

## LAKE CO, CO, USA

WMO#: 724673

Lat: 39.23N

Long: 106.32W

Elev: 9928

StdP: 10.13

Time Zone: -7 (NAM)

Period: 98-10

WBAN: 93009

## Annual Heating and Humidification Design Conditions

Coldest Month	Heating DB		Humidification DP/MCDB and HR						Coldest month WS/MCDB				MCWS/PCWD to 99.6% DB	
			99.6%			99%			0.4%		1%			
	99.6%	99%	DP	HR	MCDB	DP	HR	MCDB	WS	MCDB	WS	MCDB	MCWS	PCWD
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
12	-7.7	-2.0	-16.9	3.2	0.3	-12.6	4.0	4.0	24.3	20.1	21.0	19.8	6.6	40

## Annual Cooling, Dehumidification, and Enthalpy Design Conditions

Hottest Month	Hottest Month DB Range	Cooling DB/MCWB						Evaporation WB/MCDB						MCWS/PCWD to 0.4% DB	
		0.4%		1%		2%		0.4%		1%		2%			
		DB	MCWB	DB	MCWB	DB	MCWB	WB	MCDB	WB	MCDB	WB	MCDB	MCWS	PCWD
(a)		(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
7	29.3	73.5	47.9	72.4	47.8	70.2	47.2	52.5	64.7	51.2	63.8	50.2	62.6	10.9	310

Dehumidification DP/MCDB and HR									Enthalpy/MCDB						Hours 8 to 4 & 55/69
0.4%			1%			2%			0.4%		1%		2%		
DP	HR	MCDB	DP	HR	MCDB	DP	HR	MCDB	Enth	MCDB	Enth	MCDB	Enth	MCDB	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
48.3	73.0	53.8	46.5	68.0	52.7	45.7	66.0	52.3	25.4	64.2	24.5	63.8	23.7	61.7	788

## Extreme Annual Design Conditions

Extreme Annual WS			Extreme Max WB	Extreme Annual DB				n-Year Return Period Values of Extreme DB							
				Mean		Standard deviation		n=5 years		n=10 years		n=20 years		n=50 years	
1%	2.5%	5%		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
20.6	18.5	16.7	60.3	-15.7	79.3	4.6	1.6	-19.0	80.4	-21.7	81.3	-24.4	82.2	-27.7	83.3

## Monthly Climatic Design Conditions

		Annual (d)	Jan (e)	Feb (f)	Mar (g)	Apr (h)	May (i)	Jun (j)	Jul (k)	Aug (l)	Sep (m)	Oct (n)	Nov (o)	Dec (p)
(5) Temperatures, Degree-Days and Degree-Hours	Tavg	35.2	17.7	17.9	24.1	31.9	41.8	50.4	56.3	53.6	46.9	37.2	25.8	17.6
	Sd		8.16	7.45	8.33	7.44	7.34	5.25	3.14	3.28	5.35	7.14	9.62	8.66
	HDD50	5817	1002	899	801	543	264	59	1	8	112	398	725	1005
	HDD65	10875	1467	1319	1266	993	720	437	270	353	542	863	1175	1470
	CDD50	417	0	0	0	0	9	71	196	120	21	0	0	0
	CDD65	0	0	0	0	0	0	0	0	0	0	0	0	0
	CDH74	71	0	0	0	0	0	6	58	7	0	0	0	0
(13) Precipitation	CDH80	1	0	0	0	0	0	0	1	0	0	0	0	0
	PrecAvg	17.2	1.5	1.2	1.4	1.4	1.3	1.1	2.0	2.1	1.4	1.1	1.3	1.5
	PrecMax	24.1	4.1	3.2	2.8	3.2	3.9	3.3	2.9	2.8	4.5	3.5	3.1	4.4
	PrecMin	13.7	0.4	0.4	0.5	0.6	0.2	0.0	0.4	0.7	0.2	0.2	0.3	0.2
(17) Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	PrecSD	2.8	1.0	0.8	0.7	0.6	0.7	0.6	0.6	0.6	0.9	0.7	0.6	1.0
	0.4%	DB	44.5	43.4	50.2	57.0	70.5	74.8	79.0	74.8	72.0	63.3	54.7	43.4
		MCWB	30.0	29.2	34.3	37.5	45.2	47.8	49.1	47.7	46.2	40.7	34.8	29.5
	2%	DB	37.3	38.6	45.7	53.6	64.5	72.4	75.1	72.3	66.4	58.8	49.9	37.4
		MCWB	26.7	27.3	31.8	35.6	42.4	47.0	48.5	47.9	44.8	39.0	34.1	26.7
	5%	DB	34.4	35.5	42.9	50.0	61.4	70.2	73.1	70.0	64.2	55.1	45.7	34.4
		MCWB	26.0	26.1	30.2	34.3	40.6	45.8	48.2	47.8	43.8	37.4	31.7	25.7
	10%	DB	30.2	30.4	38.6	46.2	57.3	66.4	71.8	66.2	62.9	52.1	41.2	30.3
		MCWB	24.3	23.7	28.2	32.6	39.4	44.5	48.3	47.4	43.2	36.3	29.5	24.4
(25) Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB	31.1	32.0	35.0	39.1	47.2	52.4	55.6	53.8	49.4	43.2	36.9	31.2
		MCDB	37.6	40.2	47.5	53.6	66.4	70.7	66.3	63.3	63.7	55.6	50.2	40.9
	2%	WB	28.7	28.3	32.6	36.4	44.1	49.3	53.1	52.1	47.8	40.9	34.5	28.6
		MCDB	36.0	36.0	44.0	49.5	61.1	65.8	65.5	63.0	60.5	54.8	48.3	35.3
	5%	WB	26.5	26.1	30.8	34.8	42.2	47.6	51.8	50.9	46.2	39.0	32.3	26.7
		MCDB	32.8	33.4	41.1	47.5	58.1	63.0	64.5	62.2	58.9	52.4	44.1	32.9
	10%	WB	24.7	24.1	29.0	33.3	40.7	45.9	50.7	49.9	44.7	37.2	30.3	24.8
		MCDB	30.6	30.1	37.6	45.1	56.0	62.6	63.5	60.9	57.5	48.2	40.3	30.7
(33) Mean Daily Temperature Range	5% DB	MDBR	20.3	20.5	20.9	21.2	25.0	29.3	29.3	26.7	27.2	22.9	21.9	19.8
		MCDBR	24.9	25.4	25.7	27.5	30.8	34.1	33.1	31.8	31.7	29.8	28.0	23.3
		MCWBR	17.2	17.5	15.2	13.9	13.5	14.8	12.6	12.6	14.3	15.1	15.7	15.6
	5% WB	MCDWR	21.7	21.7	23.5	24.3	28.7	30.6	26.8	24.7	27.2	26.4	25.2	20.4
		MCWBR	15.6	15.5	14.4	13.0	13.1	14.2	11.5	10.8	13.3	13.9	14.4	14.2
(38) Clear Sky Solar Irradiance	taub		0.223	0.232	0.232	0.231	0.233	0.242	0.252	0.263	0.259	0.255	0.229	0.223
	taud		2.654	2.503	2.530	2.587	2.637	2.683	2.699	2.690	2.737	2.700	2.700	2.656
	Ebn,noon		315	322	331	334	332	327	323	319	317	311	311	308
	Edh,noon		20	27	30	30	29	28	27	27	24	22	19	19

## Nomenclature:

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