

Environment Canada Imaging Cover Page

Report N.:



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BRIGHT SUNSHINE NORMALS AND AVERAGES

1. The Campbell-Stokes sunshine recorder is used at Canadian Meteorological Stations to obtain a record of the amount of bright sunshine. This instrument consists essentially of a glass sphere which focuses the sun's rays on a paper chart which has specially controlled burning qualities. As a general rule, the sun shining through cirrus cloud will not be bright enough to produce a record, although at the same time, objects may be casting faint shadows on the ground. In addition, on a clear day with a cloudless sky, the intensity of the sun's rays is not sufficient to produce a record until about half an hour after sunrise, and the burn usually terminates half an hour before sunset.

2. Canadian bright sunshine data recorded by the Campbell-Stokes sunshine recorder are not directly comparable with sunshine data published by the United States Weather Bureau. In the United States a black bulb type sunshine recorder is used which records "visible sunshine".

3. The first Campbell-Stokes sunshine recorders were installed at Canadian weather stations about 80 years ago. The data shown in the tables that follow are based on the standard normal period from 1931 to 1960. Table A shows the mean monthly and annual number of hours of bright sunshine over this normal period, while Table B is composed of short period averages. The period of record is shown in each instance.

MKT:mb  
June 9, 1964.

Climatology Division,  
Meteorological Branch,  
315 Bloor Street West,  
Toronto 5, Ontario.

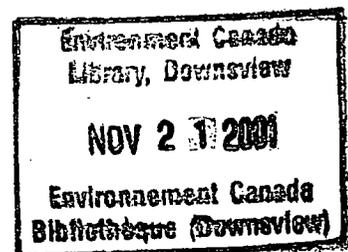


TABLE A

MEAN MONTHLY AND ANNUAL NUMBER OF HOURS  
OF BRIGHT SUNSHINE (1931-1960)CDS  
#2-64

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
<b>BRITISH COLUMBIA</b>													
Agassiz CDA	45	68	87	123	164	153	227	201	141	92	50	35	1386
Cowichan Bay	46	74	120	172	235	232	300	261	185	109	55	40	1829
Kamloops A	55	92	157	197	247	243	320	284	207	134	66	44	2046
Nanaimo A	56	91	129	182	238	228	294	269	192	124	62	49	1913
Oliver 2	44	78	140	194	237	242	317	276	201	126	60	36	1951
Prince George A	54	87	130	183	248	240	267	243	166	101	56	41	1816
Prince Rupert	37	58	80	106	140	107	108	112	85	50	35	25	943
Salmon Arm	31	62	117	166	224	216	292	249	178	95	35	18	1683
Sidney	65	90	136	194	254	258	321	284	205	124	74	59	2064
Summerland CDA	47	82	140	196	240	242	313	282	201	131	57	41	1972
Vancouver BCH & PA	43	75	111	168	225	209	277	249	173	109	51	33	1723
Vernon BX	45	79	128	185	238	230	308	284	195	119	51	34	1896
Victoria Gonzales Hts	70	97	156	210	275	277	337	298	208	141	81	66	2216
<b>ALBERTA</b>													
Beaverlodge CDA	77	108	157	214	269	266	300	258	181	133	81	65	2109
Calgary A	101	117	146	188	240	234	318	275	186	159	111	91	2166
Edmonton Industrial A	86	119	163	221	258	251	315	269	186	157	100	78	2203
Fairview	56	91	152	202	242	221	270	248	164	117	62	50	1875
Fort Vermilion CDA	68	105	164	219	260	276	299	252	159	119	61	40	2022
Keg River	75	104	150	204	244	254	281	247	157	121	69	51	1957
Lacombe CDA	82	116	158	200	242	235	304	259	179	153	95	71	2094
Lethbridge CDA	103	126	162	210	265	271	345	300	216	177	113	96	2384
Manyberries CDA	101	121	149	195	253	242	333	293	202	162	112	97	2260
Medicine Hat A	91	117	140	194	252	254	336	289	189	161	102	83	2208
Olds	90	118	149	188	227	221	281	251	187	153	104	80	2049
Ranfurly	88	123	167	219	249	250	306	263	181	151	93	76	2167

