



Wet-Bulb Temperature Selection

This section contains tables that are commonly used for the design and sizing of evaporative cooling equipment, reproduced from Chapter 14 of the 2013 ASHRAE Handbook-Fundamentals.

> Overview

The data presented in the tables represents different climatic conditions throughout North America. Dry-bulb temperature data represents the sensible component of outdoor air, whereas wet-bulb temperature data represents the amount of moisture that the air can evaporate. Evaporative cooling equipment selection is based on wet-bulb temperature, as units rely on the process of evaporation to reject heat.

Columns in the table are organized to present dry-bulb and wet-bulb temperatures corresponding to 0.4%, 1% and 2% annual cumulative frequency of occurrence. Each temperature in a column represents the value that is exceeded by the indicated percentage of hours in a year (8,760). For instance, according to *Appendix: Design Conditions for Selected Locations* from the 2013 ASHRAE Handbook-Fundamentals, the wet-bulb temperature in Huntsville, Alabama will exceed 78.4°F as shown in Evaporation WB/MCDB column on average 35 hours (0.4%) in any given year. As cooling systems must be designed to meet the peak cooling load, most comfort cooling and light industrial application designs are based on 0.4% annual cumulative frequency of occurrence.



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APPENDIX: DESIGN CONDITIONS FOR SELECTED LOCATIONS

Meaning of acronyms: Lat: Latitude, ° Long: Longitude, ° Elev: Elevation, ft
 DB: Dry bulb temperature, °F DP: Dew point temperature, °F WS: Wind speed, mph
 MCWB: Mean coincident wet bulb temperature, °F MCDB: Mean coincident dry bulb temperature, °F HR: Humidity ratio, grains of moisture per lb of dry air
 HDD and CDD 65: Annual heating and cooling degree-days, base 65°F, °F-day

Station	Lat	Long	Elev	Heating DB		Cooling DB/MCWB			Evaporation WB/MCDB		Dehumidification DP/HR/MCDB		Extreme Annual WS		Heat/Cool. Degree-Days											
				99.6%	99%	0.4% DB / MCWB	1% DB / MCWB	2% DB / MCWB	0.4% WB / MCDB	1% WB / MCDB	0.4% DP / HR / MCDB	1% DP / HR / MCDB	1% 1% / 2.5% / 5%	HDD / CDD 65	HDD / CDD 65											
United States of America																										
Alabama																										
AUBURN OPELIKA ROBE	32.62N	85.43W	778	23.5	27.6	93.9	74.3	91.4	74.2	90.2	73.9	78.0	88.4	77.0	87.2	75.1	135.7	81.9	73.5	128.4	80.4	17.6	15.5	12.9	2377	1953
BIRMINGHAM MUNI	33.56N	86.75W	630	20.5	24.8	95.5	74.9	93.0	74.5	90.9	74.3	78.4	88.5	77.5	87.6	75.9	138.7	82.6	74.8	133.3	81.7	18.4	16.4	14.5	2653	2014
CAIRNS AAF	31.28N	85.71W	302	26.6	30.0	96.2	76.9	94.2	76.5	92.2	76.1	81.1	89.4	79.8	88.3	77.4	152.8	84.4	77.4	144.3	82.8	16.9	14.3	12.4	1785	2471
DOTHAN RGNL	31.32N	85.45W	354	27.4	30.7	96.6	76.1	93.4	75.3	91.5	75.2	79.9	89.7	78.7	88.3	77.4	144.3	83.3	76.3	138.9	82.5	19.3	17.5	15.5	1743	2512
GADSDEN MUNI	33.97N	86.08W	568	18.5	21.5	93.5	74.6	91.3	74.5	90.0	74.3	78.1	89.1	77.1	88.0	74.9	133.6	83.6	73.3	126.5	82.1	16.7	14.2	12.3	3216	1586
HUNTSVILLE/MADISON	34.64N	86.79W	643	18.4	22.5	94.3	75.1	92.8	74.6	90.6	74.1	78.4	88.4	77.6	87.6	75.9	138.7	82.6	74.9	133.8	81.7	20.8	18.6	16.7	3093	1819
MAXWELL AFB	32.38N	86.56W	171	27.0	30.2	97.3	76.7	95.4	76.6	93.5	76.3	80.6	91.2	79.7	90.2	78.0	146.4	84.9	77.0	141.7	84.2	18.0	15.6	13.1	1898	2615
MOBILE/BATES FIELD	30.69N	88.25W	220	27.7	31.0	93.8	76.9	92.0	76.5	90.5	76.1	80.1	88.5	79.1	87.3	78.0	146.6	83.4	77.0	141.9	82.5	20.2	18.2	16.4	1652	2499
MONTGOMERY/DANNELLY	32.30N	86.39W	203	24.3	27.6	96.8	76.1	94.5	76.0	92.6	75.7	79.7	90.7	78.6	89.2	76.8	140.7	84.3	75.8	135.9	83.2	18.6	16.5	14.3	2149	2320
NORTHWEST ALABAMA R	34.75N	87.61W	561	19.1	23.1	96.5	75.3	93.4	74.9	91.2	74.6	78.7	89.7	77.8	88.6	75.7	137.1	83.2	74.9	133.4	82.3	18.8	16.8	14.7	3045	1876
TUSCALOOSA RGNL	33.21N	87.62W	187	21.9	26.2	97.0	76.0	94.3	75.9	92.3	75.6	79.5	90.8	78.5	89.3	76.8	140.6	83.3	75.5	134.3	82.7	17.2	14.8	12.9	2477	2163
Alaska																										
FAIRBANKS INTL ARPT	64.82N	147.86W	453	-43.5	-38.3	81.3	61.0	78.3	60.0	74.8	58.6	63.2	76.9	61.6	74.2	58.4	74.1	65.4	56.6	69.4	64.3	17.2	14.9	12.3	13517	72
FT. RICHARDSON/BRYA	61.27N	149.65W	377	-19.6	-14.0	74.8	60.3	71.6	58.9	68.3	57.1	61.7	72.7	59.6	69.5	56.3	68.5	65.4	54.9	65.1	62.6	19.3	14.6	11.5	10677	5
