

## Station Notes

Ancillary information for each of the 237 stations in the EPA database

(Derived from <ftp://ftp.ncdc.noaa.gov/pub/software/cdrom/samson/samstns.txt>)  
 The station WBAN number, latitude, longitude, elevation (meters), time zone, and the periods of time during which solar radiation data were being collected are all included. Information specific to subsets of stations is provided in footnotes. Standard time zone (TZ) indicates hours to be added to local standard time to arrive at Universal Time, Coordinated (UTC). U.S. Time Zones are Q (Atlantic), R (Eastern), S (Central), T (Mountain), U (Pacific), V (Alaska), W (Hawaii-Aleutian), X (Samoa, not used in this dataset), and K (Chomorro (proposed)). Burns, OR and Prescott AZ, although included in this list for completeness, lacked sufficient precipitation data to justify their inclusion in the EPA database.

Stations for which solar radiation data were collected at a location different from the meteorological instruments are identified. Stations which were moved during the 30-year period of record are also noted.

SITES	WBAN	LAT	LONG	ELEV	TZ	FOOTNOTES
AK Anchorage	26451	N 61 10	W 150 1	35	+9(V)	2,8
AK Annette	25308	N 55 2	W 131 34	33	+9(V)	2,8
AK Barrow	27502	N 71 18	W 156 47	9	+9(V)	2,6,8
	This station has little or no hourly precipitation data. Long term fill from other years used for period from 890321 to 890331.					
AK Bethel	26615	N 60 47	W 161 48	38	+9(V)	5,8
	This station has little or no hourly precipitation data.					
AK Bettles	26533	N 66 55	W 151 31	196	+9(V)	6,8
	This station has little or no hourly precipitation data. Long term fill from other years used for period from 890118 to 890130.					
AK Big Delta	26415	N 64 0	W 145 44	386	+9(V)	7,8
	This station has little or no hourly precipitation data.					
AK Cold Bay	25624	N 55 12	W 162 43	29	+9(V)	8
AK Fairbanks	26411	N 64 49	W 147 52	133	+9(V)	2,6,8
<b>Global</b>	770401-801231					1
AK Gulkana	26425	N 62 9	W 145 27	478	+9(V)	7,8
	This station has little or no hourly precipitation data. Long term fill from other years used for periods: 730930 to 731201, 760416 to 760428, 761203 to 761229, and 870731 to 870901.					
AK King Salmon	25503	N 58 41	W 156 39	15	+9(V)	8
AK Kodiak	25501	N 57 45	W 152 30	5	+9(V)	2,6,8
	Long term fill from other years used for period from 721130 to 730101.					

AK Kotzebue	26616	N 66 52	W 162 38	3	+9(V)	2,6,8
	This station has little or no hourly precipitation data.					
	Long term fill from other years used for period from 890117 to 890127.					
AK McGrath	26510	N 62 58	W 155 37	105	+9(V)	2,6,8
	Long term fill from other years used for period from 890115 to 890125.					
AK Nome	26617	N 64 30	W 165 26	4	+9(V)	2,6,8
	Long term fill from other years used for period from 880901 to 880930.					
AK St. Paul Is.	25713	N 57 9	W 170 13	7	+9(V)	8
AK Talkeetna	26528	N 62 18	W 150 6	105	+9(V)	6,8
	This station has little or no hourly precipitation data.					
AK Yakutat	25339	N 59 31	W 139 40	8	+9(V)	2,5
AL Birmingham	13876	N 33 34	W 86 45	189	+6(S)	
AL Huntsville	03856	N 34 39	W 86 46	190	+6(S)	
AL Mobile	13894	N 30 41	W 88 15	64	+6(S)	
AL Montgomery	13895	N 32 18	W 86 24	67	+6(S)	2,5,9
	<b>Global</b>	770109-850728	880331-901231			1
	<b>Direct</b>	780120-850728	880331-901231			1
AR Fort Smith	13964	N 35 20	W 94 22	137	+6(S)	
AR Little Rock	13963	N 34 44	W 92 14	78	+6(S)	2,5
AZ Flagstaff	03103	N 35 8	W 111 40	2135	+7(T)	2,6
AZ Phoenix	23183	N 33 26	W 112 1	337	+7(T)	7
	<b>Global</b>	520701-751231	770102-850722	880101-901210		1
	<b>Direct</b>	780509-850722	880101-901229			1
AZ Prescott	23184	N 34 39	W 112 26	1531	+7(T)	10
AZ Tucson	23160	N 32 8	W 110 56	788	+7(T)	2
	<b>Global</b>	780101-801231				1
	<b>Direct</b>	780101-800902				1
	Solar radiation data from WEST Associates at Lat 32 20, Long W 110 54.					
CA Arcata/Eureka	24283	N 40 59	W 124 6	62	+8(U)	6
	This station has little or no hourly precipitation data. Eureka (WBAN 24213) used as source for hourly precipitation data.					
	Long term fill from other years used for period from 860531 to 860630.					
CA Bakersfield	23155	N 35 25	W 119 3	151	+8(U)	
CA Daggett	23161	N 34 52	W 116 47	586	+8(U)	6
	This station has little or no hourly precipitation data.					