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TABLE A (Cont'd)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
<b>SASKATCHEWAN</b>													
Moose Jaw A	93	115	153	210	258	264	341	288	209	172	96	84	2283
Regina	98	118	152	215	266	249	334	286	197	170	96	85	2266
Scott CDA	77	114	145	205	261	252	322	272	175	151	84	62	2120
Swift Current A	84	120	147	209	263	263	345	291	198	169	106	86	2281
<b>MANITOBA</b>													
Brandon	103	128	160	200	238	230	302	269	187	145	86	81	2129
Morden CDA	101	136	161	206	240	224	299	266	193	162	91	89	2168
The Pas A	94	123	165	211	258	244	300	259	158	125	64	66	2067
Winnipeg Int. A	101	133	167	207	244	248	310	270	181	153	82	81	2177
<b>ONTARIO</b>													
Chalk River					236	246	282	253	158	107			
Chatham	69	93	126	156	210	226	259	240	183	158	86	65	1871
Guelph OAC	66	89	121	159	211	250	290	247	170	139	77	61	1880
Harrow CDA	72	95	122	160	231	239	286	263	195	161	86	69	1979
Kapuskasing CDA	72	104	135	167	195	208	238	202	126	90	44	54	1635
Kingston	87	114	139	170	242	253	286	269	186	154	88	82	2070
Lindsay	72	102	135	160	210	236	262	228	165	135	84	62	1851
London A	63	91	128	165	231	238	283	256	184	156	79	62	1936
Moosonee	78	109	135	160	188	179	241	195	119	80	43	45	1572
New Liskeard	72	99	149	162	167	171	236	215	141	101	46	52	1611
Ottawa CDA	93	110	140	168	230	250	281	254	173	135	78	77	1989
St. Catharines CDA	51	80	116	158	210	245	269	243	180	139	73	50	1814
Toronto	78	105	139	170	220	257	287	259	198	154	84	75	2026
Turbine	67	96	136	180	222	233	277	239	154	118	57	56	1835
Vineland	74	101	137	174	229	263	289	261	194	164	92	69	2047
Woodstock	68	98	126	166	224	261	286	253	189	156	80	63	1970

TABLE A (Cont'd)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
<b>QUEBEC</b>													
Albanel	94	118	154	176	216	220	241	221	147	105	62	66	1820
Fort George	68	107	145	169	194	200	226	171	104	57	27	30	1498
L'Assomption CDA	96	117	147	174	234	256	275	255	173	140	80	76	2023
Lennoxville CDA FE	76	93	129	154	207	224	251	235	158	134	67	59	1787
Montreal McGill	86	103	140	154	209	230	253	240	167	132	69	69	1852
Quebec Anc. Lorette A	82	102	128	157	199	201	228	162	157	123	65	65	1669
Ste. Anne de la Poc. CDA	87	107	138	170	214	219	251	232	153	118	69	71	1829
Sherbrooke	79	96	137	163	216	237	263	245	170	141	71	62	1880
<b>NEW BRUNSWICK</b>													
Fredericton CDA	100	117	138	158	206	198	234	225	160	144	90	91	1861
<b>NOVA SCOTIA</b>													
Annapolis Royal	64	85	134	150	208	200	225	225	169	141	76	52	1729
Kentville CDA	73	94	127	150	206	199	248	226	170	137	75	56	1761
Nappan CDA	86	103	124	147	194	194	241	218	159	133	79	75	1753
<b>PRINCE EDWARD ISLAND</b>													
Charlottetown CDA	82	105	135	156	203	213	252	228	178	134	73	62	1821

