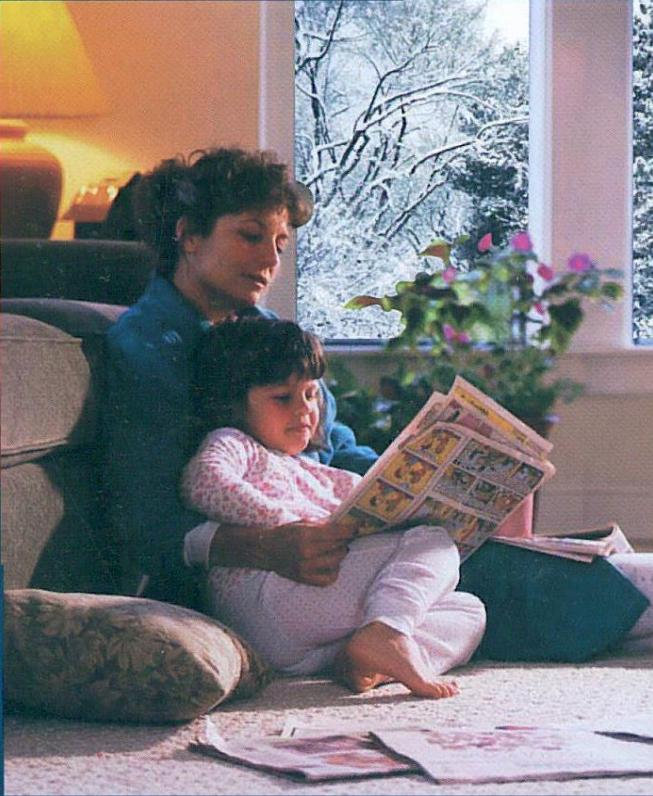
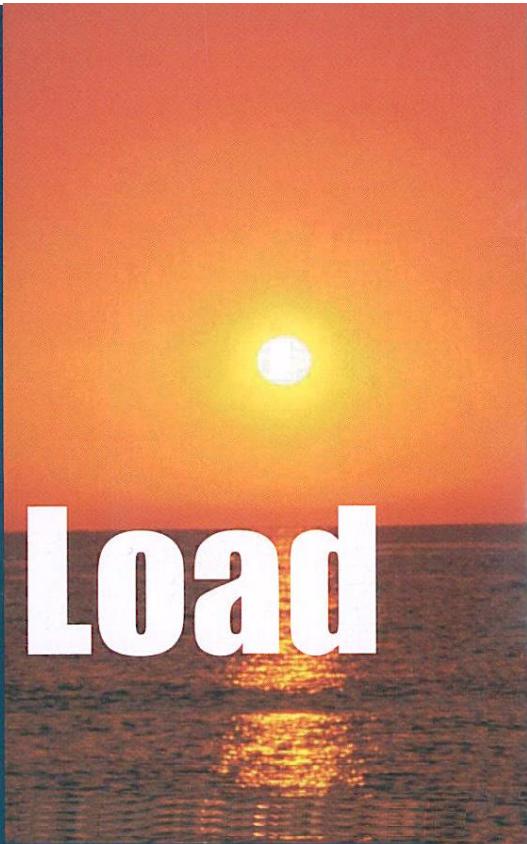


MANUAL

J

# Residential Load Calculation

## Outdoor Design Conditions



EIGHTH EDITION  
VERSION TWO



ACCA  
Air Conditioning Contractors of America

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## INTRODUCTION

When designing an HVACR system, it is of paramount importance to use the correct outdoor climate data (outdoor design conditions) for the locality in which the building receiving the new system is located. This data is used when calculating the building component heating load and component cooling load, which in turn are used to determine the required cubic feet per minute (CFM) for each room, design the appropriate duct work, and select the optimal equipment for the application. As is evident, not using the relevant outdoor design conditions can cause errors that will propagate throughout the system design process. The results are an uncomfortable indoor environment, energy inefficiency, and avoidable expenses.

This guide is a stand-alone version of the Outdoor Design Conditions tables that originally appear in the *ACCA Manual J Residential Load Calculation 8th Edition v.2.0*. It also contains the relevant references and notes that can be found throughout the Manual J. It is ACCA's intention that the Outdoor Design Conditions Guide will aide Raters and Code Officials around the country in performing system design evaluations. For ease of use, the table of contents lists the page on which you can find a specific state.

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## 1.0 REFERENCES

The following is a list of references to the Outdoor Design Conditions tables found throughout the *ACCA Manual J 8<sup>th</sup> Edition v.2.0* that Raters and Code Officials may find helpful:

- Ref 1. Abridged Edition Check List (precedes p. 1)  
The indoor design condition shall be: Heating 70°F; Cooling 75 db °F and 45%, 50% or 55% RH; unless superseded by code. The outdoor design conditions shall be equal to the values in Table 1A (exactly), unless superseded by code.
- Ref 2. Section 1-2: Design Loads and Other Load Conditions (p. 1)  
Dwellings are subject to design load conditions, part-load conditions and extreme load conditions. Design conditions (based on Manual J defaults for indoor temperature and humidity and Table 1A weather data) are used for equipment sizing calculations. These conditions translate to equipment sizes that efficiently deliver adequate comfort (indoor temperature and humidity excursions conform to industry standard – see ACCA Manual RS) for any load condition.
- Ref 3. Section 2-3: Protocols for Estimating Heating and Cooling Loads (p. 7, 8)  
Manual J Do's (Mandatory Requirements):
  - Use the outdoor design conditions recommended by Table 1A of Manual J (unless superseded by code).Manual J Don'ts (Mandatory Requirements):
  - Do not add a 'safety factor' to the Table 1A design conditions.
- Ref 4. Figure 3-1: Adjustable Defaults for Heating and Cooling Load Estimates (p. 13)  
Issue: Outdoor Design Conditions; Default: Use Table 1 values (exactly as published)
- Ref 5. Section 6-3: Worksheet A (Design Conditions) (p. 42)  
Worksheet A provides a record of the indoor and outdoor design conditions used for the job. The following information shall be transcribed from Table 1A
  - Location and add job name
  - Indoor design temperature for heating and cooling
  - Indoor humidity (RH) for heating and cooling
  - Elevation and latitude
  - Outdoor design temperature for heating (99% value)
  - Outdoor design temperature for cooling (1% value)
  - Grains difference value for cooling (for specified indoor RH value)
  - Daily range classification
- Ref 6. The entirety of Section 18: Design Conditions (p. 143 – 148)

## 2.0 NOTES

1. Note the following acronyms and their meaning:
  - AAF = Army Air Field
  - AFB = Air Force Base
  - AFS = Air Force Station
  - AP = Air Port
  - ANGB = Air National Guard Base
  - CLG = College
  - CO = City Office
  - CSL = Castle
  - FS = Fire Station
  - HQ = Head Quarters
  - IAP = International Air Port
  - MCAS = Marine Corps Air Station
  - MCB = Marine Corps Base
  - MNT = Mountain
  - NAS = Naval Air Station
  - ND = Navy Depot
  - NM = National Monument
  - OBSY = Observatory
  - PH = Power House
  - PK = Park
  - RCH = Ranch
  - RES = Reservoir
  - RS = Ranger Station
  - STN = Station
  - TP = Trading Post
  - UNV = University
  - WSO = Weather Station Office
  - 15 W = 15 miles Wes
2. Design Grains columns refer to the Grains of moisture difference between the outdoor air and the indoor air. Negative values occur when the outdoor air is drier than the indoor air.
  - Design Grains 55% RH = Indoor Air at 75°F drybulb and 55% Relative humidity
  - Design Grains 50% RH = Indoor Air at 75°F drybulb and 50% Relative humidity
  - Design Grains 45% RH = Indoor Air at 75°F drybulb and 45% Relative humidity
3. Average daily temperature swing for L, M and H daily range categories:
  - Low = swing less than 16°F
  - Medium = swing ranges from 16°F to 25°F
  - High = swing more than 25°F
4. The 1997 ASHRAE 1% and 99% temperature data is used when provided for a particular location. The older 2 ½% and 97 ½% temperature data is used for locations that were not listed in the ASHRAE weather data.
5. The 99% and 1% temperatures are annual percentile values and are essentially equivalent to the 97 ½% and 2 ½% seasonal values that were used in the previous editions of Manual J.
6. Refer to Table 1B for micro-climate data for Arizona, California, Hawaii, and Nevada. (Table 1B supersedes Table 1A).
7. To support ANSI/ACCA 3 – 2014 Manual S (Second Edition, Version 1.00) equipment selection and sizing guidance, a degree day ratio column is added to Table 1A, and to Table 1B. This column shows values for heating degree days to the base 65°F divided by cooling degree days to the base 50°F. ASHRAE degree day values are used for locations listed in the ASHRAE data base. NOAA degree day values are used for locations that are not in the ASHRAE data base.

## 3.0 OUTDOOR DESIGN TABLES

The following are *Table 1A: Outdoor Design Conditions* and *Table 1B: Micro Climate Data for Arizona, California, Hawaii and Nevada*, which can also be found in *ACCA Manual J 8<sup>th</sup> Edition v.2.0*.

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
<b>Alabama</b>											
Alexander City	686	33	22	93	76	38	45	52	M	0.55	
Anniston Metropolitan AP	600	34	25	92	76	36	43	50	M	0.51	
Auburn-Opelika AP	774	33	28	91	74	28	35	42	M	0.43	
Birmingham Municipal AP	630	34	24	93	75	32	39	45	M	0.49	
Cairns AFB (Ozark)	299	31	30	93	76	37	44	51	M	0.28	
Centreville WSMO	453	33	26	92	76	37	43	50	M	0.45	
Decatur (Athens DD)	592	34	16	93	74	26	32	39	M	0.79	
Dauphin Island	30	30	38	87	77	53	60	66	L	0.19	
Dothan Municipal AP	322	31	31	93	76	35	42	49	M	0.26	
Florence AP (Muscle Shoals DD)	581	34	21	94	75	30	37	44	M	0.60	
Gadsden Municipal AP AWOS	568	34	22	91	75	32	38	45	M	0.68	
Huntsville IAP, Jones Field	643	35	22	92	75	31	38	45	M	0.62	
Maxwell AFB (Montgom)	174	32	32	95	77	37	44	51	M	0.28	
Mobile Regional AP	220	31	31	92	76	42	48	55	M	0.25	
Mobile CO	26	30	29	93	77	43	50	56	M	0.25	
Montgomery, Dannelly Field	203	32	27	94	76	36	43	49	M	0.35	
Muscle Shoals Regional AP	561	35	22	93	75	33	40	46	M	0.60	
Ozark, Fort Rucker	356	31	31	94	77	42	49	56	M	0.28	
Selma-Craig AFB	166	32	26	95	77	40	47	53	M	0.37	
Talladega	528	33	22	94	76	36	43	50	M	0.69	
Tuscaloosa Municipal AP	187	33	25	93	76	38	45	52	M	0.44	
<b>Alaska</b>											
Adak NAS	20	52	23	57	53	-19	-13	-6	L	90	
Ambler	289	67	-38	73	58	-26	-19	-12	M	24	
Anaktuvuk Pass	2,156	68	-35	66	53	-36	-29	-22	M	77	
Anchorage IAP	131	61	-4	68	57	-19	-12	-6	L	14	
Anchorage, Merrill Field	138	61	-7	70	58	-19	-12	-5	L	11	
Anchorage, Elmendorf AFB	194	61	-9	71	58	-23	-16	-9	L	13	
Anchorage, Fort Richardson	342	61	-13	71	58	-20	-14	-7	M	13	
Annette Island AP	112	55	20	69	59	-13	-6	0	L	8	
Anvik	325	63	-22	71	56	-29	-22	-16	L	24	
Barrow, Willey Post-W Rogers AP	13	71	-36	53	50	-25	-18	-12	L	1,220	
Barter Island (DEW Line)	39	70	-40	53	49	-25	-18	-12	L	732	
Bethel AP	151	61	-22	69	57	-20	-14	-7	L	28	
Bettles Field	643	67	-44	76	59	-25	-19	-12	M	20	
Big Delta, Allen AAF, Ft Greely	1,273	64	-33	75	57	-31	-24	-17	M	16	
Cape Lisburne AWOS	10	69	-29	56	51	-22	-16	-9	L	409	
Cape Newenham AFS	528	59	-8	59	54	-19	-12	-5	L	67	
Cape Romanzoff AWOS	404	62	-11	69	59	-14	-7	-1	L	40	
Cold Bay AP	102	55	13	57	53	-17	-11	-4	L	67	
Cordova	49	60	2	67	58	-16	-9	-3	L	24	
Deadhorse	59	70	-42	63	55	-19	-12	-6	L	181	
Dillingham Municipal AP	95	59	-14	66	56	-19	-13	-6	L	29	
Dutch Harbor	13	54	21	61	55	-15	-8	-2	L	44	
Fairbanks IAP	453	65	-38	78	60	-24	-17	-10	M	13	
Fairbanks, Eielson AFB	548	65	-40	78	60	-21	-14	-8	M	14	
Five Finger Island	69	57	22	63	0	-19	-13	-6	L	14	
Fort Yukon	453	67	-51	77	59	-26	-19	-13	M	16	
Fort Richardson	377	61	-13	71	58	-19	-12	-6	M	16	
Galena	161	65	-43	75	59	-21	-15	-8	M	18	
Gulkana Intermediate Field	1,578	62	-33	74	56	-33	-26	-19	M	25	
Homer AP	72	60	4	63	56	-17	-10	-4	L	24	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Hooper Bay	20	62	-13	61	56	-14	-7	-1	L	70	
Iliamna AP	161	60	-15	67	56	-21	-14	-7	L	22	
Indian Mtn. AFS AWOS	1,220	66	-35	74	57	-28	-21	-14	M	23	
Juneau IAP	23	58	8	70	58	-18	-11	-4	L	13	
Kake Seaplane Base	0	57	16	66	56	-21	-14	-7	L	15	
Kenai Municipal AP	92	61	-15	66	56	-21	-15	-8	L	25	
Ketchikan IAP	95	55	19	68	59	-12	-5	1	L	8	
King Salmon AP	49	59	-18	68	57	-19	-13	-6	M	24	
Klawock	49	56	20	67	58	-16	-9	-2	L	10	
Kodiak AP	112	58	13	65	56	-20	-13	-6	L	20	
Kotzebue, Ralph Wein Memorial AP	16	67	-31	64	58	-11	-4	2	L	49	
Lake Hood Seaplane Base	131	61	-4	71	59	-18	-11	-5	L	11	
McGrath AP	338	63	-41	75	59	-22	-15	-9	M	18	
McKinley Park	1,719	64	-36	72	55	-33	-26	-19	M	35	
Mekoryuk	49	60	-11	57	52	-20	-14	-7	L	139	
Middleton Island AMOS	121	59	23	61	54	-19	-13	-6	L	18	
Minchumina	699	64	-36	73	57	-27	-20	-13	M	18	
Nenana Municipal AP	361	65	-44	77	59	-23	-17	-10	M	16	
Nome Municipal AP	23	65	-24	65	56	-21	-14	-8	L	56	
Northway AP	1,722	63	-46	74	57	-29	-22	-15	M	23	
Palmer Municipal AP	249	62	-9	72	59	-19	-13	-6	M	14	
Petersburg	108	57	12	66	56	-20	-13	-7	L	14	
Point Hope AWOS	13	68	-27	55	51	-22	-15	-8	L	382	
Port Heiden	95	57	-2	62	54	-24	-17	-11	L	42	
Saint Mary's AWOS	312	62	-20	66	56	-22	-15	-9	L	42	
Saint Paul Island AP	30	57	7	53	51	-21	-14	-8	L	483	
Sand Point	23	55	16	59	52	-23	-16	-10	L	38	
Seward	59	60	7	66	56	-22	-16	-9	L	17	
Shemya AFB	102	53	24	53	50	-22	-15	-9	L	260	
Shishmaref AWOS	7	66	-29	57	52	-23	-16	-10	L	189	
Sitka, Japonski AP	66	57	20	64	58	-10	-4	3	L	11	
Skagway AP	43	59	7	69	57	-22	-16	-9	L	11	
Soldotna	112	60	-19	68	56	-25	-19	-12	M	24	
Sparrevohn AFS	1,588	61	-24	69	56	-27	-20	-13	L	27	
Talkeetna State AP	358	62	-19	74	58	-23	-16	-9	M	14	
Tatalina LRRS	988	63	-25	73	57	-26	-19	-13	L	17	
Tin City AFS AWOS	272	66	-24	57	53	-20	-13	-7	L	245	
Togiac Village AWOS	20	59	-14	64	56	-19	-12	-6	L	37	
Unalakleet Field	20	64	-27	66	57	-15	-8	-2	L	34	
Valdez, Pioneer Field	125	61	5	66	55	-26	-20	-13	L	27	
Valdez WSO	36	61	7	67	56	-23	-16	-10	L	21	
Whittier	30	61	10	68	58	-15	-8	-2	L	16	
Wrangell	43	56	15	68	58	-17	-10	-4	L	10	
Yakutat State AP	30	60	6	64	55	-21	-14	-7	L	26	
<b>Arizona</b>											
Casa Granda AWOS	1,463	33	35	107	69	-25	-18	-11	H	0.20	
Davis-Monthan AFB	2,654	32	36	103	65	-36	-29	-22	M	0.21	
Douglas, Bisbee-Douglas IAP	4,101	31	26	97	62	-40	-33	-25	H	0.48	
Flagstaff AP	7,005	35	9	83	55	-53	-44	-36	H	4.28	
Fort Huachuca AP	4,716	31	28	92	62	-34	-26	-18	H	0.61	
Grand Canyon National Park	6,775	36	7	88	56	-55	-47	-38	H	3.94	
Kingman AMOS	3,445	35	27	99	64	-36	-28	-21	H	0.61	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						$\frac{\text{HDD}_{65}}{\text{CDD}_{50}}$ Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Nogales IAP	4,055	31	30	98	63	-40	-33	-25	H	0.40	
Page Municipal AP AMOS	4,278	37	25	98	62	-43	-35	-28	M	0.80	
Phoenix, Sky Harbor IAP	1,106	33	41	108	70	-22	-15	-8	M	0.10	
Phoenix, Luke AFB	1,086	34	38	109	71	-18	-11	-4	H	0.15	
Prescott, Love Field	5,052	35	21	91	61	-40	-32	-24	H	1.21	
Safford AMOS	3,117	33	28	102	66	-32	-25	-18	H	0.40	
Tucson IAP	2,556	32	34	104	66	-33	-26	-19	M	0.20	
Winslow Municipal AP	4,882	35	15	95	61	-46	-38	-30	H	1.21	
Yuma IAP	207	33	45	109	73	-5	2	8	M	0.07	
Yuma MCAS	213	33	45	109	73	-5	1	8	M	0.07	
<b>Arkansas</b>											
Batesville AWOS	463	36	20	94	75	32	38	45	M	0.69	
Bentonville AWOS	1,296	36	16	91	75	35	42	49	M	0.96	
Blytheville AFB	264	36	18	95	77	40	47	54	M	0.69	
Camden	130	33	23	96	76	32	39	45	M	0.53	
Eaker AFB	262	36	17	95	77	43	50	57	M	0.66	
El Dorado, Goodwin Field	285	33	25	96	77	41	48	54	M	0.45	
Fayetteville, Drake Field	1,260	36	15	93	75	33	40	46	M	0.90	
Flippin AWOS	1,148	36	18	94	74	23	30	37	M	0.82	
Fort Smith Regional AP	463	35	20	96	76	34	41	48	M	0.61	
Harrison AP	1,385	36	16	91	74	30	37	44	M	0.86	
Hot Springs	540	34	23	97	77	38	45	51	M	0.59	
Jonesboro Municipal AP	269	36	19	94	76	37	44	50	M	0.70	
Little Rock, Adams Field	256	35	22	95	77	41	48	54	M	0.54	
Little Rock AFB	338	35	20	96	78	42	48	55	M	0.59	
Pine Bluff AP	213	34	25	95	78	44	50	57	M	0.46	
Rogers AWOS	1,362	36	16	91	73	26	33	40	M	0.96	
Siloam Spring AWOS	1,194	36	16	93	74	28	35	41	M	0.92	
Stuttgart AWOS	223	35	25	93	77	41	48	54	M	0.55	
Texarkana, Webb Field	400	33	26	96	76	35	41	48	M	0.40	
Walnut Ridge AWOS	272	36	19	93	76	38	45	52	M	0.77	
<b>California</b>											
Alameda NAS	13	38	42	79	64	-9	-2	4	L	0.60	
Arcata AP	210	41	33	68	59	-10	-4	3	L	3.90	
Bakersfield, Meadows Field	492	35	35	101	70	-9	-2	5	H	0.36	
Barstow	1,927	34	32	105	67	-31	-24	-17	H	0.37	
Beale AFB, Marysville	125	39	35	98	69	-10	-3	3	H	0.49	
Bishop AP	4,144	37	19	99	63	-42	-35	-27	H	1.16	
Blue Canyon AP	5,282	39	24	81	58	-36	-28	-20	L	2.28	
Blythe, Riverside Co. AP	394	34	39	110	72	-14	-7	0	H	0.12	
Burbank-Glendale-Passadena AP	732	34	42	95	68	-9	-2	5	M	0.23	
Camarillo AWOS	75	34	39	82	64	-11	-5	2	M	0.46	
Camp Pendleton MACS	79	33	36	88	66	-10	-3	3	M	0.37	
Carlsbad, McClellan Palomar AP	328	33	45	79	64	-5	2	8	L	0.42	
Castle AFB, Merced	197	37	33	97	69	-8	-2	5	H	0.55	
Chico	238	39	30	101	68	-21	-15	-8	H	0.66	
Concord (Antioch DD)	23	38	27	97	68	-15	-9	-2	H	0.61	
Covina (Pomona DD)	575	34	35	95	68	-11	-5	2	H	0.35	
Crescent City	56	42	37	66	59	-9	-2	5	L	3.63	
Daggett Barstow-Daggett AP	1,929	35	32	106	69	-24	-16	-9	H	0.29	
Downey (LAX DD)	110	34	40	89	70	8	15	22	M	0.27	
Edwards AFB	2,316	35	26	102	64	-42	-35	-28	H	0.54	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
El Cajon	387	32	44	80	69	18	25	31	H	0.29	
El Centro AP	-30	32	38	110	74	-3	4	10	H	0.13	
El Toro MCAS	384	34	43	89	68	-4	3	9	M	0.23	
Escondido	660	33	41	85	68	5	12	18	H	0.27	
Eureka	59	41	37	66	58	-10	-4	3	L	3.38	
Fairfield,Travis AFB	62	38	34	94	67	-15	-9	-2	H	0.62	
Fresno, Yosemite IAP	328	37	34	101	70	-11	-4	3	H	0.41	
Fullerton Municipal AP	95	34	43	90	68	-6	1	8	M	0.23	
George AFB	2,874	35	31	98	65	-32	-24	-17	H	0.51	
Hamilton AFB (San Rafael DD)	3	38	32	84	66	-5	2	9	H	0.73	
Hayward Air Terminal	46	38	39	82	65	-8	-1	6	M	0.76	
Imperial AP	-56	33	38	109	73	-5	1	8	H	0.11	
Jack Northrop Field House	69	34	46	82	64	-10	-4	3	L	0.24	
Laguna Beach (Newport Beach DD)	35	33	43	80	68	12	19	25	M	0.40	
Lancaster, Gen. Wm. Fox Field	2,339	35	25	100	65	-33	-26	-18	H	0.62	
Lemoore, Reeves NAS	233	36	33	100	71	-3	3	10	H	0.41	
Lennox-Athens-Hawthorne Hawthorne Municipal AP	69	34	46	82	64	-10	-4	3	L	0.24	
Livermore	397	38	33	95	67	-15	-9	-2	H	0.74	
Lompoc AWOS	89	35	35	77	61	-16	-9	-3	M	1.00	
Long Beach, Daugherty Field	39	34	44	88	67	-4	3	9	M	0.22	
Los Angeles CO (LAX DD)	270	34	40	89	70	9	15	22	M	0.27	
Los Angeles IAP	325	34	47	80	65	-5	2	8	L	0.27	
March AFB ( Riverside DD)	1,516	34	37	99	67	-20	-13	-6	H	0.34	
Marysville, Beale AFB	119	39	34	98	69	-11	-5	2	H	0.49	
McClellan AFB	82	39	34	99	69	-12	-5	2	H	0.47	
Merced-Castle AFB	188	37	32	97	69	-10	-3	3	H	0.53	
Modesto City-County AP	98	38	34	98	69	-11	-4	2	H	0.50	
Montague, Siskiyou Co. AP	2,641	42	20	93	63	-33	-26	-19	H	2.16	
Monterey Peninsula	164	37	39	73	59	-17	-11	-4	L	1.41	
Mount Shasta	3,537	41	21	88	62	-29	-22	-14	H	2.78	
Mountain View, Moffett Field NAS	33	37	39	84	65	-9	-3	4	M	0.55	
Napa Co. AP	56	38	33	87	65	-12	-5	1	M	1.11	
Needles AP	983	34	33	110	71	-18	-12	-5	H	0.14	
Norton AFB ( San Bernardino DD)	1,158	34	37	100	70	-11	-4	3	H	0.29	
Oakland Metropolitan AP	89	38	40	78	64	-4	3	10	L	0.81	
Oceanside	28	33	43	80	68	12	19	25	L	0.50	
Ontario	997	34	39	98	70	-5	2	9	H	0.25	
Oxnard	7	34	41	79	64	-6	0	7	M	0.49	
Palmdale AP	2,542	34	24	98	65	-30	-22	-15	H	0.51	
Palm Springs IAP	476	34	45	109	72	-11	-4	2	H	0.09	
Palm Springs, Thermal AP	-118	34	34	109	73	-10	-3	4	H	0.13	
Pasadena	864	34	35	95	68	-11	-4	3	H	0.25	
Paso Robles Municipal AP	817	36	29	99	67	-24	-18	-11	H	0.68	
Petaluma	87	38	29	90	66	-14	-7	-1	H	0.79	
Point Arena	62	39	40	60	52	-27	-21	-14	L	5.26	
Point Arguello	112	35	48	68	58	-23	-17	-10	L	1.50	
Point Mugu NB	13	34	41	79	64	-8	-2	5	L	0.50	
Point Piedras	69	36	44	72	61	-12	-5	2	L	1.49	
Pomona CO	934	34	30	99	69	-12	-5	2	H	0.34	
Porterville AWOS	443	36	34	99	69	-11	-4	2	H	0.52	
Red Bluff Municipal AP	354	40	33	101	68	-20	-14	-7	H	0.51	
Redding Municipal AP	502	41	31	102	68	-23	-17	-10	H	0.53	
Redlands	1,571	34	33	99	69	-11	-4	3	H	0.35	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						$\frac{\text{HDD}_{65}}{\text{CDD}_{50}}$ Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Richmond	55	38	36	80	63	-12	-6	1	M	0.86	
Riverside Municipal AP	840	34	37	97	69	-9	-2	5	H	0.30	
Sacramento Executive AP	26	39	34	97	69	-11	-4	2	H	0.57	
Sacramento, Mather AP/AFB	95	39	32	98	68	-17	-11	-4	H	0.61	
Sacramento, McClellan AFB	75	38	34	98	67	-22	-15	-9	H	0.61	
Sacramento Metropolitan AP	33	39	34	98	70	-8	-1	5	H	0.50	
Salinas Municipal AP	79	37	36	79	62	-16	-9	-3	M	0.91	
San Bernardino, Norton AFB	1,156	34	36	101	70	-9	-3	4	H	0.27	
San Diego, Lindbergh Field	30	33	47	81	68	8	14	21	L	0.22	
San Diego Miramar NAS	479	33	41	87	67	-3	3	10	M	0.29	
San Diego, North Island NAS	26	33	46	80	67	5	12	18	L	0.25	
San Diego, Brown Field	522	33	43	84	65	-8	-1	6	M	0.37	
San Diego, Montgomery Field	423	33	43	84	66	-6	1	7	L	0.31	
San Fernando (Burbank DD)	977	34	39	91	68	-4	2	9	H	0.29	
San Francisco IAP	20	38	41	78	62	-14	-7	-1	M	0.89	
San Francisco CO	20	37	40	71	62	-3	4	10	L	1.79	
San Jose IAP	49	37	38	89	66	-11	-4	2	M	0.48	
San Luis Obispo Co. Regional AP	217	35	36	84	63	-18	-11	-4	M	0.61	
Sandberg	4,524	35	28	89	60	-38	-31	-23	M	1.08	
Santa Ana AP	54	33	39	85	68	4	11	17	H	0.20	
Santa Barbara Municipal AP	20	34	37	80	64	-7	0	6	M	0.62	
Santa Cruz	125	37	38	71	61	-7	-1	6	H	0.93	
Santa Maria Public AP	240	35	35	80	62	-17	-11	-4	M	0.92	
Santa Monica CO	236	34	43	80	68	12	19	26	M	0.44	
Santa Paula	245	34	35	86	67	-2	4	11	H	0.45	
Santa Rosa AWOS	148	39	32	91	67	-13	-6	1	H	0.95	
Stockton Metropolitan AP	26	38	33	98	69	-10	-3	3	H	0.53	
Travis AFB, Fairfeld	59	38	34	95	67	-18	-11	-5	H	0.58	
Truckee-Tahoe	5,899	39	7	86	57	-48	-39	-31	H	6.40	
Tustin	56	34	41	90	69	3	9	16	M	0.19	
Ukiah Municipal AP	627	39	32	97	68	-16	-9	-2	H	0.80	
Victorville, George AFB	2,875	34	30	98	65	-29	-22	-15	H	0.60	
Visalia Municipal AP AWOS	292	36	33	98	71	0	6	13	H	0.52	
Yreka	2,625	41	17	92	64	-25	-18	-11	H	2.17	
Yuba City (Chico DD)	58	39	31	101	67	-27	-20	-13	H	0.66	
<b>Colorado</b>											
Akron, Washington Co. AP	4,623	40	3	91	63	-28	-20	-12	H	2.14	
Alamosa, San Luis Valley Regional AP	7,543	37	-10	83	55	-54	-45	-36	H	5.96	
Aspen, Pitkin Co. SAWRS	8,018	39	1	82	54	-58	-49	-40	H	6.12	
Boulder	5,385	40	0	91	59	-47	-39	-31	H	2.19	
Buckley ANGB	5,663	40	7	90	59	-47	-39	-31	H	2.11	
Colorado Springs Municipal AP	6,171	39	6	88	59	-44	-36	-28	H	2.60	
Cortez, Montezuma Co. AP	5,915	37	9	91	59	-46	-38	-30	H	2.56	
Craig, Creig-Moffit Field	6,283	41	-9	88	57	-50	-41	-33	H	5.70	
Denver IAP	5,430	40	7	92	60	-44	-35	-27	H	2.06	
Denver Stapleton IAP	5,285	40	3	91	60	-42	-33	-25	H	2.05	
Denver, Centennial AP	5,883	40	4	90	60	-40	-32	-24	H	2.41	
Durango-La Plata C. AP	6,686	37	7	88	57	-52	-44	-35	H	3.27	
Eagle Co. AP	6,535	40	-2	85	57	-49	-40	-32	H	5.10	
Fort Collins AWOS	5,016	40	6	91	60	-41	-33	-25	H	2.35	
Fort Collins SAWRS	5,003	41	3	87	61	-32	-24	-16	M	2.50	
Grand Junction, Walker Field	4,839	39	12	95	61	-44	-36	-28	H	1.48	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Greeley-Weld Co. AP AWOS	4,659	40	1	92	62	-34	-26	-19	H	2.49	
Gunnison Co. AWOS	7,674	39	-11	81	52	-63	-54	-45	H	9.03	
Hayden, Yampa Valley Regional AP AWOS	6,601	40	1	84	55	-56	-47	-39	H	4.74	
La Junta Municipal AP	4,216	38	7	97	64	-32	-25	-17	H	1.36	
Lamar Municipal AP	3,704	38	9	98	67	-20	-12	-5	H	1.43	
Leadville	9,927	39	-14	81	51	-71	-61	-52	H	29.08	
Limon	5,364	39	1	90	60	-38	-30	-22	H	2.95	
Montrose Co. AP	5,758	39	10	91	59	-46	-38	-29	H	2.13	
Pueblo Memorial AP	4,721	38	5	96	62	-38	-30	-22	H	1.68	
Rifle, Garfield Co. Regional AP	5,548	40	8	93	59	-51	-43	-35	H	2.47	
Sterling	4,038	40	-2	93	62	-36	-28	-21	H	2.16	
Trinidad, Las Animas Co. AP	5,745	37	8	91	60	-41	-33	-25	H	1.76	
<b>Connecticut</b>											
Bridgeport, Sikorsky Memorial AP	16	41	15	85	72	24	31	38	L	1.71	
Hartford, Bradley IAP	180	42	8	88	72	20	27	33	M	2.05	
Hartford, Brainard Field	20	42	11	88	73	25	32	38	M	1.82	
New Haven AP (Bridgeport DD)	14	41	7	84	73	33	40	46	M	1.71	
New London (Bridgeport DD)	10	41	9	85	72	26	32	39	M	1.71	
Norwalk	397	41	9	84	71	22	29	36	M	2.08	
Norwich	197	41	7	86	73	30	37	44	M	2.13	
Oxford AWOS	728	41	9	84	71	23	30	36	M	2.66	
Waterbury (Hartford DD)	850	41	2	85	71	22	28	35	M	1.82	
Willimantic ASOS	249	42	9	86	72	26	33	39	M	2.24	
Windsor Locks, Bradley Field (Hartford DD)	197	42	8	88	71	16	22	29	M	1.82	
<b>Delaware</b>											
Dover AFB	23	39	18	90	75	35	41	48	M	1.19	
Georgetown, Sussex Co. AP	52	39	19	90	75	34	41	47	M	1.07	
Wilmington, New Castle Co. AP	79	40	16	89	74	31	38	44	M	1.31	
<b>District of Columbia</b>											
Andrews AFB	282	39	18	91	74	30	37	43	M	1.12	
Ronald Reagan AP	66	39	20	92	75	34	41	47	M	0.91	
<b>Florida</b>											
Apalachicola Municipal AP	20	30	36	90	78	55	62	68	L	0.18	
Belle Glade	17	26	44	91	76	40	47	53	M	0.04	
Cape Kennedy AP	10	28	42	90	78	54	61	68	L	0.08	
Cape San Blas	7	30	40	86	77	55	61	68	L	0.23	
Crestview Bob Sikes AP	184	31	28	93	76	35	42	48	M	0.30	
Cross City AP	43	30	31	92	77	44	50	57	M	0.18	
Daytona Beach IAP	43	29	39	91	77	46	53	59	M	0.10	
Destin Ft. Walton	23	30	37	90	78	55	61	68	L	0.18	
Eglin AFB / Valparais	66	30	33	91	77	46	52	59	L	0.22	
Fort Lauderdale Hollywood IAP	10	26	51	91	78	55	62	69	L	0.01	
Fort Myers Page Field	20	27	46	93	77	44	51	57	M	0.03	
Fort Pierce	25	27	42	90	78	54	61	68	M	0.06	
Gainesville Regional AP	164	30	33	92	76	41	47	54	M	0.16	
Homestead AFB	16	25	50	90	79	60	67	73	L	0.02	
Hurlburt Field	39	30	33	91	78	54	60	67	L	0.22	
Jacksonville, Cecil Field	89	30	34	94	76	35	42	48	M	0.16	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Jacksonville IAP	33	30	33	93	77	44	51	57	M	0.19	
Jacksonville NAS	23	30	36	93	77	39	46	53	M	0.13	
Jacksonville, Craig Municipal AP	43	30	35	91	77	46	52	59	M	0.18	
Key West IAP	20	25	58	90	79	62	69	75	L	0.01	
Lakeland CO	214	28	41	91	76	40	47	54	M	0.05	
Macdill AFB, Tampa	26	28	44	92	77	44	51	57	L	0.06	
Marathon AP	7	25	57	91	80	66	72	79	L	0.01	
Mayport NAS	13	30	39	92	78	48	55	62	M	0.13	
Melbourne Regional AP	26	28	43	91	78	56	62	69	M	0.05	
Miami IAP	30	26	52	91	78	50	57	63	L	0.01	
Miami Beach CO	8	25	48	89	77	50	56	63	L	0.02	
Miami / Kendall-Tamiami AP	10	26	49	91	78	50	56	63	M	0.02	
Milton, Whiting Field NAS	200	30	31	93	77	44	50	57	M	0.29	
Molasses Reef	36	25	57	86	77	55	62	68	L	0.01	
Naples Municipal	23	26	47	90	77	50	57	63	L	0.03	
NASA Shuttle Facility	10	29	42	90	78	52	59	66	M	0.07	
Ocala Muni AWOS	89	29	34	92	75	34	41	48	M	0.14	
Orlando Executive AP	112	29	44	93	76	37	44	50	M	0.06	
Orlando IAP	105	28	42	92	76	40	46	53	M	0.07	
Orlando Sanford AP	56	29	42	93	75	31	38	44	M	0.08	
Panama City Bay Co.	20	30	36	91	77	46	52	59	L	0.17	
Pensacola Forest Sherman NAS	30	30	32	91	78	53	59	66	M	0.22	
Pensacola Regional AP	118	30	33	92	77	48	54	61	L	0.21	
Sarasota Bradenton	33	27	44	91	79	60	66	73	L	0.05	
Sombrero Key	121	25	59	87	78	60	66	73	L	0.00	
Southwest Florida (Lat: 26.5; Long: 81.8)	30	27	45	93	77	43	50	56	M	0.03	
St Augsutine AP	10	30	37	90	78	51	57	64	L	0.16	
St Petersburg / Clearwater	10	28	46	92	78	53	60	66	L	0.05	
Sanford	55	28	38	93	76	37	43	50	M	0.10	
Sarasota/Bradenton (St. Petersburgh / Clearwater DD)	30	27	43	92	79	58	64	71	M	0.05	
Tallahassee Regional AP	69	30	29	94	76	37	43	50	M	0.23	
Tampa International AP	10	28	43	91	77	48	54	61	L	0.06	
Tyndall AFB, Panama City	23	30	36	90	79	58	64	71	L	0.18	
Valpariso, Eglin AFB	66	30	33	91	77	46	52	59	L	0.22	
Venice Pier	16	27	46	87	78	60	67	73	L	0.06	
Vero Beach Municipal AP	30	28	43	91	78	52	58	65	M	0.05	
West Palm Beach IAP	20	27	48	90	78	52	59	65	L	0.02	
Whiting Field NAS	200	31	31	93	77	42	49	56	M	0.24	
<b>Georgia</b>											
Albany, Dougherty Co. AP	194	32	30	95	76	35	42	49	M	0.27	
Americus	466	32	25	94	76	36	43	50	M	0.43	
Athens, Ben Epps AP	801	34	26	93	75	30	37	44	M	0.53	
Atlanta, Nextrad; (33.37N, 84.55 W)	971	33	23	91	74	29	36	43	M	0.65	
Atlanta, Dekalb Peachtree AP	1,027	34	27	91	74	27	33	40	M	0.54	
Atlanta Hartsfield IAP	1,027	34	26	92	74	29	36	43	M	0.51	
Augusta, Bush Field	148	33	26	95	76	34	41	47	M	0.43	
Augusta, Daniel Field	420	33	30	93	74	23	30	37	M	0.35	
Brunswick, Malcolm McKinnon AP	23	31	34	90	78	51	58	64	L	0.23	
Columbus, Fort Benning	232	32	27	94	76	36	42	49	M	0.35	
Columbus, Lawson AFB	971	32	24	93	76	39	46	53	M	0.35	
Columbus Metropolitan AP	394	33	29	94	75	28	35	42	M	0.34	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Dalton	710	34	22	93	76	38	45	52	M	0.71	
Dobbins AFB, Marietta	1,083	34	25	91	74	29	36	42	M	0.57	
Dublin	310	32	25	93	76	37	44	51	M	0.38	
Fort Benning	289	32	27	94	76	33	40	47	M	0.39	
Fulton Co. AP	863	34	25	91	74	31	38	45	M	0.57	
Gainesville, Lee Gilmer AP	1,276	34	27	90	74	30	37	44	M	0.61	
Griffin	980	33	22	90	75	38	44	51	M	0.54	
Hunter AAF	43	32	32	93	77	42	49	55	M	0.25	
La Grange	693	33	23	91	75	35	42	49	M	0.64	
Macon, Middle GA. Regional AP	361	33	27	94	76	32	39	46	M	0.38	
Marietta, Dobbins AFB	1,068	34	26	91	74	30	37	44	M	0.54	
Moody AFB, Valdosta	233	31	34	94	76	37	44	51	M	0.20	
Moultrie	292	31	30	95	77	40	47	54	M	0.28	
Rome, R. B. Russell AP	643	34	22	93	74	27	34	41	M	0.63	
Savannah IAP	52	32	31	93	77	42	49	55	M	0.27	
Valdosta Regional AP	197	31	31	93	77	40	47	54	M	0.22	
Warner Robins AFB	302	33	28	95	76	34	41	48	M	0.36	
Waycross, Ware Co. AP	141	31	31	94	76	35	41	48	M	0.24	
<b>Hawaii</b>											
Barbers Point NAS	33	21	62	90	73	24	30	37	M	0.00	
Hilo IAP	36	20	63	85	74	38	44	51	L	0.00	
Honolulu IAP	16	21	63	89	74	28	35	42	L	0.00	
Kahului AP	49	21	61	88	74	33	39	46	L	0.00	
Kaneohe Bay MCAS	20	21	66	84	74	40	47	53	L	0.00	
Keahol-Kona IAP	49	20	67	87	75	43	50	56	L	0.00	
Lihue AP	148	22	62	84	75	42	49	56	L	0.00	
Molokai AMOS	449	21	62	86	72	27	33	40	L	0.00	
Wahaiwa	900	21	59	85	72	27	34	41	L	0.00	
<b>Idaho</b>											
Boise Air Terminal	2,867	44	11	95	63	-34	-27	-20	H	1.86	
Burley Municipal AP	4,157	43	6	91	63	-28	-21	-13	H	2.64	
Caldwell AWOS	2,428	44	16	93	65	-22	-15	-8	H	2.13	
Challis	5,072	45	-6	89	57	-52	-44	-36	H	4.20	
Coeur D'Alene AWOS	2,320	48	12	89	62	-28	-21	-14	H	3.78	
Elk City RAMOS	4,098	46	16	91	66	-13	-5	3	H	2.41	
Idaho Falls, Fanning Field	4,744	44	-2	89	61	-36	-28	-20	H	4.12	
Kamiah	1,196	46	15	93	64	-28	-21	-14	H	3.43	
Joslin, Field Magic Valley Regional AP	4,255	42	12	91	63	-27	-20	-12	H	2.31	
Lewiston, Nez Perce Co. AP	1,437	46	18	94	65	-27	-20	-13	H	1.72	
Mccall AP	5,020	45	-2	83	58	-39	-32	-24	H	9.18	
Moscow	2,583	46	0	87	62	-27	-20	-13	H	3.62	
Mountain Home AFB	2,992	43	9	96	63	-39	-32	-25	H	2.00	
Mullan AWRS	3,317	47	8	84	61	-25	-18	-10	H	5.59	
Pocatello Regional AP	4,478	43	1	91	61	-38	-30	-22	H	3.20	
Salmon, Lemhi Co., AP AWOS	4,045	45	1	88	61	-35	-27	-20	H	4.87	
Twin Falls AP	4,150	42	2	95	61	-44	-36	-29	H	2.52	
<b>Illinois</b>											
Aurora Municipal AP	705	42	1	88	74	30	37	44	M	2.22	
Belleville, Scott AFB	453	38	10	93	77	44	51	58	M	1.13	
Bloomington (Peoria DD)	875	40	-2	90	74	31	38	45	M	1.80	