<b>Global</b>	760101-801231					1
<b>Direct</b>	760101-801231					1
	Solar radiation data from WEST Associates at Barstow, CA, Lat N 34 53, Long W 117 00. Long term fill from other years used for period from 840930 to 841101 and 850930 to 851031.					
CA Fresno	93193	N 36 47	W 119 43	102	+8(U)	
<b>Global</b>	520701-751231	770118-840928	880511-901231			1
<b>Direct</b>	780721-840928	880511-901231				1
CA Long Beach	23129	N 33 49	W 118 9	8	+8(U)	
<b>Global</b>	810823-841120					1
<b>Direct</b>	810823-841120					1
CA Los Angeles	23174	N 33 56	W 118 24	30	+8(U)	
<b>Global</b>	780615-801231					1
<b>Direct</b>	780615-801231					1
<b>Diffuse</b>	790901-801231					1
	Solar radiation data were obtained by combining data from the NWS station with data from WEST Associates at Lat N 34 04, Long W 118 14. NWS data were used whenever it was available.					
CA Sacramento	23232	N 38 31	W 121 30	6	+8(U)	
CA San Diego	23188	N 32 44	W 117 10	4	+8(U)	2
<b>Global</b>	791017-801231					1
<b>Direct</b>	791017-801231					1
	Solar radiation data from WEST Associates at Lat N 32 43, Long W 117 10.					
CA San Francisco	23234	N 37 37	W 122 23	2	+8(U)	
CA Santa Maria	23273	N 34 54	W 120 27	77	+8(U)	
<b>Global</b>	520701-541031	541101-690331				
CO Alamosa	23061	N 37 27	W 105 52	2298	+7(T)	6
<b>Global</b>	780101-801231					1
<b>Direct</b>	780101-801231					1
	Solar radiation data from WEST Associates at Lat N 37 29, Long W 105 52. Long term fill from other years used for period from 650831 to 651001.					
CO Boulder	94018	N 40 01	W 105 15	1634	+7(T)	2
Denver	23062	N 39 46	W 104 52	1611		
<b>Global</b>	770101-851017	880101-900331				1
<b>Direct</b>	780301-851017	880101-900331				1
<b>Diffuse</b>	770803-820429					1
	Meteorological data from Stapleton Intl. Airport, Denver, CO, Lat N 39 46, Long W 104 52.					
CO Colorado Sprgs	93037	N 38 49	W 104 43	1873	+7(T)	
CO Eagle	23063	N 39 39	W 106 55	1980	+7(T)	3,7
	Long term fill from other years used for periods: 870215 to 870301 and 890331 to 900101.					

The period of record for this station  
is less than 30 years(1961-1988).

