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EVANSTON-UINTA COUNTY BURNS, WY, USA

WMO#: **725775**

Lat: **41.273N** Long: **111.031W** Elev: **7163** StdP: **11.27** Time Zone: **-7.00 (NAM)** Period: **99-14** WBAN: **04111**

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)	
(1)	1	-1.2	2.6	-8.2	4.6	3.8	-3.9	5.8	8.0	31.2	28.6	27.8	28.5	8.2	230	(1)

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)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	
(2)	7	26.8	86.3	55.3	83.7	54.4	81.3	53.9	58.6	76.5	57.3	76.2	56.0	75.0	13.9	250	(2)

	Dehumidification DP/MCDB and HR									Enthalpy/MCDB						Extreme Max WB	
	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)	
(3)	53.7	80.2	61.8	51.3	73.5	61.0	48.5	66.1	61.5	28.5	76.0	27.5	75.5	26.6	74.5	63.0	(3)

Extreme Annual Design Conditions

	Extreme Annual WS				Extreme Annual Temperature				n-Year Return Period Values of Extreme Temperature								
					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	
	(n)	(o)	(p)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	
(4)	27.6	24.6	21.2	DB	-8.4	90.0	5.4	2.3	-12.3	91.6	-15.4	92.9	-18.4	94.2	-22.4	95.9	(4)
(5)				WB	-8.4	60.7	5.3	1.7	-12.2	61.9	-15.4	62.9	-18.3	63.9	-22.2	65.1	(5)

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)	
(6)	Temperatures, Degree-Days and Degree-Hours		DBAvg	42.6	21.8	22.5	30.7	39.4	48.9	58.3	68.5	65.6	56.6	44.4	31.8	21.8	(6)
(7)			DBStd	18.33	8.73	7.86	8.40	8.63	8.94	8.13	4.25	5.04	7.45	8.80	10.65	9.26	(7)
(8)			HDD50	4397	873	769	598	330	134	26	0	1	31	212	548	875	(8)
(9)			HDD65	8382	1338	1189	1063	768	501	222	17	50	258	639	997	1340	(9)
(10)			CDD50	1713	0	0	1	11	99	275	574	485	229	38	1	0	(10)
(11)			CDD65	225	0	0	0	0	1	21	126	70	7	0	0	0	(11)
(12)			CDH74	3106	0	0	0	0	31	393	1589	937	152	4	0	0	(12)
(13)			CDH80	772	0	0	0	0	3	79	494	188	8	0	0	0	(13)
(14)	Wind		WSAvg	9.9	10.0	9.8	10.5	11.0	10.3	10.3	9.0	9.1	9.2	9.7	9.5	10.0	(14)
(15)	Precipitation		PrecAvg	14.10	1.20	1.00	1.10	1.30	1.80	1.10	0.80	0.90	1.30	1.40	1.20	1.00	(15)
(16)			PrecMax	23.50	3.50	3.10	2.20	3.30	5.00	4.30	1.80	2.80	5.40	3.40	2.70	3.30	(16)
(17)			PrecMin	7.80	0.20	0.20	0.20	0.10	0.50	0.10	0.10	0.00	0.10	0.00	0.20	0.00	(17)
(18)			PrecStd	3.30	0.70	0.60	0.50	0.70	0.90	1.00	0.40	0.60	1.00	0.70	0.60	0.80	(18)
(19)	Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB	43.4	43.4	59.3	69.9	77.5	86.1	90.1	87.2	81.3	72.7	61.3	45.7		(19)
(20)			MCWB	33.5	33.9	40.6	46.2	51.5	53.9	57.1	55.6	52.3	47.0	41.9	36.1		(20)
(21)		2%	DB	38.8	39.8	53.1	63.6	73.2	82.1	88.0	84.1	78.5	67.7	56.6	40.2		(21)
(22)			MCWB	31.7	33.2	39.1	42.8	49.4	52.6	56.0	54.3	51.3	45.6	39.9	33.4		(22)
(23)		5%	DB	36.1	36.8	47.6	59.8	70.1	78.8	85.4	82.0	75.2	63.6	51.0	36.8		(23)
(24)			MCWB	30.7	30.6	36.0	41.5	48.3	51.8	55.3	54.0	49.8	43.8	37.5	31.3		(24)
(25)		10%	DB	33.7	33.8	43.4	55.0	65.7	75.0	82.6	79.7	72.2	59.4	46.1	34.2		(25)
(26)			MCWB	29.1	29.3	34.1	39.6	46.3	51.0	54.8	53.3	48.7	42.2	35.8	29.9		(26)
(27)	Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB	35.9	35.7	41.8	47.1	53.5	56.8	60.4	59.6	57.0	49.2	43.9	37.1		(27)
(28)			MCDB	40.4	40.3	57.4	68.3	74.3	80.5	77.1	75.7	71.9	65.5	56.9	43.0		(28)
(29)		2%	WB	33.4	33.5	39.3	43.9	51.1	54.7	59.2	58.0	54.4	47.0	40.7	34.5		(29)
(30)			MCDB	37.0	38.7	51.8	61.1	69.5	76.6	76.9	75.7	69.4	63.5	52.8	38.6		(30)
(31)		5%	WB	31.6	31.8	36.8	41.9	49.1	53.1	58.0	56.8	52.6	45.1	38.5	32.3		(31)
(32)			MCDB	35.4	36.0	46.5	57.7	66.8	73.8	76.8	74.9	68.1	61.1	50.0	36.0		(32)
(33)		10%	WB	29.5	29.6	34.6	40.2	47.1	51.8	56.8	55.4	50.6	43.2	36.2	30.4		(33)
(34)			MCDB	32.7	33.2	42.5	53.8	64.1	72.1	76.1	73.5	66.6	57.7	45.1	33.7		(34)
(35)	Mean Daily Temperature Range		MDBR	14.5	14.5	16.4	20.8	22.7	25.4	26.8	26.2	25.1	21.6	17.7	13.9		(35)
(36)		5% DB	MCDBR	15.7	15.6	21.8	27.2	27.2	29.1	29.8	28.8	28.5	26.9	23.5	15.5		(36)
(37)			MCWBR	11.4	10.8	11.9	13.0	12.3	12.4	11.2	10.8	11.8	12.8	12.5	10.6		(37)
(38)		5% WB	MCDBR	13.8	13.7	20.3	25.6	25.2	26.7	25.3	25.6	24.0	25.0	21.5	14.2		(38)
(39)			MCWBR	10.5	9.9	11.9	12.6	11.8	11.7	9.9	9.8	10.4	12.3	12.0	10.2		(39)
(40)	Clear-Sky Solar Irradiance		taub	0.230	0.241	0.255	0.292	0.295	0.293	0.325	0.323	0.287	0.267	0.239	0.227		(40)
(41)			taud	2.424	2.423	2.498	2.440	2.514	2.559	2.478	2.472	2.568	2.597	2.578	2.494		(41)
(42)			Ebn,noon	303	314	320	311	311	310	299	297	304	301	299	296		(42)
(43)			Edh,noon	24	29	30	35	33	32	34	33	28	24	21	21		(43)
(44)	All-Sky Solar Radiation		RadAvg	793	1114	1506	1777	2073	2393	2299	1997	1648	1151	754	597		(44)
(45)			RadStd	50	77	92	87	126	173	112	108	110	77	65	57		(45)

Nomenclature: See separate page