## UNITED STATES TABLE 1A

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Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Cahokia, St. LouisDowntown Parks AP	413	39	14	91	76	43	50	56	M	1.06	
Carbondale	411	37	7	93	77	44	51	57	M	1.31	
Champaign, Urbana	754	40	2	92	74	28	34	41	M	1.77	
Chicago, Meigs Field	593	41	3	89	73	26	33	40	M	1.72	
Chicago Midway AP	617	42	4	90	73	27	34	41	M	1.77	
Chicago Ohare IAP	673	42	2	89	73	29	36	42	M	2.08	
Chicago CO	647	41	2	91	74	29	36	43	L	1.72	
Danville	696	40	1	90	74	31	38	44	M	1.59	
Decatur	699	40	5	91	76	41	47	54	M	1.55	
Dixon	785	41	-2	90	74	31	38	45	M	2.56	
Elgin	700	42	-2	88	74	34	41	48	M	2.53	
Freeport	856	42	-4	89	73	27	34	40	M	2.80	
Galesburg	764	41	-2	91	75	36	42	49	M	1.96	
Glenview NAS	653	42	2	90	73	26	32	39	M	2.00	
Greenville (Vandalia DD)	541	39	4	92	75	33	40	47	M	1.49	
Joliet	581	41	0	90	74	31	37	44	M	2.15	
Kankakee	629	41	1	90	74	31	37	44	M	2.03	
LaSalle, Peru	654	41	-2	91	75	35	42	49	M	2.10	
Lawrenceville-Vincennes IAP	430	39	12	91	76	38	45	52	M	1.16	
Macomb (Galesburg DD)	705	40	0	92	76	40	47	54	M	1.96	
Marseilles Island	738	41	0	89	74	33	39	46	M	2.04	
Mattoon-Charleston Coles Co. Memorial AP	722	39	9	90	76	42	49	55	M	1.38	
Moline Quad City IAP	594	41	0	91	75	36	43	50	M	1.83	
Mount Vernon AWOS	479	38	11	91	76	42	48	55	M	1.25	
Peoria, Greater Peoria AP	663	41	2	90	75	39	45	52	M	1.68	
Quincy Municipal AP, Baldwin Field	768	40	3	90	75	38	45	52	M	1.54	
Rantoul, Chanute AFB	737	40	1	91	74	29	36	43	M	1.78	
Rockford, Greater Rockford AP	745	42	-2	89	74	32	38	45	M	2.27	
Scott AFB, Bellevill	443	39	10	93	77	42	49	55	M	1.11	
Southern Illinois AP	420	38	16	91	77	47	53	60	M	1.01	
Springfield Capital AP	614	40	5	91	76	40	46	53	M	1.48	
Sterling Rockfalls	646	42	0	88	74	32	38	45	M	2.22	
University of Illinois	774	40	4	90	75	40	46	53	M	1.63	
Waukegan	727	42	-3	89	74	33	39	46	M	2.72	
West Chicago, Du Page AP	758	42	1	88	74	33	40	46	M	2.25	
<b>Indiana</b>											
Anderson (Indianapolis DD)	919	40	6	92	75	34	41	48	M	1.49	
Bedford (Columbus DD)	728	38	5	92	75	34	41	47	M	1.53	
Bloomington (Columbus DD)	846	39	5	92	75	34	41	48	M	1.53	
Columbus, Bakalar AFB	656	39	7	92	75	34	40	47	M	1.53	
Crawfordsville	799	40	3	91	74	29	36	43	M	2.05	
Evansville Regional AP	387	38	12	92	76	38	45	51	M	1.06	
Fort Wayne IAP	827	41	4	88	73	28	35	42	M	1.92	
Goshen AP	827	41	1	89	73	27	33	40	M	1.96	
Grissom AFB	830	41	3	89	75	37	44	51	M	1.68	
Hobart	644	41	2	88	73	28	35	41	M	2.21	
Huntingburg	528	38	14	90	76	43	50	56	M	1.15	
Huntington	806	40	1	89	72	21	28	34	M	1.97	
Indianapolis IAP	807	40	6	89	74	36	43	49	M	1.49	
Jeffersonville (Louisville, KY, DD)	474	38	10	93	74	25	32	39	M	1.00	
Kokoma	830	40	0	90	73	25	32	39	M	2.16	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Lafayette, Purdue Univ AP	636	40	4	90	75	34	41	48	M	1.61	
LaPorte	812	41	3	90	74	31	38	45	M	2.10	
Marion	859	40	0	90	73	25	32	39	M	2.00	
Monroe Co. AP	866	39	10	90	76	45	52	59	M	1.37	
Muncie	937	40	2	90	73	25	32	39	M	1.89	
Peru, Bunker Hill AFB (Logansport DD)	737	40	-1	88	73	28	35	42	M	2.04	
Peru, Grissom AFB (Logansport DD)	810	40	4	89	75	39	46	52	M	2.04	
Richmond AP	1,140	39	2	90	74	32	39	45	M	1.98	
Shelbyville	804	39	3	91	74	29	36	43	M	1.60	
South Bend, Michiana Regional AP	774	42	5	88	73	26	33	40	M	2.04	
Terre Haute IAP	574	39	7	90	76	42	49	56	M	1.43	
Valparaiso	771	41	3	90	74	31	38	45	M	2.11	
Vincennes	414	38	6	92	74	27	34	40	M	1.47	
<b>Iowa</b>											
Ames Municipal AP	955	42	1	88	75	40	47	53	M	2.08	
Ankeny Regional AP	902	42	0	91	74	32	39	46	M	1.73	
Atlantic	1,181	41	0	91	77	49	56	63	M	1.90	
Boone Municipal AP	1,161	42	0	90	77	49	56	63	M	1.99	
Burlington Municipal AP	702	41	1	90	76	40	47	54	M	1.60	
Carroll	1,230	42	0	91	77	48	55	62	M	1.96	
Cedar Rapids Municipal AP	873	42	-4	89	75	37	44	51	M	2.22	
Chariton	1,050	41	3	91	78	56	63	70	M	1.61	
Charles City	1,125	43	-3	88	76	49	56	63	M	2.44	
Clarion	1,161	43	-4	90	76	47	54	61	M	2.31	
Clinton Municipal AP AWOS	709	42	0	88	74	34	41	47	M	2.20	
Council Bluffs (Omaha, NB, DD)	1,253	41	-3	91	75	37	44	50	M	1.76	
Creston	1,293	41	1	91	77	49	55	62	M	1.81	
Davenport Municipal AP	850	42	1	88	75	43	50	57	M	1.99	
Des Moines IAP	965	42	-2	90	75	37	44	51	M	1.84	
Dubuque Regional AP	1,079	42	-3	86	73	33	40	47	M	2.56	
Estherville Municipal AP	1,316	43	-6	88	74	33	39	46	M	2.75	
Fair Field Municipal AP	801	41	3	91	78	54	60	67	M	1.67	
Fort Dodge AWOS	1,165	43	-6	88	74	33	39	46	M	2.48	
Iowa City	661	41	-6	89	76	45	52	58	M	1.69	
Keokuk Municipal AP	673	40	8	91	78	52	59	66	M	1.40	
Lamoni	1,122	40	0	92	74	28	35	42	M	1.98	
Marshall Town Municipal AP	971	42	0	88	75	41	48	55	M	2.26	
Mason City Municipal AP	1,224	43	-8	88	74	32	39	46	M	2.84	
Newton	953	41	-5	91	74	30	37	43	M	2.04	
Ottumwa Industrial AP	846	41	0	90	75	38	45	52	M	1.75	
Sioux City, Sioux Gateway AP	1,102	42	-4	90	74	34	40	47	M	2.14	
Spencer	1,339	43	-8	89	73	29	36	43	M	2.69	
Storm Lake	1,490	43	-4	90	74	33	40	47	M	2.03	
Washington	755	41	3	91	78	55	62	69	M	1.65	
Waterloo Municipal AP	879	43	-6	89	74	32	39	46	M	2.39	
Webster City	1,122	42	0	91	77	51	58	65	M	2.02	
<b>Kansas</b>											
Atchison	1,073	39	2	93	76	39	46	53	M	1.38	
Chanute, Martin Johnson AP	1,010	38	12	95	76	35	42	49	M	1.01	
Coffeyville Municipal AP	755	37	16	97	76	31	37	44	M	0.82	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Concordia, Blosser Municipal AP	1,483	40	5	96	73	19	26	33	M	1.36	
Dodge City Regional AP	2,592	38	8	97	70	-2	6	13	H	1.21	
El Dorado	1,378	37	7	98	73	13	20	27	M	1.19	
Elkhart AWOS	3,606	37	12	97	67	-16	-8	-1	H	1.09	
Emporia	1,206	38	5	97	74	21	27	34	M	1.33	
Ft Riley	1,063	39	6	96	75	25	32	39	M	1.22	
Garden City Municipal AP	2,881	38	6	97	69	-4	3	10	H	1.34	
Goodland, Renner Field	3,688	39	4	95	67	-14	-7	1	H	1.82	
Great Bend AWOS	1,886	38	9	97	72	7	14	21	M	1.27	
Hays Municipal AP AWOS	1,998	39	7	99	71	0	7	14	H	1.40	
Hill City Municipal AP	2,221	39	7	99	71	1	8	16	H	1.35	
Hutchinson AP	1,542	38	8	99	72	6	13	20	H	1.28	
Lawrence Municipal AP	833	39	10	95	76	37	44	50	M	1.15	
Liberal Municipal AP	2,956	37	12	97	69	-5	2	10	H	1.17	
Manhattan Regional AP	1,083	39	9	97	76	31	37	44	M	1.25	
Mcconnell AFB	1,358	38	12	97	73	17	24	31	M	0.95	
Medicine Lodge ASOS	1,539	37	12	100	72	5	12	19	M	0.91	
Newton AWOS	1,532	38	9	95	73	16	23	30	M	1.25	
Olathe, Johnson Co. AP	1,096	39	10	93	76	39	46	53	M	1.13	
Parsons, Tri City AP	899	37	16	97	76	32	39	45	M	0.90	
Russell Municipal AP	1,864	39	5	97	72	10	17	24	M	1.30	
Salina Municipal AP	1,283	39	7	98	74	17	24	31	M	1.11	
Topeka, Forbes Field	1,079	39	7	93	74	29	36	43	M	1.26	
Topeka Municipal AP	886	39	7	94	76	36	43	49	M	1.22	
Wichita Mid-Continent AP	1,339	38	11	97	73	17	24	31	M	1.02	
Wichita, Col. James Jabara AP	1,421	38	12	97	74	21	28	35	M	1.01	
Winfield	1,158	37	16	99	75	22	29	36	M	0.80	
<b>Kentucky</b>											
Ashland	546	38	10	91	74	29	36	42	M	1.55	
Bowling Green, Warren Co. AP	538	37	15	91	75	38	45	51	M	0.98	
Capital City AP	804	38	16	90	74	30	37	44	M	1.20	
Cincinnati, Northern KY AP	883	39	10	89	74	31	38	45	M	1.35	
Corbin AP (Mt Vernon DD)	1,188	37	9	92	73	23	29	36	M	1.23	
Covington AP (Cincinnati DD)	869	39	7	89	73	27	34	40	M	1.25	
Fort Campbell AAF	568	37	16	92	76	40	47	54	M	0.82	
Fort Knox	784	38	14	91	75	37	44	51	M	1.05	
Henderson City	384	38	15	91	76	42	49	56	M	1.06	
Hopkinsville, Campbell AFB	571	15	15	93	76	38	45	51	M	1.01	
Jackson, Julian Carroll AP	1,358	38	15	87	73	32	39	46	M	1.05	
Lexington, Bluegrass AP	988	38	13	89	74	31	38	44	M	1.17	
London-Corbin AP	1,211	37	16	88	73	30	36	43	M	1.10	
Louisville, Bowman Field	558	38	14	91	75	34	41	48	M	1.00	
Louisville, Standiford Field	489	38	15	91	75	36	43	50	M	0.95	
Madisonville	439	37	10	93	75	32	38	45	M	0.85	
Owensboro	407	37	10	94	75	30	36	43	M	0.93	
Paducah, Barkley Regional AP	413	37	15	92	76	41	48	55	M	0.91	
Somerset AWOS	928	38	19	92	75	31	38	45	M	0.85	
<b>Louisiana</b>											
Alexandria, Esler Regional AP	118	31	28	95	77	42	49	55	M	0.32	
Alexandria IAP	89	31	30	94	77	44	50	57	M	0.28	
Barksdale AFB	177	33	27	95	76	36	43	49	M	0.38	
Baton Rouge, Ryan AP	75	31	31	93	77	45	51	58	M	0.24	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Fort Polk	335	31	30	94	76	37	44	50	M	0.27	
Bogalusa	119	30	28	93	77	43	50	57	M	0.29	
Bossier City, Barksdale AFB	167	32	27	94	77	42	48	55	M	0.36	
Grand Isle	33	29	41	87	78	59	66	73	L	0.13	
Houma	9	29	35	93	78	50	56	63	L	0.19	
Lafayette Regional AP	43	30	32	93	78	48	55	61	M	0.21	
Lake Charles Regional AP	10	30	33	93	78	49	56	62	M	0.21	
Leesville, Fort Polk	330	31	30	94	76	36	43	49	M	0.33	
Minden	278	32	25	96	76	32	39	46	M	0.44	
Monroe Regional AP	82	33	27	95	78	45	52	58	M	0.36	
Natchitoches	121	31	26	95	77	40	47	53	M	0.35	
New Orleans NAS	0	30	34	91	78	53	60	66	M	0.21	
New Orleans IAP	20	30	35	92	78	49	56	63	M	0.18	
New Orleans Lakefront AP	10	30	39	92	78	53	60	66	L	0.14	
Patterson Memorial	10	30	36	91	76	42	49	55	M	0.19	
Salt Point RMOS	10	30	36	91	74	30	36	43	L	0.19	
Shreveport, Downtown	180	33	30	97	76	33	40	46	M	0.32	
Shreveport Regional AP	259	32	28	95	76	36	43	49	M	0.34	
Venice (West Bay, Blind Bay)	39	29	43	87	78	60	67	73	L	0.12	
<b>Maine</b>											
Auburn-Lewiston	289	44	-1	84	69	12	19	26	M	3.91	
Augusta AP	361	44	1	84	69	12	19	26	M	3.33	
Bangor IAP	194	45	-2	84	69	11	18	25	M	3.66	
Bar Harbor AWOS	85	44	1	79	66	1	8	15	M	4.65	
Brunswick NAS	75	44	2	83	69	12	19	25	M	3.35	
Caribou Municipal AP	623	47	-10	81	67	4	11	17	M	6.04	
Greenville AMOS	1,037	45	-9	81	66	0	7	14	M	5.42	
Houlton IAP	476	46	-11	82	68	6	13	20	M	5.69	
Lewiston	358	44	-2	85	70	15	22	29	M	2.99	
Limestone, Loring AFB (Arcadia DD)	745	46	-9	80	66	3	9	16	M	3.77	
Loring AFB, Limeston	745	47	-10	81	66	3	9	16	M	6.16	
Millinocket AP	413	45	-9	83	68	8	14	21	M	4.88	
Northern Aroostook Regional AP	1,014	47	-9	79	65	-1	6	13	M	6.74	
Portland International Jetport	62	44	4	84	70	16	22	29	M	3.34	
Presque Isle Municipal AP	535	47	-14	82	66	0	6	13	M	6.12	
Rockland, Knox AWOS	56	44	3	79	66	5	12	18	M	4.80	
Sanford Municipal AP AWOS	243	43	0	85	69	9	16	23	M	3.81	
Waterville AWOS	331	45	-1	82	69	13	20	26	M	3.88	
Wiscasset Municipal AP	69	44	1	82	69	16	23	29	M	3.90	
<b>Maryland</b>											
Andrews AFB	282	39	18	91	74	30	37	43	M	1.12	
Baltimore CO	24	39	17	89	76	43	50	56	M	0.80	
Baltimore-Washington IAP	154	39	17	91	74	29	36	42	M	1.18	
Cumberland	790	39	10	89	74	33	39	46	M	1.57	
Fredrick AP	313	39	12	91	75	34	41	48	M	1.11	
Hagerstown	704	39	12	91	74	29	36	43	M	1.58	
Lexington Park, Patuxent River NAS	39	38	21	90	76	40	47	53	M	0.97	
Salisbury Wicomico Co. AP	59	38	18	90	76	41	47	54	M	1.11	
Thomas Point	39	39	21	85	76	50	57	63	L	1.07	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
<b>Massachusetts</b>											
Barnstable Muni-Boa (Centerville Harbor and Lewis bay)	56	42	14	81	71	29	35	42	L	2.44	
Boston, Logan IAP	30	42	12	88	72	21	28	34	M	1.91	
Buzzards Bay	56	41	17	74	0	12	18	25	L	2.45	
Chatham Municipal AP	62	42	16	79	71	29	35	42	L	2.33	
Clinton	366	42	2	87	71	18	24	31	M	2.59	
Fall River (New Bedford DD)	190	41	9	84	71	22	29	35	M	1.93	
Falmouth Area	132	41	14	82	72	31	38	44	M	1.93	
Framingham	197	42	6	86	71	19	26	32	M	2.16	
Gloucester (Boston DD)	11	42	5	86	71	19	25	32	L	1.91	
Greenfield (Worcester DD)	250	42	-2	85	71	21	27	34	M	2.82	
Lawrence Municipal AP	151	43	9	88	73	24	31	38	M	2.25	
Lowell	102	42	1	88	72	21	28	34	M	2.60	
Marthas Vineyard	69	41	12	81	71	26	33	39	M	2.58	
New Bedford Regional AP	82	42	12	84	71	24	31	38	M	2.26	
Norwood Memorial	49	42	9	88	73	29	36	42	M	2.42	
Otis ANG; Forestdale-Maspee	131	42	13	82	71	26	33	39	M	2.36	
Pittsfield AP (Albany, NY, DD)	1,194	42	-3	84	70	18	25	32	M	2.49	
Plymouth Municipal AP	148	42	10	84	72	26	32	39	M	2.52	
Provincetown AWOS	7	42	18	81	70	20	26	33	L	2.42	
South Weymouth NAS	161	42	10	88	72	23	30	37	M	2.09	
Springfield, Westover AFB (Worcester DD)	195	42	0	87	71	17	24	30	M	2.92	
Tauton	43	41	9	86	72	24	31	37	M	2.26	
Weymouth, S. Weymouth NAS (Boston DD)	161	42	11	87	72	23	29	36	M	1.91	
Worcester Regional AP	1,017	42	6	83	70	19	26	32	M	2.82	
<b>Michigan</b>											
Adrian	798	41	3	88	72	22	29	36	M	2.54	
Alpena Co. Regional AP	692	45	0	85	70	14	21	28	M	4.17	
Antrim Co. AP	623	45	0	84	71	23	29	36	M	3.90	
Battle Creek AP	941	42	5	88	72	23	29	36	M	2.62	
Benton Harbor, South West Michigan Regional AP	643	42	10	86	73	34	40	47	M	2.43	
Cadillac, Wexford Co. AP	1,306	44	-2	84	69	15	22	29	M	4.11	
Chippewa Co. IAP	820	46	-5	81	67	8	15	21	M	5.33	
Detroit City AP	627	42	9	88	72	23	30	37	M	1.89	
Detroit Metropolitan AP	663	42	7	87	73	26	33	39	M	2.08	
Detroit, Willow Run AP	715	42	6	88	73	26	33	40	M	2.29	
Eagle River, Copper Harbor RAMOS	610	47	1	77	64	-2	5	11	L	6.41	
Escanaba AWOS	614	46	-3	79	68	13	19	26	M	5.11	
Flint, Bishop IAP	768	43	4	87	72	26	33	39	M	2.58	
Grand Rapids, Kent Co. IAP	804	43	6	86	72	24	31	37	M	2.50	
Grosse Isle AP	577	42	10	86	74	36	43	50	M	1.84	
Hancock, Houghton Co. AP	1,079	47	-1	81	68	12	19	26	M	5.38	
Harbor Beach RAMOS	600	44	10	85	69	11	18	25	L	2.50	
Holland, Tulip City AP	689	43	10	84	72	29	36	43	M	2.37	
Houghton Lake, Roscommon Co. AP	1,161	44	-1	84	70	15	22	29	M	3.94	
Howell	961	43	7	88	72	23	30	36	M	2.25	
Iron Mountain, Ford AP	1,181	46	-6	84	70	18	25	32	M	4.57	
Ironwood AWOS	1,230	47	-8	82	68	8	15	22	M	5.24	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling					HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains				
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors		
Jackson, Reynolds Field	1,020	42	5	86	72	28	35	42	M 2.56	
Kalamazoo / Battle Creek IAP	896	42	9	88	72	25	31	38	M 2.14	
Lansing, Capital City AP	873	43	3	87	72	26	32	39	M 2.70	
Mackinack Island	984	46	-5	81	69	14	21	28	M 5.18	
Manistee AWOS	620	44	7	82	69	16	23	30	M 3.82	
Manistique AMOS	584	46	3	75	66	8	14	21	L 5.47	
Marquette Co. AP	1,414	47	-9	81	67	5	12	19	M 6.63	
Marquette, Sawyer AFB	1,220	46	-6	83	69	14	21	28	M 6.66	
Menominee AWOS	627	45	-2	82	68	10	17	24	M 3.99	
Mount Clemens ANGB	583	42	7	87	72	24	30	37	M 2.53	
Mount Pleasant	755	43	4	87	72	24	31	37	M 3.08	
Muskegon Co. AP	633	43	9	84	71	24	30	37	M 2.71	
Newberry Luce Co. AP	869	46	1	81	70	19	26	33	M 4.69	
Oakland Co. IAP	1,004	43	6	86	72	23	30	37	M 2.48	
Oscoda Wurtsmith AFB	633	44	3	86	71	22	28	35	M 3.46	
Passage Island (Isle Royale)	686	48	-4	67	0	-13	-6	0	L 13.71	
Pellston, Emmet Co. AP	715	46	-4	84	70	15	22	29	M 4.33	
Pontiac	980	42	4	87	72	24	31	38	M 2.46	
Port Huron	586	43	4	87	72	24	30	37	H 2.58	
Rock Of Ages (Isle Royale)	732	48	-4	69	0	-4	3	10	L 10.73	
Saginaw, Tri City IAP	669	44	4	87	72	23	30	37	M 2.74	
Sault St. Marie, Sanderson Field	725	46	-6	80	68	12	19	25	M 5.63	
Selfridge ANGB	581	43	7	87	73	27	34	40	M 2.34	
Seul Choix Point / Manistique	591	45	4	76	65	4	11	17	M 6.06	
St.Clair Co. IAP	650	43	5	86	72	23	29	36	M 2.69	
Sturgis AP	925	42	7	88	72	24	31	37	M 2.12	
Traverse City, Cherry Capital AP	630	45	5	86	70	15	22	28	M 3.23	
Ypsilanti	716	42	5	89	71	15	22	28	M 2.00	
<b>Minnesota</b>										
Aitkin NDB AWOS	1,204	47	-15	82	73	36	43	50	M 5.35	
Albert Lea AWOS	1,257	44	-7	86	72	29	36	43	M 2.87	
Alexandria, Municipal AP	1,430	46	-14	86	71	19	25	32	M 3.69	
Austin Municipal AP	1,230	44	-7	86	74	36	43	50	M 2.98	
Baudette IAP	1,083	49	-19	82	69	14	20	27	M 5.55	
Bemidji Municipal AP	1,378	48	-17	84	68	8	15	22	M 5.03	
Benson Municipal AP	1,040	45	-11	88	71	18	25	32	M 3.12	
Brainerd, Brainerd Lakes Regional AP	1,227	46	-12	84	70	19	26	33	M 4.05	
Cambridge Municipal AP	942	46	-11	88	73	27	34	41	M 3.60	
Cloquet AWOS	1,280	47	-12	82	69	18	25	31	M 5.86	
Crane Lake AWOS	1,148	46	-18	82	67	6	12	19	M 5.76	
Crookston Municipal AP	896	48	-19	84	70	19	25	32	M 4.88	
Detroit Lakes AWOS	1,398	47	-16	84	69	16	23	30	M 4.02	
Duluth Harbor CGS	610	47	-8	82	70	22	29	35	L 4.79	
Duluth IAP	1,417	47	-14	81	68	9	16	23	M 5.83	
Ely Municipal AP	1,493	48	-20	82	69	14	21	28	M 6.33	
Eveleth Municipal AP AWOS	1,381	47	-17	82	67	6	13	20	M 5.88	
Fairmont Municipal AP AWOS	1,161	44	-6	86	72	26	33	40	M 2.89	
Faribault Municipal AP AWOS	1,056	44	-9	86	73	32	39	46	M 3.04	
Fergus Falls AWOS	1,184	46	-13	86	71	20	26	33	M 3.25	
Flying Cloud	928	45	-4	88	74	32	38	45	M 2.46	
Fosston AWOS	1,273	48	-18	84	68	6	13	20	M 4.91	
Glenwood ASOS	1,394	46	-11	86	73	30	37	44	M 3.30	