CO Grand Junction	23066	N 39 7	W 108 32	1476	+7(T)	2
<b>Global</b>	770407-850712	880404-890929	900823-900831			1
<b>Direct</b>	780701-850712	880404-890929	900801-900831			1
CO Pueblo	93058	N 38 17	W 104 30	1428	+7(T)	
CT Bridgeport	94702	N 41 10	W 73 8	3	+5(R)	5
CT Hartford	14740	N 41 56	W 72 41	49	+5(R)	
DE Wilmington	13781	N 39 40	W 75 36	23	+5(R)	
FL Daytona Beach	12834	N 29 11	W 81 3	9	+5(R)	
<b>Global</b>	850802-901231					1
<b>Diffuse</b>	850802-901231					1
	Solar radiation data from Bethune-Cookman College at Lat N 29 11, Long W 81 01.					
FL Jacksonville	13889	N 30 30	W 81 42	9	+5(R)	2
FL Key West	12836	N 24 33	W 81 45	1	+5(R)	6
	Long term fill from other years used for period from 810514 to 810531.					
FL Miami	12839	N 25 48	W 80 18	4	+5(R)	2,9
<b>Global</b>	520701-751231	770104-851031				1
<b>Direct</b>	780411-851031					1
FL Tallahassee	93805	N 30 23	W 84 22	17	+5(R)	2
Apalachicola	12832	N 29 44	W 85 02	6		
<b>Global</b>	520701-751231	770106-801231	880101-901231			1
<b>Direct</b>	780205-801231	880101-901231				1
<b>Diffuse</b>	771026-801231					1
	Solar radiation and meteorological data for Apalachicola and Tallahassee were combined. Apalachicola's data and location (Lat N 29 43, Long W 85 01) were used from 610101 to 751231; Tallahassee's data and location were used from 760101 to 901231.					
FL Tampa	12842	N 27 58	W 82 32	6	+5(R)	2,5
FL W Palm Beach	12844	N 26 41	W 80 7	6	+5(R)	2
GA Athens	13873	N 33 57	W 83 19	244	+5(R)	
GA Atlanta	13874	N 33 39	W 84 26	308	+5(R)	2
<b>Global</b>	800701-810630					1
<b>Direct</b>	800701-810630					1
	Solar radiation data from the Georgia Institute of Technology at Lat N 33 46, Long W 84 24.					
GA Augusta	03820	N 33 22	W 81 58	45	+5(R)	
GA Columbus	93842	N 32 31	W 84 57	137	+5(R)	

GA Macon	03813	N 32 42	W 83 39	108	+5 (R)	
GA Savannah	03822	N 32 8	W 81 12	14	+5 (R)	
<b>Global</b>	850829-901231					1
<b>Diffuse</b>	850829-901231					1
	Solar radiation data from Savannah State College at Lat N 32 02, Long W 81 04.					
HI Hilo	21504	N 19 43	W 155 4	8	+10 (W)	
HI Honolulu	22521	N 21 20	W 157 55	2	+10 (W)	8
<b>Global</b>	780701-801231					1
<b>Direct</b>	790731-800531					1
HI Kahului	22516	N 20 54	W 156 26	15	+10 (W)	
	This station has little or no hourly precipitation data.					
HI Lihue	22536	N 21 59	W 159 21	31	+10 (W)	8
IA Des Moines	14933	N 41 32	W 93 39	286	+6 (S)	
IA Mason City	14940	N 43 9	W 93 20	364	+6 (S)	6
	This station has little or no hourly precipitation data.					
IA Sioux City	14943	N 42 24	W 96 23	334	+6 (S)	2
IA Waterloo	94910	N 42 33	W 92 24	265	+6 (S)	6
	Long term fill from other years used for period from 811220 to 811231.					
ID Boise	24131	N 43 34	W 116 13	865	+7 (T)	5
<b>Global</b>	770112-801231 880101-901231					1
<b>Direct</b>	780321-801231 880101-901231					1
ID Pocatello	24156	N 42 55	W 112 36	1358	+7 (T)	
IL Chicago O'Hare	94846	N 42 00	W 87 53	201	+6 (S)	
IL Moline	14923	N 41 27	W 90 30	177	+6 (S)	
IL Peoria	14842	N 40 40	W 89 41	198	+6 (S)	2
IL Rockford	94822	N 42 12	W 89 6	221	+6 (S)	5
IL Springfield	93822	N 39 51	W 89 41	179	+6 (S)	5
IN Evansville	93817	N 38 3	W 87 32	116	+6 (S)	8
IN Fort Wayne	14827	N 41 0	W 85 12	241	+5 (R)	
IN Indianapolis	93819	N 39 44	W 86 16	241	+5 (R)	
<b>Global</b>	770814-801231					1
<b>Direct</b>	800801-800831					1
	Long term fill from other years used for period from 651231 to 660131.					
IN South Bend	14848	N 41 42	W 86 19	236	+5 (R)	8

