.8
16	11.5	12.2	12.3	12.5
17	11.9	10.4	8.4	10.3
18	9.2	10.3	12.0	12.9
19	7.6	11.6	8.7	12.9
20	6.4	12.6	12.1	12.8
21	2.9	9.6	3.8	12.4
22	4.8	12.6	0.0	12.2
23	7.6	.	4.2	8.2
24	8.8	5.9	11.3	12.6
25	8.4	8.2	7.3	12.7
26	8.0	.	6.0	12.6
27	6.2	12.2	6.2	12.3
28	9.8	11.2	4.3	12.5
29	6.5	13.0	4.6	6.1
30	6.3	13.2	2.8	10.3
31	8.1	12.1	12.0	10.2
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	255.1	.	265.2	359.6
 Daily Means	8.2	10.0	8.6	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: 2010

Country: CHILE

Daily Totals				
Latitude	33°27' S	33°37' S	33°39' S	34°58' S
Longitude	70°42' W	78°50' W	71°36' W	71°12' W
Elevation	520 m	30 m	74 m	225 m
Station	QUINTA NORMAL	ROBINSON CRUSOE	SANTO DOMINGO	CURICO
Date				
1	11.7	2.9	.	13.4
2	8.8	3.2	.	10.1
3	8.5	0.2	.	9.1
4	11.7	4.1	12.7	13.4
5	11.9	0.9	.	13.6
6	10.6	1.4	1.4	11.0
7	11.3	1.6	8.1	8.3
8	11.8	10.9	.	13.6
9	12.0	6.1	12.9	13.5
10	11.8	5.8	.	10.7
11	8.8	9.2	.	2.4
12	11.9	10.4	.	13.1
13	12.0	6.5	13.0	10.1
14	11.9	11.0	5.8	13.2
15	11.7	7.5	.	8.0
16	11.8	2.1	4.3	12.5
17	10.5	4.5	.	8.7
18	11.9	2.5	12.5	9.7
19	12.2	5.9	12.2	13.5
20	12.1	10.0	.	13.7
21	12.2	9.9	.	13.7
22	11.9	7.8	.	13.6
23	8.0	6.1	4.7	6.7
24	11.7	5.7	12.7	9.2
25	12.0	1.9	.	11.0
26	12.1	4.6	.	13.7
27	11.9	4.9	.	13.7
28	11.8	10.6	0.0	13.5
29	5.0	8.1	0.1	5.6
30	10.4	8.1	.	9.2
31	9.8	10.9	.	6.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	341.7	185.3	.	337.9
 Daily Means	11.0	6.0	.	10.9
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: DECEMBER

Year: 2010

Country: CHILE

Daily Totals				
Latitude	36°36' S	36°46' S	38°45' S	39°41' S
Longitude	72°26' W	73°03' W	72°38' W	73°04' W
Elevation	124 m	12 m	114 m	19 m
Station	CHILLAN	CONCEPCION	TEMUCO	VALDIVIA
Date				
1	11.0	7.0	1.7	0.7
2	7.7	8.3	5.2	8.2
3	13.2	12.9	10.1	12.0
4	12.6	12.9	9.3	10.9
5	13.2	12.9	10.0	11.9
6	11.5	2.7	4.4	6.8
7	5.0	5.7	7.6	10.7
8	12.7	12.4	9.6	8.9
9	9.7	5.2	0.2	1.0
10	0.3	0.0	0.7	1.9
11	7.1	11.5	6.9	9.6
12	13.6	10.0	2.3	1.5
13	12.8	13.5	6.7	10.4
14	6.1	12.9	8.9	12.9
15	9.9	5.3	8.2	12.1
16	8.6	0.0	6.7	3.3
17	0.0	4.3	4.3	7.5
18	.	13.7	10.3	7.5
19	.	12.8	4.6	2.4
20	12.8	13.3	10.6	11.3
21	12.9	13.1	7.9	9.2
22	12.7	7.2	10.9	13.8
23	0.2	2.9	7.2	0.4
24	12.0	9.3	6.7	4.8
25	.	13.7	8.1	8.3
26	13.0	12.6	2.4	7.4
27	11.7	12.8	8.7	12.3
28	12.7	12.9	9.5	13.5
29	10.5	5.4	9.0	9.6
30	12.1	0.0	2.2	2.5
31	8.2	2.3	5.8	11.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	269.5	206.7	244.3
 Daily Means	9.8	8.7	6.7	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: 2010

Country: CHILE

Daily Totals				
Latitude	41°26' S	45°35' S	53°08' S	
Longitude	73°07' W	72°07' W	70°58' W	
Elevation	81 m	310 m	37 m	
Station				
Date	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
1	3.1	7.5	10.5	
2	9.1	9.7	10.7	
3	4.4	2.5	7.4	
4	0.3	11.2	12.1	
5	9.8	9.6	7.2	
6	0.5	4.5	8.7	
7	11.6	9.1	3.8	
8	1.2	6.1	8.8	
9	0.0	1.2	9.1	
10	5.4	7.6	10.9	
11	11.8	7.6	4.6	
12	0.0	7.4	10.3	
13	2.6	12.2	12.0	
14	11.6	13.0	3.8	
15	5.8	10.1	6.3	
16	1.7	2.8	11.7	
17	7.8	10.6	12.0	
18	4.6	3.3	0.1	
19	3.0	6.6	1.7	
20	6.0	7.0	4.6	
21	8.1	13.1	8.3	
22	13.5	5.4	3.4	
23	0.3	9.5	2.9	
24	0.9	6.7	9.6	
25	0.4	6.7	11.2	
26	4.0	3.0	3.4	
27	12.2	9.4	7.7	
28	13.8	13.0	3.8	
29	6.0	12.3	7.7	
30	12.5	12.9	12.8	
31	9.8	13.1	11.5	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	181.8	254.7	238.6	
 Daily Means	5.9	8.2	7.7	
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	