## UNITED STATES TABLE 1A

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Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling					HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains				
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors		
Grand Marais Municipal AP	1,798	48	-11	79	65	3	10	17	M 7.96	
Grand Rapids AWOS	1,355	47	-15	82	67	7	14	21	M 5.47	
Hallock	820	49	-20	85	69	11	18	25	M 5.06	
Hibbing, Chisholm-Hibbing AP	1,358	47	-18	82	68	10	17	24	M 6.41	
Hutchinson AWOS	1,060	45	-10	88	72	24	31	38	M 3.15	
International Falls IAP	1,184	49	-21	83	68	8	14	21	M 6.02	
Litchfield Municipal AP	1,138	45	-9	85	72	26	33	39	M 3.25	
Little Falls AWOS	1,122	46	-12	87	71	21	27	34	M 3.78	
Mankato AWOS	1,020	44	-8	86	72	23	30	36	M 2.96	
Marshall, Marshall Municipal AP, Ryan Field AWOS	1,178	44	-8	88	72	23	29	36	M 3.06	
Minneapolis-St Paul IAP	837	45	-8	88	72	24	31	38	M 2.69	
Minneapolis, Anoka Co. Blaine AP	912	45	-4	88	74	33	40	47	M 2.84	
Minneapolis, Crystal AP	869	45	-4	88	73	26	33	40	M 2.74	
Montevideo AWOS	1,033	45	-9	88	73	31	38	45	M 3.06	
Mora Municipal AP AWOS	1,014	46	-11	86	70	17	24	31	M 4.01	
Morris Municipal AP AWOS	1,138	46	-13	85	73	32	39	46	M 3.87	
New Ulm Municipal AP AWOS	1,010	44	-8	88	73	29	36	42	M 2.90	
Orr	1,302	48	-19	82	69	16	23	30	M 6.14	
Owatonna AWOS	1,148	44	-8	86	73	30	37	44	M 2.97	
Park Rapids Municipal AP	1,444	47	-17	84	69	15	21	28	M 4.65	
Pequot Lake AMOS	1,280	47	-17	85	68	7	13	20	M 4.87	
Pipestone AWOS	1,736	44	-8	86	73	34	41	48	M 3.11	
Princeton Municipal AP	1,004	46	-8	88	71	18	25	32	M 3.33	
Red Wing	784	45	-8	88	73	28	35	42	M 2.91	
Redwood Falls Municipal AP	1,030	45	-11	89	73	26	33	40	M 2.82	
Rochester IAP	1,319	44	-9	85	72	28	35	42	M 3.31	
Roseau Municipal AP AWOS	1,060	49	-20	83	71	25	32	39	M 5.45	
Silver Bay	1,086	47	-14	81	66	1	8	15	M 7.67	
South St. Paul Municipal AP	820	45	-6	88	73	25	32	39	M 2.67	
St Cloud Regional AP	1,024	46	-13	87	71	21	27	34	M 3.75	
St. James Municipal AP	1,066	44	-4	88	73	28	35	42	M 2.55	
St. Paul Downtown AP	712	45	-8	88	73	30	37	44	M 2.79	
Thief River AWOS	1,115	48	-18	82	68	11	18	25	M 5.09	
Tofte RAMOS	791	48	-9	75	62	-9	-2	4	L 8.82	
Two Harbors	1,076	47	-11	81	69	17	24	31	M 6.43	
Virginia	909	47	-21	83	68	8	15	22	M 6.35	
Wheaton NDB AWOS	1,027	46	-13	86	72	25	32	39	M 3.66	
Willmar	1,129	45	-13	85	71	24	30	37	M 3.46	
Winona Municipal AP AWOS	656	44	-4	89	73	26	33	40	M 2.46	
Worthington AWOS	1,575	44	-7	85	71	23	30	37	M 3.22	
<b>Mississippi</b>										
Biloxi, Keesler AFB	26	30	35	91	78	53	59	66	M 0.25	
Clarksdale	173	34	19	94	77	42	48	55	M 0.55	
Columbus AFB	223	34	25	94	76	37	43	50	M 0.46	
Golden Triangle Regional AP AWOS	262	33	25	93	77	42	48	55	M 0.49	
Greenville AFB	131	33	20	93	77	43	50	57	M 0.47	
Greenwood, Leflore AP	135	34	25	94	77	44	50	57	M 0.44	
Hattiesburg	305	31	28	93	75	31	38	44	M 0.33	
Jackson IAP	331	32	26	94	76	38	45	52	M 0.39	
Keesler AFB, Biloxi	26	30	35	92	79	61	68	75	M 0.20	
Laurel	238	31	27	94	77	42	49	55	M 0.39	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
McComb, Pike Co. AP	423	31	28	93	76	39	46	52	M	0.31	
Meridian, Key Field	312	32	26	94	76	37	44	51	M	0.40	
Meridian NAAS	318	33	26	95	77	38	45	51	M	0.40	
Natchez , Hardy AWOS	272	32	28	91	77	45	51	58	M	0.36	
Tupelo, C D Lemons AP	361	34	23	94	76	34	41	48	M	0.55	
Vicksburg CO	106	32	26	95	78	47	53	60	M	0.34	
<b>Missouri</b>											
Cape Girardeau Municipal AP	351	37	14	93	77	44	51	57	M	0.95	
Columbia Regional AP	899	39	7	92	76	41	47	54	M	1.29	
Farmington AP	946	37	8	93	75	33	39	46	M	1.38	
Hannibal	712	39	3	93	76	38	45	52	M	1.56	
Jefferson City Memorial AP	548	39	12	91	75	37	44	50	M	1.09	
Joplin Municipal AP	984	37	12	94	76	35	42	49	M	0.88	
Kaiser Memorial AP AWOS	869	38	12	93	75	31	38	45	M	1.13	
Kansas City Downtown AP	751	39	9	94	76	36	42	49	M	1.03	
Kansas City IAP	1,024	39	5	93	76	38	45	52	M	1.28	
Kirksville Regional AP	965	40	1	91	75	36	43	50	M	1.56	
Mexico	823	39	4	94	74	25	31	38	M	1.56	
Moberly	867	39	3	94	74	25	31	38	M	1.29	
Poplar Bluff AMOS	479	37	16	92	76	43	50	56	M	0.91	
Rolla National AP	1,138	38	10	92	75	33	40	47	M	1.16	
Sedalia Memorial AP	909	39	12	93	75	33	40	47	M	1.09	
Sikeston	315	36	15	95	76	34	41	47	M	0.95	
Spickard AMOS	886	40	5	92	74	26	32	39	M	1.54	
Springfield Regional AP	1,270	37	11	92	74	31	38	45	M	1.07	
St. Joseph AP	825	39	2	93	76	39	45	52	M	1.37	
St. Louis CO	580	38	8	94	75	30	37	44	M	1.05	
St. Louis, Lambert IAP	709	39	10	93	76	39	46	52	M	1.01	
St. Louis, Spirit Of St. Louis AP	463	39	11	93	76	40	47	54	M	1.14	
Warrensburg, Whiteman AFB	837	38	8	93	76	37	44	50	M	1.15	
<b>Montana</b>											
Billings, Logan IAP	3,570	46	-6	91	62	-33	-26	-18	H	2.65	
Bozeman, Gallatin Field	4,449	46	-10	88	60	-36	-28	-20	H	5.14	
Butte, Bert Mooney AP	5,535	46	-12	84	57	-47	-39	-31	H	7.86	
Cut Bank Municipal AP	3,839	49	-13	85	59	-38	-31	-23	H	6.13	
Dillon Airport	5,223	45	1	86	60	-36	-28	-20	H	4.95	
Glasgow IAP	2,293	48	-17	91	64	-25	-18	-11	H	3.66	
Glendive AWOS	2,457	47	-12	91	64	-22	-14	-7	H	3.74	
Great Falls	3,707	47	-6	87	60	-38	-31	-23	H	4.29	
Great Falls IAP	3,658	47	-11	89	60	-37	-30	-22	H	3.96	
Havre City-Co. AP	2,598	49	-18	91	63	-29	-22	-15	H	3.99	
Helena Regional AP	3,868	47	-8	89	61	-37	-29	-21	H	3.81	
Jordan RAMOS	2,661	47	-18	93	63	-30	-23	-16	H	3.72	
Kalispell, Glacier Park IAP	2,972	48	-1	86	62	-27	-20	-13	H	5.53	
Lewistown Municipal AP	4,147	47	-10	87	60	-35	-28	-20	H	5.32	
Livingston AP	4,656	45	-14	87	60	-36	-28	-20	H	4.21	
Malmstrom AFB (Great Falls)	3,465	48	-10	90	62	-33	-26	-18	H	3.16	
Miles City Municipal AP	2,635	46	-12	95	65	-25	-18	-10	H	2.68	
Missoula IAP	3,189	47	2	89	62	-32	-25	-17	H	4.11	
Sidney Municipal AP	1,985	48	-13	90	67	-9	-2	5	H	3.85	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
<b>Nebraska</b>											
Ainsworth Municipal AP	2,589	43	0	91	69	3	11	18	M	2.31	
Alliance Municipal AP	3,930	42	0	93	65	-20	-12	-5	H	2.76	
Beatrice Municipal AP	1,322	40	3	93	74	24	31	38	M	1.53	
Chadron AP	3,296	42	-3	94	65	-23	-15	-8	H	2.61	
Columbus Municipal AP	1,480	41	0	91	74	29	36	43	M	2.12	
Fremont Municipal AP	1,243	41	1	91	74	28	35	42	M	1.79	
Grand Island, Central NE Region AP	1,857	41	0	93	73	22	29	36	M	1.84	
Hastings Municipal AP	1,955	41	2	93	73	24	31	38	M	1.68	
Holdrege, Brewster Field AP	2,310	40	5	92	71	15	22	29	M	1.75	
Kearney Municipal AP AWOS	2,129	41	3	91	72	19	27	34	M	1.94	
Lincoln Municipal AP	1,188	41	0	94	74	28	35	41	M	1.68	
Mc Cook Municipal AP	2,579	40	7	99	71	1	8	15	H	1.49	
Norfolk, Karl Stefan Memorial AP	1,552	42	-2	92	73	25	32	39	M	2.03	
North Platte Regional AP	2,789	41	-1	93	70	6	13	20	H	2.24	
O'Neill Municipal AP	2,031	42	-2	91	70	8	16	23	M	2.26	
Offutt AFB, Bellevue	1,047	41	2	91	76	39	46	53	M	1.61	
Omaha, Eppley Airfield	981	41	-1	92	75	35	42	48	M	1.76	
Omaha WSFO	1,309	41	-2	91	74	34	41	47	M	1.81	
Scottsbluff, W. B. Heilig Field	3,957	42	-1	93	65	-22	-14	-6	H	2.41	
Sidney Municipal AP	4,308	41	0	93	63	-30	-22	-14	H	2.55	
Tekamah ASOS	1,024	42	0	91	75	35	42	49	M	1.89	
Valentine, Miller Field	2,598	43	-6	94	68	-5	2	9	H	2.46	
<b>Nevada</b>											
Caliente AMOS	4,380	38	12	96	62	-43	-35	-27	H	1.67	
Carson City	4,675	39	9	91	59	-47	-39	-32	H	2.40	
Elko Municipal AP	5,075	41	2	92	59	-48	-40	-32	H	3.55	
Ely, Yelland Field	6,263	39	1	89	57	-55	-47	-39	H	4.14	
Eureka RAMOS	6,539	40	7	88	55	-63	-54	-46	H	3.38	
Fallon NAAS	3,934	39	15	97	62	-41	-33	-26	H	1.43	
Las Vegas, Mc Carran IAP	2,182	36	33	106	68	-30	-23	-16	M	0.30	
Lovelock, Derby Field	3,904	40	10	97	62	-43	-35	-27	H	1.78	
Mercury, Desert Rock AP	3,310	37	29	101	65	-35	-28	-20	H	0.53	
Nellis AFB	1,880	36	32	107	67	-34	-27	-20	H	0.30	
Reno-Tahoe IAP	4,400	39	17	93	61	-42	-35	-27	H	1.81	
Reno CO	5,046	39	11	93	60	-46	-38	-30	H	1.81	
Tonopah AP	5,433	38	14	93	59	-50	-42	-34	H	1.76	
Winnemucca Municipal AP	4,314	41	8	95	61	-43	-35	-27	H	2.59	
<b>New Hampshire</b>											
Berlin Municipal AP	1,158	45	-11	82	67	5	12	19	M	5.91	
Claremont (Lebanon DD)	545	43	-4	86	70	14	21	27	M	3.72	
Concord Municipal AP	348	43	0	87	70	12	18	25	M	3.11	
Isle of Shoals (Odiorne Point)	62	43	11	78	0	16	23	29	L	3.25	
Jaffrey Municipal AP	1,040	43	1	84	69	14	21	28	M	3.47	
Keene, Dillant-Hopkins AP	502	43	0	85	69	11	18	25	M	3.31	
Laconia Municipal AP AWOS	545	44	1	84	69	11	17	24	M	3.32	
Lebanon Municipal AP	597	44	-3	86	69	11	18	25	M	3.48	
Manchester AP	233	43	7	89	71	14	20	27	M	2.17	
Mount Washington	6,266	44	-18	59	55	-16	-8	1	L	92.46	
Portsmouth, Pease International Tradeport	102	43	8	86	71	19	26	33	M	2.59	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
<b>New Jersey</b>											
Atlantic City IAP	66	39	15	89	74	30	37	44	M	1.44	
Belmar-Farmingdale	85	40	16	88	73	24	30	37	M	1.58	
Cape May Co. AP	23	39	19	87	74	32	39	45	L	1.30	
Long Branch	36	40	13	90	73	24	30	37	M	1.69	
Mcguire AFB	148	40	15	90	75	33	40	47	M	1.37	
Millville Municipal AP	75	39	15	90	74	31	38	44	M	1.37	
Newark IAP	30	41	16	91	74	25	31	38	M	1.23	
New Brunswick	100	40	10	89	73	25	32	38	M	1.69	
Patterson (Newark DD)	186	40	10	91	73	22	29	35	M	1.23	
Phillipsburg (Allentown, PA, DD)	314	40	6	89	72	20	27	33	M	1.77	
Teterboro Airport	7	41	15	90	74	30	36	43	M	1.47	
Trenton, Mercer Co. AP	213	40	14	90	74	28	35	41	M	1.52	
Vineland (Millville DD)	88	39	11	89	74	31	38	44	M	1.38	
<b>New Mexico</b>											
Alamogordo, White Sands Regional AP	4,308	33	25	99	64	-34	-26	-19	H	0.54	
Albuquerque IAP	5,315	35	21	93	60	-45	-37	-29	M	0.99	
Artesia	3,548	32	19	100	67	-21	-14	-6	H	0.82	
Cannon AFB (Clovis)	4,295	34	17	95	64	-30	-22	-14	H	0.89	
Carlsbad, Cavern City Air Terminal	3,261	32	24	100	66	-28	-21	-13	H	0.46	
Clayton Municipal AP	4,974	36	12	92	63	-31	-23	-15	H	1.42	
Clovis Municipal AP AWOS	4,213	34	18	93	64	-29	-21	-13	H	1.03	
Farmington, Four Corners Regional AP	5,502	37	12	92	60	-46	-38	-30	H	1.68	
Gallup, Sen. Clarke Field	6,467	36	5	89	57	-53	-45	-36	H	2.67	
Grants	6,521	35	4	88	58	-47	-39	-30	H	2.14	
Hobbs AP	3,659	32	18	99	66	-25	-17	-10	H	0.55	
Holloman AFB	4,094	33	23	97	63	-37	-29	-21	H	0.68	
Las Cruces	4,544	32	20	96	64	-30	-22	-15	H	0.58	
Los Alamos	6,089	35	9	87	60	-36	-27	-19	H	3.24	
Raton AP	6,349	36	1	89	60	-39	-31	-22	H	2.63	
Roswell Intergalactic Air Center	3,668	33	21	97	65	-27	-19	-12	H	0.62	
Santa Fe CO	6,345	35	10	88	61	-32	-24	-15	H	2.53	
Sierra Blanca Regional AP	6,818	33	19	86	56	-53	-45	-36	M	1.38	
Silver City AP	6,126	32	10	94	60	-47	-39	-30	H	1.26	
Socorro AP	4,850	34	17	95	62	-39	-31	-23	H	1.04	
Taos Municipal AP AWOS	7,090	36	4	86	55	-59	-50	-42	H	3.71	
Truth Or Consequences Municipal AP	4,859	33	25	96	61	-44	-36	-28	H	0.63	
Tucumcari AP	4,039	35	15	95	65	-24	-16	-8	H	0.91	
White Sands	4,081	32	23	97	64	-32	-24	-16	H	0.58	
<b>New York</b>											
Albany Co. AP	292	43	3	86	71	21	28	34	M	2.49	
Albany CO	275	42	1	88	72	21	28	35	M	2.71	
Ambrose Navigation Light (Raritan Bay)	69	40	18	81	68	11	18	24	L	1.62	
Auburn	417	43	2	87	71	18	24	31	M	3.10	
Bafavia	913	43	5	87	71	18	25	32	M	2.50	
Binghamton, Edwin A-Link Field	1,637	42	4	83	68	12	19	26	M	3.13	
Buffalo, Niagara IAP	705	43	7	84	70	17	24	31	M	2.51	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Central Islip	98	40	15	85	72	26	33	39	M	1.74	
Cortland	1,198	42	0	85	71	22	29	36	M	3.04	
Dunkirk	646	42	11	80	72	36	43	49	L	2.44	
Elmira, Corning Regional AP	955	42	3	87	70	15	22	29	M	2.80	
Fort Drum	679	44	-6	84	69	14	21	28	M	3.42	
Galloo Island	249	44	3	77	0	3	9	16	L	3.43	
Geneva	417	42	2	87	71	18	24	31	M	2.91	
Glens Falls AP	335	43	-4	85	71	20	26	33	M	3.26	
Gloversville	417	43	-2	86	71	19	26	33	M	3.55	
Griffiss AFB	518	43	0	86	70	14	21	28	M	2.98	
Hornell (Addison DD)	1,220	42	0	85	70	17	23	30	M	3.40	
Islip, Long Isl. MacArthur AP	108	41	15	86	72	26	32	39	M	1.72	
Jamestown AWOS	1,722	42	5	81	69	16	23	30	M	3.47	
Ithaca	1,099	42	0	85	71	22	29	36	M	3.35	
Jamestown	1,723	42	3	86	70	16	23	30	M	3.10	
Kingston (Poughkeepsie DD)	149	42	2	88	72	21	28	34	M	2.47	
Lockport	638	43	7	86	72	25	32	39	M	2.70	
Massena AP	213	45	-9	85	71	22	28	35	M	3.60	
Monticello AWOS	1,404	42	3	82	68	12	18	25	M	3.39	
New York, Central Park	7	40	15	89	73	25	32	38	M	1.27	
New York, J. F. Kennedy IAP	23	41	17	87	72	25	31	38	L	1.40	
New York, Laguardia AP	30	41	17	89	73	25	31	38	L	1.21	
Newburgh, Stewart IAP	581	42	9	86	72	23	30	36	M	2.07	
Niagara Falls (Pakard Rd. and New Rd.)	587	43	7	85	71	22	29	36	M	2.51	
Olean (Jamestown DD)	2,135	42	2	84	71	25	33	40	M	3.10	
Oneonta (Binghamton DD)	1,764	42	-4	83	69	15	22	29	M	3.13	
Oswego CO	300	43	7	83	71	24	31	37	M	2.76	
Plattsburgh AFB	236	45	-5	83	70	15	22	28	M	3.72	
Poughkeepsie, Dutchess Co. AP	161	42	6	89	73	24	31	38	M	2.22	
Republic	85	41	18	88	73	29	36	43	L	1.54	
Rochester IAP	554	43	6	85	71	22	28	35	M	2.55	
Rome, Griffiss IAP (Utica D)	514	43	1	86	70	14	21	27	M	2.91	
Schenectady (Troy DD)	378	42	1	87	72	23	30	37	M	2.35	
Suffolk Co. AP, East Quogue (Islip DD)	67	40	10	83	71	24	30	37	M	1.74	
Superior Shoals	259	44	-1	79	70	21	28	35	L	3.04	
Syracuse, Hancock IAP	417	43	3	86	71	20	27	34	M	2.54	
Utica, Oneida Co. AP	745	43	1	85	71	19	26	33	M	2.91	
Watertown AP	335	44	-6	83	70	21	28	35	M	3.50	
White Plains, Westchester Co. AP	397	41	12	87	72	26	33	40	M	1.85	
<b>North Carolina</b>											
Asheville Regional AP	2,169	35	19	86	71	22	29	36	M	1.18	
Cape Hatteras	10	35	32	85	78	60	67	73	L	0.48	
Cape Lookout	36	35	32	84	75	45	52	58	L	0.40	
Charlotte, Douglas IAP	768	35	25	92	74	29	36	43	M	0.63	
Cherry Point MCAS	30	35	27	91	78	50	57	63	M	0.45	
Diamond Shoals, Hatteras Island Light	0	35	35	83	76	55	62	68	L	0.30	
Durham	427	36	20	92	75	33	40	46	M	0.82	
Elizabeth City AP	12	36	19	91	77	46	53	59	M	0.63	
Fayetteville Regional AP	194	35	26	93	76	34	41	48	M	0.52	
Fort Bragg - Shaws	305	35	26	94	76	34	41	47	M	0.51	
Frying Pan Shoals	79	33	39	84	75	46	53	59	L	0.17	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Goldsboro, Johnson AFB	108	35	27	94	76	35	42	48	M	0.51	
Greensboro, Piedmont Triad IAP	886	36	22	90	74	31	38	44	M	0.84	
Goldsboro, Seymour	154	35	27	94	76	35	42	49	M	0.51	
Greenville, Pitt-Greenville AP	26	36	25	93	76	33	40	47	M	0.54	
Hatteras, Billy Mitchell AP	10	35	31	87	78	58	65	71	L	0.46	
Henderson	490	36	15	92	76	40	46	53	M	1.01	
Hickory Regional AP	1,188	36	23	90	73	25	32	39	M	0.80	
Jacksonville AWOS	95	35	25	91	76	38	44	51	M	0.60	
Lumberton	126	34	21	92	76	39	45	52	M	0.63	
New Bern, Costal Carolina Regional AP	23	35	26	92	77	48	55	61	M	0.49	
New River, McCutcheon Field	26	35	27	91	78	49	56	63	M	0.45	
Pope AFB	217	35	25	94	76	33	40	46	M	0.52	
Raleigh-Durham IAP	436	36	23	92	76	37	44	51	M	0.70	
Richmond IAP	164	38	21	92	75	34	41	48	M	0.84	
Rocky Mount	159	36	21	91	76	40	47	54	M	0.68	
Seymour-Johnson AFB	108	35	26	94	76	37	43	50	M	0.50	
Southern Pines AWOS	463	35	23	92	74	27	34	40	M	0.68	
Wilmington IAP	39	34	28	91	78	50	56	63	M	0.43	
Winston-Salem, Reynolds AP	971	36	23	90	74	30	37	44	M	0.77	
<b>North Dakota</b>											
Bismarck Municipal AP	1,660	47	-14	90	69	1	8	15	H	3.64	
Devils Lake AWOS	1,453	48	-18	82	67	4	11	18	M	4.96	
Dickinson Municipal AP	2,582	47	-13	90	66	-13	-6	2	H	3.94	
Fargo, Hector IAP	899	47	-15	88	70	13	20	27	M	3.67	
Grand Forks AFB	906	48	-16	88	70	12	19	26	M	4.12	
Grand Forks IAP	833	48	-17	87	69	10	17	24	M	4.33	
Jamestown Municipal AP	1,493	47	-15	88	69	8	15	22	M	3.88	
Lidgerwood RAMOS	1,152	46	-14	89	69	4	11	18	M	3.59	
Minot AFB	1,631	48	-17	89	68	-2	5	12	M	4.26	
Minot, IAP	1,713	48	-15	88	68	2	9	16	M	3.99	
Williston, Sloulin IAP	1,906	48	-18	91	66	-12	-5	2	H	3.99	
<b>Ohio</b>											
Akron-Canton Regional AP	1,237	41	7	86	72	25	32	39	M	2.09	
Ashtabula	924	41	9	85	72	27	34	41	M	2.60	
Athens	766	39	6	92	74	28	34	41	M	1.92	
Bowling Green	673	41	2	89	73	26	33	40	M	2.29	
Cambridge	800	40	7	90	74	31	38	45	M	1.67	
Chillicothe	640	39	6	92	74	27	34	41	M	1.74	
Cincinnati Municipal AP	499	39	12	90	74	33	39	46	M	1.25	
Cleveland-Hopkins IAP	804	41	9	87	73	27	34	41	M	1.97	
Columbus, Port Columbus IAP	817	40	9	89	73	26	33	40	M	1.54	
Columbus, Rickenbacker ANGB	755	40	10	90	75	36	43	50	M	1.46	
Dayton IAP	1,004	40	7	88	73	28	34	41	M	1.65	
Defiance	708	41	4	91	73	23	30	37	M	2.05	
Findlay AP	814	41	6	88	73	26	33	40	M	1.96	
Fremont	663	41	1	88	73	28	35	41	M	2.13	
Hamilton (Cincinnati DD)	634	39	5	90	72	19	26	32	M	1.25	
Lancaster, Fairfield Co. AP	866	40	10	88	74	31	38	44	M	1.72	
Lima	975	40	4	91	73	24	31	37	M	1.89	
Mansfield, Lahm Municipal AP	1,312	41	6	86	72	26	33	39	M	2.15	
Marion	994	40	5	91	73	24	31	37	M	2.21	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Middletown (Dayton DD)	651	39	5	90	72	19	26	32	M	1.65	
Newark	880	40	5	92	73	22	29	36	M	2.12	
Norwalk	852	41	1	88	73	28	35	42	M	2.29	
Ohio State University	928	40	12	88	73	29	36	42	M	1.59	
Portsmouth	540	38	10	92	74	27	34	41	M	1.49	
Sandusky CO	580	41	6	91	72	17	24	31	M	2.00	
South Bass Island (Western Lake Erie)	584	42	12	82	71	25	32	39	L	1.95	
Springfield	1,052	40	3	89	73	27	34	41	M	1.95	
Stubenville	1,194	40	5	86	71	21	27	34	M	1.86	
Toledo Express AP	692	42	5	88	73	26	32	39	M	2.06	
Wright-Paterson AFB	820	40	9	89	74	30	37	44	M	1.56	
Warren	905	41	5	87	71	18	25	32	M	2.74	
Wooster	1,136	40	6	86	71	20	27	34	M	2.34	
Youngstown Regional AP	1,188	41	7	86	71	21	28	35	M	2.30	
Zanesville Municipal AP	902	40	10	88	73	29	36	43	M	1.69	
<b>Oklahoma</b>											
Ada	1,016	34	14	97	74	20	27	34	M	0.64	
Altus AFB	1,358	35	20	100	74	14	20	27	M	0.55	
Ardmore	844	34	17	98	74	18	25	32	M	0.54	
Bartlesville	713	36	10	98	74	18	25	31	M	0.75	
Chickasha	1,150	35	14	98	74	19	26	33	M	0.58	
Clinton-Sherman AP	1,923	35	19	99	72	4	11	18	M	0.65	
Fort Sill	1,211	35	19	98	73	13	19	26	M	0.61	
Gage AP	2,201	36	13	98	71	4	11	18	M	0.93	
Hobart Municipal AP	1,572	35	19	100	72	7	14	21	M	0.67	
Lawton Municipal AP	1,109	35	21	100	74	13	20	27	M	0.57	
McAlester Municipal AP	771	35	19	97	76	30	37	44	M	0.58	
Muskogee AP	610	35	15	98	75	24	30	37	M	0.74	
Norman (Will Rogers World AP DD)	1,181	35	13	96	74	22	29	36	M	0.69	
Oklahoma City, Will Rogers World AP	1,306	35	17	97	74	22	29	35	M	0.69	
Oklahoma City, Wiley Post AP	1,299	36	18	97	74	20	27	34	M	0.67	
Ponca City Municipal AP	997	37	15	98	75	25	32	39	M	0.75	
Seminole	1,021	35	15	96	74	22	29	35	M	0.66	
Stillwater Regional AP	1,010	36	18	99	75	25	31	38	M	0.70	
Tinker AFB	1,260	35	18	97	74	21	28	35	M	0.66	
Tulsa IAP	676	36	17	97	76	32	39	46	M	0.67	
Tulsa, Lloyd Jones Jr. AP	633	36	19	99	77	34	41	47	M	0.67	
Vance AFB	1,339	36	13	99	74	15	22	29	M	0.82	
Woodward (Ponca City DD)	2,188	36	10	97	73	16	24	31	H	0.75	
<b>Oregon</b>											
Albany (Corvallis DD)	223	44	22	89	66	-12	-6	1	H	1.58	
Astoria Regional AP	23	46	30	72	62	-4	2	9	L	3.40	
Baker Municipal AP	3,373	45	7	90	62	-30	-22	-15	H	4.08	
Bend	3,453	44	4	87	60	-36	-29	-21	H	4.93	
Burns Municipal AP	4,170	44	6	90	60	-41	-33	-26	H	4.51	
Cape Arago State Park	75	43	37	64	58	-9	-2	5	L	4.73	
Corvallis Municipal AP	253	44	28	90	66	-15	-8	-2	H	1.58	
Eugene, Mahlon Sweet AP	374	44	26	88	66	-12	-6	1	H	2.10	
Grants Pass	925	42	24	96	68	-13	-6	1	H	1.88	
Hillsboro, Portland- Hillsboro AP	203	46	27	88	67	-5	1	8	H	2.13	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Klamath Falls IAP	4,091	42	12	88	62	-27	-19	-11	H	3.77	
La Grande Municipal AP	2,717	45	15	90	62	-32	-25	-18	H	3.31	
Lakeview AWOS	4,728	42	9	87	57	-48	-40	-32	H	4.97	
Mc Minnville Municipal AP	167	45	30	90	66	-13	-6	1	H	2.00	
Meacham	3,727	46	2	84	59	-36	-28	-21	H	10.27	
Medford, Rogue Valley IAP	1,329	42	26	95	66	-22	-15	-8	H	1.37	
Newport State Beach	36	45	34	63	54	-23	-17	-10	L	6.16	
North Bend Municipal AP	16	43	34	69	60	-9	-2	4	L	2.89	
Pendleton, East Oregon Regional AP	1,516	46	15	93	64	-29	-22	-15	H	1.89	
Portland CO	35	45	24	86	67	-3	4	10	M	1.61	
Portland IAP	108	46	29	87	67	-7	0	6	M	1.58	
Redmond, Roberts Field	3,084	44	12	90	61	-36	-29	-22	H	3.79	
Roseburg AP	525	43	23	90	66	-14	-7	0	H	1.37	
Salem, McNary Field	200	45	26	88	66	-12	-5	2	H	1.97	
Sexton Summit	3,842	43	25	81	60	-26	-19	-11	M	3.80	
The Dalles	243	45	19	89	68	-2	5	11	H	1.53	
Wilsonville-Hubbard, Aurora State AP	197	45	30	88	67	-6	1	8	M	1.73	
<b>Pennsylvania</b>											
Allentown, Lehigh Valley IAP	384	41	12	88	73	24	31	38	M	1.77	
Altoona, Blair Co. AP	1,470	40	10	86	71	20	27	34	M	2.12	
Bradford Regional AP	2,149	42	2	81	68	10	18	25	M	4.07	
Butler Co. AWOS	1,247	41	9	84	71	21	28	35	M	2.29	
Chambersburg	697	40	8	90	74	31	38	44	M	1.81	
Dubois AP	1,824	41	5	83	69	13	20	27	M	2.84	
Erie International AP	738	42	10	84	72	26	33	40	L	2.17	
Franklin	1,539	41	6	82	69	18	25	32	M	2.84	
Harrisburg, Capital City AP	348	40	13	90	73	22	29	35	M	1.53	
Johnstown, Cambria Co. AP	2,283	40	7	82	69	14	21	28	M	2.52	
Lancaster	403	40	8	90	74	30	37	44	M	1.73	
Meadville	1,400	41	4	85	70	17	24	31	M	2.86	
Middletown, Harrisburg IAP	312	40	15	90	74	30	36	43	M	1.40	
New Castle	825	41	7	88	72	22	29	36	M	2.32	
Philadelphia IAP	30	40	17	91	75	31	38	45	M	1.17	
Philadelphia, Northeast AP	118	40	16	90	75	33	39	46	M	1.32	
Philadelphia, Willow Grove NAS	361	40	14	90	74	30	37	43	M	1.32	
Pittsburgh, Allegheny Co. AP	1,273	40	10	87	71	19	26	33	M	1.61	
Pittsburgh IAP	1,204	41	9	87	71	20	27	34	M	1.82	
Reading, Spaatz Field	354	40	13	90	73	25	31	38	M	1.55	
Scranton	961	41	8	86	71	18	25	31	M	2.19	
State College	1,239	40	7	87	71	19	26	33	M	2.42	
Sunbury (Williamsport DD)	430	40	7	89	72	20	27	33	M	2.03	
Uniontown	815	39	9	88	73	28	35	42	M	2.03	
Warren	1,193	41	4	86	71	21	27	34	M	2.77	
Washington AWOS	1,184	40	9	85	70	15	22	28	M	2.24	
West Chester	466	40	13	89	74	32	39	45	M	1.65	
Wilkes-Barre / Scranton IAP	961	41	8	86	71	18	25	31	M	2.19	
Williamsport Regional AP	525	41	9	88	72	20	26	33	M	2.03	
Willow Grove NAS	361	40	14	90	74	29	36	42	M	1.40	