KS Dodge City	13985	N 37 46	W 99 58	787	+6(S)	2,5
<b>Global</b>	520701-751231	770101-801231	880331-90101			1
<b>Direct</b>	780719-801231	880331-901014				1
KS Goodland	23065	N 39 22	W 101 42	1111	+7(T)	
KS Topeka	13996	N 39 4	W 95 38	267	+6(S)	2
KS Wichita	03928	N 37 39	W 97 26	406	+6(S)	
KY Covington (Cin)	93814	N 39 3	W 84 40	265	+5(R)	
KY Lexington	93820	N 38 2	W 84 36	294	+5(R)	
KY Louisville	93821	N 38 11	W 85 44	145	+5(R)	5,8
LA Baton Rouge	13970	N 30 32	W 91 8	20	+6(S)	
LA Lake Charles	03937	N 30 7	W 93 13	3	+6(S)	2
<b>Global</b>	520701-751231	770107-801231	880101-901231			1
<b>Direct</b>	790513-801231	880101-901228				1
LA New Orleans	12916	N 29 59	W 90 15	1	+6(S)	
LA Shreveport	13957	N 32 28	W 93 49	77	+6(S)	2
MA Boston	14739	N 42 22	W 71 2	6	+5(R)	
<b>Global</b>	520701-681130					1
MA Worcester	94746	N 42 16	W 71 52	300	+5(R)	
MD Baltimore	93721	N 39 11	W 76 40	45	+5(R)	
ME Caribou	14607	N 46 52	W 68 1	190	+5(R)	2
<b>Global</b>	520701-751231	770901-850926	880102-901225			1
<b>Direct</b>	780301-850926	880102-901225				1
ME Portland	14764	N 43 39	W 70 19	14	+5(R)	2
MI Alpena	94849	N 45 4	W 83 34	210	+5(R)	5
MI Detroit Metro	94847	N 42 14	W 83 20	193	+5(R)	
MI Flint	14826	N 42 58	W 83 45	235	+5(R)	2
MI Grand Rapids	94860	N 42 53	W 85 31	239	+5(R)	
MI Houghton Lake	94814	N 44 22	W 84 41	350	+5(R)	
MI Lansing	14836	N 42 46	W 84 36	256	+5(R)	
MI Muskegon	14840	N 43 10	W 86 15	190	+5(R)	
MI Sault Ste Marie	14847	N 46 28	W 84 21	219	+5(R)	2
MI Traverse City	14850	N 44 44	W 85 35	188	+5(R)	6
	This station has little or no hourly precipitation data.					

MN Duluth	14913	N 46 50	W 92 11	435	+6(S)	
MN Int'l Falls	14918	N 48 34	W 93 23	359	+6(S)	2
MN Minneapolis/ St. Paul	14922	N 44 53	W 93 13	254	+6(S)	2
MN Rochester	14925	N 43 55	W 92 30	395	+6(S)	
MN Saint Cloud	14926	N 45 33	W 94 4	313	+6(S)	2
MO Columbia	03945	N 38 49	W 92 13	271	+6(S)	2
<b>Global</b>	520701-700123	700124-751231	880526-901231			1
<b>Direct</b>	880526-901231					1
MO Kansas City	03947	N 39 19	W 94 43	297	+6(S)	6
	Long term fill from other years used for period from 720930 to 721231.					
MO Springfield	13995	N 37 14	W 93 23	386	+6(S)	
MO St. Louis	13994	N 38 45	W 90 22	173	+6(S)	
MS Jackson	03940	N 32 19	W 90 5	94	+6(S)	2
MS Meridian	13865	N 32 20	W 88 45	88	+6(S)	
MT Billings	24033	N 45 46	W 108 32	1087	+7(T)	
MT Cut Bank	24137	N 48 36	W 112 22	1170	+7(T)	3,7
	Long term fill from other years used for periods: 841003 to 841101, 860531 to 860701, 870215 to 870301, and 890228 to 900101.					
	The period of record for this station is less than 30 years (1961-1988).					
MT Glasgow	94008	N 48 13	W 106 37	696	+7(T)	2
MT Great Falls	24143	N 47 29	W 111 22	1116	+7(T)	2,9
<b>Global</b>	520701-751231	770101-850819	880105-901231			1
<b>Direct</b>	781201-850819	880105-901231				1
MT Helena	24144	N 46 36	W 112 0	1167	+7(T)	
MT Kalispell	24146	N 48 18	W 114 16	904	+7(T)	
MT Lewistown	24036	N 47 3	W 109 27	1263	+7(T)	7,8
MT Miles City	24037	N 46 26	W 105 52	801	+7(T)	4
	The period of record for this station is less than 30 years (1961-1989).					
MT Missoula	24153	N 46 56	W 114 6	974	+7(T)	
NC Asheville	03812	N 35 26	W 82 33	652	+5(R)	6
	Long term fill from other years used for period from 891025 to 891231.					
NC Cape Hatteras	93729	N 35 16	W 75 33	2	+5(R)	