TABLE B

SHORT PERIOD AVERAGES OF MONTHLY AND ANNUAL  
NUMBER OF HOURS OF BRIGHT SUNSHINE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Period
<b>BRITISH COLUMBIA</b>														
Alberni Inpsi Cupsi	21	54	87	164	235	175	309	221	137	72	34	13	1522	1955-60
Campbell River	45	102	98	199	245	200	347	237	159	96	57	27	1812	1956-60
Cowichan Lake Forestry	25	55	89	152	193	156	261	206	162	97	44	22	1462	1950-60
Crescent Valley	49	77	127	171	226	206	308	260	194	115	55	32	1820	1943-60
Fort St. John A	74	102	153	202	278	257	288	262	168	130	79	60	2053	1944-60
Kitimat Townsite	40	61	116	170	207	185	225	151	128	79	36	19	1417	1954-60
Sandspit A	56	81	116	154	224	166	214	147	139	85	59	38	1479	1954-60
Smithers CDA	49	81	118	151	212	208	220	207	146	81	49	35	1557	1938-60
Tranquille	61	95	137	185	224	215	282	254	187	132	62	45	1879	1931-53
Vancouver Int. A	58	89	124	195	250	229	311	250	190	114	71	44	1925	1946-60
<b>YUKON TERRITORY</b>														
Haines Junction	20	75	161	199	266	258	249	213	147	95	21	3	1707	1946-60
Whitehorse A	48	74	164	246	265	295	241	219	148	114	56	28	1898	1957-60
<b>NORTHWEST TERRITORIES</b>														
Aklavik	14	94	154	277	297	401	276	204	95	73	22	0	1907	1956-60
Coppermine	5	78	149	219	210	275	283	187	72	43	12	0	1533	1949-60
Fort Simpson CDA	47	87	127	190	261	264	249	235	120	90	47	25	1742	1952-60
Fort Smith A	61	117	167	240	282	317	296	268	133	86	46	27	2040	1953-60
Frobisher Bay A	26	75	184	245	174	142	190	130	80	58	38	11	1353	1956-60
Resolute A	0	24	153	272	258	258	279	158	68	23	1	0	1494	1948-60
Sachs Harbour	*	59	187	260	263	344	291	202	71	46	3	0	1726	1955-60
<b>ALBERTA</b>														
Banff	57	99	131	155	197	197	259	211	167	126	81	44	1724	1948-60
Brooks Hort. Station	90	117	145	209	280	283	341	309	198	179	119	92	2362	1953-60
Suffield A	97	120	163	199	279	271	354	313	208	184	121	97	2406	1953-60
Vauxhall CDA	106	122	158	195	273	288	358	315	212	174	122	101	2424	1954-60

\* Less than 0.5 hour.