York	480	40	12	91	74	29	35	42	M	1.60	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
<b>Rhode Island</b>											
Block Island State AP	108	41	16	79	69	20	26	33	L	2.14	
Newport	10	41	9	85	72	26	32	39	M	2.17	
Pawtucket AWOS	440	42	9	84	71	21	28	35	M	2.55	
Providence, T. F. Green State AP	62	42	12	87	72	21	28	35	M	1.90	
<b>South Carolina</b>											
Anderson County AP	774	35	26	93	74	29	35	42	M	0.59	
Beaufort MCAS	39	32	31	93	78	48	55	61	M	0.28	
Charleston IAP	49	33	30	92	78	48	55	62	M	0.30	
Charleston CO	3	32	28	92	78	51	58	64	L	0.27	
Columbia Metro AP	226	34	26	95	75	29	36	42	M	0.45	
Florence Regional AP	151	34	27	93	76	38	44	51	M	0.43	
Folly Island	16	33	35	86	72	24	30	37	L	0.32	
Georgetown	14	33	26	90	78	54	61	68	M	0.35	
Greer, Greenville-Spartanbrg AP	971	35	25	91	74	29	35	42	M	0.66	
Greenwood	631	34	22	93	74	26	33	39	M	0.69	
Myrtle Beach AFB	26	34	28	90	78	57	63	70	L	0.41	
Orangeburg	197	33	24	95	75	28	34	41	M	0.45	
Rock Hill (Charlotte, NC, DD)	667	35	23	94	74	24	31	38	M	0.63	
Spartanburg AP	801	35	22	91	74	29	36	43	M	0.64	
Shaw AFB / Sumter	243	34	28	93	75	32	38	45	M	0.45	
<b>South Dakota</b>											
Aberdeen Regional AP	1,299	45	-12	89	71	17	24	31	M	3.28	
Brookings AWOS	1,647	44	-10	86	71	22	29	36	M	3.55	
Buffalo AMOS	3,002	46	-9	92	65	-23	-15	-8	H	3.20	
Chamberlain AMOS	1,739	44	-5	93	71	12	19	26	M	2.36	
Custer RAMOS	5,600	44	-2	84	59	-36	-28	-20	H	5.56	
Ellsworth AFB	3,215	44	-4	92	65	-18	-11	-3	H	2.67	
Huron Regional AP	1,289	44	-10	91	73	22	29	36	M	2.73	
Mitchell AWOS	1,302	44	-6	90	73	27	33	40	M	2.53	
Mobridge	1,667	46	-10	91	70	5	12	19	M	2.87	
Pierre Municipal AP	1,726	44	-6	95	71	4	11	18	H	2.34	
Rapid City Regional AP	3,169	44	-5	93	66	-18	-10	-3	H	2.70	
Sioux Falls, Foss Field	1,427	44	-8	89	73	29	36	43	M	2.70	
Watertown Municipal AP	1,739	45	-12	87	71	22	29	36	M	3.55	
Yankton, Chan Gurney Municipal AP	1,339	43	-3	90	73	27	34	41	M	2.33	
<b>Tennessee</b>											
Athens	858	33	18	92	73	22	29	35	M	0.99	
Bristol, Tri-City AP	1,526	36	17	88	72	23	30	37	M	1.13	
Chattanooga, Lovell Field AP	689	35	22	92	75	31	38	45	M	0.65	
Clarksville	550	36	12	93	74	26	32	39	M	0.96	
Columbia	681	35	15	94	74	24	31	38	M	1.04	
Crossville Memorial AP	1,870	36	15	86	72	28	35	42	M	1.15	
Dyersburg Municipal AP	338	36	19	92	76	42	48	55	M	0.74	
Greenville	1,608	35	16	90	72	21	28	35	M	1.54	
Jackson, Mckellar-Sipes Regional AP	423	36	19	93	77	42	49	56	M	0.70	
Knoxville, McGhee Tyson AP	981	36	20	90	74	31	37	44	M	0.80	
Memphis IAP	331	35	22	94	77	42	48	55	M	0.52	
Murfreesboro	615	35	14	94	74	24	31	38	M	0.98	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling					HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains				
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors		
Millington Municipal AP	322	35	20	95	77	37	44	51	M 0.59	
Nashville IAP	604	36	18	92	75	32	39	46	M 0.74	
Tullahoma	1,072	35	13	93	73	21	28	34	M 0.94	
<b>Texas</b>										
Abilene, Dyess AFB	1,788	32	22	99	72	7	14	21	M 0.42	
Abilene Regional AP	1,791	32	23	97	71	1	8	15	M 0.42	
Alice IAP	180	28	38	99	76	31	37	44	M 0.10	
Amarillo IAP	3,606	35	14	95	66	-17	-10	-2	M 1.00	
Austin, Bergstrom IAP	495	30	30	98	75	24	31	38	M 0.23	
Bay City	45	29	33	94	77	41	48	55	M 0.13	
Beaumont	16	30	32	92	79	58	64	71	M 0.22	
Beeville, Chase NAAS	190	28	34	98	77	38	44	51	M 0.13	
Big Springs AP	2,561	32	20	97	69	-7	1	8	M 0.48	
Brownsville S. Padre Island IAP	23	26	41	94	78	45	52	58	M 0.06	
Brownwood	1,386	31	22	99	73	12	19	25	M 0.43	
Bryan AP	322	30	29	96	75	26	33	40	M 0.23	
Burnet Municipal AP	1,283	31	30	97	72	11	18	25	M 0.28	
Camp Mabry	659	30	31	98	75	22	28	35	M 0.21	
Childress Municipal AP	1,952	34	21	99	71	4	11	18	M 0.57	
College Station, Easterwood AP	328	31	30	97	76	30	37	43	M 0.23	
Corpus Christi IAP	43	28	37	94	78	46	53	59	M 0.11	
Corpus Christi NAS	20	28	40	92	79	58	65	71	L 0.09	
Corsicana	448	32	25	98	75	23	30	37	M 0.39	
Cotulla AP	479	28	35	101	74	12	19	25	M 0.14	
Dalhart Municipal AP	3,993	36	13	95	65	-23	-15	-7	H 1.17	
Dallas, Hensley Field NAS	495	33	26	98	75	25	31	38	M 0.35	
Dallas, Love Field	489	33	27	99	76	26	33	39	M 0.31	
Dallas-Fort Worth IAP	597	33	26	98	75	21	27	34	M 0.35	
Dallas, Redbird AP	659	33	28	99	75	22	28	35	M 0.32	
Del Rio IAP	1,027	29	34	99	72	6	13	20	M 0.16	
Draughon Miller Central Texas AP	699	31	28	98	74	20	27	33	M 0.29	
Dennison, N. Texas Regional AP	763	33	20	98	75	24	31	38	M 0.54	
Denton	642	33	22	99	74	16	23	30	M 0.45	
Eagle Pass	884	28	32	99	73	11	17	24	M 0.17	
El Paso IAP	3,917	32	26	98	64	-33	-25	-17	M 0.42	
Fort Hood, Gray AAF	1,024	31	28	98	73	14	21	28	M 0.27	
Fort Stockton PECOS	3,087	31	30	99	66	-24	-17	-9	M 0.26	
Fort Worth, Alliance AP	741	33	27	99	75	20	27	33	M 0.38	
Fort Worth, Carswell AFB	650	32	22	99	74	16	23	30	M 0.35	
Fort Worth, Meacham IAP	705	33	25	99	75	21	28	35	M 0.35	
Fort Worth NAS	650	33	26	98	75	25	31	38	M 0.35	
Galveston, Scholes IAP	10	29	37	91	79	57	64	71	L 0.14	
Georgetown AWOS	787	31	28	97	73	12	19	26	M 0.29	
Greenville	535	33	22	99	74	16	23	29	M 0.51	
Guadalupe Pass	5,453	31	19	89	60	-39	-31	-23	M 0.74	
Harlingen Rio Grande Valley IAP	36	26	41	97	78	41	47	54	M 0.06	
Hondo Municipal AP	932	29	30	97	74	16	23	30	M 0.23	
Houston, Bush Intercontinental AP	105	30	33	95	77	37	44	51	M 0.19	
Houston, William P. Hobby AP	46	30	36	93	78	46	52	59	M 0.16	
Houston, D.W. Hooks Memorial AP	151	30	34	95	77	38	44	51	M 0.19	
Houston, Ellington Field AP	39	30	36	94	78	50	57	63	M 0.16	
Huntsville	363	30	27	98	75	23	30	37	M 0.28	
Junction, Kimble County AP	1,749	31	25	98	71	0	7	14	M 0.34	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Kelly AFB	682	29	33	99	74	18	25	32	M	0.18	
Killeen Municipal AP AWOS	846	31	30	98	74	20	27	34	M	0.28	
Kingsville	59	28	37	96	78	43	50	57	M	0.11	
Lamesa	2,998	32	17	96	69	-4	3	10	H	0.67	
Laredo IAP	509	28	38	101	74	12	19	26	M	0.10	
Laughlin AFB	1,073	29	34	102	73	5	12	19	M	0.16	
Longview, Gregg County AP	374	32	27	97	76	29	35	42	M	0.33	
Lubbock IAP	3,241	34	19	96	67	-13	-6	1	M	0.67	
Lubbock, Reese AFB	3,338	33	18	95	67	-13	-6	1	H	0.71	
Lufkin, Angelina Co. AP	315	31	29	95	77	38	45	52	M	0.29	
Marfa AP	4,849	30	19	92	61	-39	-31	-23	H	0.89	
Mc Gregor AWOS	591	31	28	99	75	22	29	35	M	0.32	
Mc Allen, Miller IAP	112	26	41	99	77	31	38	44	M	0.06	
Mckinney Municipal AP	577	33	27	99	75	22	29	36	M	0.39	
Midland IAP	2,861	32	23	98	68	-16	-9	-1	M	0.46	
Mineral Wells AP	972	32	22	99	74	17	24	30	M	0.34	
Nacogdoches AWOS	354	32	28	95	76	33	40	46	M	0.34	
Odessa, Winkler County AP	2,822	32	24	102	67	-26	-18	-11	H	0.37	
Paris, Cox Field	561	34	25	97	75	28	34	41	M	0.46	
Palacios Municipal AP	16	29	36	91	79	59	66	72	L	0.15	
Palestine CO	422	31	27	98	76	30	36	43	M	0.30	
Pampa	3,244	35	12	96	67	-15	-8	0	H	1.05	
Pecos, Winkler County AP	2,822	32	24	102	67	-26	-18	-11	H	0.37	
Pine Springs, Guadalupe Pass	5,456	32	21	91	60	-41	-33	-25	M	0.74	
Plainview	3,374	34	13	96	68	-9	-2	5	H	0.90	
Port Aransas	20	28	41	85	78	63	69	76	L	0.11	
Port Arthur, Jack Brooks Reagionl AP	16	30	34	93	78	51	58	64	M	0.19	
Randolph AFB	761	30	31	97	74	18	25	32	M	0.22	
Reese AFB	3,327	34	18	97	67	-15	-8	-1	M	0.67	
Rockport, Aransas Co. AP	26	28	39	91	79	60	67	73	L	0.10	
Sabine	20	30	36	87	77	54	61	67	L	0.21	
San Angelo, Mathis Field	1,893	31	25	98	70	-4	3	10	M	0.37	
San Antonio IAP	810	30	32	97	74	17	24	31	M	0.20	
San Antonio, Kelly AFB	690	29	32	97	74	19	26	33	M	0.17	
San Antonio, Randolph AFB	761	29	31	96	74	21	28	35	M	0.17	
San Antonio, Stinson AP	577	29	34	99	74	19	25	32	M	0.17	
San Marcos Municipal AP	597	30	31	97	74	21	27	34	M	0.23	
Sanderson RAMOS	2,838	30	28	96	68	-10	-2	5	M	0.33	
Sherman, N. Texas Regional AP	763	33	20	98	75	24	31	38	M	0.51	
Snyder	2,430	32	18	98	70	-3	5	12	M	0.58	
Stephenville, Clark Field	1,322	32	24	95	72	8	15	22	M	0.45	
Temple, Draughon Miller Central Texas AP	699	31	28	98	74	20	27	33	M	0.29	
Tyler AP	544	32	24	97	76	31	38	45	M	0.30	
Vernon	1,264	34	17	100	73	10	17	24	M	0.58	
Victoria Regional AP	118	29	34	95	77	38	44	51	M	0.16	
Waco Regional AP	509	32	28	99	75	24	31	37	M	0.31	
Wichita Falls Municipal AP	1,030	34	21	100	73	11	18	25	M	0.49	
Winkler Co. AP	2,822	32	24	102	67	-26	-18	-11	H	0.37	
<b>Utah</b>											
Cedar City Municipal AP	5,617	38	9	91	59	-48	-40	-32	H	2.08	
Hill AFB, Ogden	4,787	41	12	91	61	-39	-31	-23	M	1.99	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Logan-Cache AP	4,455	42	0	91	62	-36	-28	-20	H	3.15	
Milford Municipal AP	5,033	38	3	93	59	-50	-42	-34	H	2.18	
Moab	4,553	38	11	98	60	-54	-46	-38	H	0.98	
Price, Carbon Co. AP	5,902	40	8	90	59	-47	-39	-31	H	2.56	
Provo Municipal AP AWOS	4,491	40	13	91	62	-32	-24	-16	H	2.10	
Richfield	5,279	38	5	91	60	-42	-34	-26	H	2.67	
Saint George AWOS	2,940	37	28	104	65	-39	-32	-24	H	0.49	
Salt Lake City IAP	4,226	41	14	95	63	-36	-28	-20	H	1.59	
Vernal	5,276	40	5	91	61	-39	-31	-23	H	2.71	
Wendover, USAF Auxiliary Field	4,236	41	12	93	60	-47	-40	-32	M	1.70	
<b>Vermont</b>											
Barre (Montpelier DD)	1,165	44.00	-11	81.00	69.00	17	24	31	M	4.41	
Burlington IAP	341	44.47	-3.50	85.30	69.60	13	19	26	M	3.09	
Montpelier AP	1,122	44.20	-6.00	82.30	68.20	11	18	25	M	4.41	
Morrisville-Stowe State AP	732	44.53	-8.00	82.40	68.60	12	19	26	M	4.29	
Rutland State AP	807	43.52	-1.90	82.20	68.60	13	20	26	M	3.60	
Springfield, Hartnes State AP	577	43.35	0.50	84.30	69.40	13	20	27	M	3.38	
<b>Virginia</b>											
Abington	2,070	37	18	87	71	22	29	36	M	1.17	
Charlottesville	870	38	18	91	74	30	36	43	M	1.02	
Chesapeake	75	37	27	82	0	-188	-181	-174	L	0.79	
Danville Regional AP	591	37	22	91	74	31	38	44	M	0.81	
Farmville	410	37	19	91	76	39	46	52	M	0.96	
Fort Belvoir, Newington	89	39	18	93	75	32	38	45	M	1.06	
Fredricksburg	85	38	14	93	75	31	37	44	M	1.16	
Hampton, Langley AFB	10	37	24	91	77	46	53	59	M	0.80	
Harrisonburg (Charlottesville DD)	1,201	38	16	91	72	18	25	32	M	1.02	
Hillsville	2,736	37	16	83	71	28	35	42	M	1.45	
Hot Springs, Ingalls Field AP	3,793	38	7	81	67	10	18	25	L	2.37	
Langley AFB, Hampton	10	37	25	91	77	44	51	57	L	0.73	
Leesburg Executive AP	390	39	18	92	76	37	44	50	M	1.14	
Lynchburg Regional AP	938	37	19	90	73	27	34	41	M	1.08	
Manassas Regional AP AWOS	194	39	16	91	74	27	33	40	M	1.35	
Marion / Wytheville, Mountain Empire AP	2,559	37	12	88	70	14	21	29	M	1.45	
Martinsville	942	37	18	91	75	36	43	50	M	0.98	
Mecklenburg-Brunswick Regional AP	1,411	37	23	92	75	37	44	51	M	0.73	
Melfa, Accomack Co. AP	49	38	23	91	77	47	53	60	M	0.84	
Newport News	52	37	23	92	77	43	49	56	M	0.78	
Norfolk IAP	30	37	26	91	76	40	46	53	L	0.67	
Norfolk NAS	16	37	27	91	77	44	51	57	L	0.62	
Oceana NAS	23	37	25	90	76	44	50	57	M	0.71	
Petersburg, Dinwiddie Co. AP	197	37	19	95	77	39	45	52	M	0.83	
Quantico MCAS	13	39	20	90	76	40	47	53	M	0.99	
Richmond AP	164	37	18	92	75	33	39	46	M	0.89	
Roanoke Regional AP	1,175	37	19	90	72	23	29	36	M	1.03	
Shannon AP	85	38	18	93	76	37	44	51	M	0.99	
Staunton, Shenandoah Valley Regional AP	1,201	38	17	91	74	30	37	43	M	1.14	
Sterling	322	38	14	90	74	30	37	43	M	1.63	
Virginia Tech. AP	2,133	37	16	86	71	20	27	34	M	1.50	
Wattsville, Wallops Flight Facility	49	38	22	88	76	44	51	57	L	1.01	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Washington DC Area, Dulles IAP	325	39	16	91	74	31	37	44	M	1.28	
Washington DC Area, Ronald Reagan AP	66	39	20	92	75	34	41	47	M	0.91	
Winchester Regional AP	728	39	18	91	74	28	35	42	M	1.18	
Wise, Lonesome Pine AP	2,680	37	12	84	69	16	24	31	M	1.48	
<b>Washington</b>											
Aberdeen	12	47	28	77	62	-12	-6	1	M	3.29	
Arlington Municipal AP	138	48	25	79	64	-6	1	8	M	3.25	
Bellingham IAP	151	49	23	76	64	-3	4	10	M	3.38	
Bremerton National AP	449	47	27	82	64	-12	-5	1	M	3.43	
Destruction Island	128	48	34	63	55	-20	-13	-7	L	5.81	
Ellensburg AP	1,760	47	6	91	64	-24	-17	-10	H	3.42	
Everett, Paine AFB	596	47	25	76	64	-1	6	12	M	2.92	
Fairchild AFB	2,438	48	11	89	62	-32	-25	-18	H	3.30	
Friday Harbor AP	108	49	30	75	62	-11	-4	2	M	4.64	
Gray AAF	302	47	24	82	64	-14	-7	-1	M	2.87	
Hanford	732	47	13	97	65	-27	-21	-14	H	1.40	
Hoquiam AP	16	47	31	73	62	-6	0	7	L	3.47	
Kennewick	531	46	11	96	67	-18	-11	-5	H	1.42	
Longview, Kelso Longview AP	20	46	26	83	66	-3	4	10	M	2.31	
Mc Chord AFB, Tacoma	289	47	25	82	63	-14	-7	-1	M	2.78	
Moses Lake (Othello DD)	1,185	47	7	94	65	-24	-18	-11	H	2.88	
Mukilto, Paine Field-Snohomish Co. AP	620	48	30	75	62	-9	-3	4	M	3.18	
Olympia Airport	200	47	24	83	65	-9	-2	4	H	3.19	
Omak	1,253	48	14	93	64	-28	-21	-15	H	2.36	
Pasco	404	46	15	97	69	-11	-5	2	H	1.55	
Port Angeles, William R Fairchild IAP	299	48	28	75	61	-14	-7	-1	M	4.75	
Pullman-Moscow Regional AP	2,552	47	16	90	64	-20	-13	-6	H	3.45	
Quillayute State AP	207	48	27	75	61	-13	-6	1	M	4.94	
Seattle, Boeing Field	30	48	28	82	64	-12	-5	1	M	1.77	
Seattle CO	14	47	27	82	66	-1	5	12	M	2.14	
Seattle-Tacoma IAP	433	47	29	81	64	-12	-5	2	M	2.32	
Shelton, Sanderson Field	269	47	27	83	65	-10	-3	4	M	3.14	
Smith Island	59	48	32	64	57	-13	-6	0	L	6.23	
Spokane, Felts Field Municipal AP	2,001	48	13	91	64	-23	-16	-9	H	2.69	
Spokane IAP	2,365	48	10	89	62	-32	-24	-17	H	3.14	
Stampede Pass	3,967	47	11	75	57	-30	-23	-15	M	11.55	
Tacoma Narrows AP	299	47	33	81	63	-14	-7	-1	M	2.30	
Tacoma-McChord AFB	322	47	24	82	63	-16	-9	-2	M	2.19	
Tatoosh Island	157	48	34	62	55	-17	-11	-4	L	7.84	
Vancouver, Pearson Airfield	26	46	28	88	66	-9	-3	4	M	1.77	
Walla Walla Regional AP	1,204	46	16	95	66	-23	-17	-10	H	1.51	
Wenatchee, Pangborn Memorial AP	1,230	47	12	92	65	-22	-15	-8	M	2.04	
West Point Light, Magnolia	30	48	33	68	60	-7	-1	6	L	3.36	
Whidbey Island NAS	46	48	27	70	61	-7	-1	6	L	4.29	
Yakima Air Terminal / McAllister Field	1,066	47	12	92	65	-21	-14	-7	H	2.46	
<b>West Virginia</b>											
Beckley, Raleigh Co. Memorial AP	2,513	38	11	82	69	18	25	32	M	1.79	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Bluefield, Mercer Co. AP	2,867	37	12	82	68	14	21	28	M	1.56	
Charleston, Yeager AP	981	38	15	89	73	27	34	41	M	1.17	
Clarksburg	1,203	39	10	90	73	26	33	40	M	1.81	
Elkins-Randolph Co. AP	1,978	39	7	84	70	17	24	31	M	2.24	
Harrison, North Central W.V. Regional AP	1,247	39	14	88	72	25	32	39	M	1.47	
Huntington, Tri-State AP	837	38	15	89	74	29	36	43	M	1.14	
Martinsburg, Eastern W.V. Regional AP	535	39	15	90	73	24	31	38	M	1.41	
Morgantown Municipal AP	1,253	40	12	87	71	22	29	35	M	1.54	
Parkersburg, Mid-Ohio Valley Regional AP	863	39	12	88	73	27	34	40	M	1.38	
Wheeling	1,195	40	5	86	71	21	27	34	M	1.59	
<b>Wisconsin</b>											
Antigo, Langlade Co. AP	1,522	45	-8	82	71	25	32	39	M	4.47	
Appleton, Outagamie Co. Regional AP	919	44	0	86	73	33	40	47	M	2.80	
Ashland	826	46	-16	82	68	10	17	23	M	5.12	
Beloit	817	42	-3	90	75	37	44	51	M	2.52	
Devils Island	692	47	-1	76	65	4	11	18	L	6.14	
Eagle River, Union AP	1,640	46	-9	82	69	14	21	28	M	5.29	
Eau Claire County AP	896	45	-10	87	71	20	27	34	M	3.07	
Fond Du Lac Co. AP	807	44	0	86	73	30	37	44	M	2.69	
Green Bay, Austin Straubel IAP	702	45	-4	85	72	27	34	40	M	3.32	
Hayward Municipal AP	1,214	46	-9	84	70	17	23	30	M	4.46	
Juneau, Dodge Co. AP	935	43	1	84	73	36	43	49	M	2.64	
Kenosha Regional AP	761	43	5	88	74	33	40	47	M	2.46	
La Crosse Municipal AP	656	44	-6	89	74	29	36	43	M	2.39	
Madison, Dane Co. Regional AP	866	43	-3	87	73	29	36	43	M	2.76	
Manitowac, Co. AP AWOS	650	44	1	82	70	20	27	34	M	3.70	
Marinette	703	45	-11	84	71	23	30	36	M	3.39	
Marshfield Municipal AP	1,276	45	-8	84	71	25	32	39	M	3.51	
Milwaukee, Mitchell IAP	692	43	2	87	73	28	34	41	M	2.52	
Mosinee, Central WI. AP	1,276	45	-6	84	71	23	29	36	M	3.96	
Park Falls Municipal AP	1,539	46	-12	82	68	10	17	24	M	4.84	
Phillips, Price Co. AP	1,473	46	-13	82	69	16	23	30	M	4.69	
Racine	674	42	-2	88	73	28	35	41	M	2.80	
Rhineland-Oneida Co. AP	1,663	46	-8	83	68	11	18	25	M	4.61	
Rice Lake Municipal AP	1,138	45	-8	84	72	28	35	42	M	3.51	
Sheboygan Co. Memorial AP	748	44	1	84	71	25	32	39	M	3.36	
Sheboygan Downtown, 1-Mile Offshore	620	44	3	79	71	28	35	42	L	3.62	
Sturgeon Bay, Door Co. Cherry Land AP	725	45	0	82	69	16	23	29	M	3.74	
Stevens Point	1,110	43	-11	89	73	27	34	41	M	3.79	
Watertown	833	43	1	86	75	41	47	54	M	2.59	
Waukesha	911	43	-5	87	73	30	37	44	M	2.36	
Wausau Municipal AP	1,198	45	-8	85	70	17	24	31	M	3.49	
Wisconsin Rapids, Alexander Field-Wood Co. AP	1,010	44	-2	86	71	22	29	36	M	3.11	
Wittman Regional AP	830	44	0	84	72	31	37	44	M	2.92	
<b>Wyoming</b>											
Big Piney Marleton AP AMOS	6,975	43	-13	82	55	-52	-43	-34	H	11.08	
Casper, Natrona Co. IAP	5,289	43	-2	91	59	-46	-38	-30	H	3.30	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Cheyenne Municipal AP	6,142	41	2	86	58	-45	-36	-28	H	3.55	
Cody, Yellowstone Regional AP AWOS	5,095	45	-5	88	58	-46	-38	-30	H	3.64	
Evanston	7,163	41	-3	84	55	-55	-47	-38	H	7.89	
Gillette-Campbell Co. AP	4,035	44	-4	92	61	-38	-30	-23	H	3.27	
Jackson Hole AP	6,614	44	-9	81	55	-53	-45	-36	H	12.06	
Lander, Hunt Field	5,558	43	-3	89	58	-47	-39	-31	H	3.22	
Laramie, Laramie Regional AP	7,274	41	-2	82	55	-54	-46	-37	H	6.65	
Newcastle	4,174	43	-12	87	63	-21	-14	-6	H	3.09	
Rawlins	6,813	41	-4	83	57	-44	-36	-27	H	4.37	
Rock Springs, Sweetwater Co. AP	6,745	42	0	85	55	-59	-50	-42	H	4.43	
Sheridan Co. AP	3,967	45	-6	92	63	-30	-22	-14	H	3.37	
Torrington	4,205	42	-8	91	62	-33	-25	-17	H	2.85	
Worland Municipal AP	4,209	44	-10	93	63	-32	-25	-17	H	2.88	
Yellowstone Lake, Bridge Bay Amphitheater RAMOS	7,835	45	-13	73	52	-53	-45	-36	H	29.28	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
<b>Alberta</b>											
Banff CS	4,583	51	-15	78	56	-41	-33	-26	H	15.54	
Bow Island	2,680	50	-16	85	63	-18	-11	-4	H	5.20	
Bow Valley	4,259	51	-17	80	58	-37	-29	-21	H	11.21	
Breton Plots	2,795	53	-17	80	63	-11	-4	3	M	7.82	
Brooks	2,451	51	-18	86	63	-20	-13	-6	H	5.42	
Calgary IAP	3,556	51	-14	80	59	-29	-22	-14	M	7.84	
Camrose	2,425	53	-22	79	63	-12	-5	2	M	9.72	
Cardston	3,727	49	-12	84	61	-26	-19	-11	H	6.10	
Claresholm	3,310	50	-15	84	60	-31	-24	-16	H	6.40	
Cold Lake AP	1,775	54	-25	79	62	-13	-6	1	M	8.96	
Cop Upper	4,052	51	-12	79	57	-36	-29	-21	M	7.96	
Coronation	2,595	52	-23	82	61	-23	-16	-9	M	9.19	
Crowsnest	4,275	50	-14	80	58	-36	-28	-20	H	12.91	
Drumheller East	2,224	51	-20	85	61	-29	-22	-15	H	5.81	
Edmonton, City Centre AP	2,201	54	-16	79	62	-14	-7	0	M	6.78	
Edmonton, IAP	2,372	53	-21	78	62	-14	-7	0	M	9.75	
Edmonton, Namao AP	2,257	54	-18	78	62	-15	-8	0	M	8.33	
Edson AP	3,035	54	-21	77	59	-24	-17	-9	M	13.10	
Elk Island National Park	2,349	54	-21	80	63	-9	-2	6	M	8.18	
Esther 1	2,320	52	-21	86	63	-19	-11	-4	H	6.50	
Fort Chipewyan AP	761	59	-34	78	63	-10	-3	3	M	12.39	
Fort McMurray AP	1,211	57	-29	80	62	-18	-11	-4	M	9.94	
Garden River	791	59	-35	80	65	-1	5	12	M	12.32	
Grande Prairie AP	2,195	55	-26	78	60	-22	-15	-8	M	9.83	
High Level AP	1,109	59	-35	78	62	-15	-8	-1	M	13.02	
Highvale	2,451	53	-15	78	64	-6	1	8	M	7.10	
Jasper	3,484	53	-18	78	57	-37	-29	-22	M	11.34	
Jasper Warden	3,346	53	-16	81	57	-38	-31	-24	H	12.69	
Lac La Biche	1,860	55	-25	78	63	-11	-4	3	M	9.34	
Lacombe	2,822	52	-20	79	63	-11	-4	3	M	10.26	
Lethbridge AP	3,048	50	-16	85	61	-28	-21	-14	H	5.40	
Lethbridge	3,022	50	-13	86	61	-29	-22	-15	H	4.79	
Lloydminster AP	2,192	53	-23	80	62	-16	-9	-1	M	8.87	
McMurray AP	1,211	56	-29	80	62	-17	-10	-3	H	~	
Medicine Hat AP	2,352	50	-18	87	63	-25	-17	-10	M	4.48	
Mildred Lake	1,017	57	-27	81	62	-18	-11	-4	M	7.80	
Milk River	3,445	49	-15	86	60	-37	-29	-22	H	6.47	
Nakiska Ridgetop	8,343	51	-10	62	47	-56	-46	-37	L	75.30	
Onefour	3,068	49	-15	88	61	-33	-26	-18	H	4.76	
Peace River AP	1,873	56	-25	78	61	-18	-11	-4	M	10.58	
Pincher Creek	3,904	50	-13	82	59	-32	-25	-17	H	7.27	
Red Deer AP	2,969	52	-20	79	61	-18	-11	-4	M	10.16	
Red Earth	1,791	57	-28	79	61	-20	-13	-6	M	11.89	
Rocky Mtn. House	3,241	52	-21	77	60	-21	-14	-6	M	13.88	
Slave Lake AP	1,913	55	-22	76	61	-13	-6	1	M	11.30	
Springbank AP	3,940	51	-18	77	58	-28	-20	-13	M	14.36	
Stavely AACF	4,475	50	-10	78	58	-34	-26	-18	M	7.37	
Sundre AP	3,655	52	-21	79	59	-27	-19	-12	H	14.23	
Three Hills	2,976	52	-16	82	62	-17	-10	-3	M	7.65	
Vauxhall	2,556	50	-17	86	64	-18	-11	-4	H	5.22	
Vegreville	2,096	54	-24	80	62	-14	-7	0	M	10.09	
Vermilion AP	2,028	53	-25	80	62	-16	-9	-2	M	~	
Wainwright CFB Airfield 21	2,251	53	-22	82	62	-18	-11	-4	M	7.38	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Waterton Park Gate	4,229	49	-13	82	58	-38	-31	-23	H	7.89	
Whitecourt AP	2,566	54	-21	76	61	-16	-9	-2	M	10.85	
<b>British Columbia</b>											
Abbotsford AP	194	49	22	82	66	-2	4	11	M	2.96	
Agassiz	49	49	23	83	67	3	9	16	M	2.50	
Alert Bay	194	51	27	65	58	-10	-4	3	L	8.59	
Amphitrite Point	89	49	32	64	59	-5	1	8	L	6.33	
Ballenas Island	43	49	34	73	66	14	20	27	L	2.26	
Blue River	2,241	52	-8	83	60	-29	-21	-14	H	8.40	
Bonilla Island	49	54	27	60	~	~	~	~	L	10.89	
Burns Lake Decker Lake	2,339	54	-18	77	60	-23	-16	-8	H	20.52	
Cape Scott	236	51	31	61	58	-5	2	8	L	8.90	
Cape St James	302	52	31	64	59	-7	0	7	L	7.88	
Castlegar AP	1,624	49	9	88	63	-24	-17	-10	H	~	
Cathedral Point	102	52	23	70	62	-2	4	11	L	5.41	
Clinton	3,468	51	-7	81	57	-39	-31	-24	H	10.38	
Comox AP	85	50	26	76	62	-10	-4	3	M	3.46	
Cranbrook AP	3,084	50	-5	85	60	-32	-25	-17	H	5.24	
Creston Campbell Scientific	2,119	49	12	87	66	-6	1	8	M	3.19	
Cumshewa Island	56	53	29	63	~	~	~	~	L	8.01	
Dawson Creek	2,185	55	-33	79	63	-10	-3	5	H	~	
Dease Lake	2,648	58	-27	72	55	-34	-26	-19	M	32.49	
Discovery Island	49	48	37	70	~	~	~	~	L	2.97	
Entrance Island	16	49	33	72	~	~	~	~	L	2.58	
Esquimalt Harbour	10	48	32	70	60	-10	-3	3	L	3.81	
Estevan Point	23	49	31	66	61	0	7	13	L	5.07	
Fort Nelson AP	1,253	59	-29	79	61	-18	-11	-4	M	11.34	
Fort St. John AP	2,280	56	-22	76	59	-22	-15	-8	M	10.29	
Grey Islet	26	55	24	64	59	-6	0	7	L	8.54	
Herbert Island	56	51	32	60	~	~	~	~	L	11.91	
Holland Rock	16	54	26	60	~	~	~	~	L	11.61	
