 © 2013 ASHRAE, Inc.

NEW YORK/JOHN F. KE, NY, USA

WMO#: **744860**

Lat: **40.66N** Long: **73.80W** Elev: **7** StdP: **101.24** Time Zone: **-5.00 (NAE)** Period: **86-10** WBAN: **94789**

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	-10.1	-7.9	-20.9	0.6	-8.5	-18.7	0.7	-6.2	14.2	-1.3	12.8	-0.9	7.4	310	(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	7.4	32.1	22.7	30.3	22.1	28.7	21.7	24.8	28.8	24.1	27.6	23.5	26.7	5.8	230	(2)

	Dehumidification DP/MCDB and HR									Enthalpy/MCDB						Hours 8 to 4 & 12.8/20.6	
	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)	23.6	18.5	26.7	23.0	17.7	25.9	22.4	17.1	25.3	75.2	29.0	72.3	27.8	69.7	26.6	753	(3)

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)	
(4)	12.2	11.0	9.7	28.0	-12.9	35.4	2.5	1.8	-14.7	36.7	-16.1	37.7	-17.5	38.7	-19.4	40.0	(4)

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	12.5	0.8	1.5	5.3	10.6	15.8	21.2	24.2	23.8	20.1	13.8	8.6	3.1	(5)
(6)			Sd		5.05	4.32	4.32	3.62	3.60	3.30	2.67	2.66	3.18	3.81	4.05	4.52	(6)
(7)			HDD10.0	1013	286	240	154	34	1	0	0	0	0	9	74	217	(7)
(8)			HDD18.3	2691	543	473	403	233	98	11	0	1	18	147	293	471	(8)
(9)			CDD10.0	1912	1	1	9	52	179	337	441	427	302	128	31	4	(9)
(10)			CDD18.3	547	0	0	0	2	18	97	183	169	70	8	0	0	(10)
(11)			CDH23.3	3412	0	0	2	15	123	564	1310	1096	278	24	0	0	(11)
(12)			CDH26.7	921	0	0	0	3	34	161	399	276	43	4	0	0	(12)
(13)	Precipitation		PrecAvg	1056	81	77	91	99	97	93	97	87	84	73	93	87	(13)
(14)			PrecMax	1440	212	124	207	191	164	179	215	211	245	127	242	156	(14)
(15)			PrecMin	649	14	27	34	32	16	5	14	11	24	4	8	23	(15)
(16)			PrecSD	186.3	51.0	28.4	37.2	41.9	38.4	42.9	58.9	54.8	58.0	30.5	61.6	42.6	(16)
(17)	Monthly Design Dry Bulb and Mean Coincident Wet Bulb Temperatures	0.4%	DB		13.5	15.3	20.6	25.4	30.5	33.2	35.3	33.7	30.4	26.5	19.7	16.1	(17)
(18)			MCWB		10.7	8.8	12.6	15.6	20.6	22.9	24.6	23.6	21.5	19.6	15.1	12.2	(18)
(19)		2%	DB		11.3	11.0	15.9	21.3	26.7	30.8	32.4	31.2	27.7	23.0	17.4	13.0	(19)
(20)			MCWB		9.7	7.3	9.8	13.4	18.6	22.0	23.0	22.7	20.5	18.3	14.2	10.8	(20)
(21)		5%	DB		9.4	9.1	13.1	18.5	23.8	28.3	30.5	29.4	26.2	21.3	16.0	11.3	(21)
(22)			MCWB		7.4	6.3	8.5	11.7	17.2	20.7	22.2	22.5	20.3	17.4	13.6	9.4	(22)
(23)		10%	DB		7.6	7.5	11.2	16.2	21.7	26.4	28.7	28.0	24.8	19.7	14.7	9.6	(23)
(24)			MCWB		5.4	5.1	7.8	10.6	16.1	20.1	21.9	21.8	19.9	16.3	12.5	7.4	(24)
(25)	Monthly Design Wet Bulb and Mean Coincident Dry Bulb Temperatures	0.4%	WB		12.0	10.6	14.2	17.2	22.0	24.6	26.0	25.7	24.2	21.5	17.0	13.5	(25)
(26)			MCDB		12.7	12.3	17.9	23.0	27.9	30.2	31.5	30.5	26.5	23.9	18.0	15.0	(26)
(27)		2%	WB		10.2	8.5	11.4	15.0	20.1	23.4	25.0	24.8	23.1	20.0	15.4	11.5	(27)
(28)			MCDB		11.0	10.1	13.8	19.1	24.8	28.1	29.2	28.3	25.0	22.2	16.5	12.6	(28)
(29)		5%	WB		7.9	6.9	10.0	13.2	18.5	22.4	24.2	24.1	22.4	18.5	14.2	9.9	(29)
(30)			MCDB		9.1	8.4	12.3	16.7	22.4	26.3	28.0	27.1	24.3	20.4	15.6	11.1	(30)
(31)		10%	WB		5.8	5.3	8.5	11.8	17.1	21.4	23.5	23.5	21.5	17.0	12.9	7.8	(31)
(32)			MCDB		7.3	7.4	10.5	14.5	20.5	24.8	26.9	26.4	23.7	18.9	14.4	9.1	(32)
(33)	Mean Daily Temperature Range		MDBR		6.6	7.1	7.7	8.0	8.2	7.9	7.4	7.2	7.4	7.6	6.9	6.4	(33)
(34)		5% DB	MCDBR		8.1	8.9	10.6	11.7	11.8	10.7	9.5	8.5	8.3	8.9	7.9	8.3	(34)
(35)			MCWBR		7.0	6.9	6.6	6.1	5.8	4.8	4.1	4.2	4.4	5.8	6.6	7.7	(35)
(36)		5% WB	MCDBR		8.0	8.4	9.6	9.9	10.8	9.3	7.9	7.1	6.7	7.7	7.1	7.8	(36)
(37)			MCWBR		7.8	7.6	7.3	6.2	6.1	4.9	3.9	3.9	4.5	6.1	6.9	8.4	(37)
(38)	Clear Sky Solar Irradiance	taub			0.339	0.333	0.363	0.391	0.418	0.458	0.434	0.439	0.403	0.352	0.329	0.325	(38)
(39)		taud			2.470	2.481	2.402	2.297	2.179	2.079	2.188	2.197	2.331	2.498	2.567	2.568	(39)
(40)		Ebn,noon			815	882	888	881	861	824	841	825	833	848	825	807	(40)
(41)		Edh,noon			78	89	107	127	146	162	144	138	113	86	71	67	(41)

Nomenclature: See separate page