<b>Global</b>	520701-751231						1
NC Charlotte	13881	N 35 13	W 80 56	220	+5(R)		
NC Greensboro	13723	N 36 5	W 79 56	273	+5(R)		5
NC Raleigh/Durham	13722	N 35 52	W 78 47	127	+5(R)		
<b>Global</b>	770701-801231	880101-901229					1
<b>Direct</b>	781106-801130	880101-901230					1
NC Wilmington	13748	N 34 16	W 77 54	9	+5(R)		
ND Bismarck	24011	N 46 46	W 100 45	502	+6(S)		2,5
<b>Global</b>	520701-751231	770101-801231	880101-901016				1
<b>Direct</b>	780601-801231	880101-901016					1
<b>Diffuse</b>	770901-801231						1
ND Fargo	14914	N 46 54	W 96 48	274	+6(S)		
ND Minot	24013	N 48 16	W 101 17	523	+6(S)		3,6
	This station has little or no hourly precipitation data. Long term fill from other years used for period from 900627 to 901130. The period of record for this station is less than 30 years(1961-1988).						
NE Grand Island	14935	N 40 58	W 98 19	561	+6(S)		
NE Norfolk	14941	N 41 59	W 97 26	471	+6(S)		
NE North Platte	24023	N 41 8	W 100 41	846	+6(S)		2
NE Omaha N WSFO	94918	N 41 22	W 96 01	399	+6(S)		2,5
<b>Global</b>	570601-751231	770117-850919	880101-901231				1
<b>Direct</b>	781116-850919	880101-901231					1
NE Scottsbluff	24028	N 41 52	W 103 36	1202	+7(T)		
NH Concord	14745	N 43 12	W 71 30	104	+5(R)		
NJ Atlantic City	93730	N 39 27	W 74 34	20	+5(R)		
NJ Newark	14734	N 40 42	W 74 10	2	+5(R)		5
NM Albuquerque	23050	N 35 3	W 106 37	1619	+7(T)		2
<b>Global</b>	520701-751231	770101-851031	880101-901231				1
<b>Direct</b>	780201-851031	880101-901231					1
<b>Diffuse</b>	770915-820504						1
NM Tucumcari	23048	N 35 11	W 103 36	1231	+7(T)		3,6
	This station has little or no hourly precipitation data. Long term fill from other years used for period from 8910301 [sic] to 900101. The period of record for this station is less than 30 years (1961-1988).						
NV Elko	24121	N 40 50	W 115 47	1539	+8(U)		6
	Long term fill from other years used for						



period from 641109 to 641231.