ANCHORAGE/ELMENDORF	61.25N	149.79W	213	-15.4	-10.4	73.9	58.5	71.5	57.7	68.1	56.3	60.8	70.0	59.3	67.3	57.3	70.6	61.1	55.5	66.1	60.3	19.0	15.9	12.9	10313	11
ANCHORAGE LAKE HOOD	61.18N	149.96W	131	-8.6	-4.0	73.9	59.5	71.1	58.4	67.9	57.0	61.1	71.7	59.5	68.0	56.6	68.7	63.1	55.1	65.0	62.4	18.5	16.0	13.0	9764	16
ANCHORAGE INTL ARPT	61.18N	149.99W	131	-9.3	-4.8	71.5	58.9	68.3	57.4	65.8	56.2	60.4	68.9	58.9	66.2	56.2	68.8	63.2	55.2	65.2	61.5	20.8	18.5	16.7	10121	5
MERRILL FLD	61.22N	149.86W	138	-11.3	-7.8	73.0	59.4	70.4	58.3	67.9	57.1	61.3	70.4	59.8	67.6	57.2	70.2	63.1	55.6	66.1	62.1	15.2	12.3	10.6	10045	10
JUNEAU	58.36N	134.58W	23	4.5	9.0	73.8	59.6	70.1	58.2	66.5	56.7	61.1	71.3	59.5	67.5	57.2	69.9	61.8	55.9	66.6	60.6	26.7	23.7	19.8	8304	3
Arizona																										
CASA GRANDE MUNI	32.96N	111.77W	1463	32.1	35.3	108.5	69.5	106.8	69.1	104.9	68.7	73.7	94.4	73.0	94.6	69.8	115.9	79.3	66.9	104.6	79.8	20.5	17.7	15.0	1508	3545
DAVIS MONTHAN AFB	32.17N	110.88W	2703	32.3	35.7	105.8	64.8	103.7	64.8	100.4	64.4	73.3	83.2	72.3	84.6	71.8	129.9	76.7	69.7	120.8	76.6	20.4	18.0	16.0	1405	3345
FLAGSTAFF AIRPORT	35.14N	111.67W	7018	3.9	9.5	85.7	55.6	83.3	55.1	81.2	54.9	61.3	73.0	60.2	72.5	57.9	92.2	63.7	56.5	88.5	63.3	23.7	19.7	17.2	6830	123
LUKE AFB	33.54N	112.38W	1086	35.3	37.8	111.0	70.8	108.6	70.7	106.4	70.4	77.0	97.8	75.8	96.5	72.2	123.9	82.7	70.4	116.3	83.7	20.0	17.3	14.7	1193	3979
PHOENIX/SKY HARBOR	33.44N	111.99W	1106	38.7	41.6	110.3	69.6	108.3	69.4	106.4	69.3	75.8	95.8	75.0	95.3	71.3	120.1	82.3	69.4	112.8	84.5	18.5	16.1	13.0	923	4626
ERNEST A LOVE FLD	34.65N	112.42W	3052	17.7	20.7	94.4	60.8	91.5	60.2	90.0	59.8	65.5	81.4	65.4	80.1	61.3	104.4	70.4	61.3	97.8	70.0	21.0	18.6	16.8	4174	982
TUCSON INTL	32.13N	110.96W	2556	31.6	34.3	106.0	66.2	103.6	66.0	101.5	65.7	72.6	88.6	71.8	88.0	69.3	118.7	76.2	68.0	113.3	76.6	21.5	18.8	16.8	1416	3273
YUMA INTL AIRPORT	32.65N	114.60W	207	42.0	44.8	110.7	73.8	108.6	73.4	106.6	72.7	79.9	96.8	78.5	96.1	75.5	134.6	87.0	73.8	127.1	88.2	20.8	18.4	16.3	666	4728
YUMA MCAS	32.62N	114.60W	213	41.6	44.7	110.9	73.1	108.8	72.8	107.3	72.3	79.7	96.8	78.5	95.8	75.3	133.8	87.0	73.4	125.2	88.1	20.9	18.5	16.4	665	4717
Arkansas																										
BENTONVILLE MUNI THA	36.35N	94.22W	1296	10.3	16.1	94.6	74.7	91.3	75.0	89.9	74.4	77.6	89.8	76.5	88.2	73.4	130.3	84.3	72.7	127.5	83.5	19.6	17.5	15.7	4045	1372
DRAKE FLD	36.01N	94.17W	1260	10.0	16.2	95.1	74.9	92.5	74.6	90.2	74.3	77.9	89.3	76.8	88.1	74.6	135.9	83.3	73.2	129.5	82.1	20.6	18.7	17.2	3897	1424
FORT SMITH MUNI	35.33N	94.37W	463	17.0	21.7	99.4	76.6	96.8	76.5	93.9	76.1	79.7	92.6	78.6	91.1	76.4	140.0	84.7	75.3	135.1	83.8	20.5	18.1	16.2	3158	2061
JONESBORO MUNI	35.83N	90.65W	276	16.2	19.5	97.0	77.0	94.0	76.3	91.9	75.7	80.2	91.2	79.1	90.2	77.2	143.1	85.7	75.4	134.6	84.2	21.9	19.0	17.2	3504	1952
ADAMS FLD	34.75N	92.23W	256	19.3	23.9	98.7	77.1	95.6	77.3	93.1	76.5	80.2	92.0	79.2	91.0	77.1	142.6	85.3	76.1	137.7	84.3	18.8	16.9	15.3	2918	2170
LITTLE ROCK AFB	34.92N	92.15W	312	17.5	21.7	99.5	77.4	96.7	77.6	93.8	77.0	81.1	92.4	80.1	91.3	78.6	150.2	86.1	77.2	143.0	85.3	17.8	15.2	12.9	3108	2069
LITTLE ROCK/ADAMS F	34.83N	92.25W	568	18.5	23.3	95.4	76.6	93.0	76.3	90.9	75.6	79.1	90.2	78.1	88.8	76.0	138.9	84.7	75.0	134.1	83.9	18.5	16.5	14.7	3158	1938
GRIDER FLD	34.18N	91.94W	213	21.3	25.5	97.3	77.4	95.0	77.4	92.9	76.8	80.4	91.9	79.3	91.0	77.3	143.0	85.9	76.0	136.9	84.9	18.9	17.1	15.3	2700	2230
ROGERS MUNI CARTER F	36.37N	94.10W	1352	10.1	15.9	93.3	73.6	91.0	73.9	89.5	73.5	77.1	88.1	76.0	86.4	73.3	130.4	81.9	72.7	127.7	81.4	21.8	19.0	17.0	4040	1385
SMITH FLD	36.19N	94.48W	1194	10.4	16.2	95.6	74.7	92.6	74.5	90.2	74.2	77.5	90.2	76.4	88.4	73.3	129.4	84.6	72.6	126.3	83.8	23.3	20.2	18.2	3970	1441
TEXARKANA RGNL WEBB	33.45N	94.01W	400	23.3	27.1	98.8	76.3	96.3	76.3	93.5	76.1	79.5	91.4	78.7	90.2	76.6	140.8	84.3	75.5	135.5	83.4	18.8	16.9	15.0	2440	2335
California																										
ALAMEDA(USN)	37.73N	122.32W	13	39.9	42.1	103.8	64.7	79.0	63.6	75.4	62.5	66.4	78.7	65.1	76.1	62.3	84.0	68.6	61.0	80.3	67.6	20.6	18.5	16.7	2105	209
BAKERSFIELD/MEADOWS	35.43N	119.06W	492	32.2	35.0	102.8	71.0	100.4	69.5	98.2	68.6	73.6	97.5	72.0	95.7	65.2	94.8	67.4	62.9	87.4	85.2	18.4	15.9	13.2	2095	2253
BEALE AFB	39.14N	121.44W	112	32.2	34.9	100.8	70.6	98.0	69.2	95.1	68.1	73.1	96.0	71.3	93.6	64.4	91.1	83.7	63.0	86.5	81.4	21.7	18.5	15.9	2356	1532
BURBANK/GLENDALE	34.20N	118.36W	732	38.6																						

