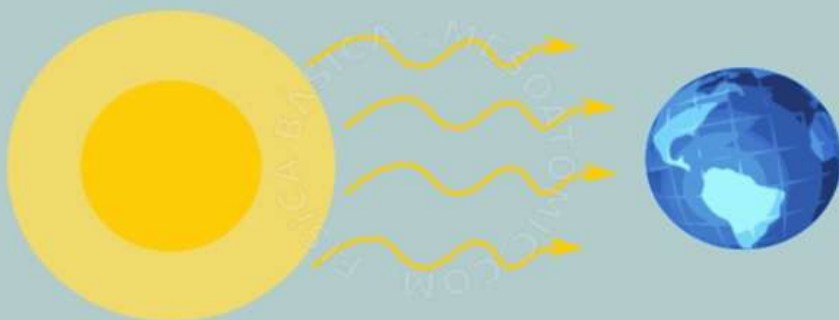




Informe Solarimétrico II Semestre 2019

Oficina de Servicios Climatológicos



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: JULY Year: 2019 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°27' S
Longitude	70°19'W	68°54' W	70°26' W	70°42' W
Elevation	58 m	2270 m	135 m	520 m
Station	ARICA	CALAMA	ANTOFAGASTA	QUINTA NORMAL
Date				
1	13.21	.	.	10.64
2	4.83	.	.	9.68
3	6.99	.	.	9.70
4	6.67	.	.	9.45
5	11.79	.	.	9.97
6	11.18	.	.	7.78
7	6.43	.	.	3.36
8	7.10	.	.	4.38
9	6.90	.	.	6.90
10	9.73	.	.	5.45
11	10.02	.	.	7.55
12	12.68	.	.	9.66
13	9.22	.	.	10.14
14	9.00	.	.	9.53
15	10.55	.	.	10.74
16	8.23	.	.	10.78
17	9.82	.	.	6.88
18	9.63	.	.	9.36
19	9.24	.	.	6.67
20	6.19	.	.	7.65
21	8.84	.	.	1.43
22	5.90	.	.	8.21
23	7.40	.	.	11.34
24	9.54	.	.	12.22
25	11.16	.	.	10.01
26	12.48	.	.	9.24
27	10.43	.	.	7.20
28	14.36	.	.	6.11
29	13.52	.	.	10.10
30	12.83	.	.	11.42
31	13.18	.	.	6.49
TT Monthly Totals	299.04	.	.	260.05
 Daily Means	9.65	.	.	8.39
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: JULY Year: 2019 Country: CHILE

Daily Totals				
Latitude	41°25' S	45°35' S	53°00' S	
Longitude	73°05' W	72°07' W	70°51' W	
Elevation	85 m	310 m	37 m	
Station	PUERTO MONTT	COYHAIQUE	PUNTA ARENAS	
Date				
1	0.00	.	2.31	
2	6.98	.	2.84	
3	5.88	.	2.14	
4	6.82	.	2.12	
5	8.72	.	3.02	
6	6.38	.	2.96	
7	.	.	1.30	
8	1.92	.	0.84	
9	3.26	.	1.20	
10	3.82	.	1.33	
11	7.32	.	0.80	
12	1.74	.	1.06	
13	2.24	.	0.98	
14	1.54	.	3.02	
15	6.07	.	2.52	
16	1.09	.	3.22	
17	3.23	.	2.93	
18	9.03	.	1.27	
19	6.77	.	3.34	
20	11.36	.	1.90	
21	4.27	.	3.23	
22	5.66	.	1.87	
23	9.54	.	5.13	
24	3.63	.	1.01	
25	1.87	.	3.00	
26	1.58	.	3.14	
27	7.11	.	4.53	
28	.	.	3.14	
29	.	.	3.76	
30	.	.	0.71	
31	.	.	2.20	
TT Monthly Totals	.	.	72.84	
 Daily Means	4.92	.	2.35	
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: AUGUST Year: 2019 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°27' S
Longitude	70°19'W	68°54' W	70°26' W	70°42' W
Elevation	58 m	2270 m	135 m	520 m
Station	ARICA	CALAMA	ANTOFAGASTA	QUINTA NORMAL
Date				
1	12.33	.	.	12.43
2	12.71	.	.	12.95
3	11.30	.	.	12.72
4	15.36	.	.	13.43
5	12.62	.	.	12.90
6	9.00	.	.	5.67
7	9.27	.	.	11.87
8	8.27	.	.	12.99
9	12.75	.	.	12.99
10	11.41	.	.	11.33
11	13.23	.	.	13.42
12	12.46	.	.	13.77
13	8.44	.	.	10.98
14	15.25	.	.	12.97
15	12.18	.	.	10.95
16	10.36	.	.	6.17
17	11.53	.	.	10.23
18	9.44	.	.	3.56
19	11.08	.	.	2.72
20	13.28	.	.	13.18
21	14.55	.	.	4.72
22	13.41	.	.	14.81
23	14.10	.	.	13.58
24	14.05	.	.	9.33
25	14.54	.	.	6.28
26	15.41	.	.	10.62
27	12.84	.	.	12.92
28	12.94	.	.	13.28
29	14.66	.	.	15.50
30	13.02	.	.	14.95
31	14.38	.	.	16.75
TT Monthly Totals	386.18	.	.	349.99
 Daily Means	12.46	.	.	11.29
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: AUGUST

Year: 2019

Country: CHILE

Daily Totals				
Latitude	41°25' S	45°35' S		
Longitude	73°05' W	72°07' W		
Elevation	85 m	310 m		
Station	PUERTO MONTT	COYHAIQUE		
Date				
1	5.14	.		
2	6.50	.		
3	11.88	.		
4	12.61	.		
5	3.39	.		
6	6.47	.		
7	8.63	.		
8	10.86	.		
9	5.14	.		
10	2.80	.		
11	5.48	.		
12	8.65	.		
13	14.68	.		
14	13.30	.		
15	9.15	.		
16	10.79	.		
17	6.19	.		
18	15.40	.		
19	6.82	.		
20	4.22	.		
21	6.74	.		
22	9.03	.		
23	5.17	.		
24	5.69	.		
25	7.82	.		
26	10.74	.		
27	1.49	.		
28	11.04	.		
29	6.31	.		
30	5.72	.		
31	11.90	.		
TT Monthly Totals	249.78	.		
 Daily Means	8.06	.		
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: SEPTEMBER Year: 2019 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°27' S
Longitude	70°19'W	68°54' W	70°26' W	70°42' W
Elevation	58 m	2270 m	135 m	520 m
Station	ARICA	CALAMA	ANTOFAGASTA	QUINTA NORMAL
Date				
1	11.50	.	.	17.00
2	17.21	.	.	17.19
3	15.75	.	.	16.75
4	16.14	.	.	11.58
5	12.86	.	.	6.83
6	13.12	.	.	8.70
7	15.93	.	.	11.02
8	11.13	.	.	15.59
9	16.11	.	.	6.07
10	14.56	.	.	16.12
11	12.46	.	.	19.97
12	14.90	.	.	19.81
13	20.63	.	.	19.77
14	15.72	.	.	8.13
15	13.26	.	.	13.88
16	14.30	.	.	16.35
17	13.35	.	.	20.07
18	12.23	.	.	20.12
19	16.07	.	.	16.92
20	20.81	.	.	21.67
21	18.63	.	.	21.84
22	19.98	.	.	21.47
23	16.66	.	.	19.71
24	11.68	.	.	20.99
25	17.00	.	.	21.00
26	15.30	.	.	17.18
27	18.25	.	.	15.39
28	18.18	.	.	22.20
29	23.01	.	.	21.77
30	22.85	.	.	8.14
31				
TT Monthly Totals	479.58	.	.	493.25
 Daily Means	16.10	.	.	16.44
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: SEPTEMBER Year: 2019 Country: CHILE