NV Ely	23154	N 39 17	W 114 51	1906	+8(U)	2,8,9
<b>Global</b>	511201-751231	770304-841017	880309-90123			1
<b>Direct</b>	780223-841017	880309-901231				1
<b>Diffuse</b>	770531-820331					1
NV Las Vegas	23169	N 36 5	W 115 10	659	+8(U)	2
<b>Global</b>	770201-850707	880101-901231				1
<b>Direct</b>	780213-850707	880101-901231				1
NV Reno	23185	N 39 30	W 119 47	1342	+8(U)	
NV Tonopah	23153	N 38 4	W 117 5	1654	+8(U)	6
	Long term fill from other years used for period from 841211 to 850101.					
NV Winnemucca	24128	N 40 54	W 117 48	1311	+8(U)	2
NY Albany	14735	N 42 45	W 73 48	84	+5(R)	2,9
<b>Global</b>	790101-820331					1
<b>Direct</b>	790101-820331					1
<b>Diffuse</b>	790101-820331					1
	Solar radiation data from the State University Of New York at Lat N 42 42, Long W 73 50.					
NY Binghamton	04725	N 42 13	W 75 59	488	+5(R)	
NY Buffalo	14733	N 42 56	W 78 44	215	+5(R)	2,5
NY Massena	94725	N 44 56	W 74 51	65	+5(R)	6
	This station has little or no hourly precipitation data. Long term fill from other years used for period from 721204 to 721215.					
NY New York	94728	N 40 47	W 73 58	40	+5(R)	
LGA	14732	N 40 46	W 73 54	3		
<b>Global</b>	520701-751231					1
	Solar radiation data from Central Park at location noted; meteorological data from La Guardia Airport (LGA) at Lat N 40 46, Long W 73 54.					
NY Rochester	14768	N 43 8	W 77 40	183	+5(R)	
NY Syracuse	14771	N 43 7	W 76 7	125	+5(R)	5
OH Akron/Canton	14895	N 40 55	W 81 26	368	+5(R)	
OH Cleveland	14820	N 41 25	W 81 52	235	+5(R)	5
OH Columbus	14821	N 40 0	W 82 53	248	+5(R)	
OH Dayton	93815	N 39 54	W 84 12	303	+5(R)	2
OH Mansfield	14891	N 40 49	W 82 31	395	+5(R)	
OH Toledo	94830	N 41 36	W 83 48	204	+5(R)	

OH Youngstown	14852	N 41 15	W 80 40	360	+5(R)	
OK Oklahoma City	13967	N 35 24	W 97 36	392	+6(S)	
OK Tulsa	13968	N 36 12	W 95 54	198	+6(S)	5
OR Astoria	94224	N 46 9	W 123 53	2	+8(U)	
OR Burns	94185	N 43 35	W 118 57	1262	+8(U)	3,7,10
<b>Global</b>	790401-901231					1
<b>Direct</b>	790401-901231					1
	Solar radiation data from the University of Oregon; collected at Lat N 43 51, Long W 119 01. The period of record for this station is less than 30 years (1961-1988).					
OR Eugene	24221	N 44 7	W 123 13	109	+8(U)	
<b>Global</b>	750401-901231					1
<b>Direct</b>	771201-901231					1
	Solar radiation data from the University of Oregon; collected at Lat N 44 03, Long W 123 04.					
OR Medford	24225	N 42 23	W 122 53	396	+8(U)	2,5
<b>Global</b>	511201-751231 770103-841231					1
<b>Direct</b>	780301-841231					1
OR North Bend	24284	N 43 25	W 124 15	2	+8(U)	7
	This station has little or no hourly precipitation data. Long term fill from other years used for period from 900627 to 901130.					
OR Pendleton	24155	N 45 41	W 118 51	452	+8(U)	2
OR Portland	24229	N 45 36	W 122 36	6	+8(U)	2
<b>Global</b>	800801-850930					1
<b>Direct</b>	800801-850930					1
	Solar radiation data from the University of Oregon; collected at Lat N 45 27, Long W 122 38.					
OR Redmond/Bend	24230	N 44 16	W 121 9	933	+8(U)	7
	This station has little or no hourly precipitation data.					
<b>Global</b>	800101-841231					1
	Solar radiation data from the University of Oregon; collected at Bend, OR, Lat N 44 04, Long W 121 17.					
OR Salem	24232	N 44 55	W 123 0	60	+8(U)	2
PA Allentown	14737	N 40 39	W 75 26	118	+5(R)	
PA Bradford	04751	N 41 48	W 78 38	646	+5(R)	6
	This station has little or no hourly precipitation data. Long term fill from other years used for period from 791028 to 791115 and 800830 to 801009.					
PA Erie	14860	N 42 5	W 80 11	222	+5(R)	
PA Harrisburg	14751	N 40 13	W 76 51	104	+5(R)	7
	Long term fill from other years used for periods:					

810305 to 810331 and 840515 to 841106.