Meaning of acronyms:
 DB: Dry bulb temperature, °F
 MCWB: Mean coincident wet bulb temperature, °F
 WB: Wet bulb temperature, °F
 HR: Humidity ratio, grains of moisture per lb of dry air
 HDD and CDD 65: Annual heating and cooling degree-days, base 65°F, °F-day
 Elev: Elevation, ft
 WS: Wind speed, mph
 Long: Longitude, °
 Lat: Latitude, °
 DP: Dew point temperature, °F
 MCDB: Mean coincident dry bulb temperature, °F
 WB/MCWB: Wet bulb/mean coincident wet bulb temperature, °F
 DB/MCWB: Dry bulb/mean coincident dry bulb temperature, °F
 WB/MCDB: Wet bulb/mean coincident dry bulb temperature, °F
 DP/HR/MCDB: Dew point/humidity ratio/mean coincident dry bulb temperature, °F
 DP/HR/MCDB: Dew point/humidity ratio/mean coincident dry bulb temperature, °F
 1%: 1% humidity ratio, grains of moisture per lb of dry air
 0.4%: 0.4% humidity ratio, grains of moisture per lb of dry air
 1%: 1% humidity ratio, grains of moisture per lb of dry air
 0.4%: 0.4% humidity ratio, grains of moisture per lb of dry air
 Annual WS: Annual wet bulb temperature, °F
 HDD / CDD 65: Heating and cooling degree-days, base 65°F, °F-day
 Heat/Cool. Degree-Days: Heating and cooling degree-days, base 65°F, °F-day