Daily Totals				
Latitude	41°25' S	45°35' S		
Longitude	73°05' W	72°07' W		
Elevation	85 m	310 m		
Station	PUERTO MONTT	COYHAIQUE		
Date				
1	9.79	.		
2	18.96	.		
3	19.45	.		
4	19.57	3.93		
5	4.96	3.20		
6	8.22	10.33		
7	16.54	15.84		
8	4.17	7.08		
9	6.61	11.75		
10	20.18	16.35		
11	15.99	10.97		
12	12.38	3.53		
13	7.70	7.53		
14	4.75	8.19		
15	12.15	17.06		
16	12.45	.		
17	14.46	.		
18	11.45	.		
19	11.65	.		
20	8.69	.		
21	16.54	.		
22	23.11	.		
23	16.15	.		
24	19.56	.		
25	12.99	.		
26	16.37	.		
27	8.20	.		
28	11.59	.		
29	8.64	.		
30	11.43	.		
31				
TT Monthly Totals	384.70	.		
 Daily Means	12.82	.		
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: 2019 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°27' S
Longitude	70°19'W	68°54' W	70°26' W	70°42' W
Elevation	58 m	2270 m	135 m	520 m
Station	ARICA	CALAMA	ANTOFAGASTA	QUINTA NORMAL
Date				
1	11.84	.	.	8.48
2	19.36	.	.	23.30
3	19.09	.	.	21.64
4	16.32	.	.	23.55
5	16.31	.	.	22.24
6	17.87	.	.	22.27
7	23.69	.	.	22.57
8	19.18	.	.	23.84
9	18.91	.	.	14.70
10	16.52	.	.	13.63
11	23.61	.	.	8.78
12	24.52	.	.	6.32
13	23.58	.	.	12.05
14	24.61	.	.	6.42
15	18.60	.	.	21.92
16	16.03	.	.	16.52
17	19.35	.	.	24.82
18	10.93	.	.	25.77
19	20.14	.	.	17.39
20	17.71	.	.	22.36
21	18.74	.	.	26.20
22	20.74	.	.	27.80
23	23.16	.	.	24.39
24	25.84	.	.	25.90
25	22.64	.	.	19.26
26	21.47	.	.	17.64
27	19.30	.	.	11.80
28	24.40	.	.	27.72
29	19.69	.	.	22.28
30	20.15	.	.	28.89
31	22.23	.	.	26.01
TT Monthly Totals	616.53	.	.	616.44
 Daily Means	19.89	.	.	19.89
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: 2019

Country: CHILE

Daily Totals				
Latitude	41°25' S	45°35' S		
Longitude	73°05' W	72°07' W		
Elevation	85 m	310 m		
Station	PUERTO MONTT	COYHAIQUE		
Date				
1	11.71	13.05		
2	25.07	19.31		
3	23.44	20.05		
4	10.74	17.34		
5	15.02	11.43		
6	5.92	9.36		
7	9.49	12.82		
8	18.03	11.51		
9	9.65	15.14		
10	8.90	16.45		
11	12.41	22.02		
12	22.36	21.32		
13	26.68	21.98		
14	23.32	22.56		
15	11.16	11.86		
16	19.68	18.41		
17	10.41	22.40		
18	27.89	16.91		
19	24.24	22.83		
20	8.04	11.02		
21	26.60	22.74		
22	27.33	24.14		
23	24.39	22.88		
24	8.40	11.12		
25	10.04	14.92		
26	20.29	20.81		
27	8.25	21.05		
28	8.97	11.33		
29	16.79	16.80		
30	28.18	12.88		
31	14.11	18.10		
TT Monthly Totals	517.52	534.56		
 Daily Means	16.69	17.24		
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: NOVEMBER Year: 2019 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°27' S
Longitude	70°19'W	68°54' W	70°26' W	70°42' W
Elevation	58 m	2270 m	135 m	520 m
Station	ARICA	CALAMA	ANTOFAGASTA	QUINTA NORMAL
Date				
1	25.52	.	.	24.16
2	22.70	.	.	28.91
3	25.28	.	.	28.16
4	20.14	.	.	18.88
5	19.48	.	.	29.03
6	20.50	.	.	28.71
7	18.00	.	.	29.52
8	19.05	.	.	17.00
9	13.95	.	.	29.18
10	22.09	.	.	29.79
11	16.92	.	.	22.99
12	24.53	.	.	28.61
13	22.97	.	.	28.33
14	17.28	.	.	28.45
15	18.49	.	.	29.34
16	23.35	.	.	30.04
17	25.49	.	.	29.26
18	26.08	.	.	28.53
19	25.91	.	.	30.19
20	25.97	.	.	30.40
21	25.69	.	.	24.73
22	20.49	.	.	30.01
23	22.27	.	.	30.17
24	25.72	.	.	25.74
25	26.12	.	.	15.15
26	26.74	.	.	31.66
27	24.05	.	.	31.37
28	18.75	.	.	30.14
29	24.36	.	.	31.81
30	20.76	.	.	31.77
31				
TT Monthly Totals	668.68	.	.	832.03
 Daily Means	22.29	.	.	27.73
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: NOVEMBER Year: 2019 Country: CHILE

Daily Totals				
Latitude	41°25' S	45°35' S		
Longitude	73°05' W	72°07' W		
Elevation	85 m	310 m		
Station	PUERTO MONTT	COYHAIQUE		
Date				
1	4.54	25.57		
2	15.29	13.15		
3	11.09	13.39		
4	23.34	18.44		
5	9.58	17.05		
6	8.59	20.51		
7	32.25	25.96		
8	29.32	20.73		
9	29.87	24.28		
10	27.85	16.19		
11	18.65	26.64		
12	22.74	26.91		
13	17.19	23.45		
14	9.29	10.89		
15	25.11	17.55		
16	19.53	14.60		
17	8.71	17.84		
18	18.03	26.94		
19	9.75	9.84		
20	33.43	24.67		
21	33.19	25.84		
22	32.32	28.82		
23	.	14.59		
24	.	16.73		
25	.	16.55		
26	.	13.55		
27	.	21.80		
28	.	20.51		
29	.	22.37		
30	.	29.12		
31				
TT Monthly Totals	.	604.48		
 Daily Means	.	20.15		
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: 2019 Country: CHILE