Hope	128	49	16	83	66	-3	4	10	M	2.86	
Howe Sound - Pam Rocks	16	49	32	74	65	8	14	21	L	2.27	
Kamloops AP	1,132	51	3	89	64	-23	-16	-9	M	2.71	
Kelowna AP	1,411	50	6	87	64	-21	-14	-7	H	3.96	
Kindakun Rocks	46	53	30	61	~	~	~	~	L	10.22	
Langara	135	54	29	59	57	-7	-1	6	L	14.64	
Lillooet	771	51	10	91	~	~	~	~	M	2.22	
Lucy Island Lightstation	85	54	25	62	~	~	~	~	L	10.91	
Lytton	738	50	7	91	64	-26	-20	-13	M	2.37	
Mackenzie AP	2,264	55	-16	77	59	-25	-18	-11	M	11.84	
Malahat	1,201	49	27	78	62	-15	-8	-1	M	3.49	
Nakusp	1,680	50	13	84	65	-10	-3	4	M	3.85	
Nanaimo	98	49	20	80	65	-3	4	10	M	~	
Nelson	1,755	49	16	85	65	-11	-4	3	H	3.45	
New Westminster	59	49	18	81	67	5	12	19	M	~	
Osoyoos	928	49	14	92	67	-14	-8	-1	H	2.10	
Pemberton AP	669	50	11	88	65	-14	-7	0	H	3.55	
Penticton AP	1,129	49	11	87	64	-18	-11	-5	H	2.88	
Pitt Meadows	16	49	24	83	67	2	9	15	M	2.83	
Point Atkinson	115	49	35	75	~	~	~	~	L	1.54	
Port Alberni	249	49	25	84	64	-13	-7	0	M	3.48	
Port Hardy AP	72	51	27	66	58	-11	-5	2	L	8.20	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						$\frac{\text{HDD}_{65}}{\text{CDD}_{50}}$ Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Prince George AP	2,267	54	-15	78	60	-24	-17	-10	M	9.56	
Prince Rupert AP	115	54	17	64	57	-11	-5	2	L	11.13	
Princeton	2,297	49	0	88	62	-27	-20	-13	H	5.12	
Puntzi Mountain	2,986	52	-19	80	57	-41	-33	-26	H	14.58	
Quesnel AP	1,788	53	-12	81	61	-24	-17	-10	M	7.39	
Revelstoke AP	1,460	51	6	83	62	-19	-12	-5	M	4.66	
Rose Spit	23	54	27	61	59	1	7	14	L	10.65	
Salmon Arm	1,152	51	9	87	68	0	7	14	H	3.28	
Sandheads	0	49	31	70	~	~	~	~	L	2.68	
Sandspit AP	20	53	28	65	59	-8	-2	5	L	7.47	
Sartine Island	367	51	33	60	~	~	~	~	L	10.72	
Sheringham Point	72	48	32	67	62	1	7	14	L	5.37	
Sisters Island	66	49	33	72	63	2	8	15	L	2.70	
Smithers AP	1,713	55	-10	77	60	-22	-15	-8	M	11.25	
Solander Island	325	50	34	61	~	~	~	~	L	10.66	
Sparwood	3,734	50	-10	82	59	-32	-25	-17	H	9.77	
Spring Island	322	50	31	66	59	-8	-1	5	L	~	
Squamish	171	50	23	81	64	-10	-3	4	M	3.58	
Summerland	1,490	50	13	88	63	-23	-16	-9	M	2.74	
Terrace AP	712	54	4	78	61	-20	-13	-6	M	6.91	
Tofino AP	79	49	29	68	60	-7	0	6	L	~	
Trail	1,890	49	0	89	65	-16	-9	-2	H	~	
Vancouver Harbour	10	49	31	76	~	~	~	~	L	2.40	
Vancouver IAP	13	49	25	74	64	0	7	14	L	3.08	
Vernon	1,581	50	11	88	64	-19	-12	-5	H	3.20	
Victoria Gonzales	230	48	32	72	61	-8	-1	6	L	3.43	
Victoria Hartland	505	49	31	80	65	-2	4	11	M	2.49	
Victoria IAP	62	49	27	76	62	-10	-3	4	M	3.68	
Victoria Marine	105	48	27	67	58	-14	-7	-1	L	7.52	
Victoria University	197	48	32	77	64	-3	4	10	M	2.79	
West Vancouver	551	49	27	78	65	3	10	16	M	3.04	
White Rock	43	49	27	74	65	4	11	17	L	2.88	
Williams Lake AP	3,084	52	-12	79	58	-34	-27	-19	M	9.20	
Yoho Park	5,299	51	-16	74	56	-37	-29	-21	H	28.68	
<b>Manitoba</b>											
Berens River	728	52	-26	79	67	8	15	22	M	8.93	
Brandon AP	1,342	50	-24	83	67	2	9	16	M	6.93	
Carberry	1,260	50	-24	83	69	15	22	29	M	6.83	
Carman U of M	879	50	-19	84	70	21	27	34	M	5.82	
Churchill AP	95	59	-34	74	61	-12	-6	1	M	38.35	
Dauphin AP	1,001	51	-22	83	67	3	10	17	M	6.63	
Delta Marsh	814	50	-18	82	70	20	26	33	M	6.04	
Emerson	794	49	-17	84	70	19	26	32	M	5.01	
Fisher Branch	830	51	-24	82	68	8	15	22	M	7.61	
George Island	732	53	-22	73	67	16	23	30	L	8.82	
Gillam AP	476	56	-33	78	62	-12	-5	2	M	16.93	
Gimli Industrial Park	755	51	-24	81	68	13	19	26	M	6.84	
Grand Rapids	732	53	-28	81	66	1	7	14	M	11.30	
Gretna	830	49	-19	84	70	15	22	29	M	5.53	
Hunters Point	840	53	-23	78	68	18	25	31	L	7.34	
Island Lake AP	774	54	-31	79	64	-6	1	7	M	9.97	
Lynn Lake AP	1,171	57	-35	79	61	-18	-12	-5	M	15.48	
Melita	1,463	49	-21	84	68	8	14	21	M	6.01	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Norway House AP	735	54	-31	79	64	-5	2	9	M	10.50	
Oakpoint	820	51	-21	79	70	25	32	39	M	6.64	
Pilot Mound	1,542	49	-21	82	69	15	21	28	M	6.93	
Pinawa	879	50	-23	82	68	12	19	25	M	6.53	
Portage, Southport AP	886	50	-21	86	68	4	10	17	M	5.32	
Flin Flon	997	54	-37	81	66	1	8	15	M	~	
Roblin	1,772	51	-23	81	67	8	15	22	M	8.21	
Shoal Lake	1,841	50	-24	80	67	7	14	21	M	8.25	
Sprague	1,079	49	-22	82	69	18	24	31	M	6.57	
Swan River	1,099	52	-23	82	66	1	8	15	M	7.92	
The Pas AP	886	54	-27	80	64	-6	1	8	M	8.91	
Thompson AP	732	56	-35	80	63	-13	-6	1	M	15.45	
Victoria Beach	722	51	-17	79	71	28	35	42	L	5.40	
Wasagaming	2,057	51	-28	80	65	-1	6	14	M	10.96	
Wilson Creek Weir	1,152	51	-16	82	68	11	18	25	M	5.88	
Winnipeg Richardson IAP	784	50	-22	84	69	10	16	23	M	5.69	
<b>New Brunswick</b>											
Bas Caraque	16	48	-1	79	68	14	21	27	M	5.34	
Charlo AP	131	48	-9	79	66	3	10	16	M	7.33	
Chatham AP	102	47	-7	83	67	2	9	15	M	~	
Edmundston CO	500	47	-16	83	68	8	15	21	M	~	
Fredericton AP	69	46	-6	82	68	7	14	20	M	4.79	
Miramichi AP	108	47	-6	83	67	1	8	15	M	5.59	
Miramichi	108	47	-6	84	68	4	11	17	M	4.76	
Miscou Island	13	48	-2	76	66	10	17	23	L	7.01	
Moncton AP	233	46	-5	80	67	8	14	21	M	5.41	
Point Escuminac	13	47	-3	77	65	4	11	17	L	5.87	
Point Lepreau	20	45	3	71	63	0	7	13	L	7.00	
Saint John AP	358	45	-4	76	64	-1	5	12	M	6.63	
St Leonard	804	47	-12	80	66	1	8	15	M	6.95	
St Stephen	85	45	-5	82	68	9	15	22	M	5.30	
<b>Newfoundland and Labrador</b>											
Argentia	49	47	12	66	63	9	16	22	L	10.34	
Badger	338	49	-13	80	64	-7	0	6	M	10.13	
Battle Harbour	26	52	-10	60	55	-15	-8	-2	L	~	
Bonavista	85	49	8	72	63	3	9	16	L	10.36	
Burgeo 2	36	48	8	67	62	3	9	16	L	11.56	
Cape Kakkivik	1,808	60	-24	59	0	~	~	~	L	247.73	
Cape Race	89	47	13	64	61	2	9	16	L	16.18	
Cartwright	46	54	-14	71	60	-13	-6	1	M	26.08	
Churchill Falls	1,444	54	-28	72	58	-21	-14	-7	M	25.95	
Comfort Cove	325	49	-3	76	65	2	9	16	M	10.60	
Corner Brook	499	49	3	76	64	-3	4	11	M	7.53	
Daniels Harbour	62	50	-2	67	62	5	11	18	L	12.74	
Deer Lake AP	72	49	-5	77	64	-5	2	8	M	9.13	
Englee	98	51	1	70	59	-13	-6	1	L	14.87	
Ferolle Point	20	51	-2	65	61	3	9	16	L	16.83	
Gander IAP	495	49	1	76	64	-2	5	12	M	8.92	
Goose Bay AP	161	53	-19	78	62	-15	-8	-1	M	14.15	
Grates Cove	151	48	12	71	64	7	14	20	L	8.68	
Hopedale	39	55	-16	68	0	~	~	~	L	36.45	
La Scie	636	50	2	76	63	-4	3	10	M	10.17	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						$\frac{\text{HDD}_{65}}{\text{CDD}_{50}}$ Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Marticot Island	72	47	13	65	62	6	13	19	L	10.78	
Pools Island	62	49	6	71	64	5	11	18	L	10.05	
Port Aux Basques	131	48	8	67	62	6	13	19	L	12.02	
Saglek	1,644	58	-21	63	~	~	~	~	L	128.26	
Sagona Island	197	47	14	65	~	~	~	~	L	10.45	
St Anthony	95	51	-9	70	61	-6	1	8	L	21.24	
St John's AP	463	48	8	73	64	5	12	18	L	9.04	
St Lawrence	161	47	10	70	64	10	16	23	L	9.75	
Stephenville AP	85	49	3	71	64	4	11	17	L	8.07	
Twillingate	302	50	7	73	62	-7	0	6	L	9.80	
Wabush Lake AP	1,808	53	-29	73	58	-22	-15	-8	M	24.92	
<b>Northwest Territories</b>											
Aulavik National Park	105	74	-43	56	51	-25	-18	-12	L	861.60	
Cape Parry AP	285	70	-34	55	50	-26	-19	-12	L	588.70	
Colville Lake	850	67	-41	72	59	-16	-9	-3	L	30.49	
Fort Good Hope	269	66	-39	79	61	-22	-16	-9	M	16.82	
Fort Liard	699	60	-32	80	61	-23	-16	-9	M	10.76	
Fort Providence	531	61	-34	80	61	-20	-13	-6	M	14.69	
Fort Reliance	545	63	-41	70	59	-16	-9	-2	M	33.12	
Fort Simpson AP	554	62	-36	80	62	-16	-10	-3	M	12.89	
Fort Smith AP	673	60	-35	79	61	-19	-12	-6	M	13.11	
Hanbury River	1,040	64	-40	71	57	-25	-18	-11	M	46.22	
Hay River AP	541	61	-32	77	61	-15	-9	-2	M	16.14	
Inner Whalebacks	541	62	-28	66	61	3	10	16	L	28.88	
Inuvik AP	223	68	-41	75	59	-23	-16	-10	M	29.48	
Lac La Martre	889	63	-38	78	61	-19	-12	-6	M	19.54	
Lindburg Landing	600	61	-36	79	62	-15	-8	-1	M	14.89	
Little Chicago	207	67	-45	78	61	-19	-12	-5	M	19.42	
Liverpool Bay	335	70	-35	65	~	~	~	~	L	113.74	
Mould Bay AP	39	76	-46	47	42	-38	-32	-25	L	23.561	
Nicholson Peninsula	292	70	-39	64	55	-21	-14	-7	L	149.84	
Norman, Wells AP	240	65	-40	78	61	-20	-13	-7	M	15.97	
Pelly Island	56	70	-31	62	57	-11	-5	2	L	145.56	
Rae Lakes	732	64	-42	76	59	-23	-16	-9	M	18.24	
Sachs Harbour	289	72	-37	56	50	-26	-20	-13	L	593.65	
Trout Lake	1,634	60	-34	76	58	-27	-20	-13	M	20.34	
Tuktoyaktuk	16	69	-36	69	59	-14	-8	-1	L	65.14	
Yellowknife AP	676	62	-38	74	59	-21	-14	-7	L	17.24	
Yohin	669	61	-38	73	58	-22	-15	-8	M	58.24	
<b>Nova Scotia</b>											
Amherst	75	46	-1	75	66	11	17	24	M	5.43	
Baccaro Point	43	43	13	65	62	8	15	21	L	9.09	
Beaver Island	52	45	10	67	63	8	15	22	L	7.39	
Brier Island	52	44	13	67	63	7	14	20	L	6.88	
Caribou Point	7	46	4	78	67	9	16	22	L	4.46	
Grand Etang	43	47	7	77	69	23	30	36	L	4.24	
Greenwood AP	92	45	4	81	67	7	14	20	M	4.07	
Halifax, Stanfield IAP	476	45	2	79	66	6	13	20	M	4.70	
Hart Island	26	45	11	71	64	5	12	18	L	5.57	
Kejimkujik	541	44	3	81	67	7	14	20	M	4.25	
Kentville	161	45	1	83	68	7	14	21	M	~	
New Glasgow	317	45	-5	79	68	14	21	27	M	~	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Sable Island	16	44	18	70	67	22	29	35	L	5.28	
Shearwater AP	167	45	5	76	65	5	12	18	L	4.94	
St Paul Island	89	47	10	70	65	12	19	25	L	7.15	
Sydney AP	203	46	4	78	67	9	16	22	M	5.98	
Truro CO	131	45	-4	71	64	7	13	20	M	~	
Western Head	33	44	7	72	63	0	6	13	L	7.16	
Yarmouth AP	141	44	10	71	65	10	16	23	L	5.54	
<b>Nunavut</b>											
Alert	98	83	-43	49	43	-41	-34	-28	L	5918	
Baker Lake AP	59	64	-41	67	56	-21	-14	-7	M	94.14	
Brevoort Island	1,234	63	-24	54	0	-149	-143	-136	L	701.40	
Byron Bay AP	302	69	-40	60	52	-25	-18	-11	L	218.78	
Cambridge Bay AP	89	69	-42	59	52	-24	-18	-11	L	347.38	
Cape Dorset App	164	64	-28	57	48	-34	-27	-21	L	454.64	
Cape Dyer	2,379	67	-33	52	44	-42	-35	-28	L	1906	
Cape Hooper	1,280	68	-30	53	46	-40	-33	-26	L	973.60	
Cape Mercy	1,913	65	-26	51	~	~	~	~	L	1203	
Cape Peel West	541	69	-38	63	~	~	~	~	L	161.67	
Chesterfield	36	63	-34	60	52	-27	-20	-14	M	~	
Clinton Point	331	70	-33	62	53	-24	-17	-11	L	192.53	
Clyde AP	89	70	-38	52	46	-35	-28	-22	L	3389	
Coral Harbour AP	210	64	-40	61	52	-28	-22	-15	M	232.77	
Croker River	226	69	-31	65	~	-163	-157	-150	L	119.23	
Dewar Lakes	1,729	69	-38	54	46	-40	-33	-26	L	751.59	
Ennadai Lake	1,158	61	-38	71	59	-16	-9	-2	M	35.95	
Eureka	33	80	-53	50	43	-41	-34	-28	L	6115	
Fox Five	1,916	68	-30	53	46	-40	-33	-26	L	920.19	
Gladman Point AP	46	69	-45	56	51	-26	-19	-12	L	552.38	
Hall Beach AP	26	69	-45	53	48	-29	-22	-16	L	1165	
Hat Island	118	68	-40	54	~	~	~	~	L	668.71	
Iqaluit AP (AKA Frobisher)	112	64	-37	57	49	-32	-25	-19	L	442.34	
Jenny Lind Island AP	59	69	-42	53	49	-27	-21	-14	L	1680	
Kugluktuk AP	75	68	-39	68	57	-20	-14	-7	M	88.48	
Lady Franklin Point AP	52	69	-36	55	49	-28	-21	-14	L	658.87	
Longstaff Bluff	528	69	-39	56	48	-35	-29	-22	L	553.33	
Mackar Inlet	1,296	68	-42	57	49	-35	-28	-21	L	464.64	
Pangnirtung	75	66	-34	55	48	-31	-25	-18	L	660.54	
Pelly Bay	1,070	68	-44	58	51	-29	-22	-15	L	393.11	
Pond Inlet AP	180	73	-43	52	46	-35	-28	-22	L	1657	
Rankin Inlet AP	95	63	-40	63	55	-21	-14	-8	L	125.13	
Resolute	217	75	-42	48	44	-36	-29	-23	L	11224	
Resolution Island	1,211	62	-20	55	0	-151	-144	-137	L	551.93	
Robertson Lake	801	65	-41	70	56	-26	-19	-13	M	74.80	
Shepherd Bay AP	141	69	-51	60	53	-24	-18	-11	L	317.78	
<b>Ontario</b>											
Armstrong	1,060	50	-28	80	65	-5	2	9	M	10.55	
Atikokan	1,276	49	-19	82	67	6	12	19	M	6.38	
Bancroft	1,086	45	-14	83	69	14	21	28	M	5.83	
Beausoleil	600	45	-5	83	72	30	37	44	M	3.68	
Belle River	604	42	10	86	75	41	48	54	L	1.97	
Belleville	249	44	-7	84	72	28	35	41	M	~	
Big Trout Lake	735	54	-31	76	63	-7	0	7	M	14.15	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Big Trout Lake Readac	728	54	-30	78	64	-2	5	12	M	13.87	
Burlington Piers	253	43	9	84	69	12	19	26	L	2.53	
Chatham	595	42	3	87	73	30	36	43	M	~	
Cobourg	256	44	2	76	70	28	34	41	L	3.77	
Collingwood	591	45	3	83	71	22	29	36	L	3.30	
Cornwall	210	45	-9	87	72	23	30	36	M	~	
Cove Island	594	45	4	73	66	13	19	26	L	4.89	
Earlton AP	797	48	-21	81	67	6	12	19	M	7.65	
Erieau	584	42	10	79	73	40	47	54	L	2.56	
Geraldton AP	1,145	50	-28	80	65	-4	3	10	M	9.68	
Goderich	702	44	8	81	71	26	33	40	M	3.44	
Gore Bay AP	636	46	-7	79	68	13	19	26	M	4.85	
Great Duck Island	600	46	3	74	~	~	~	~	L	5.01	
Grenadier Island	269	44	-3	83	72	32	39	45	M	3.09	
Hamilton	778	43	1	86	72	26	32	39	M	~	
Kapuskasing AP	745	49	-25	81	66	-1	5	12	M	8.75	
Kenora AP	1,345	50	-21	82	66	3	10	17	M	5.70	
Killarney	643	46	-5	75	63	-3	4	11	L	4.86	
Kingston	305	44	-7	84	72	28	35	41	M	~	
Kitchener	1,049	43	-2	85	72	28	35	41	M	~	
Lagoon City	725	45	-5	79	72	34	41	48	L	3.84	
Lansdowne House	830	52	-29	79	65	-3	4	11	M	10.95	
London Int'L AP	912	43	3	83	71	22	29	36	M	3.13	
Long Point	574	43	11	77	~	~	~	~	L	2.43	
Moosonee AP	30	51	-26	81	68	8	14	21	M	11.19	
Mount Forest	1,362	44	-1	81	69	19	26	33	M	4.51	
Muskoka AP	925	44	-11	80	68	13	20	26	M	~	
Nagagami	866	50	-26	82	66	0	7	13	M	9.06	
North Bay AP	1,214	46	-13	79	66	7	13	20	M	5.66	
Oshawa	276	43	-3	86	72	25	31	38	M	~	
Ottawa, Macdonald-Cartier IAP	374	45	-7	84	69	12	18	25	M	3.70	
Owen Sound	587	44	-2	82	70	20	27	34	M	~	
Peawanuck	174	55	-32	79	63	-12	-5	1	M	20.94	
Petawawa AP	427	46	-15	83	69	10	17	24	M	5.17	
Peterborough AP	627	44	-5	83	69	16	23	30	M	4.17	
Pickle Lake	1,283	51	-26	80	64	-6	1	7	M	8.95	
Point Petre	259	44	1	77	72	38	45	51	L	3.64	
Port Colborne	604	43	8	77	71	36	42	49	L	2.89	
Port Weller	259	43	12	82	73	38	44	51	L	2.48	
Pukaskwa	682	49	-14	70	63	5	12	19	L	11.47	
Red Lake AP	1,266	51	-27	81	66	-1	6	13	M	7.80	
Saint Catharines	299	43	3	85	72	26	33	40	M	~	
Sarnia	594	42	3	86	72	25	32	39	M	~	
Sault Ste Marie AP	630	46	-8	80	68	13	19	26	M	5.94	
Simcoe	791	42	3	83	70	19	26	32	M	~	
Sioux Lookout AP	1,257	50	-24	81	66	-1	6	13	M	6.89	
Sudbury AP	1,142	47	-13	81	66	2	9	16	M	5.63	
Thunder Bay AP	653	48	-17	81	67	4	11	18	M	7.68	
Timmins, Victor Power AP	968	49	-23	81	65	-4	3	10	M	8.35	
Toronto, Buttonville AP	650	44	1	86	71	17	24	31	M	3.25	
Toronto Island AP	253	44	8	80	71	26	32	39	L	2.93	
Toronto, Lester B. Pearson IAP	568	44	3	85	70	17	23	30	M	3.01	
Trenton AP	282	44	-2	82	70	22	29	36	M	3.50	
Upsala	1,604	49	-22	80	66	3	10	17	M	8.68	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Wawa	942	48	-18	75	65	4	11	17	M	9.85	
Welcome Island	692	48	-11	73	65	7	14	20	L	7.67	
Wiarton AP	728	45	2	80	69	17	24	31	M	4.39	
Windsor AP	623	42	7	87	72	24	30	37	M	2.15	
<b>Quebec</b>											
Amqui	545	48	-12	80	65	-4	3	10	M	7.39	
Bagotville AP	522	48	-18	81	65	-3	4	11	M	7.17	
Baie-Comeau	427	49	-10	74	61	-11	-4	3	L	9.06	
Baie-Comeau AP	72	49	-13	72	62	-5	1	8	M	13.13	
Barrage Temiscamingue	594	47	-9	83	68	7	13	20	M	4.84	
Beauceville	751	46	-12	81	67	7	14	20	M	5.74	
Blanc-Sablon AP	121	51	-12	63	58	-7	0	6	L	31.49	
Bonnard	1,634	51	-28	76	63	-5	2	9	M	13.39	
Cap-Chat	16	49	-4	70	63	4	10	17	L	10.50	
Cap-D'Espoir	49	48	-1	68	63	5	12	18	L	10.78	
Cap-Madeleine	95	49	-2	72	62	-2	5	11	L	8.85	
Cap-Rouge	23	48	-13	78	65	0	6	13	L	5.93	
Cap-Tourmente	20	47	-7	81	69	17	23	30	M	4.85	
Charlevoix	2,372	47	-14	73	63	-2	5	12	M	14.42	
Chevrey	26	50	-11	66	59	-8	-2	5	L	21.23	
Chibougamau, Chapais AP	1,270	50	-27	78	63	-8	-1	6	M	11.96	
Chicoutimi	49	48	-22	83	68	7	14	20	M	~	
Chute-Des-Passes	1,306	50	-22	78	64	-4	3	9	M	12	
Deschambault	200	47	-13	81	68	11	18	24	M	5.99	
Drummondville	269	45	-14	85	71	21	27	34	M	~	
Frelighsburg	499	45	-7	82	70	20	26	33	M	3.59	
Gaspe AP	112	49	-9	78	65	2	8	15	M	9.03	
Granby	551	45	-14	85	71	21	28	34	M	~	
Grindstone Island	194	47	3	70	65	14	21	27	L	~	
Havre-Saint-Pierre AP	125	50	-11	71	61	-5	2	8	M	14.45	
Heath Point	23	49	-1	64	61	2	8	15	L	16.83	
Hull	413	45	-14	87	71	18	24	31	M	~	
Ile Aux Perroquets	30	50	-3	60	57	-7	-1	6	L	47.22	
Ile Rouge	20	48	-2	62	57	-10	-3	3	L	26.52	
Iles De La Madeleine	26	47	6	73	66	13	20	26	L	6.50	
Inukjuak AP	82	58	-30	65	55	-24	-17	-11	L	89.63	
Jonquiere	420	48	-16	81	66	1	8	14	M	6.57	
Kuujjuaq AP	128	58	-31	71	58	-19	-13	-6	M	46.71	
Kuujjuarapik AP	33	55	-30	72	60	-16	-9	-3	L	34.88	
L'Acadie	144	45	-7	84	70	17	23	30	M	3.52	
L'Assomption	69	46	-9	84	69	14	20	27	M	3.92	
L'Etape	2,595	48	-23	74	61	-11	-3	4	M	17.90	
La Baie	499	48	-18	81	66	1	8	14	M	7.46	
La Grande Iv AP	1,004	54	-33	76	60	-19	-13	-6	M	21.53	
La Grande Riviere AP	640	54	-29	76	61	-17	-10	-4	M	19.81	
La Pocatiere	102	47	-6	80	67	9	16	22	M	5.64	
La Tuque	554	47	-17	83	65	-9	-2	4	M	6.13	
Lac Benoit	1,801	52	-37	76	61	-14	-7	0	M	20.97	
Lac Eon	1,932	52	-24	75	61	-13	-5	2	M	18.95	
Lac Saint-Pierre	52	46	-8	79	68	11	18	24	L	4.43	
Lake Eon AP	1,841	51	-27	70	58	-19	-12	-6	M	~	
Lennoxville	594	45	-9	82	69	16	23	30	M	4.34	
Longue-Pointe-De-Mingan	36	50	-12	67	60	-7	-1	6	M	23.16	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling					HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains				
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors		
Maniwaki AP	656	46	-13	83	68	6	13	19	M 5.18	
Maniwaki Ua	630	46	-16	81	68	11	18	25	M 6.07	
Manouane Est	1,631	51	-31	76	63	-6	1	8	M 15.48	
Matagami AP	919	50	-25	81	65	-4	3	10	M 10.32	
Mctavish	240	46	-3	84	70	15	22	29	L 3.02	
Megantic AP	216	45	-16	83	70	18	25	31	M ~	
Mistook	371	49	-21	81	69	16	23	29	M 6.96	
Mont-Joli AP	171	49	-7	77	66	5	12	18	M 7.63	
Mont-Orford	2,776	45	-13	74	64	3	10	17	L 8.30	
Montreal-Est	164	46	-5	84	68	6	13	19	M 3.22	
Montreal, Mirabel IAP	269	46	-10	82	69	16	23	29	M 4.56	
Montreal, Pierre Elliott Trudeau AP	118	45	-6	83	70	17	24	30	M 3.47	
Montreal, St-Hubert AP	89	46	-7	83	70	16	22	29	M 3.83	
Natashquan AP	36	50	-13	68	61	-2	5	11	L 16.91	
New Carlisle	151	48	-4	76	66	7	14	20	M 7.10	
Nicolet	26	46	-9	81	71	24	31	37	M 4.29	
Nitchequon	1,759	53	-31	69	58	-17	-10	-4	M ~	
Normandin	449	49	-23	80	67	4	11	18	M 8.75	
Onatchiway	997	49	-23	80	64	-7	0	6	M 9.19	
Parent	1,460	48	-25	79	66	7	13	20	M 9.53	
Pointe Claveau	13	48	-11	76	64	-2	4	11	L 6.49	
Pointe Noire	79	50	-5	73	~	~	~	~	L 9.22	
Pointe-Au-Pere	16	49	-3	71	64	5	11	18	L 10.30	
Pointe-Des-Monts	20	49	-6	65	59	-4	2	9	L 17.24	
Port-Menier	180	50	-5	72	63	-1	5	12	L 10.83	
Quebec, Jean Lesage IAP	243	47	-11	81	68	12	19	25	M 5.25	
Rimouski	48	-12	79	66	4	11	17	M ~		
Riviere-Du-Loup	482	48	-8	77	67	11	17	24	M 7.49	
Roberval AP	587	49	-18	80	67	5	12	19	M 6.97	
Rouyn	1,043	48	-18	81	65	-2	4	11	M 6.93	
Rouyn AP	988	48	-22	81	66	1	8	14	M 7.91	
Schefferville AP	1,713	55	-31	71	57	-22	-15	-8	M 36.43	
Sept-Iles AP	180	50	-14	70	60	-10	-4	3	L 15.05	
Sherbrooke AP	791	45	-13	81	68	12	19	26	M 5.75	
St-Anicet	161	45	-8	84	71	21	28	34	M 3.90	
St. Jean	1,152	45	-11	86	72	5	11	18	M ~	
St. Jeironome	554	45	-13	86	71	19	26	33	M ~	
St-Jovite	784	46	-17	82	67	6	13	20	M 6.53	
St. Hubert AP	89	45	-7	83	69	14	21	27	M ~	
Schefferville AP	1,709	54	-31	69	57	-21	-14	-8	M ~	
Sept. Iles AP	180	50	-15	69	59	-13	-6	0	M ~	
Shawinigan	400	46	-14	84	70	17	24	30	M ~	
Sherbrooke CO	791	45	-14	80	68	13	20	26	M ~	
Ste Agathe Des Monts	1,296	46	-14	79	67	9	16	23	M 7.21	
Ste-Anne-De-Bellevue	128	45	-6	83	70	16	23	29	M 3.61	
Ste-Clothilde	174	45	-8	84	70	18	25	31	M 3.78	
Ste-Foy (U. Laval)	299	47	-8	82	67	7	13	20	M 4.74	
Thetford Mines	1,250	46	-14	84	70	18	25	32	M ~	
Trois-Rivieres	20	46	-7	79	70	22	29	35	L 3.97	
Val-D'Or AP	1,106	48	-22	81	65	-1	6	13	M 8.29	
Valleyfield	156	45	-10	86	72	24	31	38	M ~	
Varennes	59	46	-6	84	69	14	20	27	M 3.76	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
<b>Saskatchewan</b>											
Assiniboia AP	2,382	50	-18	86	63	-20	-13	-6	M	5.70	
Broadview	1,969	50	-24	83	65	-7	0	7	M	7.23	
Collins Bay	1,614	58	-33	75	59	-21	-14	-7	M	18.59	
Coronach	2,480	49	-19	87	64	-18	-11	-4	H	5.83	
Cree Lake	1,624	57	-38	76	60	-22	-15	-8	M	14.89	
Cypress Hills Park	4,170	50	-14	80	59	-31	-24	-16	M	7.97	
Eastend Cypress	3,543	49	-16	83	60	-29	-21	-14	M	6.75	
Elbow	1,952	51	-22	86	65	-11	-4	3	M	6.11	
Estevan AP	1,906	49	-21	86	66	-9	-1	6	M	5.62	
Hudson Bay	1,175	53	-26	81	65	-2	5	12	M	9.12	
Indian Head	1,900	51	-23	83	65	-5	2	9	M	7.73	
Key Lake AP	1,673	57	-39	78	60	-20	-13	-6	M	16.51	
Kindersley AP	2,277	52	-23	84	62	-22	-15	-8	M	6.84	
La Ronge AP	1,243	55	-30	79	63	-12	-5	2	M	10.16	
Last Mountain	1,631	51	-22	83	65	-6	1	8	M	7.18	
Leader AP	2,218	51	-21	87	62	-26	-19	-12	H	5.73	
Lucky Lake	2,182	51	-19	84	63	-17	-10	-2	M	6.22	
Maple Creek	2,516	50	-18	86	63	-19	-12	-5	H	5	
Meadow Lake AP	1,575	54	-30	80	63	-10	-3	4	M	9.28	
Melfort	1,608	53	-24	81	65	-3	4	11	M	8.18	
Moose Jaw AP	1,893	50	-23	87	64	-19	-12	-5	M	5.34	
Moose Jaw CO	1,893	50	-16	86	66	-9	-2	5	M	5.76	
Nipawin AP	1,220	53	-28	81	64	-9	-2	5	M	8.32	
North Battleford AP	1,798	53	-26	82	63	-15	-8	-1	M	7.64	
Outlook	1,775	51	-17	85	65	-8	-1	6	M	5.60	
Prince Albert AP	1,404	53	-28	81	64	-9	-2	5	M	8.31	
Regina AP	1,893	50	-24	85	65	-10	-3	4	M	6.32	
Rockglen	3,009	49	-16	85	62	-23	-15	-8	M	5.91	
Rosetown East	1,923	52	-24	84	62	-22	-15	-8	H	7.66	
Saskatoon Diefenbaker IAP	1,654	52	-26	84	64	-12	-5	2	M	6.94	
Saskatoon, Kernen Farm	1,673	52	-23	83	62	-20	-13	-6	M	7.29	
Scott	2,165	52	-20	83	62	-19	-11	-4	M	8.22	
Southend	1,129	56	-33	78	61	-17	-10	-3	M	14.56	
Spiritwood West	1,916	53	-25	80	64	-8	-1	6	M	10.12	
Stony Rapids AP	804	59	-39	79	62	-16	-10	-3	M	17.34	
Swift Current AP	2,684	50	-18	84	63	-18	-11	-4	M	6.03	
Swift Current CO	2,707	50	-17	85	64	-11	-4	3	M	5.99	
Uranium City	1,043	60	-35	76	61	-17	-10	-4	M	15.65	
Val Marie, Southeast	2,612	49	-22	89	62	-30	-23	-16	H	5.86	
Waskesiu Lake	1,867	54	-23	79	63	-10	-2	5	M	9.14	
Watrous, East	1,726	52	-23	83	65	-8	-1	6	M	7.87	
Weyburn	1,932	50	-21	86	67	-1	6	13	M	5.96	
Wynyard	1,837	52	-24	82	64	-9	-2	5	M	7.73	
Yorkton AP	1,634	51	-25	82	65	-6	1	8	M	7.78	
<b>Yukon Territory</b>											
Burwash AP	2,648	61	-37	70	55	-33	-26	-19	M	42.75	
Faro	2,352	62	-42	75	57	-33	-26	-19	M	19.99	
Haines Junction	1,965	61	-39	73	55	-37	-30	-23	M	28.32	
Herschel Island	3	70	-30	58	55	-11	-4	2	L	217.98	
Ivvavik Nat. Park	801	69	-35	71	57	-25	-18	-11	M	51.65	
Komakuk Beach	43	70	-33	60	~	~	~	~	L	249.96	
Mayo AP	1,654	64	-50	77	58	-30	-23	-16	M	16.67	