Station	Lat	Long	Elev	Heating DB		Cooling DB/MCWB			Evaporation WB/MCDB			Dehumidification DP/HR/MCDB			Extreme Annual WS		Heat/Cool. Degree-Days									
				99.6%	99%	0.4%	1%	2%	0.4%	1%	1%	0.4%	1%	1%	0.4%	1%		1%	2.5%	15%						
VALDOSTA RGNL	30.78N	83.28W	197	27.6	30.6	95.6	77.3	93.5	76.5	92.1	76.1	80.4	89.9	79.4	88.8	78.5	149.0	83.6	77.1	142.2	82.6	16.9	14.7	12.8	1527	2559
ROBINS AFB	32.63N	83.60W	295	25.0	27.9	96.9	75.5	94.6	75.4	91.4	74.8	79.4	90.4	78.4	88.7	77.0	142.0	83.1	75.4	134.3	81.4	18.4	16.0	13.0	2130	2231
Hawaii																										
KALAELOA ARPT	21.30N	158.07W	33	59.5	61.8	90.9	73.2	89.9	73.2	88.9	73.1	78.0	85.8	76.8	85.3	75.4	133.4	82.9	74.1	127.2	82.3	19.4	17.7	16.2	0	4450
HILO INTL	19.72N	155.05W	36	61.5	62.8	85.7	74.1	84.7	73.8	83.9	73.6	76.6	82.1	75.9	81.5	75.1	131.7	79.2	74.1	127.5	78.6	17.4	15.7	13.3	0	3264
HONOLULU INTL	21.33N	157.94W	16	62.0	63.9	89.8	74.0	88.9	73.6	88.1	73.3	77.2	84.8	76.3	84.1	75.0	131.2	81.2	73.8	126.0	80.6	22.2	20.2	18.8	0	4679
KANEOHE BAY (MCAF)	21.45N	157.77W	20	64.0	65.9	84.9	74.4	84.1	74.1	83.3	73.8	77.1	81.9	76.2	81.5	75.3	132.6	80.2	74.4	128.8	79.9	18.8	17.0	15.8	0	4243
Idaho																										
BOISE MUNICIPAL	43.57N	116.22W	2867	8.7	15.5	98.6	63.9	95.4	62.9	92.5	61.9	66.2	92.3	64.7	90.5	57.2	77.5	71.6	54.9	71.3	71.4	21.9	19.0	17.1	5453	937
CALDWELL (AWOS)	43.64N	116.63W	2431	11.5	16.3	97.0	66.4	93.1	64.7	90.5	63.8	68.2	92.3	66.5	89.9	59.3	82.6	77.8	56.9	75.4	77.4	22.1	19.1	16.9	5729	660
COEUR D'ALENE AIR TE	47.77N	116.82W	2320	5.5	10.3	91.4	63.0	88.5	62.4	84.2	60.9	63.8	86.4	64.0	84.0	57.4	76.7	71.3	55.4	71.3	70.0	22.2	18.9	16.7	6908	300
IDAHO FALLS RGNL	43.52N	112.07W	4744	-6.7	-0.3	91.5	60.9	89.6	60.6	86.4	59.5	64.5	83.4	62.8	82.6	57.8	85.1	69.9	55.4	78.0	68.3	27.1	24.2	20.6	7701	272
JOSHUA FLD MAGIC VA	42.48N	114.49W	4190	9.0	12.2	94.7	63.2	91.2	62.3	89.7	61.9	66.4	88.6	64.9	86.4	58.8	86.5	75.5	56.5	79.6	74.6	27.9	24.6	20.9	6128	729
LEWISTON NEZ PERCE	46.38N	117.01W	1437	12.0	18.6	98.2	65.3	94.5	64.4	90.9	63.1	67.5	92.4	65.9	90.0	59.4	79.7	72.5	57.1	73.4	71.8	20.8	17.9	15.0	5020	839
POCATELLO MUNICIPAL	42.92N	112.57W	4478	-2.0	3.8	94.6	61.6	91.4	60.9	88.6	60.0	65.1	86.8	63.4	84.8	58.2	85.5	71.0	55.4	77.2	70.7	28.3	25.3	22.3	6938	426
Illinois																										
AURORA MUNICIPAL	41.77N	88.48W	715	-5.6	0.5	90.4	74.2	88.2	73.4	84.4	71.6	77.5	86.4	75.8	83.9	74.7	133.5	82.9	72.9	125.5	80.8	25.9	22.9	19.8	6508	701
CHICAGO/MIDWAY	38.57N	90.16W	413	9.1	12.4	93.4	77.1	91.3	76.2	90.2	75.6	80.1	90.3	78.4	88.8	77.2	143.9	85.1	72.9	134.2	83.9	20.7	18.5	16.6	4545	1038
CHICAGO/O'HARE ARPT	41.79N	87.75W	617	0.2	5.4	91.5	74.6	89.5	73.3	86.5	72.0	80.0	88.1	76.1	85.1	74.9	134.0	84.1	73.0	125.4	82.0	24.5	21.2	19.2	5872	1034
DECATUR	39.98N	88.87W	679	0.9	6.6	92.9	76.6	90.6	75.5	88.3	74.3	79.3	89.7	77.8	87.7	76.2	140.3	85.9	74.8	133.5	84.2	24.8	21.6	19.7	5442	1100
GLENVIEW NAS	42.08N	87.82W	653	-0.7	4.8	93.7	75.0	90.2	73.3	87.1	77.9	82.9	90.2	76.2	87.0	74.2	140.7	82.1	72.4	123.1	83.6	20.2	18.0	16.2	6104	909
MOLINE/QUAD CITY	41.47N	90.52W	594	-3.9	1.3	92.9	76.1	90.2	74.8	87.5	73.3	79.1	89.2	77.3	86.9	76.2	139.6	85.2	74.5	131.9	83.1	24.1	20.3	18.3	6074	994
GREATER PEORIA MUNI	40.67N	89.68W	663	-1.5	3.3	92.2	76.2	89.8	75.1	87.2	73.6	79.2	88.5	77.5	86.6	76.4	141.4	85.0	74.8	133.6	83.0	23.4	19.9	18.0	5756	1040
QUINCY RGNL BALDWIN	39.94N	91.19W	768	-0.2	4.8	92.7	76.5	90.1	75.3	87.7	74.1	78.6	89.1	77.4	87.4	75.5	137.2	84.8	74.2	131.3	83.3	24.5	20.8	18.9	5501	1101
GREATER ROCKFORD	42.20N	89.09W	745	-5.8	0.0	91.1	74.6	88.2	73.2	85.5	71.7	78.0	87.4	76.0	84.4	75.1	135.6	83.5	73.2	126.9	81.7	24.4	20.9	19.0	6608	775
SCOTT AFB MIDAMERIC	38.53N	89.83W	459	9.0	12.4	94.8	76.5	91.4	75.5	90.1	75.2	80.3	88.5	78.7	87.2	78.6	151.0	84.6	76.6	141.3	83.1	23.1	19.8	17.7	4579	1401
SPRINGFIELD/CAPITAL	39.85N	89.63W	614	6.4	9.4	92.4	76.6	90.3	75.5	88.0	74.1	79.4	89.4	77.9	87.2	76.4	141.2	85.9	74.9	134.0	84.1	24.7	21.4	19.2	5360	1137
UNIV OF ILLINOIS WI	40.04N	88.28W	764	-0.5	4.2	92.0	76.0	90.0	75.1	87.7	74.1	79.6	88.8	77.7	86.5	76.9	144.3	86.1	75.0	135.0	83.3	27.5	24.6	21.8	5681	1008
DUPAGE	41.91N	88.25W	758	-2.5	1.6	90.3	74.9	87.9	74.0	84.4	72.2	78.2	87.0	76.4	84.3	75.3	136.3	84.1	73.4	127.6	81.4	24.6	21.2	19.1	6429	738
Indiana																										
EVANSVILLE REGIONAL	38.04N	87.54W	387	8.1	13.8	93.7	76.2	91.4	75.7	89.7	74.9	79.4	89.9	78.2	88.1	76.4	139.9	85.2	75.3	134.3	83.7	20.6	18.3	16.4	4424	1437
FORT WAYNE/BAER FLD	41.01N	85.21W	827	-0.7	5.0	90.8	74.3	88.2	73.1	85.5	71.9	76.4	86.8	75.9	84.0	74.8	134.5	82.9	73.2	127.4	80.9	24.8	21.0	18.9	5991	825
GRISSOM ARB	40.65N	86.15W	810	0.2	5.4	91.6	75.3	88.8	74.6	86.2	73.0	79.4	87.9	77.3	85.3	76.9	144.5	84.7	74.9	134.8	82.3	25.0	20.9	18.7	5777	978
INDIANAPOLIS/L-MUN	39.71N	86.27W	807	2.0	8.1	91.0	75.1	88.7	74.0	86.4	72.9	78.2	87.5	76.8	85.4	75.3	136.8	83.6	74.0	130.6	82.0	24.7	20.9	18.8	5272	1087
PURDUE UNIV	40.41N	86.94W	636	0.1	5.7	91.6	75.5	89.9	74.5	87.5	73.3	78.6	88.3	77.1	86.1	75.5	136.6	84.3	74.1	130.3	82.4	22.8	19.9	18.2	5524	1014
MONROE CO	39.14N	86.62W	846	3.5	9.7	90.7	75.5	89.6	75.4	87.5	74.1	78.6	86.8	77.4	85.9	75.5	137.7	83.2	74.7	134.0	82.3	19.4	17.3	15.7	5047	1015
SOUTH BEND/ST JOSEPH	41.71N	86.33W	774	0.2	5.8	90.6	74.0	88.0	72.5	85.1	71.3	77.3	86.4	75.4	83.7	74.5	133.0	83.0	72.8	125.2	80.7	23.8	20.4	18.5	6182	796
TERRE HAUTE INTL HU	39.45N	87.30W	591	1.1	8.4	91.8	76.4	90.0	75.7	87.8	74.5	79.5	88.7	77.9	86.7	76.8	142.7	85.3	75.1	134.5	83.3	23.0	19.6	17.9	5166	1078
Iowa																										
AMES MUNI	41.99N	93.62W	955	-6.4	-0.4	90.3	76.2	90.3	74.8	84.4	72.8	78.9	87.0	77.1	85.1	76.6	143.7	84.5	74.7	134.4	82.5	26.4	23.5	20.2	6547	787
ANKENY REGIONAL ARP	41.69N	93.53W	909	-3.7	1.2	93.3	75.4	88.1	74.8	87.6	73.4	78.3	88.4	76.9	86.7	75.4	137.7	84.2	73.4	128.3	82.9	21.7	18.9	17.0	5992	1005
BOONE MUNI	42.05N	93.84W	1161	-5.8	0.2	91.0	77.6	89.5	76.5	86.1	74.0	80.5	88.3	78.5	85.6	78.7	155.8	86.2	76.6	145.0	84.4	26.3	23.3	20.3	6424	882
CEGAR RAPIDS MUNI	41.88N	91.71W	873	-8.4	-2.8	91.0	76.0	88.0	74.4	85.1	72.6	78.3	86.9	76.9	85.0	76.2	141.3	83.9	74.3	132.4	81.9	26.5	23.6	20.4	6705	784
DAVENPORT MUNI	41.61N	90.59W	755	-5.8	0.3	90.1	76.0	88.0	74.0	84.3	72.9	78.3	86.8	76												