Daily Totals				
Latitude	18°21' S	22°29' S	23°26' S	33°27' S
Longitude	70°19'W	68°54' W	70°26' W	70°42' W
Elevation	58 m	2270 m	135 m	520 m
Station	ARICA	CALAMA	ANTOFAGASTA	QUINTA NORMAL
Date				
1	26.37	.	.	30.00
2	26.12	.	.	27.60
3	21.45	.	.	31.44
4	18.02	.	.	32.40
5	26.75	.	.	31.65
6	21.10	.	.	30.57
7	23.72	.	.	31.58
8	22.26	.	.	31.62
9	22.53	.	.	31.67
10	24.12	.	.	31.25
11	22.66	.	.	29.82
12	20.07	.	.	31.82
13	24.06	.	.	30.72
14	26.61	.	.	13.55
15	27.01	.	.	31.99
16	27.05	.	.	31.29
17	23.87	.	.	30.48
18	26.09	.	.	30.31
19	26.19	.	.	22.61
20	26.68	.	.	31.44
21	26.65	.	.	31.36
22	23.29	.	.	31.65
23	24.51	.	.	31.48
24	23.37	.	.	31.80
25	26.06	.	.	30.72
26	25.74	.	.	31.19
27	17.10	.	.	31.37
28	26.17	.	.	31.64
29	23.01	.	.	27.68
30	26.32	.	.	31.48
31
TT Monthly Totals	724.96	.	.	904.17
 Daily Means	24.17	.	.	30.14
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: 2019

Country: CHILE

Daily Totals				
Latitude	41°25' S	45°35' S		
Longitude	73°05' W	72°07' W		
Elevation	85 m	310 m		
Station	PUERTO MONTT	COYHAIQUE		
Date				
1	0.00	25.19		
2	14.33	13.71		
3	30.80	30.26		
4	22.52	22.92		
5	24.97	29.05		
6	17.41	30.46		
7	24.77	24.63		
8	25.97	19.64		
9	16.29	19.47		
10	27.19	12.01		
11	20.27	23.34		
12	28.28	23.20		
13	14.07	22.93		
14	18.12	18.89		
15	16.17	18.61		
16	17.46	23.22		
17	13.76	14.25		
18	.	28.65		
19	34.87	31.28		
20	21.43	15.50		
21	5.34	16.68		
22	25.69	10.26		
23	23.75	22.50		
24	14.19	23.10		
25	4.50	21.49		
26	.	15.17		
27	.	21.04		
28	.	27.79		
29	.	30.19		
30	.	28.44		
31	.	30.86		
TT Monthly Totals	.	694.71		
 Daily Means	.	22.41		
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: 2019

Country: CHILE

Daily Totals				
Latitude	18°21' S	20°32' S	22°28' S	23°26' S
Longitude	70°19'W	72°10' W	68°55' W	70°26' W
Elevation	58 m	52 m	270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	7.5	2.2	.	.
2	0.0	0.0	.	.
3	2.9	6.4	.	4.3
4	0.0	0.0	.	6.2
5	6.9	4.4	.	4.8
6	3.8	9.6	.	8.6
7	3.4	8.2	.	8.0
8	0.8	6.8	.	7.1
9	1.0	2.7	.	1.9
10	4.0	5.0	.	2.9
11	6.6	6.0	.	1.1
12	6.9	7.5	.	4.4
13	2.3	2.7	.	6.7
14	3.1	4.9	.	7.4
15	3.5	5.8	.	6.5
16	4.6	6.1	.	6.1
17	2.2	3.8	.	5.9
18	4.7	9.4	.	6.2
19	3.0	3.9	.	7.2
20	0.0	5.7	.	6.3
21	4.6	1.3	.	5.9
22	0.0	3.4	.	5.7
23	1.2	0.0	.	0.8
24	3.0	5.7	.	0.0
25	6.0	10.3	.	9.8
26	4.5	9.9	.	9.7
27	4.4	2.5	.	8.1
28	6.7	8.0	.	8.5
29	6.1	8.4	.	8.5
30	3.7	4.3	.	8.6
31	5.9	0.0	.	3.6
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	113.3	154.9	.	.
 Daily Means	3.7	5.0	.	5.9
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: JULY

Year: 2019

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	6.0	8.1	8.9	.
2	4.2	5.1	8.1	.
3	5.8	4.8	9.4	.
4	5.7	4.5	9.2	.
5	4.1	0.0	1.3	.
6	4.1	8.7	0.0	.
7	6.0	6.3	0.4	.
8	2.5	5.7	0.8	.
9	2.2	3.5	5.4	.
10	5.6	5.7	6.0	.
11	6.4	5.2	4.2	.
12	9.0	7.2	6.9	.
13	9.3	2.3	7.8	.
14	6.0	5.8	9.4	.
15	7.9	8.3	9.1	.
16	3.6	8.6	5.2	.
17	5.3	7.6	2.1	.
18	7.0	7.5	9.0	.
19	7.9	6.7	9.2	.
20	7.0	1.5	8.1	.
21	0.1	3.3	0.0	.
22	0.1	4.6	8.4	.
23	1.2	9.0	8.3	.
24	9.3	9.0	9.2	.
25	9.5	6.1	9.4	.
26	5.4	9.1	5.7	.
27	6.2	9.2	9.1	.
28	6.9	6.7	7.6	.
29	9.4	5.0	9.7	.
30	9.4	7.2	9.8	.
31	4.9	8.9	8.0	.
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	178.0	191.2	205.7	.
 Daily Means	5.7	6.2	6.6	.
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: JULY

Year: 2019

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	6.9	4.2	5.3	2.7
2	6.4	2.4	5.9	5.8
3	6.8	1.4	6.4	3.7
4	6.9	3.4	6.1	3.7
5	6.9	6.2	6.8	4.4
6	2.2	0.6	0.0	0.5
7	0.0	1.4	0.0	1.6
8	2.7	4.2	0.0	0.9
9	4.1	2.2	5.7	7.6
10	0.0	0.4	0.0	0.2
11	4.7	5.4	4.1	3.5
12	6.4	0.9	6.1	7.9
13	6.9	6.3	6.1	9.4
14	6.1	5.8	6.7	8.1
15	7.4	4.5	5.7	5.3
16	7.2	4.9	5.5	4.3
17	1.2	0.9	1.8	0.6
18	6.4	5.3	6.2	5.0
19	0.7	2.8	3.6	2.9
20	1.6	0.3	0.8	0.0
21	0.0	6.8	3.2	3.6
22	4.8	4.7	6.2	6.9
23	7.7	2.1	.	4.0
24	7.8	7.5	.	3.8
25	6.1	1.4	.	7.0
26	5.3	0.0	7.3	8.2
27	1.0	0.0	2.6	0.0
28	1.2	0.8	0.9	0.3
29	4.4	3.0	2.9	0.9
30	7.4	3.8	6.5	6.0
31	0.8	6.1	2.3	3.6
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	138.0	99.7	.	122.4
 Daily Means	4.5	3.2	4.1	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: JULY