Location	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Rock River	2,398	67	-26	69	55	-30	-22	-15	M	37.13	
Shingle Point AP	161	69	-36	68	58	-14	-8	-1	L	71.50	
Teslin	2,313	60	-35	73	56	-33	-26	-19	M	25.61	
Watson Lake AP	2,254	60	-42	75	57	-30	-23	-16	M	18.95	
Whitehorse AP	2,316	61	-32	74	56	-35	-27	-20	M	21.71	

Arizona	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Agulia	2,165	34	26	106	68	-27	-20	-13	33	0.41	
Ajo	1,763	32	36	107	69	-24	-17	-10	26	0.16	
Alamo Dam	1,290	34	27	109	70	-22	-15	-8	34	0.22	
Alhambra	1,135	34	30	108	70	-21	-14	-7	32	~	
Alpine	8,050	34	-3	87	55	-60	-52	-43	34	6.78	
Anvil Ranch	2,750	32	24	106	67	-32	-24	-17	31	0.33	
Apache	5,380	32	21	92	60	-44	-36	-28	31	~	
Apache Junction	1,720	33	34	108	69	-25	-18	-11	30	0.21	
Apache Powder	3,690	32	22	100	65	-32	-24	-17	31	0.40	
Ash Fork	5,325	35	15	96	61	-45	-37	-29	36	~	
Avondale	1,170	33	29	109	70	-22	-15	-8	30	~	
Bagdad	3,712	35	29	98	64	-34	-26	-19	34	0.52	
Bartlett Dam	1,650	34	35	108	69	-25	-18	-11	29	0.18	
Beaver Creek RS	3,820	35	28	100	65	-32	-24	-17	28	0.65	
Beaver Dam	1,875	37	25	109	69	-27	-20	-13	35	0.37	
Benson	3,675	32	22	100	65	-32	-24	-17	31	~	
Betatakin	7,286	37	10	89	58	-49	-40	-31	31	2.32	
Bisbee	5,020	31	30	93	61	-41	-33	-25	25	0.85	
Black River Pumps	6,040	34	8	93	60	-45	-37	-29	29	1.86	
Blue	5,760	34	7	96	61	-45	-37	-29	34	1.96	
Blue Ridge RS	6,810	35	3	88	57	-52	-44	-35	29	3.38	
Bouse	930	34	26	111	71	-20	-13	-7	34	0.23	
Bowie	3,770	32	25	102	65	-35	-27	-20	31	0.45	
Buckeye	870	34	28	111	71	-20	-13	-7	33	0.19	
Burrus Ranch	6,800	35	4	89	58	-49	-40	-32	35	~	
Cameron	4,165	36	16	100	64	-37	-29	-21	31	0.84	
Canelo	4,985	32	20	94	62	-37	-29	-21	29	0.91	
Canyon de Chelly	5,540	36	5	92	60	-44	-36	-28	33	1.39	
Carefree	2,530	34	34	104	68	-23	-16	-9	27	0.25	
Casa Granda AWOS	1,463	33	35	107	69	-25	-18	-11	H	0.20	
Casa Grande National Monument	1,419	33	26	110	70	-23	-16	-10	35	~	
Cascabel	3,145	32	23	103	66	-32	-24	-17	27	0.45	
Castle Hot Spring	1,990	34	35	106	69	-22	-15	-8	30	0.21	
Chandler	1,216	33	32	107	70	-19	-12	-5	32	~	
Chandler Heights	1,425	33	31	106	70	-17	-10	-3	28	0.22	
Chevelon RS	7,006	35	5	87	57	-51	-42	-33	30	3.13	
Childs	2,650	34	29	107	68	-28	-21	-13	35	0.48	
Chinle	5,538	36	5	94	61	-42	-34	-26	33	~	
Chino Valley	4,750	35	16	97	63	-37	-29	-21	37	1.29	
Chiricahua National Monument	5,300	32	21	94	61	-42	-34	-26	30	~	
Cibecue	5,045	34	14	94	61	-42	-34	-26	36	~	
Clay Spring	6,320	34	2	89	58	-49	-40	-32	31	~	
Clifton	3,460	33	30	104	66	-33	-26	-18	28	0.41	
Colorado City	5,010	37	8	94	62	-37	-29	-21	33	1.28	
Congress	3,015	34	34	102	67	-25	-18	-10	32	~	
Copper Mine TP (near Page)	6,380	37	15	93	59	-50	-42	-33	34	~	
Cordes	3,773	34	27	99	65	-30	-23	-15	30	0.65	
Coronado National Monument	5,242	31	23	95	62	-39	-31	-23	28	~	
Cortaro	2,283	32	29	108	69	-24	-17	-10	30	~	
Cottonwood	3,375	35	26	102	66	-30	-23	-15	30	~	
Dateland Ranch	545	33	31	112	72	-17	-10	-3	30	0.17	
Davis Dam	657	35	39	113	72	-18	-11	-5	28	~	
Davis-Monthan AFB	2,654	32	36	103	65	-38	-30	-23	M	0.21	
Deer Valley	1,257	34	31	108	70	-20	-14	-7	30	0.20	

Arizona	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Dinnehotso	5,100	37	10	97	62	-42	-34	-26	36	~	
Douglas	4,040	31	22	99	64	-35	-28	-20	28	0.54	
Douglas, Bisbee-Douglas IAP	4,101	31	26	97	62	-42	-35	-27	H	0.48	
Douglas Smelter	3,973	31	24	99	64	-35	-28	-20	28	~	
Duncan	3,640	33	16	97	65	-27	-20	-12	30	0.76	
Ehrenburg	465	34	34	112	72	-17	-10	-3	32	0.12	
Eloy	1,595	33	29	107	70	-18	-11	-4	30	0.20	
Falcon Field	1,320	33	30	106	70	-17	-10	-3	30	~	
Flagstaff AP	7,005	35	9	83	55	-54	-45	-37	H	4.28	
Florence	1,505	33	31	110	70	-23	-16	-9	31	0.22	
Ft Grant	4,875	33	26	97	63	-37	-29	-21	28	~	
Fort Huachuca AP	4,716	31	28	92	62	-34	-26	-18	H	0.61	
Ft Thomas	2,800	33	22	105	67	-30	-23	-15	28	0.55	
Ft Valley	7,347	35	-3	84	55	-55	-47	-38	33	6.76	
Fredonia	4,675	37	5	96	63	-35	-27	-20	38	~	
Ganado	6,340	36	0	89	58	-49	-40	-32	34	2.33	
Gila Bend	737	33	31	111	71	-20	-14	-7	30	0.13	
Glendale	1,154	34	32	107	71	-13	-6	0	28	~	
Globe	3,710	33	24	103	66	-31	-24	-16	30	0.63	
Grand Canyon National Park	6,775	36	7	88	56	-57	-48	-40	H	3.94	
Granite Reef Dam	1,325	34	32	108	70	-20	-13	-7	30	~	
Granville	6,800	33	13	88	58	-47	-39	-30	28	~	
Groom Creek	6,100	35	11	89	59	-44	-36	-27	33	~	
Harquahala	1,220	34	24	110	71	-18	-11	-4	32	~	
Heber RS	6,590	34	-1	88	58	-47	-39	-30	32	2.87	
Hillside	3,320	35	20	100	65	-32	-25	-17	28	0.94	
Holbrook	5,069	35	6	96	61	-45	-37	-29	34	1.16	
Inner Canyon	2,575	36	37	108	69	-24	-17	-10	29	~	
Jacob Lake	7,920	37	3	83	54	-59	-50	-41	36	~	
Jerome	5,245	35	28	91	60	-42	-34	-26	23	0.81	
Junipine	5,134	35	22	91	60	-42	-34	-26	32	~	
Kayenta	5,695	37	13	91	59	-47	-39	-31	32	~	
Keams Canyon	6,205	36	7	92	59	-49	-40	-32	34	2.13	
Kingman AMOS	3,445	35	27	99	64	-36	-28	-21	H	0.61	
Kitt Peak	6,790	32	22	88	58	-47	-39	-30	30	1.28	
Klagetoh	6,500	36	6	91	59	-47	-39	-30	37	1.69	
Kofa Mtn	1,775	33	37	107	69	-24	-17	-10	25	0.14	
Laveen	1,115	33	30	108	70	-21	-14	-7	28	0.17	
Lees Ferry	3,210	37	26	105	67	-30	-22	-15	30	0.62	
Leupp	4,700	35	5	97	63	-37	-29	-21	36	~	
Litchfield Park	1,030	34	30	110	71	-18	-12	-5	30	0.19	
Lukachukai	6,520	36	7	90	58	-50	-42	-34	29	2.23	
Luke AFB	1,101	34	33	108	71	-15	-8	-1	28	~	
Many Farms	5,310	36	6	95	61	-44	-36	-28	34	~	
Marinette	1,145	34	27	110	71	-18	-11	-4	31	~	
Maricopa	1,160	33	26	109	71	-17	-10	-3	32	0.23	
Maverick	7,800	34	-13	82	54	-57	-48	-39	34	~	
McNary	7,320	34	6	86	56	-54	-45	-36	33	4.01	
Mesa Exp. Farm	1,230	33	32	107	70	-19	-12	-5	32	0.16	
Miami	3,560	33	30	100	65	-32	-24	-17	26	0.49	
Montezuma Csl RS	3,180	35	24	104	67	-28	-21	-13	38	0.66	
Mormon Flat	1,715	34	36	108	70	-20	-13	-6	26	0.19	
Natural Bridge	4,607	34	22	96	63	-35	-28	-20	26	~	
Navajo	5,580	35	5	96	61	-45	-37	-29	34	~	

## MICRO CLIMATE TABLE 1B

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Arizona	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						$\frac{\text{HDD}_{65}}{\text{CDD}_{50}}$ Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Navajo Army Depot	7,125	35	4	84	55	-55	-47	-38	32	~	
Nogales IAP	4,055	31	30	98	63	-39	-31	-24	H	0.40	
Oracle	4,540	33	29	98	63	-39	-31	-23	27	0.58	
Organ Pipe Cactus National Monument	1,678	32	32	106	69	-22	-15	-8	29	0.17	
Page Municipal AP AMOS	4,278	37	25	98	62	-44	-36	-28	M	0.80	
Paradise Valley	1,421	34	35	107	70	-19	-12	-5	28	~	
Parker	425	34	33	112	72	-17	-10	-4	32	0.14	
Payson	4,913	34	16	97	63	-37	-29	-21	35	1.18	
Payson RS	4,848	34	12	96	63	-35	-27	-19	36	~	
Pearce	4,420	32	24	97	63	-37	-29	-22	30	0.61	
Peoria	1,141	34	30	108	70	-21	-14	-7	31	~	
Perkinsville	3,855	35	15	100	65	-32	-24	-17	30	~	
Petrified Forest NP	5,440	35	10	95	61	-44	-36	-27	31	1.35	
Phantom Ranch	2,570	36	37	110	69	-27	-20	-13	32	0.29	
Phoenix, Sky Harbor IAP	1,106	33	41	108	70	-21	-14	-7	M	0.10	
Phoenix CO	1,083	33	35	106	72	-6	1	8	26	~	
Pierce Ferry	3,860	36	20	97	64	-32	-25	-17	32	~	
Pinedale	6,500	34	-7	89	58	-49	-40	-32	32	~	
Pinon	6,355	36	3	92	59	-49	-40	-32	34	~	
Pipe Springs National Monument	4,920	37	8	97	63	-37	-29	-21	36	1.36	
Pleasant Valley RS	5,050	34	11	94	61	-42	-34	-26	34	1.64	
Portal	5,390	32	16	91	60	-42	-34	-26	34	1.67	
Prescott	5,510	35	16	93	60	-45	-37	-29	32	1.58	
Prescott, Love Field	5,052	35	21	91	61	-37	-29	-21	H	1.21	
Quartzsite	870	34	31	112	71	-22	-15	-8	29	0.16	
Reno RS	2,350	34	31	105	68	-25	-18	-11	31	~	
Roosevelt	2,205	34	36	106	68	-27	-20	-13	26	0.30	
Sabino Canyon	2,640	32	32	107	68	-28	-21	-13	29	0.21	
Sacaton	1,285	33	28	108	71	-15	-8	-1	30	0.23	
Safford Exp. Farm	2,954	33	23	103	67	-27	-19	-12	32	0.50	
Sahuarita	2,690	32	28	106	68	-26	-19	-12	25	~	
St. Johns	5,730	35	5	95	61	-43	-35	-27	34	1.57	
Salome	1,890	34	25	108	69	-25	-18	-11	32	~	
San Carlos AP	2,643	33	24	105	68	-25	-18	-10	34	~	
San Carlos Res.	2,532	33	30	105	68	-25	-18	-10	34	0.38	
San Manuel	3,560	33	29	101	66	-28	-21	-13	27	~	
San Rafael Ranch	4,741	31	19	96	63	-35	-27	-20	30	~	
San Simon	3,880	32	22	101	65	-33	-26	-18	32	0.65	
Sanders	5,853	35	-1	94	60	-47	-39	-31	34	1.86	
Santa Rita Exp. Range	4,300	32	29	98	64	-34	-26	-18	23	0.41	
Santa Rosa School	1,830	32	27	109	70	-21	-14	-7	30	~	
Sasabe	3,590	32	29	100	65	-32	-24	-17	30	0.43	
Scottsdale	1,235	34	31	109	70	-22	-15	-8	30	~	
Sedona RS	4,320	35	27	98	64	-33	-26	-18	29	0.68	
Seligman	5,250	35	15	95	61	-44	-36	-28	36	1.54	
Sells	2,375	32	30	106	68	-27	-20	-12	28	~	
Show Low	6,440	34	2	91	59	-47	-39	-30	30	1.61	
Sierra Ancha	5,100	34	24	96	62	-40	-32	-24	29	~	
Sierra Vista	4,650	32	28	93	63	-31	-23	-15	26	0.46	
Silver Bell	2,740	32	38	103	67	-27	-20	-12	26	~	
Snowflake	5,642	35	3	93	61	-40	-32	-24	35	1.75	
Snowflake 15 W	6,080	35	3	89	59	-44	-36	-27	33	~	
South Phoenix	1,155	33	30	104	70	-14	-7	0	28	0.20	