Meaning of acronyms:
 DB: Dry bulb temperature, °F
 MCWB: Mean coincident wet bulb temperature, °F
 WB: Wet bulb temperature, °F
 Lat: Latitude, °
 DP: Dew point temperature, °F
 MCDB: Mean coincident dry bulb temperature, °F
 Long: Longitude, °
 HR: Humidity ratio, grains of moisture per lb of dry air
 HDD and CDD 65: Annual heating and cooling degree-days, base 65°F, °F-day
 Elev: Elevation, ft
 WS: Wind speed, mph
 F-day: Annual heating and cooling degree-days, base 65°F, °F-day

Station	Lat	Long	Elev	Heating DB		Cooling DB/MCWB			Evaporation WB/MCDB			Dehumidification DP/HR/MCDB			Extreme Annual WS		Heat/Cool. Degree-Days HDD / CDD 65										
				99.6%	99%	0.4%	1%	2%	0.4%	1%	1%	0.4%	1%	1%	2.5%	15%											
				DB / MCWB	DB / MCWB	DB / MCWB	DB / MCWB	DB / MCWB	WB / MCDB	WB / MCDB	WB / MCDB	DP / HR / MCDB	DP / HR / MCDB	DP / HR / MCDB	WS	WS											
Indiana																											
TOPEKA/BILLARD MUNI	39.07N	95.63W	886	3.1	8.7	97.1	76.2	93.9	75.9	91.0	75.0	79.0	91.3	77.8	90.1	75.5	137.9	86.3	74.2	132.1	84.7	23.5	20.1	18.3	4902	1446	
WICHITA/MID-CONTINE	37.65N	97.43W	1339	7.4	12.2	100.1	73.7	97.0	73.8	93.5	73.7	77.7	90.5	76.5	89.5	74.2	134.2	83.6	72.9	128.5	82.1	28.2	25.6	23.4	4464	1682	
COL JAMES JABARA	37.75N	97.22W	1421	7.1	11.5	99.4	74.0	96.8	74.4	92.6	73.9	77.4	91.2	76.4	89.7	73.2	130.2	83.4	72.5	126.9	82.4	27.7	25.0	22.6	4495	1577	
Kentucky																											
BOWLING GREEN WARRE	36.98N	86.44W	538	11.2	16.7	93.4	75.0	91.1	75.2	89.5	74.7	78.4	88.6	77.4	87.3	75.5	136.0	83.6	74.5	131.5	82.5	19.8	17.9	16.1	4063	1427	
CINCINNATI/GREATER	39.04N	84.67W	883	5.4	11.3	91.4	74.2	89.2	73.5	86.7	72.8	77.4	87.1	76.1	85.0	74.5	133.3	82.3	73.2	127.6	80.7	21.8	19.1	17.2	4954	1107	
FORT CAMPBELL (AAF)	36.67N	87.50W	571	12.3	18.1	93.3	76.0	91.0	76.0	89.8	75.8	79.6	87.6	76.4	86.5	77.3	145.3	83.0	76.6	141.8	83.2	20.1	17.7	15.7	3818	1548	
HENDERSON CITY CO	37.81N	87.68W	387	8.8	14.2	93.2	76.4	91.1	76.0	90.0	75.4	79.4	91.0	78.1	89.0	75.5	135.4	86.9	74.6	131.3	85.8	21.0	18.7	16.7	4444	1384	
LEXINGTON/BLUE GRAS	38.04N	84.61W	988	8.3	13.6	91.6	73.9	89.6	73.6	87.3	72.8	77.3	87.3	76.1	85.4	74.2	132.6	82.7	73.1	127.5	81.1	20.3	18.0	16.3	4567	1201	
BOWMAN FLD	38.23N	85.66W	558	9.7	15.7	93.3	75.1	91.1	74.7	89.6	74.0	78.5	88.6	77.4	87.3	75.4	136.0	83.3	74.6	132.0	82.7	18.7	16.8	14.7	4201	1459	
LOUISVILLE/STANDIFO	38.18N	85.73W	489	10.2	15.9	93.8	75.3	91.5	75.0	89.6	74.2	78.7	89.1	77.5	87.9	75.7	136.8	84.7	74.4	131.0	83.2	21.0	18.7	16.8	4109	1572	
SOMERSET PULASKI CO	37.05N	84.60W	928	12.3	17.9	94.6	74.9	91.6	74.3	90.3	73.7	78.0	90.5	76.8	88.4	74.1	131.8	84.1	73.0	126.9	82.4	17.9	15.4	12.6	3866	1460	
Louisiana																											
ESLER RGNI	31.40N	92.30W	118	26.6	28.3	97.8	76.7	95.3	77.2	93.0	76.7	80.3	89.7	79.5	89.6	78.3	147.8	83.8	77.1	141.8	83.3	16.5	13.8	12.0	2004	2485	
ALEXANDRIA INT	31.34N	92.56W	79	27.4	29.9	97.2	77.1	94.7	77.3	92.8	76.8	80.7	89.5	79.8	89.4	78.9	150.3	84.4	77.3	142.3	84.0	18.6	16.5	14.1	1835	2621	
BARKSDALE AFB	32.50N	93.66W	167	23.6	27.2	97.3	76.6	95.0	76.5	92.8	76.5	80.0	90.8	79.0	89.9	77.2	142.5	84.0	76.1	137.4	83.2	19.1	17.0	14.8	2291	2305	
BATON ROUGE METRO R	30.54N	91.15W	75	28.5	31.8	94.6	77.6	93.1	77.3	91.5	76.9	80.4	89.0	79.8	88.2	78.5	148.3	83.8	77.5	143.5	83.2	18.7	16.7	15.0	1573	2709	
LAFAYETTE RGNI	30.21N	91.99W	43	29.9	33.6	94.6	77.8	92.9	77.6	91.3	77.3	80.7	89.9	80.0	88.3	78.9	150.3	83.7	77.8	144.9	83.3	20.4	18.3	16.5	1463	2806	
LAKE CHARLES MUNI	30.13N	93.23W	10	30.3	33.8	94.4	77.8	92.8	77.7	91.3	77.6	81.4	88.5	80.4	87.6	79.4	152.8	84.2	78.7	149.2	82.7	20.5	18.4	16.7	1453	2806	
MONROE RGNI	32.51N	92.04W	82	25.2	28.1	97.5	77.8	95.2	77.7	93.1	77.0	81.0	91.4	80.1	90.6	78.5	148.2	85.4	77.3	142.6	84.6	19.0	17.0	15.0	2189	2462	
NEW ORLEANS NAS JRB	29.83N	90.03W	0	30.7	34.2	92.8	78.1	91.2	77.8	90.2	77.6	81.9	87.5	80.6	86.6	80.4	157.8	84.6	79.2	151.3	83.6	18.1	16.0	13.6	1444	2626	
NEW ORLEANS/MOISANT	29.99N	90.25W	20	33.1	36.3	93.8	78.1	92.2	77.7	90.8	77.5	80.9	88.9	80.2	88.0	79.0	150.6	84.4	78.2	146.5	83.8	20.7	18.7	17.0	1286	2925	
LAKEFRONT	30.04N	90.03W	10	35.6	38.6	93.3	78.7	91.8	78.2	90.7	77.9	81.4	89.3	80.6	88.3	79.3	152.3	85.3	78.8	149.7	85.0	24.9	21.0	18.9	1138	3232	
SHREVEPORT DOWNTOWN	32.54N	93.74W	180	26.9	29.6	99.2	76.6	96.9	76.5	93.5	76.2	79.6	91.3	78.8	90.2	76.9	141.0	83.1	75.5	134.3	82.7	18.8	16.7	14.9	2149	2628	
SHREVEPORT REGIONAL	32.45N	93.82W	259	25.2	28.4	98.5	76.2	96.0	76.3	93.6	76.0	79.4	91.2	78.6	89.9	76.4	139.2	83.2	75.7	135.8	82.7	19.7	17.7	16.1	2117	2535	
Maine																											
AUBURN LEWISTON MUNI	44.05N	70.28W	289	-6.2	-0.1	87.9	70.7	83.6	69.2	81.0	67.5	73.6	83.4	71.4	80.2	70.4	113.1	78.5	68.5	106.0	76.4	20.8	18.5	16.4	7632	308	
BANGOR INTL	44.81N	68.82W	194	-7.3	-2.0	87.9	70.7	84.1	69.0	81.1	67.0	73.2	83.1	71.3	80.6	70.2	111.7	78.1	68.2	104.2	75.4	23.5	19.7	18.0	7665	355	
BRUNSWICK (NAS)	43.90N	69.93W	75	-2.2	2.1	86.3	70.7	82.8	68.9	80.5	67.3	73.5	82.4	71.5	79.8	70.4	112.4	78.8	69.0	106.7	76.0	23.2	19.5	17.4	7202	367	
PORTLAND/INTL JET	43.64N	70.30W	62	0.1	4.9	86.8	71.3	83.4	69.9	80.4	68.2	74.1	83.2	72.2	80.2	71.0	114.7	78.8	69.5	108.8	76.6	23.2	19.6	17.6	7023	370	
SANFORD RGNI	43.39N	70.70W	243	-6.2	0.3	89.5	71.0	85.2	69.4	82.0	67.8	74.1	84.6	72.1	81.9	71.5	117.4	80.1	69.6	109.6	77.7	20.9	18.5	16.3	7470	350	
Maryland																											
ANDREWS AFB/CAMP SP	38.82N	76.85W	289	15.6	18.4	92.6	74.1	90.2	73.4	87.9	72.8	77.6	86.6	76.3	84.9	75.1	133.1	80.4	73.4	125.3	79.2	24.7	20.7	18.3	4419	1199	
BALTIMORE-WASHINGTON	39.17N	76.68W	154	14.0	17.9	94.0	74.9	91.3	74.1	88.7	73.1	78.1	88.6	76.8	86.6	75.3	133.2	82.1	74.1	127.8	80.7	22.3	19.1	17.1	4552	1261	
THOMAS POINT	38.90N	76.43W	39	17.6	21.4	86.8	74.7	84.8	74.6	83.1	74.0	79.6	82.7	77.8	81.5	78.7	149.0	81.2	76.9	140.3	80.0	37.7	31.6	26.5	4196	1236	
Massachusetts																											
BARNSTABLE MUNI BOA	41.67N	70.28W	52	9.9	15.6	84.0	73.0	81.5	71.5	79.3	70.2	75.5	81.3	74.2	78.9	73.3	124.1	77.6	72.7	121.5	77.0	24.7	21.2	19.2	5872	511	
BOSTON/LOGAN INTL	42.36N	71.01W	30	8.1	13.0	90.6	72.7	87.6	71.7	84.2	70.2	75.9	85.7	74.3	83.0	72.8	122.0	80.6	71.5	116.3	78.6	26.9	24.2	20.9	5596	750	
BUZZARDS BAY	41.38N	71.03W	56	12.4	16.7	76.0	N/A	74.4	N/A	73.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	43.8	38.3	34.0	5552	302	
CHATHAM MUNI	41.69N	69.99W	69	11.7	17.1	82.1	72.3	80.7	71.6	78.1	70.5	75.1	80.2	73.9	78.2	73.2	123.5	77.6	72.5	120.5	76.7	21.7	18.7	16.7	5688	457	
LAWRENCE MUNI	42.72N	71.12W	148	3.4	9.6	90.4	72.8	87.9	71.9	83.9	70.7	75.7	84.8	74.3	78.6	72.8	122.3	79.7	72.1	119.3	79.1	20.4	18.1	16.2	6091	652	
MARTHAS VINEYARD	41.39N	70.62W	69	9.5	14.0	83.8	72.5	81.3	71.2	79.1	70.0	75.2	80.9	73.9	78.6	73.1	123.3	77.8	72.4	120.3	76.8	26.0	23.5	20.4	5886	429	
NEW BEDFORD RGNI	41.68N	70.96W	79	8.7	12.1	88.2	73.2	84.1	71.7	81.7	70.1	75.8	83.7	74.4	80.9	73.1	123.4	78.7	72.4	120.4	77.8	23.1	19.9	17.9	5833	570	
NORWOOD MEM	42.19N	71.17W	49	3.1	9.1	89.5	73.1	84.0	72.6	84.1	70.8	76.5	85.6	74.9													

Meaning of acronyms:
 DB: Dry bulb temperature, °F
 WB: Wet bulb temperature, °F
 MCWB: Mean coincident wet bulb temperature, °F
 DB: Dew point temperature, °F
 DP: Dew point temperature, °F
 MCDB: Mean coincident dry bulb temperature, °F
 HR: Humidity ratio, grains of moisture per lb of dry air
 HR: Humidity ratio, grains of moisture per lb of dry air
 HDD and CDD 65: Annual heating and cooling degree-days, base 65°F, °F-day
 Long: Longitude, °
 Lat: Latitude, °
 Elev: Elevation, ft
 WS: Wind speed, mph
 °F-day