Year: 2019

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	.	6.3	.	0.7
2	.	5.3	.	3.7
3	.	3.9	.	5.6
4	.	8.5	.	2.8
5	.	7.7	.	3.9
6	.	0.4	.	2.9
7	.	0.3	.	2.9
8	.	0.0	.	0.0
9	.	0.4	.	3.5
10	.	0.9	.	4.2
11	.	4.4	.	4.4
12	.	7.0	.	3.6
13	.	6.9	.	2.3
14	.	3.4	.	4.8
15	.	7.4	.	0.0
16	.	0.0	.	0.0
17	.	0.0	.	4.1
18	.	8.1	.	0.1
19	.	2.9	.	0.0
20	.	0.0	.	0.0
21	.	5.3	.	1.8
22	.	8.6	.	0.0
23	.	8.2	.	4.5
24	.	9.2	.	4.6
25	.	0.5	.	0.0
26	.	8.4	.	2.7
27	.	2.6	.	5.2
28	.	0.0	.	0.0
29	.	0.0	.	0.0
30	.	0.5	.	0.0
31	.	7.7	.	2.3
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	124.8	.	70.6
 Daily Means	.	4.0	.	2.3
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: 2019

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	0.0	1.2	0.0	
2	1.7	2.0	5.1	
3	3.0	0.2	1.5	
4	5.5	2.3	0.8	
5	4.6	0.5	5.0	
6	1.4	3.3	1.2	
7	0.3	0.7	0.0	
8	0.4	0.1	0.0	
9	0.2	0.0	0.0	
10	4.5	0.0	0.0	
11	2.5	0.0	0.0	
12	0.9	0.0	0.0	
13	0.0	0.3	0.0	
14	1.2	2.2	0.0	
15	1.9	0.1	3.4	
16	0.0	1.5	4.5	
17	4.2	0.0	3.0	
18	3.2	0.9	0.0	
19	2.5	0.3	0.0	
20	0.0	3.1	1.3	
21	2.0	3.3	4.0	
22	3.7	2.9	0.9	
23	3.4	3.9	0.0	
24	6.3	0.4	0.0	
25	1.6	0.0	1.8	
26	3.1	2.5	4.5	
27	5.2	5.0	4.1	
28	0.8	0.2	0.0	
29	0.0	0.4	3.4	
30	0.1	1.3	0.0	
31	1.6	0.0	1.4	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	65.8	38.6	45.9	
 Daily Means	2.1	1.2	1.5	
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: 2019

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	6.4	10.0	.	2.9
2	6.5	7.2	.	8.2
3	5.5	7.2	.	8.2
4	9.8	9.3	.	9.3
5	5.9	10.3	.	9.8
6	3.5	7.3	.	6.8
7	2.8	2.7	.	7.0
8	0.0	3.3	.	5.6
9	4.0	7.9	.	9.9
10	4.9	0.0	.	6.3
11	3.5	9.0	.	9.4
12	6.4	9.5	.	9.1
13	1.2	4.3	.	9.3
14	9.0	4.0	.	7.8
15	5.4	7.3	.	9.0
16	0.0	5.6	.	3.6
17	2.5	8.1	.	2.3
18	4.2	7.4	.	7.6
19	4.7	3.6	.	6.3
20	5.9	6.5	.	7.6
21	7.4	9.2	.	8.4
22	4.5	6.0	.	8.0
23	7.0	6.1	.	8.2
24	6.0	6.9	.	7.7
25	6.1	9.6	.	1.9
26	7.1	8.1	.	8.8
27	4.5	8.2	.	9.4
28	5.6	7.2	.	8.7
29	5.6	9.4	.	8.3
30	3.8	7.6	.	5.2
31	1.5	7.8	.	0.1
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	151.2	216.6	.	220.7
 Daily Means	4.9	7.0	.	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: AUGUST

Year: 2019

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	5.2	7.6	8.7	.
2	8.4	7.8	9.6	.
3	7.4	9.7	9.7	.
4	6.7	1.6	8.2	.
5	8.8	5.9	5.2	.
6	7.4	6.9	5.6	.
7	6.0	6.4	5.9	.
8	0.4	6.6	8.3	.
9	9.6	7.3	9.6	.
10	6.4	9.6	9.8	.
11	6.8	3.5	7.3	.
12	10.1	8.8	10.2	.
13	9.0	7.1	9.8	.
14	7.8	2.4	5.6	.
15	3.6	5.5	1.4	.
16	7.9	8.0	0.0	.
17	7.9	0.3	9.5	.
18	7.9	9.2	10.0	.
19	6.3	9.0	9.0	.
20	4.1	8.1	9.3	.
21	3.9	9.0	7.6	.
22	7.2	5.5	10.5	.
23	4.9	5.1	0.8	.
24	4.3	1.2	4.2	.
25	7.6	0.0	9.4	.
26	10.5	8.2	10.3	.
27	9.2	4.5	10.4	.
28	4.5	0.0	9.1	.
29	6.6	8.7	7.8	.
30	0.0	7.9	6.6	.
31	5.2	5.4	6.7	.
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	201.6	186.8	236.1	.
 Daily Means	6.5	6.0	7.6	.
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: AUGUST

Year: 2019

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	7.2	3.8	8.2	8.6
2	8.0	6.6	7.1	6.0
3	7.2	7.7	8.5	5.7
4	8.1	6.3	6.4	8.8
5	8.1	5.1	0.8	9.9
6	1.5	5.8	2.4	2.4
7	6.9	4.1	7.8	7.3
8	8.0	5.3	.	8.9
9	7.9	0.0	7.2	9.7
10	5.0	2.5	5.4	2.2
11	7.4	4.9	8.2	5.9
12	7.7	7.6	8.4	8.7
13	6.6	7.5	6.7	3.4
14	7.1	7.5	5.6	8.8
15	5.1	3.4	0.0	0.4
16	3.4	2.4	0.5	1.5
17	3.3	2.9	4.5	3.6
18	0.0	2.3	0.0	0.0
19	0.0	3.6	0.0	0.4
20	7.0	0.0	7.7	5.2
21	0.0	7.0	0.4	0.4
22	7.8	6.7	8.5	5.6
23	8.0	1.3	7.5	8.2
24	4.2	7.5	8.3	6.7
25	1.3	0.0	6.4	1.7
26	4.9	1.4	5.9	0.1
27	6.2	6.7	5.6	4.4
28	6.0	2.3	4.4	0.6
29	8.0	0.6	3.6	3.8
30	8.1	2.6	9.4	5.1
31	8.6	4.0	10.2	5.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	178.6	129.4	.	149.4
 Daily Means	5.8	4.2	5.5	4.8
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: 2019

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	.	8.2	.	7.9
2	.	9.5	.	5.2
3	.	8.9	.	2.4
4	.	9.7	.	0.0
5	.	1.5	.	0.0
6	.	7.7	.	7.1
7	.	9.1	.	2.4
8	.	9.1	.	8.5
9	.	8.6	.	3.0
10	.	0.1	.	0.0
11	.	7.7	.	0.4
12	.	8.9	.	4.1
13	.	8.5	.	5.0
14	.	7.0	.	6.6
15	.	1.7	.	1.4
16	.	0.3	.	0.0
17	.	4.2	.	0.0
18	.	7.2	.	7.1
19	.	1.6	.	2.9
20	.	1.5	.	0.0
21	.	0.7	.	1.6
22	.	7.7	.	0.7
23	.	0.4	.	0.1
24	.	4.7	.	0.1
25	.	2.3	.	0.0
26	.	2.0	.	3.9
27	.	4.9	.	0.0
28	.	0.0	.	3.7
29	.	9.6	.	3.6
30	.	10.3	.	6.0
31	.	9.8	.	6.2
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	173.4	.	89.9
 Daily Means	.	5.6	.	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: 2019