Arizona	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
South Tucson	2,600	32	30	103	67	-27	-20	-13	32	~	
Springerville	7,060	34	1	87	57	-51	-42	-33	31	3.38	
Stanton	3,480	34	32	100	66	-27	-19	-12	26	~	
Stewart Mtn.	1,422	34	31	107	70	-19	-12	-5	30	0.24	
Sun City	1,140	34	30	108	70	-21	-14	-7	31	~	
Sunset Crater National Monument	6,980	35	1	88	57	-52	-44	-35	31	4.44	
Supai	3,205	36	23	101	66	-29	-21	-14	30	~	
Superior	2,995	33	39	101	66	-29	-21	-14	28	0.24	
Tacha	324	33	27	109	72	-12	-6	1	30	0.18	
Teec Nos Pos	5,290	37	6	96	62	-40	-32	-24	32	1.33	
Tempe	1,150	33	30	108	70	-21	-14	-7	30	~	
Tempe U of AZ	1,180	33	30	109	70	-22	-15	-8	33	0.18	
Tombstone	4,610	32	29	98	63	-39	-31	-23	28	0.43	
Truxton Canyon	3,820	35	23	99	64	-35	-28	-20	32	~	
Tuba City	4,936	36	12	99	63	-40	-32	-24	32	1.27	
Tuscon Exp. Farm	2,330	32	26	105	68	-25	-18	-11	30	~	
Tucson Mag. Obsy.	2,526	32	28	106	68	-27	-19	-12	30	0.29	
Tucson U of AZ	2,444	32	34	105	68	-25	-18	-11	27	0.22	
Tucson IAP	2,556	32	34	104	66	-33	-26	-19	M	0.20	
Tumacacori National Monument	3,267	32	24	105	67	-30	-22	-15	32	0.44	
Tuweep	4,775	36	23	98	63	-38	-31	-23	30	~	
Wahweap	3,728	37	25	100	65	-32	-24	-17	24	0.74	
Walnut Creek	5,090	35	14	93	61	-41	-33	-25	36	1.79	
Wellton	260	33	30	108	72	-11	-4	2	31	~	
West Yuma	200	33	32	109	72	-13	-6	1	28	~	
Whiteriver	5,280	34	14	95	62	-39	-31	-23	33	1.39	
Wickenburg	2,095	34	27	109	69	-26	-19	-12	36	0.33	
Wikieup	2,010	35	30	108	69	-25	-18	-11	33	0.37	
Willcox	4,190	32	18	99	64	-35	-27	-20	31	0.66	
Williams	6,750	35	13	85	57	-47	-39	-30	32	2.72	
Williams AFB	1,385	33	32	107	71	-13	-6	1	27	~	
Willow Beach	800	36	37	116	73	-17	-10	-3	28	0.17	
Willow Spring Ranch	3,690	33	25	100	65	-32	-24	-17	29	~	
Window Rock	6,750	36	1	88	57	-52	-44	-35	34	3.02	
Winkelman	2,075	33	25	108	69	-25	-18	-11	24	~	
Winslow Municipal AP	4,882	35	15	95	61	-46	-38	-30	H	1.21	
Wupatki National Monument	4,908	36	24	98	63	-38	-30	-23	30	1.00	
Youngtown	1,135	34	30	108	70	-21	-14	-7	30	0.14	
Yucca	1,950	35	30	104	68	-24	-17	-10	29	0.27	
Yuma Citrus	191	33	34	109	72	-13	-6	1	29	0.16	
Yuma MCAS	213	33	45	109	73	-5	1	8	M	0.07	
Yuma Proving Ground	324	33	36	109	72	-12	-6	1	29	0.12	
Yuma Valley	120	33	33	109	72	-13	-6	1	29	0.14	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Adin RS	4,195	41	4	92	61	-39	-32	-24	43	2.85	
Alameda NAS	13	38	42	79	64	-9	-2	4	L	0.60	
Alamo	410	38	31	96	68	-13	-6	0	30	~	
Albany	40	38	38	81	64	-9	-3	4	16	~	
Alderpoint	460	40	30	94	67	-15	-8	-2	39	~	
Alhambra	483	34	37	94	70	1	8	14	25	~	
Almaden AFS	3,470	37	29	89	61	-35	-27	-20	20	~	
Alondra Park	50	34	42	85	68	4	11	17	17	~	
Alpine	1,735	33	35	95	69	-4	3	10	35	0.38	
Altadena	1,200	34	39	92	68	-6	1	8	31	~	
Alturas RS	4,400	42	0	95	61	-44	-36	-28	43	4.00	
Alum Rock	70	37	36	88	66	-11	-4	2	22	~	
Anaheim	158	34	39	89	69	3	10	16	26	0.23	
Anderson	430	41	34	101	70	-10	-4	3	30	~	
Angwin	1,915	39	33	92	64	-26	-19	-12	33	1.01	
Antioch	60	38	31	95	68	-12	-5	1	34	0.61	
Apple Valley	2,935	35	25	101	66	-29	-22	-14	38	~	
Aptos	500	37	35	87	65	-14	-7	-0	30	~	
Arcadia	475	34	38	95	69	-6	1	7	30	~	
Arcata AP	210	41	33	68	59	-10	-4	3	L	3.90	
Arden	80	39	35	98	69	-11	-5	2	35	~	
Arroyo Grande	105	35	35	83	64	-13	-6	1	18	~	
Artesia	50	34	40	89	70	8	15	21	23	~	
Arvin	445	35	32	102	70	-12	-5	1	30	~	
Ash Mtn	1,708	37	33	101	68	-20	-13	-6	30	0.52	
Atascadero	837	36	32	88	67	-5	2	9	42	~	
Atherton	50	38	33	82	64	-11	-4	2	27	~	
Atwater	150	37	34	98	69	-11	-5	2	38	~	
Auberry	2,140	37	30	99	66	-26	-19	-12	36	0.56	
Auburn	1,292	39	33	99	68	-17	-10	-3	33	0.68	
Avalon	25	33	44	73	62	-6	1	7	11	0.34	
Azusa	605	34	38	95	70	-1	6	13	36	~	
Baker	940	35	31	112	72	-16	-9	-2	29	0.27	
Bakersfield, Meadows Field	492	35	35	101	70	-9	-2	5	H	0.36	
Balch PH	1,720	37	34	97	66	-24	-17	-10	26	0.63	
Baldwin Park	394	34	38	94	70	1	7	14	32	~	
Banning	2,349	34	30	100	69	-12	-4	3	34	~	
Barrett Dam	1,623	33	28	96	69	-6	1	8	35	~	
Barstow	1,927	34	32	105	67	-31	-24	-17	H	0.37	
Beale AFB (/Marysville)	125	39	35	98	69	-10	-3	3	H	0.49	
Beaumont	2,605	34	30	99	68	-15	-8	-1	38	~	
Bell	143	34	41	89	69	3	10	16	22	~	
Bellflower	73	34	40	89	69	3	10	16	21	~	
Bell Gardens	160	34	40	89	69	3	10	16	22	~	
Belmont	33	38	36	82	64	-11	-4	2	24	~	
Benicia	55	38	36	91	67	-11	-4	2	30	~	
Ben Lomond	450	37	33	83	65	-7	-1	6	30	0.86	
Berkeley	345	38	40	80	63	-12	-6	1	16	0.96	
Berryessa Lake	480	39	34	96	69	-8	-1	6	35	~	
Beverly Hills	268	34	46	87	68	1	8	14	20	~	
Big Bar RS	1,260	41	28	97	67	-19	-12	-5	46	1.07	
Big Bear Lake	6,745	34	7	83	58	-39	-31	-22	32	4.31	
Bishop AP	4,144	37	19	99	63	-42	-35	-27	H	1.16	
Blackwells Corner	644	36	32	93	67	-13	-7	0	31	~	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Bloomington	980	34	38	102	71	-6	1	8	34	~	
Blue Canyon AP	5,282	39	24	81	58	-36	-28	-20	L	2.28	
Blythe Riverside Co. AP	394	34	39	110	72	-14	-7	0	H	0.12	
Blythe CO	268	34	32	112	73	-11	-5	2	27	~	
Boca	5,575	39	-10	88	57	-52	-44	-36	46	8.03	
Bodie	8,370	38	-13	80	50	-72	-63	-54	42	18.86	
Bonita	105	33	34	82	66	-1	5	12	20	~	
Boron AFS	3,015	35	26	102	70	-8	-1	7	35	~	
Borrego Desert Pk	805	33	33	105	74	7	14	20	36	0.14	
Bowman Dam	5,347	39	22	86	57	-49	-41	-33	26	3.15	
Brannan Island	30	38	31	93	69	-4	3	10	10	~	
Brawley 2 SW	-100	33	33	109	75	4	11	17	32	0.14	
Brea Dam	275	34	37	90	68	-4	3	10	29	~	
Bridgeport	6,470	38	-12	86	55	-58	-50	-41	41	8.36	
Broderick-Bryte	20	39	35	98	69	-12	-5	2	36	~	
Brooks Ranch	294	39	28	97	70	-4	2	9	35	~	
Buena Park	75	34	38	89	69	3	10	16	25	~	
Burbank-Glendale-Passadena AP	732	34	42	95	68	-9	-2	5	M	0.23	
Burbank Vly Pump	655	34	36	94	68	-10	-3	4	28	0.29	
Burlingame	10	38	37	80	65	-3	4	10	20	~	
Burney	3,127	41	12	92	63	-30	-23	-15	42	3.82	
Butler Vly	420	41	29	85	64	-16	-9	-2	22	~	
Buttonwillow	269	35	29	99	70	-7	-1	6	36	0.51	
Cabrillo NM	410	33	45	84	69	11	18	25	12	~	
Cachuma Lake	781	35	34	91	67	-10	-3	4	19	0.43	
Calabasas	1,100	34	33	97	71	3	9	16	26	~	
Calaveras Big Trees	4,696	38	23	88	60	-38	-30	-22	33	2.87	
Calexico	12	33	34	110	73	-9	-2	4	28	~	
Callahan	3,185	41	20	92	62	-35	-27	-20	35	2.50	
Calwa	330	37	29	101	70	-11	-4	3	34	~	
Camarillo AWOS	75	34	39	82	64	-11	-5	2	M	0.46	
Cambria AFS	690	36	38	70	61	-5	1	8	18	~	
Campbell	195	37	36	87	67	-4	3	9	30	~	
Campo	2,630	33	27	94	68	-7	0	7	41	0.86	
Camp Pardee	658	38	35	102	71	-6	1	7	36	0.58	
Camp Roberts	765	36	27	99	71	-1	6	12	45	~	
Canoga Park	790	34	33	97	71	2	9	16	38	0.35	
Cantil	2,010	35	24	107	72	-6	1	8	32	~	
Canyondam	4,555	40	13	89	59	-44	-36	-29	39	3.63	
Capitola	64	37	35	85	65	-11	-4	2	24	~	
Cardiff-by-the-Sea	80	33	41	81	67	5	12	19	12	~	
Carlsbad / Palomar	328	33	45	79	64	-5	2	8	L	0.42	
Carmel Valley	425	37	33	84	67	1	8	14	20	~	
Carmichael	100	39	34	98	70	-6	0	7	35	~	
Carpinteria	385	34	37	81	67	6	12	19	15	~	
Carson	60	34	40	86	68	3	9	16	19	~	
Castle AFB (Merced)	197	37	33	97	69	-8	-2	5	H	0.55	
Castro Valley	177	38	32	84	67	1	7	14	25	~	
Catheys Valley	1,000	37	30	98	69	-10	-3	3	38	~	
Cecilville	3,000	41	24	88	61	-33	-26	-19	44	1.89	
Cedarville	4,670	42	13	93	60	-46	-38	-30	35	3.06	
Centerville PH	522	40	33	100	69	-14	-7	-1	40	~	
Ceres	90	38	34	94	69	-5	2	8	36	~	
Cerritos	34	34	40	89	70	8	15	21	23	~	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						$\frac{\text{HDD}_{65}}{\text{CDD}_{50}}$ Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Cherryland	100	38	37	83	66	-3	4	10	24	~	
Cherry Valley Dam	4,765	38	21	92	61	-39	-31	-23	32	1.73	
Chester	4,525	40	8	90	61	-36	-28	-20	33	3.94	
Chico	238	39	30	101	68	-21	-15	-8	H	0.66	
China Lake	2,220	36	25	108	70	-19	-12	-5	33	~	
Chino	714	34	35	98	70	-5	2	8	35	~	
Chula Vista	9	33	40	83	68	7	14	20	9	0.26	
Citrus Heights	138	39	34	98	70	-6	1	7	36	~	
Claremont	1,201	34	36	95	68	-11	-4	3	34	~	
Clarksburg	14	38	32	95	69	-7	-0	6	35	~	
Clearlake Highlands	1,360	39	26	93	67	-13	-6	1	36	1.15	
Cloverdale	320	39	34	93	68	-8	-2	5	37	0.61	
Clovis	404	37	32	102	70	-12	-5	1	36	~	
Coachella	-76	34	34	110	75	3	9	16	28	~	
Coalinga	671	36	31	97	71	2	9	15	34	0.39	
Colfax	2,418	39	31	96	65	-27	-19	-12	29	0.91	
Colton	978	34	36	101	69	-15	-8	-1	35	~	
Colusa	60	39	31	98	70	-6	0	7	36	0.58	
Commerce	175	34	39	90	69	1	8	15	23	~	
Compton	71	34	39	87	69	6	13	19	21	~	
Concord	23	38	27	97	68	-15	-9	-2	H	0.61	
Corcoran	200	36	31	102	72	-1	5	12	36	0.47	
Corona	710	34	34	96	69	-7	-1	6	35	0.29	
Coronado	20	33	41	80	67	7	14	20	10	~	
Corte Madera	55	38	35	88	66	-11	-4	2	34	~	
Costa Mesa	100	34	38	77	67	12	19	25	16	~	
Covelo	1,385	40	26	91	65	-20	-13	-6	43	1.23	
Covina	575	34	35	95	68	-11	-5	2	H	0.35	
Crescent City	56	42	37	66	59	-9	-2	5	L	3.63	
Crockett	9	38	36	89	66	-13	-6	1	23	~	
Crows Landing	140	37	31	93	68	-9	-2	5	33	~	
Cucamonga	1,450	34	36	97	67	-19	-12	-5	31	~	
Cudahy	130	34	39	89	69	3	10	16	21	~	
Culver City	106	34	42	87	69	6	13	19	18	0.26	
Cupertino	70	37	36	84	66	-4	2	9	30	~	
Cuyama	2,255	35	24	93	68	-6	1	8	42	2.00	
Cuyamaca	4,650	33	23	85	61	-28	-20	-12	29	~	
Cypress	75	34	38	89	69	3	10	16	24	~	
Daggett Barstow-Daggett AP	1,929	35	32	106	69	-24	-16	-9	H	0.29	
Daly City	410	38	39	77	63	-7	-1	6	16	~	
Davis	60	39	34	97	70	-5	2	9	41	0.67	
Death Valley	-194	37	37	118	76	-4	2	9	28	0.13	
Deer Springs Clg	5,225	37	8	96	60	-50	-42	-34	35	~	
Deer Creek PH	4,455	39	22	91	60	-43	-35	-27	39	1.58	
Del Aire	100	34	42	83	68	7	14	21	15	~	
Delano	323	36	28	102	71	-7	-0	7	36	~	
Denair	137	38	31	93	69	-3	3	10	38	~	
De Sabla	2,713	40	27	92	64	-25	-18	-11	35	1.20	
Diamond Bar	880	34	35	96	68	-13	-6	1	33	~	
Diruba	340	37	34	100	71	-3	3	10	36	~	
Dixon	100	38	33	97	70	-5	2	9	36	~	
Dobbins	1,640	39	32	100	69	-13	-6	1	31	0.92	
Donner Mem St. Pk	5,937	39	6	81	56	-46	-37	-29	40	8.09	
Donner Summit	7,239	39	3	76	52	-56	-48	-39	40	~	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Downey	110	34	40	89	70	8	15	22	M	0.27	
Downieville RS	2,895	40	24	94	63	-33	-26	-19	42	1.83	
Doyle	4,390	40	12	92	61	-39	-31	-24	42	2.85	
Dry Canyon Res	1,455	35	32	100	70	-7	-0	7	32	0.56	
Duarte	500	34	38	94	69	-5	2	9	33	~	
Dublin	200	38	32	90	67	-9	-2	4	35	~	
Dudleys	3,000	38	22	94	64	-28	-21	-13	44	~	
Duttons Landing	20	38	34	88	66	-11	-4	2	31	~	
Eagle Mtn	973	34	39	109	71	-17	-10	-3	24	0.13	
East Los Angeles	250	34	43	90	69	2	8	15	21	~	
East Park Res	1,205	40	28	96	68	-12	-5	2	38	0.91	
Edwards AFB	2,316	35	26	102	64	-42	-35	-28	H	0.54	
El Cajon	387	32	44	80	69	18	25	31	H	0.29	
El Capitan Dam	600	33	36	97	70	-4	3	10	35	0.24	
El Centro AP	-30	32	38	110	74	-3	4	10	H	0.13	
El Cerrito	70	38	38	79	64	-6	0	7	17	0.13	
Electra PH	715	38	31	102	70	-12	-5	2	41	0.66	
Elk Valley	1,705	42	27	88	63	-24	-17	-10	39	~	
El Mirage	2,910	35	21	101	68	-18	-11	-3	31	0.86	
El Monte	271	34	39	95	70	-1	6	12	30	~	
El Rio	50	34	37	86	68	2	9	16	20	~	
El Segundo	105	34	42	83	68	7	14	21	14	~	
Eisnore	1,285	34	29	102	71	-5	2	9	39	0.34	
El Toro MCAS	384	34	43	89	68	-4	3	9	M	0.23	
Encinitas	50	33	41	81	67	5	12	19	10	~	
Enterprise	470	41	34	101	69	-16	-9	-2	29	~	
Escondido	660	33	41	85	68	5	12	18	H	0.27	
Eureka	59	41	37	66	58	-10	-4	3	L	3.38	
Fairfax	110	38	34	87	65	-14	-8	-1	34	~	
Fairfield-Travis AFB	62	38	34	94	67	-15	-9	-2	H	0.62	
Fairmont	3,060	35	31	96	67	-15	-8	-1	22	0.68	
Fair Oaks	50	39	33	98	71	-1	6	12	36	~	
Fallbrook	660	34	34	89	68	-2	5	12	29	~	
Ferndale	1,445	41	35	66	56	-21	-14	-7	12	~	
Fillmore	435	34	35	91	69	0	7	14	30	~	
Five Points	285	36	30	97	70	-4	2	9	36	0.47	
Fleming Fish & Game	4,000	40	8	92	61	-39	-32	-24	40	~	
Florence-Graham	175	34	43	88	69	5	11	18	19	~	
Florin	100	39	36	98	70	-6	0	7	35	~	
Folsom Dam	350	39	35	99	69	-13	-6	1	36	0.52	
Fontana	1,090	34	38	101	69	-15	-8	-1	33	0.22	
Forest Glen	2,340	40	24	92	64	-25	-18	-11	42	~	
Fort Baker	15	38	40	77	64	-3	4	10	12	~	
Fort Bidwell	4,498	42	10	89	59	-44	-36	-29	38	3.46	
Fort Bragg	80	40	37	66	60	-4	3	10	15	2.56	
Fort Jones RS	2,725	42	18	92	63	-30	-23	-16	44	~	
Fort MacArthur	200	34	42	82	68	9	16	22	13	~	
Fort Ord	134	37	32	74	62	-7	-1	6	18	~	
Fort Ross	116	39	37	69	61	-4	3	9	19	2.57	
Foster City	20	38	36	80	65	-3	4	10	22	~	
Fountain Valley	60	34	40	88	69	5	11	18	18	~	
Freedom	1,495	37	34	83	64	-12	-5	2	22	~	
Fremont	56	38	33	85	65	-11	-4	2	24	~	
Fresno Yosemite IAP	328	37	34	101	70	-11	-4	3	H	0.41	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						$\frac{\text{HDD}_{65}}{\text{CDD}_{50}}$ Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Friant Gov Camp	410	37	31	104	70	-15	-9	-2	40	0.53	
Fullerton Municipal	95	34	43	90	68	-6	1	8	M	0.23	
Gardena	40	34	39	84	68	6	12	19	18	~	
Garden Grove	85	34	38	88	69	5	11	18	23	~	
George AFB	2,874	35	31	98	65	-32	-24	-17	H	0.51	
Georgetown RS	3,001	39	27	94	63	-33	-26	-18	31	~	
Giant Forest	6,412	37	18	81	55	-50	-42	-34	26	~	
Gillespie Field	385	33	32	89	70	9	15	22	30	~	
Gilroy	194	37	31	90	67	-9	-2	4	25	0.52	
Glen Avon	827	34	35	99	69	-12	-5	1	35	~	
Glendale	563	34	37	94	69	-4	2	9	28	~	
Glendora	822	34	37	96	69	-7	-1	6	35	~	
Glennville	3,140	36	23	94	66	-18	-10	-3	43	1.71	
Gold Rock Rch	485	33	38	110	72	-14	-7	-0	28	~	
Grant Grove	6,600	37	19	78	54	-50	-42	-33	26	4.44	
Grass Valley	2,400	39	28	95	65	-25	-18	-11	29	1.45	
Graton	200	38	31	86	66	-8	-1	6	34	1.04	
Grossmont	530	33	38	88	68	-0	7	13	23	~	
Grover City	100	35	37	84	64	-14	-8	-1	18	~	
Hacienda Hts	300	34	38	94	69	-5	2	8	28	~	
Haiwee	3,825	36	26	99	64	-35	-28	-20	27	0.89	
Half Moon Bay	60	38	39	73	61	-10	-4	3	15	1.88	
Hamilton AFB (San Rafael DD)	3	38	32	84	66	-5	2	9	H	0.73	
Hanford	242	36	31	98	70	-6	1	7	37	0.55	
Happy Camp RS	1,150	42	27	96	67	-18	-11	-4	41	1.38	
Hat Creek PH 1	3,015	41	14	95	64	-30	-22	-15	48	2.62	
Hawaiian Gardens	75	34	39	88	69	5	11	18	23	~	
Hawthorne	70	34	42	84	68	6	12	19	16	~	
Hayfield Pumps	1,370	34	32	108	70	-20	-13	-6	31	0.22	
Hayward Air Terminal	46	38	39	82	65	-8	-1	6	M	0.76	
Healdsburg	102	39	34	94	68	-10	-4	3	37	0.60	
Hemet	1,655	34	28	105	69	-21	-14	-7	40	~	
Henshaw Dam	2,700	33	26	94	68	-7	0	7	38	1.09	
Hermosa Beach	16	34	45	82	68	9	15	22	12	~	
Hetch Hetchy	3870	38	25	89	61	-35	-27	-19	32	1.63	
Highland	1315	34	34	101	70	-9	-2	5	36	~	
Hillcrest Center	500	35	35	102	70	-12	-5	1	34	~	
Hillsborough	352	38	37	78	66	5	12	19	23	~	
Hilts	2900	42	18	93	62	-37	-29	-22	39	~	
Hollister	280	37	30	85	67	-1	6	12	30	0.78	
Hollywood	384	34	44	87	69	7	13	20	20	~	
Hoopa	360	41	31	91	66	-15	-9	-2	25	~	
Huntington Beach	40	34	41	80	68	12	19	25	14	~	
Huntington Lake	7020	37	16	77	53	-53	-45	-36	25	5.66	
Huntington Park	175	34	45	88	69	5	11	18	20	~	
Idlewild	1250	42	27	96	67	-17	-11	-4	40	~	
Idria	2650	36	32	91	64	-24	-16	-9	27	~	
Idyllwild	5397	34	21	88	62	-27	-19	-11	35	2.18	
Imperial AP	-56	33	38	109	73	-5	1	8	H	0.11	
Imperial CO	-64	33	36	108	73	-6	1	7	31	0.14	
Imperial Beach	23	33	41	82	69	14	21	27	10	~	
Independence	3950	37	24	101	62	-49	-41	-33	31	0.75	
Indio	11	34	32	111	76	8	14	21	30	0.10	
Inglewood	105	34	42	84	67	1	7	14	15	~	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Inyokern NAS	2440	36	26	106	68	-27	-19	-12	37	0.46	
Irvine	50	34	40	86	69	8	14	21	27	~	
Iron Mtn	922	34	36	112	75	2	9	15	26	0.13	
Isla Vista	40	35	40	81	67	5	12	19	20	~	
Jess Valley	5300	41	4	88	58	-47	-39	-31	35	5.36	
John Wayne AP	115	34	39	88	69	5	11	18	26	~	
Julian Wynola	3650	33	26	91	64	-23	-15	-8	39	~	
Kentfield	120	38	35	88	65	-16	-9	-3	35	0.68	
Kern River PH 1	970	36	37	103	71	-7	-0	6	26	0.23	
Kern River PH 3	2703	36	28	100	68	-17	-9	-2	34	0.67	
Kettleman Stn	508	36	34	97	70	-4	3	9	31	~	
King City	320	36	29	89	66	-12	-6	1	36	0.61	
Klamath	25	42	33	70	60	-10	-3	3	18	2.85	
Knights Ferry	315	38	28	98	69	-11	-5	2	37	~	
La Canada-Flintridge	1365	34	38	92	68	-6	1	8	30	~	
La Crescenta-Montros	1565	34	37	91	68	-4	3	10	33	~	
Lafayette	535	38	32	91	68	-5	2	8	32	~	
Laguna Beach (Newport Beach DD)	35	33	43	80	68	12	19	25	M	0.40	
Laguna Hills	390	34	41	85	68	5	11	18	22	~	
La Habra	305	34	37	91	69	0	7	13	27	~	
Lake Arrowhead	5205	34	24	85	61	-28	-20	-12	26	2.22	
Lakeport	1347	39	29	92	65	-21	-14	-7	41	1.08	
Lakeshore	1075	41	36	99	68	-17	-10	-3	28	~	
Lakeside	690	33	34	90	68	-3	4	10	20	~	
Lake Spaulding	5156	39	16	87	57	-50	-42	-34	34	3.67	
Lakewood	45	34	40	88	68	-1	6	12	22	~	
La Mesa	530	33	41	88	69	5	12	19	23	0.24	
La Mirada	115	34	38	89	70	8	15	22	26	~	
Lamont	500	35	35	102	71	-6	0	7	34	~	
Lancaster Gen. Wm Fox. Field	2,339	35	25	100	65	-33	-26	-18	H	0.62	
La Palma	75	34	38	89	69	3	10	16	25	~	
La Puente	320	34	38	95	71	5	11	18	28	~	
Larkspur	20	38	35	88	66	-11	-4	2	34	~	
Las Plumas	506	40	32	100	70	-9	-2	5	32	~	
Lava Beds	4770	42	11	88	58	-47	-39	-32	41	3.02	
La Verne	1235	34	36	95	69	-5	2	9	34	~	
Lawndale	66	34	42	84	68	6	12	19	16	~	
Le Grand	255	37	31	95	68	-12	-5	2	38	~	
Lemoncove	513	36	33	102	70	-12	-5	1	38	~	
Lemon Grove	437	33	41	88	69	5	12	18	19	0.43	
Lemoore, Reeves NAS	233	36	33	100	71	-3	3	10	H	0.41	
Lennox	71	34	44	84	68	6	12	19	16	~	
Lindsay	395	36	32	101	71	-5	2	8	40	0.49	
Little Panoche	677	37	31	90	68	-3	4	10	33	~	
Livermore	397	38	33	95	67	-15	-9	-2	H	0.74	
Llano Shawnee	3820	35	31	99	67	-19	-12	-4	31	~	
Lodgepole	6735	37	7	82	56	-47	-39	-30	26	8.70	
Lodi	40	38	31	95	69	-7	-0	6	38	0.63	
Loma Linda	1150	34	35	103	69	-18	-11	-4	36	~	
Lomita	56	34	40	85	68	4	11	17	18	~	
Lompoc AWOS	89	35	35	77	61	-16	-9	-3	M	1.00	
Long Beach, Daugherty Field	39	34	44	88	67	-4	3	9	M	0.22	
Long Beach CO	34	34	43	86	67	-3	4	10	18	~	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Los Alamitos NAS	30	34	39	87	70	11	18	25	23	~	
Los Altos	163	37	35	84	64	-14	-8	-1	26	~	
Los Angeles IAP	325	34	47	80	65	-5	2	8	L	0.27	
Los Angeles CO (LAX DD)	270	34	40	89	70	9	15	22	M	0.27	
Los Banos	120	37	31	92	69	-2	5	11	42	0.52	
Los Banos Res	407	37	31	93	69	-3	4	10	42	0.48	
Los Gatos	365	37	34	86	68	3	10	16	32	0.70	
Lucerne Valley	2957	35	24	102	66	-30	-23	-16	38	~	
Lynwood	88	34	39	87	69	6	13	19	21	~	
Madera	268	37	32	100	70	-9	-2	4	40	0.53	
Manhattan Beach	120	34	45	83	68	7	14	21	12	~	
Manteca	34	38	32	95	69	-7	-0	6	37	~	
Manzanita Lake	5850	41	8	83	57	-44	-36	-28	34	5.96	
March AFB (Riverside)	1,516	34	37	99	67	-20	-13	-6	H	0.34	
Maricopa	675	35	33	102	70	-12	-5	2	29	0.37	
Marina	20	37	40	74	63	-3	4	10	18	~	
Markley Cove	480	39	31	97	69	-9	-3	4	39	0.72	
Martinez FS	40	38	35	92	67	-12	-6	1	36	0.70	
Marysville, Beale AFB	119	39	34	98	69	-11	-5	2	H	0.49	
Mather AFB	96	39	35	98	70	-6	0	7	35	~	
Maywood	170	34	41	89	69	3	10	16	21	~	
McClellan AFB	82	39	34	99	69	-12	-5	2	H	0.47	
McCloud	3300	41	18	91	62	-33	-26	-18	42	2.50	
Mecca FS	-180	34	32	111	76	7	14	20	30	0.13	
Menlo Park	65	37	34	82	65	-6	0	7	25	~	
Merced-Castle AFB	188	37	32	97	69	-10	-3	3	H	0.53	
Millbrae	10	38	37	78	63	-9	-3	4	24	~	
Mill Creek	2940	35	36	98	67	-19	-11	-4	28	~	
Mill Valley	80	38	35	88	66	-11	-4	2	28	~	
Milpitas	15	37	35	83	65	-8	-1	5	27	~	
Mineral	4911	40	14	86	59	-39	-31	-24	38	6.21	
Miramar AFS	477	33	38	90	69	2	9	15	22	~	
Mission Viejo	350	34	40	85	65	-11	-4	3	22	~	
Mitchell Caverns	4350	35	30	98	63	-39	-31	-23	29	0.54	
Modesto City-County AP	98	38	34	98	69	-11	-4	2	H	0.50	
Moffett Field NAS	39	37	36	82	66	-1	5	12	23	~	
Mojave	2735	35	26	102	68	-20	-13	-5	35	0.54	
Mono Lake	6450	38	17	88	57	-52	-44	-35	32	~	
Monrovia	562	34	41	94	69	-4	2	9	30	~	
Montague, Siskiyou County AP	2,641	42	20	93	63	-33	-26	-19	H	2.16	
Montclair	1220	34	35	98	68	-15	-8	-2	35	~	
Montebello	205	34	39	90	69	2	8	15	24	0.15	
Monterey AP	245	37	38	74	63	-3	4	10	20	~	
Monterey CO	345	37	40	75	63	-4	2	9	20	1.17	
Monterey Park	380	34	37	91	69	0	7	13	23	~	
Monticello Dam	505	39	34	98	70	-6	1	8	39	~	
Moraga	600	38	29	90	66	-14	-7	-0	27	~	
Morgan Hill	350	37	34	89	68	-2	5	11	25	~	
Morro Bay FD	115	35	38	80	64	-8	-1	5	14	1.43	
Mountain Pass	4730	36	23	96	65	-25	-17	-9	29	0.97	
Mountain View Moffett Field NAS	33	37	39	84	65	-9	-3	4	M	0.55	
Mount Baldy Notch	7735	34	14	75	56	-37	-28	-19	32	~	
Mount Diablo	2100	38	35	91	67	-8	-1	6	28	0.85	
Mount Hamilton	4206	37	27	85	58	-42	-35	-27	18	1.46	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Mount Hebron RS	4250	42	0	86	59	-39	-32	-24	42	~	
Mount San Jacinto	8417	34	11	77	55	-45	-36	-27	35	~	
Mount Shasta	3,537	41	21	88	62	-29	-22	-14	H	2.78	
Mount Wilson	5709	34	26	83	60	-29	-21	-13	21	1.09	
Nacimiento Dam	770	36	31	92	66	-17	-10	-3	35	~	
Napa Co. AP	56	38	33	87	65	-12	-5	1	M	1.11	
National City	34	33	42	82	68	9	16	22	10	~	
Needles AP	983	34	33	110	71	-18	-12	-5	H	0.14	
Nevada City	2600	39	25	92	65	-20	-13	-6	41	1.51	
Newark	10	38	36	86	67	-3	4	10	24	0.61	
Newhall Soledad	1243	34	36	99	69	-12	-5	2	42	~	
Newman	90	37	31	97	69	-10	-3	3	38	0.56	
Newport Beach	10	34	41	76	67	13	20	27	12	0.40	
Norco	700	34	35	98	69	-11	-4	3	34	~	
North Fork RS	2630	37	26	96	64	-32	-24	-17	36	~	
North Highlands	45	39	31	98	69	-12	-5	2	35	~	
North Hollywood	619	34	36	95	69	-6	1	7	31	~	
Norton AFB (San Bernardino)	1,158	34	37	100	70	-11	-4	3	H	0.29	
Norwalk	97	34	37	88	69	5	11	18	26	~	
Novato	370	38	32	84	63	-19	-12	-5	30	~	
Oakdale	215	38	32	97	69	-10	-3	4	37	~	
Oakland Metropolitan AP	89	38	40	78	64	-4	3	10	L	0.81	
Oakland Museum	30	38	36	86	65	-13	-6	1	20	0.66	
Oceanside	28	33	43	80	68	12	19	25	L	0.50	
Oildale	450	36	35	102	70	-12	-5	1	34	~	
Ojai	750	35	32	95	70	-0	6	13	38	0.46	
Ontario	997	34	39	98	70	-5	2	9	H	0.25	
Orange	194	34	40	89	69	3	10	16	27	~	
Orange Cove	431	37	33	101	70	-10	-4	3	38	0.48	
Orgeval	140	39	34	100	70	-9	-3	4	36	~	
Orick Prairie Creek	161	41	33	74	61	-12	-5	1	23	3.60	
Orinda	550	38	29	90	66	-14	-7	-0	32	~	
Orland	254	40	31	101	70	-11	-4	3	36	0.54	
Orleans	403	41	30	95	68	-12	-5	2	42	0.93	
Oroville RS	300	40	33	102	71	-7	-0	7	37	0.62	
Otay-Castle Pk	500	33	40	78	65	1	7	14	10	~	
Oxnard	7	34	41	79	64	-6	0	7	M	0.49	
Pacific Grove	114	37	37	75	63	-4	2	9	19	~	
Pacifica	13	38	37	75	62	-9	-3	4	16	1.28	
Palm Desert	200	34	34	112	74	-6	1	7	34	~	
Palm Springs IAP	476	34	45	109	72	-11	-4	2	H	0.09	
Palmdale AP	2,542	34	24	98	65	-30	-22	-15	H	0.51	
Palmdale CO	2596	35	25	101	66	-29	-22	-15	35	~	
Palo Alto	25	38	34	81	64	-9	-3	4	25	0.71	
Palomar Obsy	5545	33	23	84	61	-26	-18	-10	22	1.14	
Palos Verdes	216	34	46	82	68	9	16	22	14	~	
Paradise	1750	40	33	98	68	-15	-8	-1	34	0.70	
Paramount	70	34	40	88	69	5	11	18	22	~	
Parker Res	738	34	40	112	74	-5	2	9	26	0.14	
Pasadena	864	34	35	95	68	-11	-4	3	H	0.25	
Paso Robles Municipal AP	817	36	29	99	67	-24	-18	-11	H	0.68	
Paso Robles CO	700	36	23	94	67	-15	-8	-1	44	0.78	
Pendleton MCB	63	33	41	85	68	4	11	17	22	~	
Pendleton MCB Coast	24	33	46	79	67	9	15	22	10	~	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling					HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains				
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors		
Perris	1470	34	30	101	70	-9	-2	5	39 ~	
Petaluma	87	38	29	90	66	-14	-7	-1	H 0.79	
Pico Rivera	180	34	38	89	69	3	10	16	24 ~	
Piedmont	325	38	36	86	65	-12	-6	1	23 ~	
Pinnacles NM	1307	37	29	93	66	-18	-11	-4	45 0.74	
Pinole	10	38	38	86	66	-8	-1	5	25 ~	
Pismo Beach	80	35	37	84	64	-14	-8	-1	16 0.78	
Pittsburg	50	38	35	94	69	-5	1	8	34 ~	
Placentia	323	34	37	91	69	0	7	13	28 ~	
Placerville	1890	39	29	97	67	-18	-11	-4	42 0.83	
Placerville IFG	2755	39	31	96	66	-21	-14	-7	42 0.73	
Platina	2260	40	24	91	63	-29	-22	-15	36 ~	
Pleasant Hill	102	38	33	92	67	-12	-6	1	34 ~	
Pleasanton	350	38	32	93	67	-14	-7	-0	35 ~	
Point Arena	62	39	40	60	52	-27	-21	-14	L 5.26	
Point Arguello	112	35	48	68	58	-23	-17	-10	L 1.50	
Point Mugu NF	13	34	41	79	64	-8	-2	5	L 0.50	
Point Piedras Blanca	69	36	44	72	61	-12	-5	2	L 1.49	
Pomona CO	934	34	30	99	69	-12	-5	2	H 0.34	
Port Chicago ND	50	38	36	92	68	-7	-1	6	34 ~	
Port Hueneme	13	34	39	79	68	14	20	27	15 ~	
Porterville AWOS	443	36	34	99	69	-11	-4	2	H 0.52	
Portola	4850	40	1	88	61	-33	-25	-17	48 5.32	
Posey 3 E	4960	36	21	86	61	-29	-22	-14	26 ~	
Potter Valley PH	1015	39	29	93	67	-13	-6	1	40 1.00	
Poway Valley	500	33	35	93	70	2	9	16	26 ~	
Priest Valley	2300	36	24	92	65	-20	-13	-6	34 1.26	
Quincy	3409	40	13	97	64	-33	-25	-18	45 2.41	
Ramona Spaulding	1480	33	31	96	70	-1	6	13	40 0.49	
Rancho Cordova	190	39	33	98	70	-6	1	7	35 ~	
Rancho Palos Verdes	216	34	46	82	68	9	16	22	14 ~	
Randsburg	3570	35	29	101	67	-23	-15	-8	30 0.61	
Red Bluff Municipal AP	354	40	33	101	68	-20	-14	-7	H 0.51	
Redding Municipal AP	502	41	31	102	68	-23	-17	-10	H 0.53	
Redlands	1,571	34	33	99	69	-11	-4	3	H 0.35	
Redondo Beach	45	34	44	82	68	9	16	22	12 ~	
Redwood City	31	38	35	85	66	-6	0	7	28 0.80	
Reedley	344	37	34	100	70	-9	-2	4	40 ~	
Rialto	1254	34	35	100	68	-19	-12	-5	35 ~	
Richardson Grove	500	40	33	91	66	-15	-9	-2	28 1.24	
Richmond	55	38	36	80	63	-12	-6	1	M 0.86	
Ridgecrest	2340	36	26	106	68	-27	-20	-12	35 ~	
Riverside FS 3	840	34	35	99	67	-23	-16	-9	37 0.25	
Riverside Exp Sta	986	34	36	101	69	-15	-8	-1	36 0.30	
Rocklin	239	39	29	103	71	-8	-2	5	39 ~	
Rohnert Park	106	39	29	96	68	-13	-7	-0	33 ~	
Rolling Hills	216	34	46	82	68	9	16	22	15 ~	
Rosemead	275	34	37	88	69	5	11	18	27 ~	
Roseville	160	39	34	100	70	-9	-3	4	36 ~	
Rossmoor	20	34	39	83	64	-13	-6	1	19 ~	
Rowland Hts	540	34	36	90	70	7	14	21	27 ~	
Rubidoux	792	34	35	101	70	-10	-3	4	36 ~	
Sacramento Metropolitan AP	33	39	34	98	70	-8	-1	5	H 0.50	
Sacramento CO	84	39	37	98	70	-6	0	7	32 0.43	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
St. Helena	225	39	31	97	69	-10	-3	4	40	0.66	
St. Mary's College	623	38	30	90	68	-3	3	10	28	~	
Salinas 3 E	85	37	34	83	64	-13	-6	1	20	0.96	
Salinas Municipal AP	79	37	36	79	62	-16	-9	-3	M	0.91	
Salt Springs PH	3700	39	28	91	61	-38	-30	-23	27	1.04	
Salyer RS	623	41	31	91	66	-15	-8	-2	33	~	
San Anselmo	50	38	33	86	67	-3	4	11	32	~	
San Antonio Canyon	2394	34	39	94	67	-13	-6	1	33	~	
San Antonio Mission	1060	36	28	92	69	-1	6	13	28	~	
San Bernadino, Norton AFB	1,156	34	36	101	70	-9	-3	4	H	0.27	
San Bruno	20	38	38	77	64	-3	4	10	23	~	
San Carlos	26	38	35	86	65	-13	-6	1	28	~	
San Clemente	208	33	37	84	68	6	13	19	12	~	
San Diego, Lindbergh Field	30	33	47	81	68	8	14	21	L	0.22	
San Dimas	955	34	37	96	69	-7	-0	6	35	~	
San Fernando (Burbank DD)	977	34	39	91	68	-4	2	9	H	0.29	
San Francisco IAP	20	38	41	78	62	-14	-7	-1	M	0.89	
San Francisco CO	20	37	40	71	62	-3	4	10	L	1.79	
San Gabriel FD	450	34	37	92	70	4	11	17	30	0.22	
San Gregorio 2 SE	275	37	35	78	63	-9	-3	4	30	1.68	
San Jacinto	1535	34	29	106	70	-17	-10	-3	41	0.34	
San Jose IAP	49	37	38	89	66	-11	-4	2	M	0.48	
San Leandro	45	38	35	80	64	-8	-1	5	22	~	
San Lorenzo	45	38	36	80	64	-8	-1	5	23	~	
San Luis Dam	277	37	33	90	66	-14	-7	-1	32	0.54	
San Luis Obispo / Co. Regional AP	217	35	36	84	63	-18	-11	-4	M	0.61	
San Marino	300	34	37	92	68	-7	-0	6	28	~	
San Mateo	21	38	38	80	65	-3	4	10	24	~	
San Nicholas Island	504	33	45	74	66	12	19	25	11	~	
San Pablo	30	38	37	81	63	-14	-8	-1	17	~	
San Pedro	10	34	42	82	68	9	15	22	13	~	
San Rafael	40	38	37	87	65	-14	-8	-1	29	0.73	
Sandberg	4,524	35	28	89	60	-38	-31	-23	M	1.08	
Sanger	364	37	34	100	70	-9	-2	4	37	~	
Santa Ana AP	54	33	39	85	68	4	11	17	H	0.20	
Santa Barbara Municipal AP	20	34	37	80	64	-7	0	6	M	0.62	
Santa Barbara CO	5	34	40	82	67	4	10	17	22	0.46	
Santa Clara Univ	88	37	36	86	65	-13	-6	1	30	~	
Santa Cruz	125	37	38	71	61	-7	-1	6	H	0.93	
Santa Fe Springs	280	34	38	88	69	5	11	18	24	~	
Santa Maria Public AP	240	35	35	80	62	-17	-11	-4	M	0.92	
Santa Monica CO	236	34	43	80	68	12	19	26	M	0.44	
Santa Paula	245	34	35	86	67	-2	4	11	H	0.45	
Santa Rosa AWOS	148	39	32	91	67	-13	-6	1	H	0.95	
Santee	400	33	33	91	69	0	7	13	20	~	
Saratoga	500	37	35	84	67	1	8	14	31	~	
Sausalito	10	38	36	77	65	2	8	15	12	~	
Sawyer's Bar RS	2169	41	25	92	64	-26	-18	-11	38	~	
Scotia	139	41	35	73	60	-15	-8	-2	19	1.72	
Seal Beach	21	34	42	84	67	1	7	14	15	~	
Seaside	17	37	37	77	64	-3	4	10	20	~	
Selma	305	37	34	101	70	-11	-4	3	38	~	
Shafter	345	36	32	102	70	-12	-6	1	28	~	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Shasta Dam	1076	41	36	99	69	-12	-5	2	27	0.57	
Shelter Cove	110	40	41	72	59	-18	-11	-4	15	1.31	
Sierra City	4230	40	24	93	61	-41	-33	-25	43	2.01	
Sierra Madre	1153	34	39	94	69	-4	3	10	27	~	
Sierraville RS	4975	40	0	90	59	-46	-38	-30	44	4.35	
Signal Hill	100	34	42	88	68	-1	6	13	19	~	
Simi Valley	500	34	35	91	68	-5	2	8	30	~	
Sonoma	70	38	31	94	69	-5	1	8	40	0.68	
Sonora RS	1749	38	29	99	68	-16	-9	-2	34	0.97	
South Entr Yosemite	5120	38	20	88	61	-33	-25	-17	36	4.14	
South El Monte	270	34	38	95	70	-1	6	12	28	~	
South Gate	120	34	39	88	69	5	11	18	21	~	
South Lake Tahoe	6200	39	10	75	56	-36	-28	-19	33	~	
South Pasadena	657	34	38	92	69	-1	6	12	30	~	
South San Francisco	10	38	38	76	64	-1	5	12	20	~	
South Whittier	300	34	38	88	70	10	17	24	30	~	
Spring Valley	300	33	41	86	68	3	9	16	30	~	
Squaw Valley	6235	40	0	84	56	-50	-42	-34	40	~	
Squirrel Inn	5680	34	22	81	60	-26	-18	-10	23	~	
Stanton	45	34	38	88	69	5	11	18	24	~	
Stockton AP	22	38	30	97	69	-10	-3	3	35	~	
Stockton Metropolitan AP	26	38	33	98	69	-10	-3	3	H	0.53	
Stony Gorge Res	791	40	30	97	69	-9	-2	5	37	0.76	
Strawberry Valley	3808	40	25	92	62	-35	-27	-19	32	2.37	
Sunland	1460	34	36	100	70	-7	-0	7	36	~	
Sunnyvale	97	37	36	84	66	-4	2	9	26	~	
Susanville AP	4148	40	11	94	61	-42	-35	-27	38	2.80	
Tahoe City	6230	39	14	80	55	-49	-40	-32	36	6.74	
Tahoe Valley AP	6254	39	6	81	55	-50	-42	-34	38	8.96	
Tehachapi	3975	35	24	93	66	-15	-7	0	33	1.41	
Tejon Rancho	1425	35	32	103	70	-12	-5	2	27	0.48	
Temple City	403	34	37	93	70	2	9	16	27	~	
Termo	5300	41	-4	91	59	-47	-39	-31	37	5.75	
Thermal AP	-112	34	35	110	76	9	15	22	29	0.14	
Thousand Oaks	810	34	35	92	69	-1	6	13	30	~	
Three Rivers PH 1	1140	37	32	102	69	-16	-10	-3	38	0.49	
Tiburon	90	38	36	77	65	2	9	15	12	~	
Tiger Creek PH	2355	39	29	96	65	-27	-20	-12	36	1.22	
Torrance	110	34	39	84	68	6	12	19	18	0.32	
Tracy Carbona	140	38	32	94	69	-5	2	8	38	0.69	
Tracy Pumps	61	38	31	96	70	-3	4	10	39	0.49	
Travis AFB (Fairfield)	59	38	34	95	67	-18	-11	-5	H	0.58	
Trinity Dam	2500	41	28	92	64	-25	-18	-11	37	1.52	
Trona	1695	36	27	109	70	-21	-14	-7	35	0.39	
Truckee-Tahoe	5,899	39	7	86	57	-48	-39	-31	H	6.40	
Tujunga	1820	34	29	98	69	-9	-2	5	36	~	
Tulare	290	36	34	100	71	-4	3	10	39	~	
Tulelake	4035	42	6	87	59	-41	-33	-26	41	4.39	
Turlock	100	38	34	99	70	-8	-1	5	40	0.51	
Turntable Creek	1067	41	32	99	68	-17	-10	-3	28	~	
Tustin MCAF	56	34	41	90	69	3	9	16	M	0.19	
29 Palms	1975	34	29	107	71	-12	-5	2	31	0.28	
Twin Lakes	7829	39	4	61	48	-50	-41	-32	30	11.51	
Twitchell Dam	582	35	34	92	68	-7	0	7	26	0.57	