Station	Lat	Long	Elev	Heating DB		Cooling DB/MCWB			Evaporation WB/MCDB			Dehumidification DP/HR/MCDB			Extreme Annual WS			Heat/Cool. Degree-Days									
				99.6%	99%	0.4%	1%	2%	0.4%	1%	1%	0.4%	1%	1%	1%	1%	2.5%	5%	HDD / CDD 65	HDD / CDD 65							
GRAND FORKS AFB	47.95N	97.40W	912	-18.3	-14.7	89.9	73.8	86.1	70.9	82.4	68.4	77.1	84.3	74.2	82.0	74.9	135.5	81.2	72.2	123.4	78.2	27.7	24.9	22.0	9197	406	
GRAND FORKS INTL	47.95N	97.18W	833	-22.0	-17.1	89.9	71.1	86.4	69.4	83.5	68.0	74.8	84.4	72.5	82.4	71.7	120.8	81.2	69.2	110.7	78.7	26.9	24.3	20.9	9320	425	
MINOT AFB	48.43N	101.36W	1667	-23.4	-17.7	93.1	68.4	89.3	67.5	85.5	66.4	73.0	86.0	70.7	83.1	69.5	115.4	79.4	66.4	103.3	76.7	28.9	25.9	22.8	9024	430	
MINOT INTL	48.26N	101.28W	1713	-19.1	-13.9	91.2	68.5	87.8	68.0	84.0	66.0	73.4	84.1	70.9	81.8	70.2	118.4	79.9	67.4	107.5	77.0	27.9	24.9	21.9	8696	444	
Ohio																											
AKRON/AKRON-CANTON	40.92N	81.44W	1237	2.8	7.9	88.8	72.8	86.1	71.8	83.5	70.3	75.5	84.4	73.9	82.1	72.7	127.1	80.4	71.4	121.4	78.4	23.2	19.8	18.1	6054	688	
CINCINNATI MUNI LUN	39.10N	84.42W	499	8.1	13.4	92.8	74.5	90.3	74.2	88.1	73.3	78.0	87.9	76.7	86.2	75.1	134.4	82.6	73.8	128.4	81.1	20.4	18.3	16.6	4744	1155	
CLEVELAND	41.41N	81.85W	804	4.1	9.7	89.7	73.7	87.0	72.4	84.2	71.0	76.2	85.4	74.7	83.0	73.2	127.3	81.3	72.0	121.9	79.6	24.5	20.9	18.8	5850	774	
COLUMBUS/PORT COLUM	39.99N	82.88W	817	5.0	10.4	91.1	73.6	89.0	72.9	86.5	71.7	76.8	87.0	75.3	84.5	73.6	129.1	81.3	72.4	123.8	80.5	22.3	18.9	16.9	5255	1015	
DAYTON/JAMES M COX	39.91N	84.22W	1004	2.0	8.1	90.4	73.5	88.0	72.8	85.5	71.4	76.5	86.2	75.1	84.0	73.4	128.7	81.9	72.2	123.8	80.5	24.5	20.8	18.8	5512	945	
FINDLAY	41.01N	83.67W	814	1.0	6.8	90.5	73.2	88.1	72.3	85.1	70.7	76.5	86.2	74.8	83.5	73.2	127.2	82.2	72.0	122.2	80.5	24.7	21.0	18.9	5930	808	
FAIRFIELD CO	39.76N	82.66W	869	1.5	9.4	90.5	73.4	88.4	73.0	85.9	71.7	76.7	86.4	75.3	83.8	73.2	127.6	81.1	72.5	124.2	80.2	20.1	17.8	15.9	5459	810	
MANFIELD LAHM RGNL	40.82N	82.52W	1312	1.0	6.7	88.1	73.0	85.5	71.8	83.0	70.3	75.6	84.5	74.1	82.3	72.9	128.0	80.9	71.5	122.2	79.2	24.3	20.8	18.9	6152	659	
OHIO STATE UNIVERSI	40.08N	83.08W	906	4.9	10.0	90.4	73.3	88.2	72.8	85.6	71.5	76.4	85.9	74.9	83.5	73.0	126.8	81.2	72.3	123.7	80.0	21.8	19.1	17.3	5429	911	
RICKENBACKER INTL	39.80N	82.92W	745	6.6	11.7	92.7	75.2	90.5	74.5	88.3	73.5	80.5	86.8	78.5	85.6	79.1	155.3	84.2	76.5	142.2	82.5	23.7	20.0	17.7	4971	1156	
TOLEDO EXPRESS	41.59N	83.80W	692	1.3	6.8	91.3	74.0	88.6	72.6	85.9	71.4	77.2	87.0	75.4	84.1	74.2	130.8	82.8	72.6	124.1	80.6	24.3	20.7	18.6	6074	798	
DAYTON/WRIGHT-PATTE	39.83N	84.05W	823	3.1	9.4	90.6	73.8	88.3	73.3	86.0	72.0	77.0	85.3	75.6	83.8	74.8	134.3	80.7	73.0	126.1	79.1	21.4	18.8	16.9	5301	958	
YOUNGSTOWN MUNI	41.25N	80.67W	1188	2.9	7.9	88.5	72.5	85.8	71.1	83.4	69.6	75.0	84.4	73.4	81.8	72.2	124.4	79.5	70.0	126.1	77.6	21.3	18.6	17.2	6198	583	
Oklahoma																											
PORT SILL	34.65N	98.40W	1188	14.3	20.2	100.8	73.1	98.6	73.1	95.5	73.4	77.5	91.0	76.5	89.8	74.1	132.8	82.5	72.9	127.6	81.6	24.7	21.3	19.3	3197	2117	
LAWTON MUNICIPAL	34.57N	98.42W	1109	17.9	20.8	102.4	73.4	100.2	73.7	98.8	73.8	78.1	92.6	77.1	91.3	73.5	129.9	82.8	73.0	127.8	82.5	26.0	23.1	20.1	3168	2271	
OKLAHOMA CITY/W. RO	35.39N	97.60W	1306	14.1	18.9	99.6	74.2	96.9	74.2	94.0	74.0	77.8	91.0	76.9	89.9	74.2	134.3	83.6	73.2	129.3	82.3	27.6	24.9	22.7	3438	1950	
OKLAHOMA CITY/WILEY	35.53N	97.65W	1299	12.5	18.2	99.5	73.9	97.2	73.9	93.8	73.7	77.4	91.2	76.4	89.9	73.3	130.0	83.3	72.5	126.4	82.4	26.7	24.5	22.0	3487	2047	
STILLWATER RGNL	36.16N	97.09W	984	13.7	18.2	101.7	75.4	99.1	75.6	95.4	75.8	79.1	93.9	78.0	92.5	75.1	136.5	86.1	73.3	128.6	84.0	24.7	22.0	19.7	3589	2001	
TINKER AFB	35.42N	97.38W	1302	15.8	18.9	99.3	72.9	96.8	73.1	93.1	73.0	77.3	89.2	76.2	88.0	73.4	130.5	81.0	72.9	128.1	80.6	26.3	23.7	20.6	3383	1916	
TULSA INTL ARPT(AW)	36.20N	95.89W	676	13.2	18.3	99.4	75.9	96.8	76.0	94.0	75.6	79.2	92.5	78.2	91.2	75.4	136.6	85.5	74.4	131.8	84.7	24.6	21.5	19.4	3455	2051	
RICHARD LLOYD JONES	36.04N	95.98W	627	15.8	18.8	100.0	76.7	98.6	79.0	96.6	76.6	79.6	94.1	78.5	92.6	75.4	136.1	85.4	74.8	133.5	84.9	19.8	17.8	16.1	3503	2020	
VANCE AFB	36.34N	97.99W	1306	10.0	15.7	100.4	73.4	98.5	73.5	95.1	73.7	77.4	91.6	76.3	90.4	73.4	130.3	82.0	72.5	126.5	81.7	27.5	24.7	21.7	3936	1864	
Oregon																											
AURORA STATE	45.25N	122.77W	197	26.6	28.2	91.3	66.9	88.3	66.6	83.9	65.5	70.1	86.3	68.2	84.1	63.8	89.4	75.7	62.9	86.6	73.8	18.0	15.8	12.8	4415	379	
CORVALLIS MUNI	44.50N	123.29W	246	25.0	27.3	92.9	67.0	89.8	65.9	85.6	64.2	68.6	89.1	67.0	86.9	61.2	80.7	76.7	58.5	73.9	75.5	19.8	17.8	16.0	4255	397	
EUGENE/MAHLON SWEET	44.13N	123.21W	374	23.4	27.3	91.7	66.5	88.0	65.6	84.1	64.5	68.8	87.4	67.1	84.7	62.0	84.8	74.6	60.4	79.5	72.2	19.6	17.5	15.9	4638	270	
MC MINNVILLE MUNI	45.20N	123.13W	161	26.8	28.2	91.4	66.0	88.4	65.8	84.0	64.7	68.7	87.2	67.0	85.1	62.6	85.4	74.0	60.8	80.1	71.9	20.7	17.7	15.5	4673	287	
MEDFORD-JACKSON COU	42.39N	122.87W	1329	23.1	26.1	99.2	66.9	95.6	65.8	92.2	64.6	68.8	94.3	67.4	91.5	60.3	82.2	74.1	58.3	76.4	73.7	18.3	15.4	12.4	4264	834	
PORTLAND INTL ARPT	45.59N	122.60W	108	25.2	29.5	91.4	67.3	87.5	66.5	83.6	65.3	69.5	86.9	67.9	84.5	63.2	87.0	75.1	61.6	82.3	73.1	23.6	19.7	17.5	4214	433	
PORTLAND/HILLSBORO	45.54N	122.95W	230	23.2	27.0	92.2	68.0	88.3	67.0	84.0	65.5	70.5	88.2	68.3	85.3	63.7	89.2	76.8	61.7	82.8	73.6	18.7	16.8	14.3	4744	283	
ROBERTS FLD	44.25N	121.15W	3084	5.6	12.6	93.0	61.7	90.2	60.8	87.0	59.7	63.7	88.6	62.1	86.0	54.8	71.5	67.2	52.8	66.5	66.9	20.7	18.6	16.7	6470	237	
SALEM/MCNARY	44.91N	123.00W	200	23.5	27.4	92.3	66.8	88.2	65.8	84.3	64.6	68.7	88.4	67.1	85.2	61.5	82.2	73.0	59.9	77.6	72.3	20.9	18.4	16.3	4533	313	
Pennsylvania																											
ALLENTOWN/A-BETHLE	40.65N	75.45W	384	8.4	12.6	91.0	73.7	88.3	72.5	85.7	71.3	76.7	86.4	75.2	83.7	73.8	127.8	81.2	72.5	122.1	79.7	23.4	19.7	17.7	5552	838	
ALTOONA BLAIR CO	40.30N	78.32W	1470	5.9	10.0	88.3	71.8	85.6	70.8	82.8	69.4	74.7	83.9	73.1	81.8	72.0	125.2	79.8	70.3	118.0	77.8	23.0	19.1	17.1	5950	612	
BUTLER CO SCHOLTER F	40.78N	79.94W	1247	3.2	8.8	88.1	71.9	84.5	70.3	82.2	68.9	74.5	83.4	72.9	81.6	71.1	124.3	79.8	70.3	116.9	77.3	18.0	15.6	13.0	6089	549	
ERIE INTL AIRPORT	42.08N	80.18W	738	6.8	10.4	86.7	73.0	84.2	71.8	81.8	70.5	75.3	82.7	73.9	81.1	72.8	125.2	80.5	71.4	119.1	78.7	24.5	21.3	19.4	6080	639	
HARRISBURG/CAPITAL	40.22N	76.85W	348	10.7	15.4	92.5	73.8	89.9	72.6	87.5	71.8	76.6	87.1	75.3	84.6	73.2											