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	4.5	5.1	1.6	
2	1.1	1.4	3.4	
3	4.8	2.7	6.7	
4	6.4	1.6	0.7	
5	0.2	1.2	5.9	
6	4.1	4.4	1.8	
7	4.4	5.6	2.5	
8	1.4	1.3	2.5	
9	0.0	4.7	7.7	
10	0.0	5.3	6.3	
11	1.6	1.8	6.9	
12	3.4	2.4	8.2	
13	7.3	4.0	0.0	
14	8.3	5.1	8.2	
15	2.7	5.3	6.6	
16	4.0	2.9	5.7	
17	0.1	0.5	9.5	
18	9.5	6.0	7.6	
19	3.5	5.3	8.9	
20	0.0	5.9	3.8	
21	2.3	1.5	1.1	
22	1.4	0.0	6.8	
23	0.0	0.4	0.0	
24	3.0	0.1	0.0	
25	3.0	6.1	4.8	
26	6.9	3.7	3.6	
27	0.0	0.0	3.2	
28	3.1	2.2	2.1	
29	0.8	5.0	4.7	
30	5.3	6.0	5.0	
31	5.2	8.1	7.9	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	98.3	105.6	143.7	
 Daily Means	3.2	3.4	4.6	
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: SEPTEMBER

Year: 2019

Country: CHILE

Daily Totals				
Latitude	18°21' S	20°32' S	22°28' S	23°26' S
Longitude	70°19'W	72°10' W	68°55' W	70°26' W
Elevation	58 m	52 m	270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	4.6	2.6	.	7.2
2	8.7	10.2	.	8.6
3	6.4	8.1	.	9.2
4	6.3	8.2	.	9.6
5	4.4	10.5	.	6.7
6	1.6	7.2	.	5.6
7	5.0	3.6	.	6.6
8	1.4	1.2	.	0.4
9	5.6	11.1	.	8.7
10	1.3	6.0	.	8.2
11	4.2	8.2	.	10.3
12	4.9	7.9	.	8.3
13	8.0	8.8	.	8.6
14	5.9	8.3	.	8.3
15	5.0	5.4	.	5.1
16	4.2	9.3	.	5.4
17	1.4	1.4	.	4.1
18	0.0	6.5	.	8.9
19	6.0	7.7	.	8.4
20	8.7	11.3	.	10.6
21	6.4	7.7	.	8.4
22	7.2	10.7	.	7.0
23	5.3	7.0	.	2.9
24	0.0	4.0	.	2.0
25	6.0	10.0	.	4.3
26	2.9	5.7	.	7.1
27	5.5	11.2	.	7.2
28	6.8	10.3	.	9.4
29	10.7	10.6	.	8.8
30	10.4	10.3	.	8.1
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	154.8	231.0	.	214.0
 Daily Means	5.2	7.7	.	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: SEPTEMBER

Year: 2019

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	5.2	9.0	7.4	.
2	0.0	8.1	0.3	.
3	5.9	8.4	4.3	.
4	7.5	9.8	0.2	.
5	5.5	6.8	0.0	.
6	5.9	3.9	3.5	.
7	10.3	7.1	9.7	.
8	2.9	2.4	6.4	.
9	7.2	6.1	10.0	.
10	10.5	3.8	10.5	.
11	10.6	3.4	10.6	.
12	8.2	8.3	8.6	.
13	8.6	4.2	3.4	.
14	8.6	9.6	8.8	.
15	5.0	6.0	10.6	.
16	6.3	6.8	3.5	.
17	7.1	8.1	5.3	.
18	10.1	8.8	10.2	.
19	8.7	8.4	4.0	.
20	10.7	8.0	10.8	.
21	4.2	6.7	10.9	.
22	5.0	4.9	3.7	.
23	7.6	3.0	6.3	.
24	5.6	7.6	6.6	.
25	1.5	7.6	4.6	.
26	7.7	10.6	7.7	.
27	7.5	6.0	4.6	.
28	7.3	8.2	8.6	.
29	4.6	7.4	1.1	.
30	.	5.1	4.1	.
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	204.1	186.3	.
 Daily Means	6.8	6.8	6.2	.
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: SEPTEMBER

Year: 2019

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	8.9	5.4	9.7	5.8
2	8.7	7.3	10.5	6.5
3	7.1	3.7	10.2	9.0
4	1.9	0.0	1.6	.
5	0.2	8.3	2.4	6.0
6	3.0	0.0	2.2	0.0
7	3.9	4.0	1.3	0.0
8	7.5	0.0	6.2	3.8
9	0.2	4.3	0.0	3.8
10	7.1	4.2	6.5	8.6
11	7.6	1.3	10.5	9.2
12	8.4	2.9	11.6	8.9
13	8.9	6.6	5.3	9.9
14	3.3	5.7	5.2	0.0
15	5.2	4.0	8.3	3.7
16	6.3	6.7	10.1	7.5
17	8.9	9.0	9.9	4.6
18	8.6	4.4	8.6	6.8
19	4.3	0.9	9.2	9.5
20	8.8	1.9	10.9	8.5
21	9.4	2.5	11.0	9.2
22	9.3	2.5	4.9	10.3
23	7.9	9.1	6.8	8.3
24	8.8	9.7	0.0	10.3
25	8.9	9.8	0.0	8.3
26	6.9	9.6	0.0	0.0
27	5.7	2.7	0.0	5.6
28	9.0	5.0	10.6	9.5
29	8.8	2.1	0.0	10.6
30	1.2	6.4	2.8	0.0
31				
TT Monthly Totals				
Daily Means				
SS Monthly Totals	194.7	140.0	176.3	.
Daily Means	6.5	4.7	5.9	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: SEPTEMBER

Year: 2019

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	.	10.4	.	7.3
2	.	10.1	.	9.8
3	.	10.3	.	9.7
4	.	3.4	.	5.5
5	.	6.1	.	0.7
6	.	0.1	.	3.2
7	.	6.7	.	3.5
8	.	0.4	.	0.0
9	.	0.0	.	0.0
10	.	8.3	.	3.3
11	.	5.4	.	9.1
12	.	9.5	.	6.4
13	.	10.2	.	6.1
14	.	0.5	.	0.0
15	.	7.4	.	8.7
16	.	11.0	.	9.0
17	.	10.7	.	3.8
18	.	8.3	.	2.1
19	.	10.7	.	8.5
20	.	10.8	.	3.5
21	.	10.9	.	7.1
22	.	10.8	.	11.6
23	.	11.0	.	12.2
24	.	11.2	.	10.7
25	.	7.5	.	10.2
26	.	0.0	.	9.8
27	.	0.0	.	0.0
28	.	4.9	.	0.9
29	.	1.4	.	0.5
30	.	8.3	.	6.7
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	206.3	.	169.9
 Daily Means	.	6.9	.	5.7
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES

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

Month: SEPTEMBER

Year: 2019

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	7.9	7.0	9.1	
2	9.1	6.1	8.7	
3	9.3	7.3	9.1	
4	8.0	8.5	2.7	
5	0.0	0.0	9.5	
6	2.9	3.4	1.4	
7	7.5	7.4	5.9	
8	0.0	0.1	0.0	
9	0.1	6.9	10.0	
10	8.8	7.1	7.9	
11	6.1	4.0	6.0	
12	2.0	0.0	5.9	
13	1.1	0.3	7.1	
14	0.2	2.3	0.1	
15	8.7	9.6	5.5	
16	0.9	2.2	4.3	
17	4.5	7.5	7.5	
18	3.8	5.5	2.6	
19	7.4	2.2	2.6	
20	0.8	2.2	7.2	
21	6.2	9.5	10.4	
22	10.4	7.8	0.0	
23	6.3	1.0	1.9	
24	8.5	5.5	10.5	
25	6.3	7.5	10.0	
26	6.4	8.6	6.7	
27	1.2	5.3	9.5	
28	1.4	5.2	2.0	
29	1.6	2.3	3.2	
30	7.5	9.9	6.3	
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	144.9	152.2	173.6	
 Daily Means	4.8	5.1	5.8	
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: 2019

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	0.0	9.3	.	6.9
2	6.8	8.8	.	0.4
3	6.0	7.8	.	6.6
4	3.5	0.0	.	3.6
5	3.9	1.5	.	6.9
6	4.3	9.3	.	8.9
7	8.4	10.9	.	9.9
8	5.1	9.7	.	8.6
9	6.5	9.4	.	9.4
10	5.8	4.1	.	10.0
11	8.8	10.2	.	10.6
12	10.8	11.8	.	1.3
13	10.5	10.8	.	9.1
14	8.9	11.3	.	9.6
15	7.6	10.9	.	9.2
16	5.7	6.7	.	4.3
17	3.9	7.6	.	9.1
18	0.9	7.7	.	2.2
19	4.7	4.0	.	5.9
20	5.9	10.8	.	9.9
21	6.8	8.1	.	8.0
22	7.2	9.2	.	8.1
23	9.2	9.2	.	9.4
24	11.1	11.3	.	9.1
25	11.1	10.1	.	8.9
26	8.4	10.8	.	8.0
27	6.2	10.2	.	5.7
28	8.9	9.5	.	6.2
29	5.4	6.1	.	5.7
30	6.6	4.9	.	9.2
31	6.6	1.6	.	6.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	205.5	253.6	.	227.1
 Daily Means	6.6	8.2	.	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: 2019

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	4.0	3.9	0.6	.
2	11.1	4.6	9.6	.
3	9.2	8.9	3.5	.
4	10.9	10.2	10.3	.
5	8.0	0.0	11.0	.
6	10.8	10.9	11.3	.
7	8.4	9.5	11.4	.
8	8.7	9.1	9.6	.
9	7.5	8.1	5.0	.
10	3.6	2.5	2.4	.
11	.	6.1	5.5	.
12	1.4	11.5	4.4	.
13	0.6	8.1	1.6	.
14	5.4	6.9	2.9	.
15	11.0	5.6	9.8	.
16	5.4	8.1	3.0	.
17	9.1	10.1	11.4	.
18	7.7	9.4	8.2	.
19	0.1	0.8	0.0	.
20	10.1	8.6	10.9	.
21	11.3	10.8	10.9	.
22	2.2	9.4	4.6	.
23	7.9	7.1	0.0	.
24	6.7	3.8	7.8	.
25	7.2	0.5	10.6	.
26	4.0	5.0	8.1	.
27	6.4	0.4	9.4	.
28	9.3	9.6	10.0	.
29	11.9	1.9	12.5	.
30	11.3	12.3	10.8	.
31	5.6	6.6	7.4	.
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	216.8	210.3	224.5	.
 Daily Means	7.2	6.8	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: OCTOBER

Year: 2019

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	2.0	7.7	10.0	10.1
2	9.2	4.6	11.7	10.9
3	9.2	3.8	10.8	8.1
4	9.5	5.2	10.7	9.0
5	9.7	4.6	11.2	8.9
6	10.1	7.4	10.5	9.9
7	8.6	4.7	7.6	6.7
8	9.7	8.9	10.6	9.8
9	5.2	8.5	6.8	7.9
10	2.2	7.1	3.0	0.7
11	0.0	2.1	0.0	0.0
12	0.0	2.6	0.1	0.0
13	0.8	6.4	3.0	2.3
14	2.0	3.5	0.4	0.9
15	7.4	0.8	12.0	7.8
16	9.0	5.4	5.3	4.0
17	9.2	4.7	10.8	9.1
18	10.9	4.9	11.8	7.1
19	10.3	0.3	0.0	7.1
20	8.0	9.7	12.1	9.4
21	10.7	9.5	12.0	10.5
22	11.1	10.6	11.6	11.9
23	9.0	6.0	1.5	12.0
24	10.3	8.3	9.8	8.9
25	6.7	10.1	9.2	8.3
26	5.7	8.2	6.9	9.2
27	1.7	8.9	3.9	0.0
28	11.1	4.5	11.8	11.7
29	6.5	8.0	11.6	10.8
30	11.2	9.4	12.8	10.5
31	11.2	6.9	11.4	6.0
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	228.2	193.3	250.9	229.5
 Daily Means	7.4	6.2	8.1	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: OCTOBER

Year: 2019

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	.	1.7	.	8.1
2	.	9.2	.	8.3
3	.	9.6	.	8.7
4	.	11.3	.	5.3
5	.	8.0	.	3.7
6	.	0.3	.	1.4
7	.	11.2	.	10.8
8	.	8.9	.	4.4
9	.	7.9	.	10.2
10	.	4.6	.	8.3
11	.	0.6	.	8.0
12	.	11.2	.	4.1
13	.	11.9	.	11.5
14	.	3.0	.	3.3
15	.	5.9	.	1.4
16	.	5.8	.	6.3
17	.	9.4	.	3.1
18	.	12.0	.	10.4
19	.	0.5	.	10.8
20	.	3.5	.	0.5
21	.	11.2	.	8.1
22	.	12.2	.	12.1
23	.	11.5	.	9.1
24	.	11.7	.	4.2
25	.	6.5	.	0.5
26	.	0.6	.	8.8
27	.	4.3	.	3.4
28	.	7.3	.	1.8
29	.	7.1	.	2.9
30	.	12.4	.	9.6
31	.	4.6	.	5.7
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	225.9	.	194.8
 Daily Means	.	7.3	.	6.3
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: 2019

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	7.4	4.1	3.9	
2	9.4	8.8	7.7	
3	11.3	10.7	2.2	
4	3.6	8.9	7.7	
5	2.9	2.1	6.0	
6	2.8	2.8	6.7	
7	5.2	3.2	5.2	
8	5.3	8.0	3.6	
9	0.3	9.5	7.4	
10	2.2	9.6	10.0	
11	3.6	10.2	8.0	
12	8.2	11.1	9.4	
13	10.9	11.4	10.4	
14	8.0	11.6	9.0	
15	0.8	5.2	11.9	
16	8.9	4.9	11.3	
17	0.1	8.0	4.7	
18	11.3	0.5	0.9	
19	10.4	11.0	3.2	
20	0.8	5.3	10.3	
21	4.6	11.4	5.8	
22	11.3	12.0	2.3	
23	8.6	11.1	0.0	
24	0.6	2.1	7.1	
25	0.6	7.3	1.5	
26	7.2	7.3	4.3	
27	0.7	10.4	7.7	
28	0.9	2.3	6.3	
29	7.0	7.5	12.9	
30	12.4	2.5	0.0	
31	3.9	6.6	6.5	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	171.2	227.4	193.9	
 Daily Means	5.5	7.3	6.3	
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: NOVEMBER Year: 2019 Country: CHILE