PA Philadelphia	13739	N 39 53	W 75 15	2	+5(R)	
PA Pittsburgh	94823	N 40 30	W 80 13	347	+5(R)	2,6
<b>Global</b>	770901-801231	880131-901220				1
<b>Direct</b>	771202-801231	880131-901220				1
	Long term fill from other years used for period from 790208 to 790220.					
PA Wilkes-Barre/ Scranton/Avoca	14777	N 41 20	W 75 44	284	+5(R)	
PA Williamsport	14778	N 41 15	W 76 55	158	+5(R)	6
	Long term fill from other years used for period from 820728 to 820810.					
PI Guam	41415	N 13 33	E 144 50	111	-10(K)	
<b>Global</b>	780701-840831	880101-901231				1
<b>Direct</b>	781107-840831	880101-901231				1
PR San Juan	11641	N 18 26	W 66 0	3	+4(Q)	5
<b>Global</b>	790109-791231					1
<b>Direct</b>	790118-800930					1
RI Providence	14765	N 41 44	W 71 26	16	+5(R)	5
SC Charleston	13880	N 32 54	W 80 2	12	+5(R)	2,5
<b>Global</b>	520701-751231					1
SC Columbia	13883	N 33 57	W 81 7	65	+5(R)	
SC Greenville/ Spartanburg	03870	N 34 54	W 82 13	292	+5(R)	
SD Huron	14936	N 44 23	W 98 13	390	+6(S)	
SD Pierre	24025	N 44 23	W 100 17	528	+6(S)	5
	This station has little or no hourly precipitation data.					
SD Rapid City	24090	N 44 3	W 103 4	964	+7(T)	2
SD Sioux Falls	14944	N 43 34	W 96 44	432	+6(S)	
TN Bristol	13877	N 36 29	W 82 24	465	+5(R)	
TN Chattanooga	13882	N 35 2	W 85 12	211	+5(R)	
TN Knoxville	13891	N 35 49	W 83 59	268	+5(R)	
TN Memphis	13893	N 35 3	W 90 00	81	+6(S)	
TN Nashville	13897	N 36 7	W 86 41	180	+6(S)	2
<b>Global</b>	520701-751231	880101-901231				1
<b>Direct</b>	880101-901231					1
TX Abilene	13962	N 32 25	W 99 41	544	+6(S)	

TX Amarillo	23047	N 35 14	W 101 42	1093	+6(S)	
TX Austin	13958	N 30 17	W 97 42	179	+6(S)	
TX Brownsville	12919	N 25 54	W 97 26	6	+6(S)	2,9
<b>Global</b>	520701-751231	770105-850331	880103-901231			1
<b>Direct</b>	770609-850331	880103-901231				1
<b>Diffuse</b>	770616-820411					1
TX Corpus Christi	12924	N 27 46	W 97 30	12	+6(S)	2
TX El Paso	23044	N 31 48	W 106 24	1194	+7(T)	2
<b>Global</b>	520701-751231	770117-801231	880101-90123			1
<b>Direct</b>	780414-801231	880101-901231				1
TX Fort Worth	03927	N 32 54	W 97 2	168	+6(S)	2
<b>Global</b>	520701-740731					1
TX Houston	12960	N 29 58	W 95 21	29	+6(S)	7
	Long term fill from other years used for period from 690531 to 7001201.					
TX Lubbock	23042	N 33 39	W 101 49	992	+6(S)	
TX Lufkin	93987	N 31 14	W 94 45	86	+6(S)	6
	This station has little or no hourly precipitation data.					
	Long term fill from other years used for period from 890930 to 891201.					
TX Midland/Odessa	23023	N 31 57	W 102 11	872	+6(S)	2,5
<b>Global</b>	770101-801231	880101-901230				1
<b>Direct</b>	780301-801231	880101-901230				1
TX Port Arthur	12917	N 29 57	W 94 1	5	+6(S)	
TX San Angelo	23034	N 31 22	W 100 30	580	+6(S)	
TX San Antonio	12921	N 29 32	W 98 28	240	+6(S)	5
<b>Global</b>	810401-820331					1
<b>Direct</b>	810401-820331					1
	Solar radiation data from Trinity University; collected at Lat N 29 15 Long W 98 30.					
TX Victoria	12912	N 28 51	W 96 55	32	+6(S)	2,7
TX Waco	13959	N 31 37	W 97 13	152	+6(S)	
TX Wichita Falls	13966	N 33 58	W 98 29	303	+6(S)	
UT Cedar City	93129	N 37 42	W 113 6	1710	+7(T)	
	This station has little or no hourly precipitation data.					
UT Salt Lake City	24127	N 40 47	W 111 57	1286	+7(T)	2
<b>Global</b>	770103-850719	880101-901231				1
<b>Direct</b>	781101-850719	880101-901231				1
VA Lynchburg	13733	N 37 20	W 79 12	281	+5(R)	