Meaning of acronyms:
 DB: Dry bulb temperature, °F
 MCWB: Mean coincident wet bulb temperature, °F
 WB: Wet bulb temperature, °F
 Lat: Latitude, °
 DP: Dew point temperature, °F
 MCDDB: Mean coincident dry bulb temperature, °F
 Long: Longitude, °
 HR: Humidity ratio, grains of moisture per lb of dry air
 HDD and CDD 65: Annual heating and cooling degree-days, base 65°F, °F-day
 Elev: Elevation, ft
 WS: Wind speed, mph

Station	Lat	Long	Elev	Heating DB		Cooling DB/MCWB				Evaporation WB/MCDB				Dehumidification DP/HR/MCDB				Extreme Annual WS		Heat/Cool							
				99.6%	99%	0.4%	1%	0.4%	1%	0.4%	1%	0.4%	1%	0.4%	1%	1%	2.5%	15%	1%	5%							
				DB / MCWB	DB / MCWB	DB / MCWB	DB / MCWB	WB / MCWB	WB / MCWB	WB / MCWB	WB / MCWB	DP / HR / MCDB	DP / HR / MCDB	DP / HR / MCDB	DP / HR / MCDB	DP / HR / MCDB	DP / HR / MCDB	DP / HR / MCDB	DP / HR / MCDB	DP / HR / MCDB	DP / HR / MCDB						
SPOKANE INTL ARPT	47.62N	117.53W	2365	4.7	11.0	92.8	63.0	89.6	61.7	86.0	60.5	65.0	87.2	63.4	84.9	57.6	77.3	67.4	55.5	71.6	67.5	25.6	22.0	19.1	66.2	434	
TACOMA NARROWS	47.27N	122.58W	315	27.4	31.2	83.8	64.5	80.8	63.0	76.8	61.6	66.0	80.9	64.2	77.3	61.0	81.2	68.4	59.1	75.8	66.9	19.5	17.4	15.5	47.1	145	
WALLA WALLA RGNL	46.10N	118.29W	1204	10.4	18.0	98.7	66.2	94.6	65.1	90.9	63.8	68.4	92.7	66.6	90.4	60.7	82.8	73.5	57.4	74.0	72.4	24.0	19.9	17.8	48.25	910	
WEST POINT (ILS)	47.67N	122.43W	30	29.7	33.4	70.5	60.7	68.1	60.0	66.1	59.3	62.1	67.5	60.9	65.7	59.8	77.0	64.0	58.9	74.3	62.9	36.7	30.9	26.0	49.06	8	
YAKIMA AIR TERMINAL	46.56N	120.53W	1066	7.8	13.7	96.0	66.4	92.7	65.3	89.5	63.8	68.4	91.0	66.6	88.8	60.4	81.4	76.0	57.8	74.3	74.5	23.2	19.1	16.4	58.98	509	
West Virginia																											
YEAGER	38.38N	81.59W	981	10.1	15.5	91.3	72.9	89.1	72.7	86.6	72.1	76.7	86.0	75.3	84.1	74.0	131.5	80.7	72.8	126.0	79.3	17.2	14.8	12.3	44.44	1076	
HUNTINGTON/TRI STAT	38.38N	82.56W	837	10.1	15.5	91.9	73.5	89.6	73.2	87.2	72.6	77.3	86.6	75.9	84.8	74.5	133.1	81.4	73.2	127.4	80.1	16.8	14.8	12.7	44.26	1156	
MID OHIO VALLEY RGN	39.35N	81.44W	863	7.3	12.3	90.9	73.6	88.4	72.9	86.0	72.0	76.9	86.5	75.4	84.0	73.9	130.5	81.2	72.7	125.1	79.7	18.2	16.0	13.9	49.40	949	
Wisconsin																											
OUTAGAMIE CO RGNL	44.26N	88.52W	919	-6.3	-0.9	88.2	74.3	84.4	72.2	82.1	70.3	76.9	84.8	74.9	82.0	74.6	134.0	81.2	72.5	124.7	79.3	24.7	21.2	18.9	72.73	587	
CHIPPEWA VALLEY RGN	44.87N	91.49W	896	-13.5	-8.3	90.5	73.0	87.2	71.1	84.1	69.2	75.8	85.7	73.9	83.4	72.7	125.3	81.8	70.7	117.0	79.5	19.9	17.9	16.3	78.01	600	
FOND DU LAC CO	43.77N	88.49W	807	-5.7	-0.1	88.3	73.8	84.4	71.4	82.2	69.8	76.2	84.6	74.3	82.1	73.0	126.4	81.9	72.1	122.1	80.2	23.5	20.1	18.2	70.71	588	
GREEN BAY/A-STRAUB	44.51N	88.12W	702	-8.2	-3.0	88.5	73.5	85.3	71.9	82.5	70.1	76.3	85.0	74.3	82.2	73.5	127.8	81.3	71.7	120.0	79.5	23.5	20.0	18.1	75.99	479	
KENOSHA RGNL	42.60N	87.94W	745	-1.7	2.8	89.9	74.7	87.0	73.3	83.7	71.8	76.9	86.3	75.1	83.5	73.3	127.2	81.6	72.4	123.3	80.5	24.9	21.7	19.2	66.81	614	
LA CROSSE MUNICIPAL	43.88N	91.25W	656	-9.3	-4.5	91.7	74.8	88.8	73.2	85.9	71.5	77.9	87.8	75.7	84.9	74.9	134.1	83.9	72.8	124.5	81.3	23.1	19.6	18.0	70.10	818	
MADISON/DANE COUNTY	43.14N	89.35W	866	-7.0	-1.6	89.6	74.2	86.6	72.6	83.8	71.0	77.0	86.1	75.0	83.3	73.9	130.4	82.9	72.2	123.1	80.5	22.6	19.6	17.9	71.04	620	
MANITOWOC CO	44.13N	87.67W	650	-4.2	0.5	84.4	71.6	81.7	70.1	79.3	68.3	74.7	82.1	72.5	79.2	72.3	122.5	79.8	70.3	114.2	77.2	24.1	20.7	18.8	75.41	344	
MILWAUKEE/GEN. MITC	42.95N	87.90W	692	-1.4	3.2	90.0	74.3	86.5	72.4	83.5	70.8	76.8	86.5	74.9	83.3	73.6	128.4	82.3	72.1	121.8	80.4	25.2	22.3	19.8	66.84	690	
CENTRAL WISCONSIN	44.78N	89.67W	1276	-10.8	-6.5	86.4	71.8	83.0	69.6	81.2	68.0	74.0	82.6	72.0	80.0	71.8	123.4	79.3	69.8	115.0	77.6	23.0	19.6	17.6	82.23	363	