Daily Totals				
Latitude	18°21' S	20°32' S	22°28' S	23°26' S
Longitude	70°19'W	72°10' W	68°55' W	70°26' W
Elevation	58 m	52 m	270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	11.1	11.5	.	8.9
2	6.8	9.1	.	8.3
3	11.1	10.9	.	9.5
4	4.4	10.3	.	8.8
5	4.6	7.0	.	5.8
6	6.9	9.8	.	5.8
7	4.2	9.5	.	7.2
8	7.3	7.8	.	4.4
9	0.0	9.8	.	8.2
10	7.3	6.4	.	10.5
11	5.0	6.5	.	6.3
12	8.9	8.9	.	7.5
13	6.3	10.6	.	5.7
14	3.4	5.6	.	3.8
15	5.6	8.2	.	7.2
16	8.5	12.2	.	8.6
17	11.1	12.3	.	10.1
18	11.5	11.0	.	6.7
19	11.8	11.0	.	10.9
20	9.4	10.3	.	7.9
21	10.4	12.3	.	10.4
22	7.9	10.7	.	8.6
23	6.0	11.9	.	9.6
24	6.8	9.5	.	0.0
25	11.0	12.4	.	11.6
26	11.7	12.4	.	10.8
27	8.1	11.8	.	8.9
28	3.7	0.0	.	7.1
29	8.5	9.8	.	9.5
30	8.1	12.2	.	10.7
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	227.4	291.7	.	239.3
 Daily Means	7.6	9.7	.	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: 2019

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	8.2	4.0	9.9	.
2	7.7	3.3	9.0	.
3	.	2.3	0.2	.
4	8.0	0.0	8.2	.
5	8.0	0.3	11.7	.
6	6.2	11.9	7.0	.
7	6.5	9.5	6.3	.
8	0.9	11.0	3.3	.
9	5.9	11.7	3.5	.
10	7.0	10.8	4.1	.
11	9.2	10.2	4.4	.
12	11.5	9.8	12.6	.
13	8.1	10.9	6.9	.
14	6.0	12.4	1.0	.
15	2.4	5.2	4.9	.
16	3.3	4.0	6.9	.
17	9.3	9.1	10.3	.
18	9.0	9.2	13.3	.
19	10.0	7.7	5.9	.
20	11.0	8.1	12.9	.
21	4.0	11.5	4.1	.
22	9.4	10.7	12.4	.
23	7.1	9.1	3.4	.
24	0.8	9.3	8.3	.
25	7.0	10.2	12.5	.
26	11.7	0.7	12.7	.
27	12.2	11.2	12.7	.
28	9.0	11.7	11.8	.
29	7.1	4.5	10.8	.
30	10.2	8.0	11.9	.
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	238.3	242.9	.
 Daily Means	7.5	7.9	8.1	.
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: NOVEMBER Year: 2019 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	7.0	8.3	10.7	5.6
2	10.7	6.5	12.5	8.8
3	11.0	2.5	2.5	12.5
4	3.1	5.3	7.0	0.2
5	11.0	3.2	11.6	9.3
6	11.2	5.8	12.0	12.8
7	11.1	7.9	11.4	10.8
8	2.8	10.4	2.6	.
9	11.2	10.8	12.2	13.0
10	11.4	11.1	10.5	12.9
11	9.0	11.3	0.5	11.3
12	11.2	7.7	1.2	10.8
13	11.2	5.2	3.8	12.0
14	9.8	10.5	10.1	9.8
15	11.2	8.0	7.4	12.0
16	11.2	5.6	11.4	13.1
17	10.6	9.6	11.8	11.9
18	9.3	11.2	12.1	11.2
19	11.3	10.2	12.8	13.2
20	11.4	4.5	13.6	13.0
21	8.7	6.8	10.5	12.0
22	11.4	8.5	6.9	11.1
23	11.4	3.9	5.5	2.4
24	9.0	7.3	10.1	8.5
25	5.2	7.3	10.5	4.8
26	11.5	2.0	12.9	12.6
27	11.4	5.1	14.1	13.4
28	11.4	5.8	12.2	10.7
29	11.6	3.6	12.6	13.3
30	11.6	4.2	12.6	.
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	299.9	210.1	285.6	.
 Daily Means	10.0	7.0	9.5	10.5
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: NOVEMBER Year: 2019 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	.	7.3	.	4.7
2	.	12.2	.	9.7
3	.	10.6	.	1.7
4	.	10.7	.	10.0
5	.	12.5	.	9.8
6	.	12.7	.	2.7
7	.	12.2	.	11.4
8	.	12.0	.	.
9	.	10.2	.	9.2
10	.	11.4	.	10.7
11	.	7.7	.	12.0
12	.	8.5	.	10.1
13	.	9.1	.	8.0
14	.	9.8	.	0.6
15	.	2.2	.	2.3
16	.	11.6	.	9.4
17	.	9.7	.	7.5
18	.	12.4	.	8.8
19	.	12.4	.	3.7
20	.	11.1	.	9.7
21	.	12.3	.	11.8
22	.	7.3	.	10.8
23	.	0.2	.	1.8
24	.	5.7	.	7.8
25	.	8.3	.	5.1
26	.	10.5	.	6.7
27	.	12.0	.	5.7
28	.	8.5	.	0.7
29	.	10.1	.	6.7
30	.	12.7	.	7.7
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	293.9	.	.
 Daily Means	.	9.8	.	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: NOVEMBER

Year: 2019

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	0.0	10.3	4.8	
2	5.8	2.9	0.1	
3	0.0	5.2	9.9	
4	7.7	8.0	8.9	
5	0.5	7.5	3.1	
6	0.3	6.8	9.9	
7	11.7	9.6	6.0	
8	12.1	7.4	9.5	
9	9.5	8.2	13.6	
10	8.8	9.6	8.1	
11	7.9	11.4	10.3	
12	7.6	11.8	5.3	
13	4.3	12.4	0.0	
14	0.1	1.3	0.8	
15	8.3	7.0	3.9	
16	8.1	4.2	4.6	
17	1.8	6.1	8.3	
18	5.5	8.1	10.1	
19	1.8	1.9	6.2	
20	12.2	8.5	11.3	
21	13.2	8.9	8.0	
22	9.6	12.6	8.3	
23	0.6	3.5	4.8	
24	6.2	5.6	9.5	
25	5.5	3.8	0.0	
26	2.6	4.9	14.3	
27	0.0	2.6	7.3	
28	0.0	2.9	9.8	
29	2.0	5.3	5.9	
30	1.5	11.4	11.8	
31				
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	155.2	209.7	214.4	
 Daily Means	5.2	7.0	7.1	
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: 2019 Country: CHILE