VA Norfolk	13737	N 36 54	W 76 12	7	+5 (R)	
VA Richmond	13740	N 37 30	W 77 20	50	+5 (R)	
VA Roanoke	13741	N 37 19	W 79 58	350	+5 (R)	
VA Sterling	93738	N 38 57	W 77 27	88	+5 (R)	2
	This station(Washington-Dulles Airport) has little or no hourly precipitation data.					
	<b>Global</b>	530801--751231	770112-841231	880101-880128		1
	<b>Direct</b>	790101-841231	880101-880105			1
	<b>Diffuse</b>	780706-820516				1
VT Burlington	14742	N 44 28	W 73 9	101	+5 (R)	5
	<b>Global</b>	770103-850109	880101-901231			1
	<b>Direct</b>	780301-850109	880101-901231			1
WA Olympia	24227	N 46 58	W 122 54	59	+8 (U)	
WA Quillayute	94240	N 47 57	W 124 33	55	+8 (U)	
WA Seattle/Tacoma	24233	N 47 27	W 122 18	122	+8 (U)	2,9
	<b>Global</b>	511201-751231	770511-850925	880101-901231		1
	<b>Direct</b>	780516-850925	880101-901231			1
	<b>Diffuse</b>	770511-820510				1
WA Spokane	24157	N 47 38	W 117 32	718	+8 (U)	2
WA Yakima	24243	N 46 34	W 120 32	324	+8 (U)	2
WI Eau Claire	14991	N 44 52	W 91 29	271	+6 (S)	
	This station has little or no hourly precipitation data.					
WI Green Bay	14898	N 44 29	W 88 8	214	+6 (S)	2
WI La Crosse	14920	N 43 52	W 91 15	207	+6 (S)	5
WI Madison	14837	N 43 8	W 89 20	262	+6 (S)	5
	<b>Global</b>	520701-751231	770112-851031	880101-901231		1
	<b>Direct</b>	770930-851031	880101-901231			1
WI Milwaukee	14839	N 42 57	W 87 54	205	+6 (S)	
WV Charleston	13866	N 38 22	W 81 36	310	+5 (R)	
WV Elkins	13729	N 38 53	W 79 51	594	+5 (R)	
WV Huntington	03860	N 38 22	W 82 33	252	+5 (R)	7
	Long term fill from other years used for period from 610103 to 611201.					
WY Casper	24089	N 42 55	W 106 28	1627	+7 (T)	
WY Cheyenne	24018	N 41 9	W 104 49	1867	+7 (T)	
WY Lander	24021	N 42 49	W 108 44	1694	+7 (T)	2,5,9
	<b>Global</b>	770101-850924	880114-901231			1
	<b>Direct</b>	780601-850924	880114-901231			1

WY Rock Springs	24027	N 41 36	W 109 4	2055	+7(T)	5
WY Sheridan	24029	N 44 46	W 106 58	1208	+7(T)	

Footnotes:

- 1 Indicates periods when solar radiation was being measured.
- 2 Precipitable water values were obtained from radiosonde data for one or more years.
- 3 The period of record for this station is less than 30 years (1961-1988). (Eagle CO, Cut Bank MT, Minot ND, Tucumcari NM, Burns OR)
- 4 The period of record for this station is less than 30 years (1961-1989). (Miles City MT)
- 5 In order to maintain a serially complete record of solar radiation, one or more of the meteorological elements required as input to the METSTAT model (cloud cover and precipitable water (derived from temperature, relative humidity and pressure)) were obtained from other years for 1 to 10 days.
- 6 Same as 5 except 11 to 100 days of data were obtained in this manner.
- 7 Same as 5 except 101 to 400 days of data were obtained in this manner.
- 8 SAMSON Version 1.0 contained time zone errors for this station; these were corrected in version 1.1
- 9 Measured solar radiation values for this station were unrealistically low for one to three months; these values were replaced by modelled data in SAMSON version 1.1.
- 10 A lack of precipitation data prevented inclusion of this station in the database.