SHEBOYGAN CO MEM	43.77N	87.85W	748	-3.7	0.6	88.1	73.6	84.0	71.5	81.6	69.7	75.6	83.9	73.8	81.8	72.8	124.9	81.1	71.8	120.9	79.4	24.3	20.7	18.6	73.75	423	
SHEBOYGAN	43.75N	87.68W	720	-2.2	2.8	83.0	71.2	79.3	70.2	76.5	69.7	76.2	79.0	74.1	76.8	75.3	135.9	77.3	73.3	126.6	75.7	40.7	33.3	28.0	72.72	322	
WAUSAU DOWNTOWN	44.93N	89.63W	1198	-11.8	-6.9	88.1	71.6	84.5	69.5	81.9	67.6	74.3	83.2	72.5	81.0	71.8	122.9	79.0	69.8	114.7	77.4	20.0	17.7	15.9	79.73	462	
WITTMAN RGNL	43.98N	88.56W	840	-6.0	-0.4	88.2	73.7	84.3	71.8	82.0	69.9	76.1	84.3	74.2	82.0	73.1	126.6	81.2	72.0	122.1	79.8	23.1	20.0	18.0	72.86	548	
Wyoming																											
CASPER/NATRONA COUN	42.90N	106.47W	5289	-8.3	-0.7	93.8	59.7	91.1	59.0	88.3	58.4	63.2	83.2	61.8	82.2	57.4	85.9	66.3	55.2	79.1	66.2	32.1	28.1	25.5	72.85	461	
CHEYENNE/WARREN AFB	41.16N	104.81W	6142	-3.7	2.9	89.7	58.3	86.8	57.7	83.8	57.2	62.6	77.3	61.5	76.9	58.8	93.1	65.6	56.9	86.9	65.2	33.6	28.9	25.9	70.50	338	
Canada																											
Alberta																											
CALGARY INTL A	51.11N	114.02W	3556	-19.8	-13.1	83.5	60.7	79.9	59.7	76.4	58.4	63.6	78.0	61.7	75.6	58.3	83.1	69.3	56.2	76.8	66.8	27.0	23.1	20.3	90.93	64	
COP UPPER	51.08N	114.22W	4052	-17.8	-12.0	82.7	58.8	78.8	57.7	75.2	56.7	62.9	75.0	60.7	73.2	58.7	85.7	67.2	56.2	78.2	64.7	23.1	20.0	17.5	90.48	73	
EDMONTON CITY CENTRE AWOS	53.57N	113.52W	2201	-20.5	-14.8	83.0	64.4	79.6	62.7	76.5	60.8	66.5	79.3	64.5	76.3	61.9	89.7	72.3	59.9	83.4	69.8	22.0	18.8	16.5	93.56	121	
EDMONTON INTL A	53.32N	113.58W	2372	-26.7	-20.6	82.0	63.9	78.5	62.3	75.6	60.6	66.5	78.5	64.4	75.6	61.9	90.5	73.1	59.9	84.0	70.5	22.9	19.7	17.1	103.21	42	
EDMONTON NAMAO A	53.67N	113.47W	2257	-22.7	-16.7	82.1	64.0	78.7	62.2	75.5	60.2	66.0	78.5	64.1	75.6	61.4	84.5	70.4	59.2	82.1	69.2	23.1	20.0	17.4	98.93	68	
FORT McMURRAY CS	56.65N	111.21W	1211	-33.4	-28.3	84.1	63.9	80.5	61.8	77.0	60.3	66.0	79.7	64.1	76.7	61.2	84.5	70.4	59.2	82.5	68.5	18.6	16.2	14.1	114.05	82	
GRANDE PRAIRIE A	55.18N	118.88W	2195	-32.8	-24.5	81.4	61.9	78.0	60.2	75.0	58.7	64.3	77.3	62.2	74.5	59.7	82.8	68.9	57.5	76.5	66.2	24.8	21.6	18.7	105.52	45	
LACOMBE CDA 2	52.45N	113.76W	2822	-26.5	-19.4	83.0	64.9	79.2	62.8	76.0	61.0	66.9	79.3	64.7	76.5	62.2	92.9	73.9	59.9	85.5	71.2	21.2	18.2	15.6	103.04	43	
LETHBRIDGE AWOS A	49.63N	112.80W	3048	-21.1	-14.5	88.7	62.2	85.0	61.2	81.4	60.4	65.7	81.4	63.7	79.5	60.0	86.6	72.7	57.9	80.1	69.6	35.6	30.5	27.0	83.20	153	
LETHBRIDGE CDA	49.70N	112.77W	2986	-18.5	-12.5	89.4	62.3	85.5	61.3	81.9	60.5	65.8	81.5	64.0	79.6	60.4	87.6	72.1	58.2	80.8	69.7	29.8	26.5	23.4	81.08	205	
MEDICINE HAT RCS	50.03N	110.72W	2346	-23.0	-16.4	90.8	64.0	87.3	62.8	83.8	61.5	66.2	84.7	64.5	82.6	60.0	84.3	72.2	58.0	78.4	70.4	25.1	21.6	18.9	83.54	301	
RED DEER A	52.18N	113.89W	2969	-26.0	-18.9	82.4	63.1	78.9	61.3	75.7	59.8	65.4	78.6	63.3	75.6	60.3	87.4	71.8	58.3	81.1	69.2	20.3	18.2	16.4	101.96	42	
SPRINGBANK A	51.10N	114.37W	3940	-25.0	-18.3	80.3	60.0	76.7	58.3	73.6	57.3	62.3	75.5	60.4	73.2	57.1	80.6	68.0	55.2	75.1	65.3	24.8	21.2	18.6	102.93	8	
British Columbia																											
ABBOTSFORD A	49.03N	122.36W	194	17.9	22.9	85.7	67.2	82.0	65.9	78.4	64.2	68.7	83.4	66.7	79.2	62.6	85.5	77.2	64.9	80.3	73.4	19.8	16.7	14.3	52.56	134	
AGASSIZ CS	49.24N	121.76W	62	18.8	23.3	86.6	68.7	83.1	67.4	79.7	66.3	71.0	82.8	68.9	80.9	66.5	97.9	77.8	60.5	91.2	75.0	22.9	17.9	14.2	51.50	203	
BALLENAS ISLAND	49.35N	124.16W	43	30.8	33.6	74.8	66.8	72.5	65.7	70.5	64.5	68.3	73.3	66.6	71.3	66.3	96.9	71.7	64.6	91.4	69.9	35.7	30.9	27.2	46.27	109	
COMOX A	49.72N	124.90W	85	23.4	27.1	80.3	63.9	76.5	62.6	73.4	61.4	65.2	76.8	63.8	73.9	60.8	79.9	68.9	59.6</								