Daily Totals				
Latitude	18°21' S	20°32' S	22°28' S	23°26' S
Longitude	70°19'W	72°10' W	68°55' W	70°26' W
Elevation	58 m	52 m	270 m	135 m
Station	ARICA	IQUIQUE	CALAMA	ANTOFAGASTA
Date				
1	11.6	12.1	.	11.8
2	10.6	12.5	.	6.9
3	6.9	8.3	.	7.6
4	5.5	6.5	.	10.4
5	11.5	11.7	.	9.7
6	8.1	12.5	.	10.0
7	8.0	10.7	.	9.6
8	7.4	9.8	.	9.8
9	7.6	12.4	.	7.4
10	7.9	11.2	.	8.1
11	6.9	11.1	.	8.1
12	6.6	9.1	.	7.4
13	7.4	11.0	.	10.4
14	11.3	12.5	.	12.0
15	11.8	12.5	.	10.7
16	10.8	12.5	.	10.7
17	8.1	10.7	.	10.9
18	9.9	12.5	.	9.9
19	10.8	12.6	.	11.2
20	11.8	12.5	.	8.6
21	11.1	12.5	.	10.4
22	7.7	6.7	.	9.9
23	8.8	10.1	.	9.7
24	9.4	11.1	.	9.4
25	11.2	10.7	.	10.8
26	10.3	10.9	.	9.1
27	2.3	4.2	.	0.8
28	12.0	12.2	.	5.3
29	8.1	11.1	.	9.5
30	12.0	12.5	.	9.4
31	11.9	12.1	.	9.9
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	285.3	338.8	.	285.4
 Daily Means	9.2	10.9	.	9.2
Types of	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH	HELIOGRAPH
Instruments	CAMPBELL	CAMPBELL	CAMPBELL	CAMPBELL
	STOKES	STOKES	STOKES	STOKES

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

Month: DECEMBER

Year: 2019

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	6.3	0.8	5.1	.
2	5.4	6.2	10.3	.
3	7.5	0.0	4.7	.
4	7.2	1.3	6.7	.
5	7.4	0.1	4.4	.
6	7.7	8.3	6.0	.
7	8.7	5.9	0.9	.
8	7.0	5.9	6.6	.
9	7.7	6.2	7.1	.
10	3.9	9.9	7.1	.
11	5.2	1.2	7.0	.
12	5.1	1.3	8.2	.
13	9.3	3.9	4.3	.
14	9.7	9.7	10.4	.
15	7.5	13.0	12.2	.
16	4.6	4.1	12.2	.
17	3.2	12.8	8.4	.
18	8.4	12.6	5.5	.
19	11.4	4.0	8.3	.
20	9.5	8.7	12.0	.
21	6.4	11.2	9.6	.
22	2.9	3.0	8.2	.
23	4.6	10.2	2.6	.
24	7.0	6.9	8.4	.
25	8.0	1.3	9.9	.
26	8.9	5.1	12.0	.
27	3.8	2.8	4.8	.
28	4.2	4.6	6.9	.
29	5.6	9.5	3.4	.
30	6.7	4.5	4.7	.
31	6.8	9.3	4.7	.
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	207.6	184.3	222.6	.
 Daily Means	6.7	5.9	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: DECEMBER Year: 2019 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	11.4	8.9	0.0	12.7
2	7.4	4.4	4.6	9.6
3	11.6	9.9	11.8	.
4	11.5	8.1	12.0	13.3
5	11.6	9.2	12.2	13.4
6	10.8	11.6	0.6	13.4
7	11.6	2.4	8.0	13.2
8	11.7	9.2	3.5	13.4
9	11.7	9.5	0.0	13.3
10	11.4	5.6	0.0	12.2
11	11.0	6.4	10.8	13.0
12	11.9	11.7	12.6	13.4
13	11.3	5.2	10.4	7.6
14	2.8	8.8	8.3	.
15	11.5	8.9	12.1	13.3
16	11.8	9.6	13.2	12.4
17	11.7	10.4	11.9	12.5
18	10.8	6.1	11.4	11.0
19	3.2	0.0	0.9	4.1
20	11.6	8.3	12.3	10.0
21	11.6	10.1	12.9	12.5
22	11.7	10.4	12.4	13.4
23	11.7	10.8	12.7	13.4
24	11.8	5.5	12.0	2.1
25	11.6	9.2	12.3	11.8
26	11.7	10.9	12.3	13.2
27	11.6	9.6	12.4	.
28	11.7	5.7	11.6	13.4
29	8.8	7.7	.	13.4
30	11.9	7.3	11.3	13.4
31	11.5	4.8	4.7	13.4
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	333.9	246.2	.	.
 Daily Means	10.8	7.9	9.0	11.9
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: 2019

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	.	12.6	.	17.5
2	.	8.3	.	10.7
3	.	12.7	.	12.4
4	.	12.7	.	11.0
5	.	12.5	.	9.6
6	.	12.7	.	10.3
7	.	12.8	.	11.6
8	.	12.5	.	10.2
9	.	8.2	.	10.9
10	.	2.3	.	6.4
11	.	11.4	.	10.7
12	.	12.2	.	6.5
13	.	0.4	.	6.2
14	.	11.2	.	12.7
15	.	12.4	.	9.0
16	.	12.7	.	10.0
17	.	12.8	.	9.2
18	.	5.8	.	0.4
19	.	4.3	.	6.3
20	.	11.4	.	8.4
21	.	12.4	.	12.5
22	.	12.8	.	11.9
23	.	11.3	.	1.1
24	.	8.7	.	12.2
25	.	11.6	.	10.7
26	.	7.2	.	9.4
27	.	4.5	.	1.3
28	.	12.2	.	11.5
29	.	13.0	.	12.1
30	.	12.0	.	12.2
31	.	12.4	.	11.9
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	.	320.0	.	296.8
 Daily Means	.	10.3	.	9.6
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: 2019

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	10.6	9.1	0.9	
2	3.9	5.4	11.7	
3	12.0	12.6	8.2	
4	7.5	8.5	7.9	
5	5.9	11.3	10.1	
6	5.5	12.5	10.6	
7	10.8	10.0	2.9	
8	8.8	4.9	2.8	
9	2.8	8.3	14.0	
10	5.5	1.1	14.3	
11	10.5	6.6	7.7	
12	6.3	5.6	12.7	
13	2.5	5.8	0.7	
14	6.5	5.8	2.6	
15	5.6	5.8	7.7	
16	4.1	8.5	7.1	
17	2.1	2.1	2.2	
18	5.2	6.2	14.1	
19	6.0	9.5	9.8	
20	7.3	1.3	2.3	
21	13.5	0.8	9.1	
22	6.6	0.0	10.1	
23	0.0	8.8	12.1	
24	11.7	6.6	9.8	
25	5.3	4.0	7.5	
26	1.1	1.3	6.0	
27	2.7	8.1	8.4	
28	11.3	8.6	6.9	
29	12.4	11.1	12.9	
30	13.1	13.2	9.8	
31	11.5	0.6	2.7	
TT Monthly Totals				
 Daily Means				
SS Monthly Totals	218.6	204.0	245.6	
 Daily Means	7.1	6.6	7.9	
Types of Instruments	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	HELIOGRAPH CAMPBELL STOKES	