California	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
UCLA	430	34	46	84	68	6	13	20	20	0.27	
Ukiah Municipal AP	627	39	32	97	68	-16	-9	-2	H	0.80	
Union City	5	38	33	85	65	-11	-4	2	20	~	
Upland	1605	34	36	96	68	-12	-5	2	31	~	
Upper Lake RS	1347	39	27	95	66	-21	-14	-7	39	~	
Upper San Leandro	394	38	35	84	65	-9	-2	4	22	0.88	
Vacaville	105	38	31	98	70	-6	0	7	40	0.49	
Valinda	340	34	38	96	70	-3	4	11	28	~	
Vallejo	85	38	36	88	66	-11	-4	2	23	~	
Valyermo RS	3600	35	24	95	67	-13	-6	2	41	~	
Vandenberg AFB	368	35	37	75	62	-9	-2	4	16	~	
Ventura	341	34	36	80	68	13	19	26	15	~	
Victorville, George AFB	2,875	34	30	98	65	-29	-22	-15	H	0.60	
View Park	300	34	43	82	68	9	16	23	18	~	
Visalia Municipal AWOS	292	36	33	98	71	0	6	13	H	0.52	
Vista	510	33	37	89	69	4	10	17	16	0.30	
Volta PH	2220	41	30	97	65	-28	-21	-14	33	~	
Walnut	550	34	35	96	71	3	10	17	30	~	
Walnut Creek	245	38	31	91	68	-5	1	8	32	~	
Walnut Grove	23	38	32	96	70	-3	4	10	37	~	
Warner Springs	3180	33	26	95	67	-14	-6	1	40	~	
Wasco	333	36	31	101	70	-11	-4	3	36	0.45	
Watsonville	95	37	35	83	63	-17	-11	-4	22	1.10	
Weaverville RS	2050	41	22	93	65	-22	-15	-8	46	1.61	
Weed FD	3590	41	17	88	61	-33	-26	-18	35	3.07	
West Carson	100	34	39	85	68	4	11	17	18	~	
West Covina	365	34	36	96	70	-3	4	11	34	~	
West Hollywood	290	34	45	86	69	8	15	21	20	~	
West Puente Valley	250	34	38	95	70	-1	6	12	26	~	
Westminster	38	34	41	85	69	9	16	23	23	~	
Whiskeytown Res	1295	41	33	100	69	-13	-6	1	31	0.70	
White Mtn 1	10150	38	-6	69	47	-70	-60	-50	37	~	
White Mtn 2	12470	38	-12	58	42	-77	-67	-56	38	~	
Whittier	320	34	38	88	69	5	12	18	24	~	
Wildrose RS	4100	36	24	97	63	-37	-30	-22	33	0.81	
Willaims	85	39	32	98	70	-6	0	7	36	~	
Willits	1350	39	27	86	64	-17	-10	-3	38	1.87	
Willow Brook	60	34	42	87	69	6	13	19	21	~	
Willow Creek	461	41	31	96	68	-13	-6	0	35	0.99	
Willows	140	40	31	98	70	-6	1	7	36	0.64	
Winters	135	39	32	97	70	-4	2	9	38	0.50	
Woodfords	5671	39	12	88	58	-47	-39	-31	32	2.83	
Woodland	69	39	33	100	71	-4	3	9	40	0.57	
Woodside	75	38	31	80	65	-3	4	10	24	0.76	
Yorba Linda	350	34	37	92	70	4	11	17	31	~	
Yosemite Park Hq	3970	38	23	94	62	-38	-30	-22	38	1.50	
Yreka	2,625	41	17	92	64	-25	-18	-11	H	2.17	
Yuba City (Chico DD)	58	39	31	101	67	-27	-20	-13	H	0.66	
Yucaipa	2600	34	35	102	67	-25	-18	-11	35	~	

Hawaii	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
<b>Hawaii</b>											
Kauai											
Barking Sands	14	22	61	88	76	45	51	58	17	0.00	
Eleele (Hanapepe)	86	22	60	85	74	38	44	51	16	~	
Hanalei	20	22	62	87	75	40	47	54	13	~	
Kanalohuluhulu	3,600	22	45	77	66	10	18	25	18	0.60	
Kapaa (Kealia)	20	22	59	83	74	41	47	54	14	~	
Kilauea	250	22	60	85	74	38	45	51	14	~	
Kilauea Point	180	22	64	89	76	44	50	57	12	~	
Kokee AFS	4,185	22	49	78	66	9	17	25	13	~	
Koloa (Makahuena)	52	22	63	87	75	40	47	54	14	~	
Lihue AP	148	22	62	84	75	42	49	56	L	0.00	
Niu Ridge	1,250	22	59	84	72	30	37	43	19	~	
Puhi	334	22	57	83	73	36	42	49	13	~	
Waiahi, Lower	565	22	55	84	73	34	41	48	15	~	
Waimea (Kamuela AP)	10	22	62	85	75	44	50	57	16	0.00	
<b>Oahu</b>											
Aiea	120	21	62	86	75	42	49	55	12	~	
Barbers Point NAS	33	21	62	90	73	24	30	37	M	0.00	
Bellows AFB	15	21	60	84	74	39	46	52	10	~	
Ewa Beach	5	21	62	86	75	42	49	55	11	~	
Ford Island	15	21	63	86	75	42	49	55	11	~	
Ft DeRussy	5	21	63	86	75	42	49	55	11	~	
Ft Ruger	300	21	62	85	74	38	45	51	11	~	
Ft Shafter	80	21	63	85	75	44	50	57	11	~	
Halawa Heights	170	21	62	85	75	44	51	57	13	~	
Helemano	1,100	22	54	82	72	33	40	46	16	~	
Hickman AFB	13	21	63	86	75	42	49	55	12	~	
Honolulu IAP	16	21	63	89	74	28	35	42	L	0.00	
Honolulu Substn	12	21	66	81	73	38	45	51	10	~	
Kaala AFS	4,000	22	48	78	66	9	17	24	16	~	
Kaena Point	1,120	22	56	82	73	39	46	52	10	~	
Kahuku	20	22	64	83	74	41	47	54	13	0.00	
Kaneohe Bay MCAS	20	21	66	84	74	40	47	53	L	0.00	
Kaneohe Mauka	225	21	64	83	73	35	42	49	12	0.00	
Kunia Com Annex	800	22	59	85	74	39	46	53	16	~	
Laie BYU	20	22	64	83	74	41	47	54	10	~	
Lualualei	113	21	61	86	75	42	49	55	14	~	
Makapuu Point	538	21	65	83	73	36	43	49	8	~	
Maunalani Hts	400	21	62	82	73	37	44	51	12	~	
Nanakuli	5	21	61	86	75	42	49	55	12	~	
Opaeula	1,060	22	57	83	72	31	38	45	16	0.00	
Pacific Palisades	300	21	62	85	74	38	45	51	14	~	
Palehua AF Solar	1,700	21	56	83	71	26	33	40	15	~	
Pearl City	120	21	63	86	75	42	49	55	12	~	
Pearl Harbor	15	21	63	86	75	42	49	55	11	~	
Punamano AFS	100	22	59	84	74	39	46	53	10	~	
Schofield Barracks	850	22	59	85	74	39	46	53	16	~	
Tantalus	1,325	21	58	78	70	28	35	42	16	~	
Tripler Army Hosp	220	21	63	86	75	42	49	56	11	~	
Wahaiwa	900	21	59	85	72	27	34	41	L	~	
Waialelee	33	22	67	84	74	39	46	52	12	~	
Waialua	32	22	60	85	75	44	50	57	18	0.00	

Hawaii	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Waikiki	10	21	60	87	75	40	47	53	10	0.00	
Waimanalo	60	21	61	84	74	39	46	52	10	0.00	
Waipahu	59	21	63	86	75	42	49	55	12	~	
Wheeler AFB	840	22	60	86	74	38	44	51	16	~	
<b>Molokai–Lanai</b>											
Molokai AMOS	449	21	62	86	72	27	33	40	L	0.00	
Lani City	1,620	21	58	81	71	29	36	43	14	0.01	
<b>Maui</b>											
Haleakala RS	7,030	21	39	70	56	-28	-20	-11	19	~	
Haleakala Summit	9,960	21	32	63	45	-68	-59	-49	24	2.63	
Hana AP	61	21	60	84	74	39	46	52	16	0.00	
Kaanapali	8	21	62	86	75	42	49	55	21	~	
Kahului AP	49	21	61	88	74	33	39	46	L	~	
Kailua	700	21	60	82	73	38	45	51	12	0.00	
Kula Sanitorium	3,004	21	53	78	67	14	21	28	19	0.20	
Lahaina	45	21	63	88	76	45	52	58	19	0.00	
Optical Site	10,018	21	32	63	45	-68	-59	-49	24	~	
Wailea	15	21	59	90	77	48	55	61	10	~	
Wailuku	180	21	64	86	75	42	49	56	15	~	
<b>Hawaii</b>											
Haina	460	20	64	86	74	37	44	50	14	~	
Hawaii Volcanos NP	3,971	19	50	76	65	7	15	22	16	0.36	
Hilo IAP	36	20	63	85	74	38	44	51	L	0.00	
Honomu Mauka	1,100	20	61	80	71	30	37	44	14	~	
Kainaliu	1,500	20	59	82	71	28	35	41	18	0.00	
Keaau	285	20	62	85	74	38	45	51	10	~	
Kealakekua	1,450	20	60	81	71	29	36	43	10	~	
Kohala Mission	537	20	64	84	73	34	41	48	13	~	
Kona IAP	49	20	67	87	75	43	50	56	L	~	
Kukuihaele	300	20	65	83	73	35	42	49	15	~	
Kulani Camp	5,170	20	42	72	61	-7	1	9	20	1.69	
Mauna Loa Obsy	11,146	20	32	61	41	-83	-73	-63	21	39.52	
Mountain View	1,530	20	57	81	71	29	36	43	17	~	
Naalehu	673	19	64	85	74	39	46	52	12	0.00	
Napoopoo	395	20	62	85	74	38	45	52	10	~	
Niulii	75	20	65	83	74	41	48	54	13	~	
Olaa	340	20	62	85	74	38	45	52	18	~	
Ookala	430	20	62	84	74	40	47	53	14	0.00	
Opihihale	1,270	19	59	83	72	31	38	45	13	0.01	
Pahala	870	19	62	86	74	38	45	51	19	~	
Pepeekeo	400	20	64	83	73	36	42	49	14	~	
South Point AFS	310	19	57	85	74	38	45	51	14	~	
Upolu Point	61	20	64	86	75	42	49	55	11	0.00	
Waimea (Kamuela AP)	2,670	20	49	79	68	17	24	32	18	0.00	

Nevada	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Adaven	6,250	38	9	91	57	-57	-48	-40	34	~	
Alamo	3,440	37	16	101	63	-44	-36	-29	43	~	
Arthur	6,300	41	-1	87	56	-55	-47	-38	39	4.96	
Austin	6,605	40	4	91	55	-66	-58	-49	32	3.30	
Bald Mtn	7,200	38	-7	83	52	-67	-59	-50	36	~	
Battle Mtn AP	4,530	41	2	96	61	-46	-38	-30	43	2.21	
Beatty	3,550	37	21	101	63	-44	-36	-29	37	0.88	
Beowawe	4,695	41	-1	96	61	-45	-38	-30	42	2.66	
Blue Jay	5,320	38	-5	94	59	-52	-44	-36	36	~	
Boulder City	2,525	36	34	104	66	-34	-27	-20	24	0.40	
Brinkerhoff Rch	3,660	40	11	101	64	-39	-31	-24	39	~	
Buffalo Rch	5,430	40	14	93	57	-60	-52	-44	40	~	
Caliente AMOS	4,380	38	12	96	62	-43	-35	-27	H	1.67	
Carlin Gold Mine	6,520	41	10	88	55	-61	-53	-45	38	2.92	
Carson City	4,675	39	9	91	59	-47	-39	-32	H	2.40	
Central NV Field Lab	5,950	39	-9	91	57	-57	-48	-40	36	~	
Cherry Creek	8,250	40	-11	77	49	-72	-63	-54	40	~	
Clover Valley	5,750	41	-2	90	57	-55	-47	-39	35	3.77	
Contact	5,365	42	-4	91	58	-52	-44	-36	42	3.87	
Cortez Gold Mine	4,900	40	3	97	61	-47	-39	-31	35	~	
Currant Hwy Stn	6,240	39	-7	88	56	-57	-48	-40	38	~	
Currie Hwy Stn	5,820	40	-10	92	57	-58	-50	-42	36	~	
Deeth	5,338	41	-14	91	57	-57	-49	-41	47	5.34	
Denio	4,185	42	8	97	62	-42	-35	-27	43	2.54	
Desert WLR	2,920	36	24	104	65	-39	-32	-24	34	0.60	
Desert Rock Camp	3,315	37	17	102	64	-41	-33	-26	38	0.55	
Diablo	5,100	38	2	100	61	-52	-44	-36	36	~	
Duckwater	5,400	39	4	94	58	-57	-49	-41	38	~	
Duferrena	4,800	42	1	92	59	-49	-41	-33	40	4.28	
Dyer	4,975	38	2	96	59	-55	-47	-39	41	1.91	
Elgin	3,300	37	22	103	65	-37	-30	-22	40	1.01	
Elko Municipal AP	5,075	41	2	92	59	-48	-40	-32	H	3.55	
Ely, Yelland Field	6,263	39	1	89	57	-55	-47	-39	H	4.14	
Emigrant Pass	5,755	41	7	92	57	-58	-50	-42	42	2.86	
Empire (Gerlach)	3,940	41	14	97	60	-52	-44	-37	46	~	
Eureka RAMOS	6,539	40	7	88	55	-63	-54	-46	H	3.38	
Fallon NAAS	3,934	39	15	97	62	-41	-33	-26	H	1.43	
Fallon Exp Sta	3,965	39	10	94	62	-38	-30	-22	38	2.06	
Fernley	4,160	40	11	97	61	-47	-40	-32	40	~	
Geyser Ranch	6,020	39	-5	92	57	-58	-50	-42	38	~	
Gibbs Ranch	6,000	42	-8	88	55	-61	-53	-45	42	5.67	
Glenbrook	6,400	39	18	84	54	-60	-51	-43	34	4.49	
Golconda	4,392	41	5	96	61	-46	-38	-30	38	2.68	
Goldfield	5,690	38	8	92	58	-54	-45	-37	33	1.97	
Goshute	7,053	40	-7	83	52	-67	-59	-50	36	~	
Hawthorne AP	4,165	39	11	98	62	-44	-36	-28	36	1.18	
Henderson	2,300	36	32	106	65	-43	-35	-28	30	~	
Imlay	4,260	41	8	97	61	-47	-39	-32	38	2.27	
Indian Spr AFB	3,136	37	17	101	64	-39	-32	-24	41	~	
Jiggs	5,760	40	-10	92	57	-58	-50	-42	41	5.08	
Jungo-Meyer Rch	4,200	41	5	97	62	-42	-35	-27	37	~	
Kings River Valley	4,235	42	1	95	59	-54	-46	-38	41	2.47	
Knoll Creek	6,000	42	-4	90	55	-64	-56	-48	41	~	
Lahontan Dam	4,150	39	17	95	58	-58	-51	-43	31	1.25	

Nevada	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						HDD <sub>65</sub> CDD <sub>50</sub> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Lake Valley	6,350	38	6	91	57	-57	-48	-40	38	~	
Lamoille	5,800	41	3	86	56	-53	-45	-37	34	4.76	
Las Vegas, Mc Carran IAP	2,182	36	33	106	68	-30	-23	-16	M	0.30	
Lathrop Wells	2,176	36	20	105	66	-36	-29	-22	38	~	
Lehman Caves NM	6,825	39	8	88	55	-62	-53	-44	30	2.75	
Leonard Creek Rch	4,225	42	14	96	61	-46	-38	-30	38	1.98	
Logandale Exp Farm	1,320	37	26	108	69	-26	-19	-12	37	~	
Lovelock, Derby Field	3,904	40	10	97	62	-43	-35	-27	H	1.78	
Lovelock CO	3,975	40	12	97	62	-42	-35	-27	40	2.16	
Lund	5,565	39	4	91	58	-52	-44	-36	36	3.07	
McGill	6,340	39	7	89	56	-58	-50	-42	31	3.43	
Metropolis	5,800	41	3	93	57	-60	-52	-43	42	~	
Mina	4,552	38	12	99	61	-50	-42	-35	35	1.34	
Minden	4,720	39	4	92	59	-49	-41	-33	42	2.72	
Montello	4,880	41	-6	97	61	-47	-39	-31	44	3.85	
Montgomery	7,100	38	-2	83	52	-67	-59	-50	38	~	
Mtn City RS	5,620	42	-16	88	56	-57	-48	-40	40	7.42	
Nellis AFB	1,880	36	32	107	67	-34	-27	-20	H	0.30	
Nixon	3,898	40	13	96	61	-46	-38	-31	38	~	
Orovada	4,310	42	7	97	60	-52	-44	-37	40	2.54	
Overton	1,220	37	26	110	71	-18	-11	-4	39	~	
Owyhee	5,396	42	-1	89	56	-58	-50	-42	36	~	
Pahrangat WLR	3,400	37	18	99	63	-41	-33	-26	44	0.86	
Pahrump Univ NV Lab	2,700	36	19	104	65	-39	-32	-25	34	0.62	
Pahute Meadows	4,375	41	10	95	60	-49	-41	-33	44	~	
Paradise	2,200	36	27	107	68	-29	-21	-14	29	~	
Paradise Valley	4,675	42	3	94	60	-47	-39	-32	40	3.18	
Paris Ranch	4,136	40	10	99	62	-45	-38	-30	38	1.79	
Pequop	6,030	41	-1	90	55	-64	-56	-48	42	~	
Pioche	6,165	38	11	91	57	-57	-48	-40	34	2.18	
Rand Ranch	5,047	40	-10	91	58	-52	-44	-36	42	~	
Reno-Tahoe IAP	4,400	39	17	93	61	-42	-35	-27	H	1.81	
Ruby Lake	6,012	40	-6	91	56	-61	-53	-45	36	3.64	
Ruth	6,832	39	-9	87	55	-60	-51	-43	40	6.07	
Rye Patch Dam	4,135	40	6	97	60	-52	-44	-37	40	2.11	
Searchlight	3,540	35	28	101	64	-39	-31	-24	27	0.56	
Sheldon	6,500	42	4	82	54	-56	-48	-40	35	~	
Silverpeak	4,263	38	12	99	61	-50	-43	-35	36	1.20	
Smokey Valley	5,625	39	0	94	58	-57	-49	-40	37	2.27	
Snowball Ranch	7,160	39	-2	86	54	-63	-54	-46	40	5.32	
Sparks	4,400	40	8	93	60	-46	-38	-30	36	2.01	
Stead AFB	5,023	40	7	89	58	-49	-41	-33	37	2.64	
Sunnyside	5,300	38	3	93	58	-55	-47	-39	36	2.30	
Sunrise Manor	1,820	36	19	111	70	-24	-17	-10	29	0.44	
Tonopah AFS	7,100	38	5	87	54	-65	-56	-47	34	~	
Tonopah AP	5,433	38	14	93	59	-50	-42	-34	H	1.76	
Topaz Lake	5,020	39	5	93	58	-55	-47	-39	38	2.12	
Tuscarora	6,170	41	-1	87	55	-60	-51	-43	40	4.42	
Virginia City	6,340	39	18	86	55	-58	-50	-41	25	2.76	
Vya	5,660	42	-2	89	56	-58	-50	-42	40	~	
Wells	5,650	41	-10	91	56	-61	-53	-45	42	4.42	
Winchester	2,160	36	27	107	68	-29	-21	-14	29	~	
Winnemucca AFS	6,750	41	-9	86	54	-63	-54	-46	40	~	
Winnemucca Municipal AP	4,314	41	8	95	61	-43	-35	-27	H	2.59	

Nevada	Elevation Feet	Latitude Degrees North	Heating 99% Outdoor Dry Bulb	Cooling						<u>HDD<sub>65</sub></u> <u>CDD<sub>50</sub></u> Ratio	
				Outdoor Air		Design Grains			Daily Range (DR)		
				1% Dry Bulb	Coincident Wet Bulb	55% RH Indoors	50% RH Indoors	45% RH Indoors			
Worthington Mtn	6,093	38	-3	89	56	-58	-50	-42	38	~	
Yerington Yucca Flat	4,375	39	7	93	60	-46	-38	-30	42	1.72	
	3,931	37	11	99	62	-46	-38	-30	40	~	