TABLE B (Cont'd)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Period
<b>SASKATCHEWAN</b>														
Melfort CDA	91	115	159	196	235	238	293	246	158	140	71	62	2004	1937-60
Prince Albert A	94	116	171	209	253	256	306	263	171	147	80	72	2138	1941-60
Saskatoon U of S	96	129	191	226	275	270	340	293	210	166	99	86	2381	1936-60
<b>MANITOBA</b>														
Churchill A	79	127	180	186	166	212	285	232	100	67	44	54	1732	1946-60
Dauphin A	113	141	171	225	267	253	335	265	167	155	91	88	2271	1950-60
Rivers A	113	154	172	217	254	259	352	298	189	170	100	93	2371	1952-60
<b>ONTARIO</b>														
Armstrong A	97	127	164	180	214	219	263	232	133	109	48	76	1862	1938-60
Belleville Par. Lab	84	111	134	163	226	257	279	246	175	149	83	79	1986	1931-53
Brempton	93	110	142	176	236	267	302	254	193	158	92	83	2106	1950-60
Caribou Island					246	223	265	257	170	136	40			1944-60
Delhi CDA	62	88	115	153	206	234	268	238	171	145	77	58	1815	1934-60
Kohler	63	74	102	145	201	231	251	227	164	150	86	60	1754	1949-60
Oak Ridges	58	78	100	137	188	201	228	208	144	112	68	51	1573	1931-60
<b>QUEBEC</b>														
Berthierville	98	133	178	196	233	254	268	269	191	147	80	90	2137	1947-60
Caplan CDA	103	120	151	177	215	217	269	258	191	153	90	95	2039	1952-60
Causapscal Res. Station	53	78	116	155	177	188	221	207	152	101	40	24	1512	1951-60
Clova	68	87	115	170	204	235	231	214	113	111	36	38	1622	1952-58
Duchesnay	87	109	132	162	215	216	240	225	156	128	66	74	1810	1938-60
Grandes Bergeronnes	87	94	152	182	193	196	218	222	164	121	72	72	1773	1951-60
Herbertville	76	82	137	164	183	203	194	196	131	108	39	46	1559	1951-58
Knob Lake A	78	104	156	192	170	186	170	145	96	67	47	61	1472	1954-60
Macdonald College	72	100	163	178	204	208	230	249	158	131	68	67	1828	1956-60
Montreal Bot. Gardens	75	112	154	173	228	234	279	251	169	136	74	65	1950	1953-60
Montreal Jean Brebeuf	86	101	154	178	239	236	278	263	185	139	86	89	2034	1956-60
Normandin CDA	94	113	151	173	210	215	234	215	142	107	63	69	1786	1936-60

CDS #2-64

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TABLE B (Cont'd)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Period
<b>QUEBEC (Cont'd)</b>														
Peribonca CDA EPF	81	89	159	177	192	216	222	204	141	99	54	63	1697	1951-60
Port Harrison	60	110	155	162	135	186	198	156	76	50	27	27	1342	1938-60
Quebec Anc. Lorette A	73	87	124	145	195	172	222	222	139	119	60	61	1619	1954-60
Rimouski	58	92	160	176	179	205	220	201	172	118	61	49	1691	1952-60
Ste. Clothilde CDA	86	102	145	149	203	225	253	236	168	130	70	72	1839	1941-60
Victoriaville	83	106	164	178	221	239	259	247	174	141	68	69	1949	1952-60
<b>NEW BRUNSWICK</b>														
Campbellton	88	110	147	184	231	209	247	246	179	139	74	80	1934	1954-60
Chatham A	105	114	142	179	211	210	261	238	189	152	89	95	1985	1950-60
Fredericton University	101	119	140	158	208	208	241	232	161	144	88	89	1889	1931-52
McDonald's Corner	89	112	137	156	198	182	247	224	178	139	82	79	1823	1952-60
Moncton A	105	122	133	174	225	203	249	225	173	155	91	93	1948	1955-60
Saint John	111	125	153	160	201	202	221	218	165	149	95	104	1904	1931-52
Saint John A	93	117	150	157	203	194	231	213	168	149	91	92	1858	1952-60
Summit Depot	38	67	73	107	163	179	193	191	121	102	50	33	1317	1953-60
Tower Hill CDA	94	110	137	147	193	201	246	212	176	144	84	89	1833	1951-60
<b>NOVA SCOTIA</b>														
Halifax	91	117	144	162	201	202	219	222	179	157	92	87	1873	1940-60
Sydney	72	100	119	158	201	210	258	221	173	142	73	69	1796	1948-60
<b>PRINCE EDWARD ISLAND</b>														
Ellerslie	70	107	122	106	157	186	219	200	149	119	69	49	1553	1945-52
<b>NEWFOUNDLAND</b>														
Gander Int. A	69	82	107	115	150	160	200	178	143	112	63	58	1437	1939-60
Goose A	90	111	143	136	176	198	194	187	124	91	69	66	1585	1944-60
St. John's Torbay A	57	75	93	116	152	176	212	176	149	117	59	53	1432	1946-60
St. John's West CDA	65	79	94	114	163	177	227	183	155	117	63	58	1495	1950-60