

HOUSTON/ELLINGTON TX

Latitude = 29.60 N

WMO No. 722436

Longitude = 95.17 W

Elevation = 33 feet

Period of Record = 1967 to 1996

Average Pressure = 29.96 inches Hg

Design Criteria Data

	Design Value	Mean Coincident (Average) Values			
		Wet Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Dry Bulb Temperature (T)	(°F)				
Median of Extreme Highs	97	79	117	6.3	S
0.4% Occurrence	95	79	120	7.1	S
1.0% Occurrence	93	78	123	7.8	S
2.0% Occurrence	92	78	123	8.0	S
Mean Daily Range	17	-	-	-	-
97.5% Occurrence	39	36	25	6.8	N
99.0% Occurrence	34	31	20	7.1	N
99.6% Occurrence	30	27	16	8.5	N
Median of Extreme Lows	25	22	12	8.7	N
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Wet Bulb Temperature (T_{wb})	(°F)				
Median of Extreme Highs	83	91	156	9.4	S
0.4% Occurrence	81	90	144	8.5	S
1.0% Occurrence	80	89	139	8.1	S
2.0% Occurrence	80	89	139	8.1	S
	Design Value	Mean Coincident (Average) Values			
		Dry Bulb Temperature (°F)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Humidity Ratio (HR)	(gr/lb)				
Median of Extreme Highs	161	87	1.07	5.8	E
0.4% Occurrence	151	86	1.00	6.7	S
1.0% Occurrence	146	85	0.97	5.5	S
2.0% Occurrence	141	85	0.94	6.3	S
Air Conditioning/ Humid Area Criteria	# of Hours	T ≥ 93°F	T ≥ 80°F	T _{wb} ≥ 73°F	T _{wb} ≥ 67°F
		132	2016	2626	4344

Other Site Data

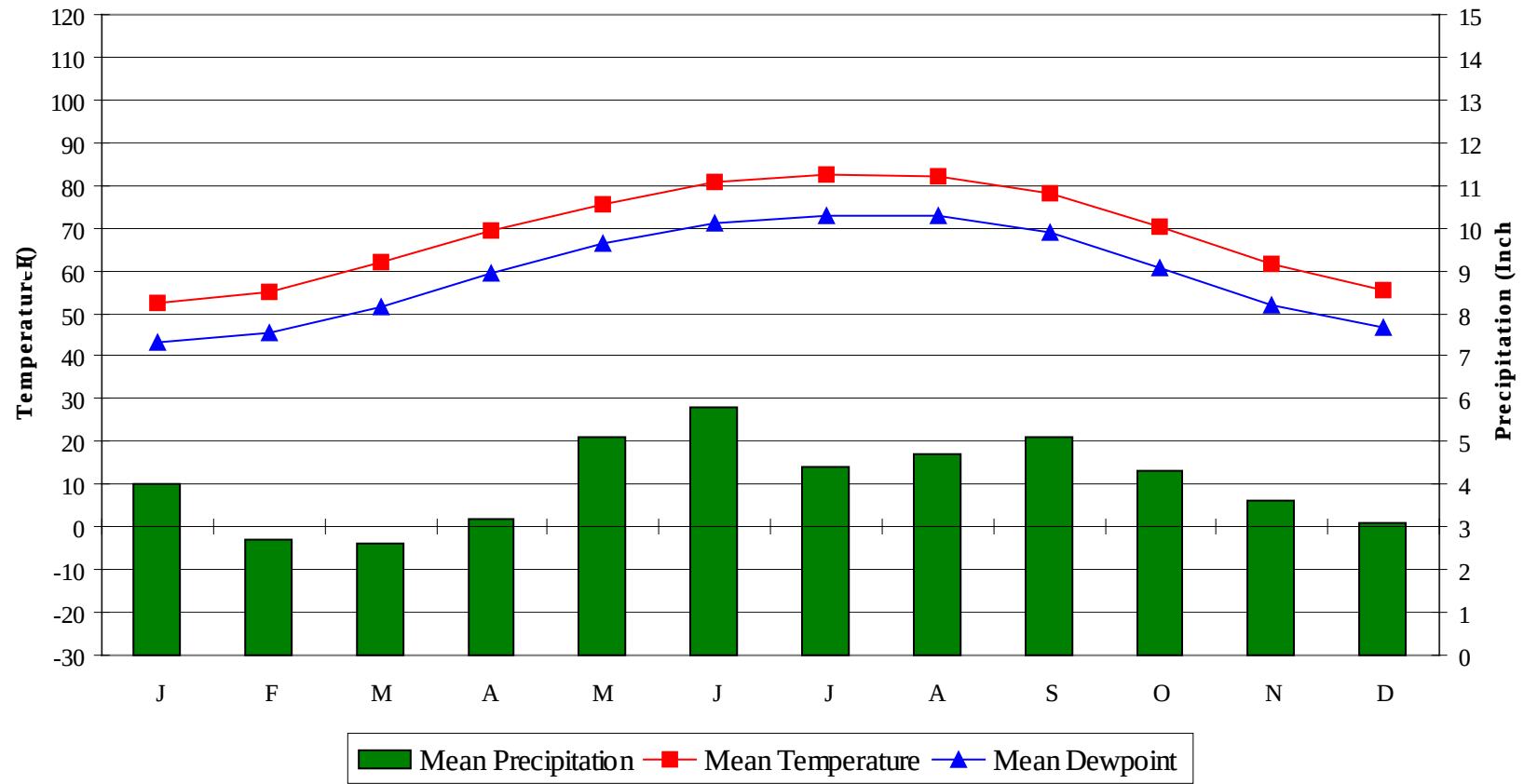
Weather Region	Rain Rate 100 Year Recurrence (in./hr)	Basic Wind Speed 3 sec gust @ 33 ft 50 Year Recurrence (mph)	Ventilation Cooling Load Index (Ton-hr/cfm/yr) Base 75°F-RH 60% Latent + Sensible
10	4.5	110	8.2 + 2.1
Ground Water Temperature (°F) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft ²)	Average Annual Freeze-Thaw Cycles (#)
71.2	0	0	6

*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

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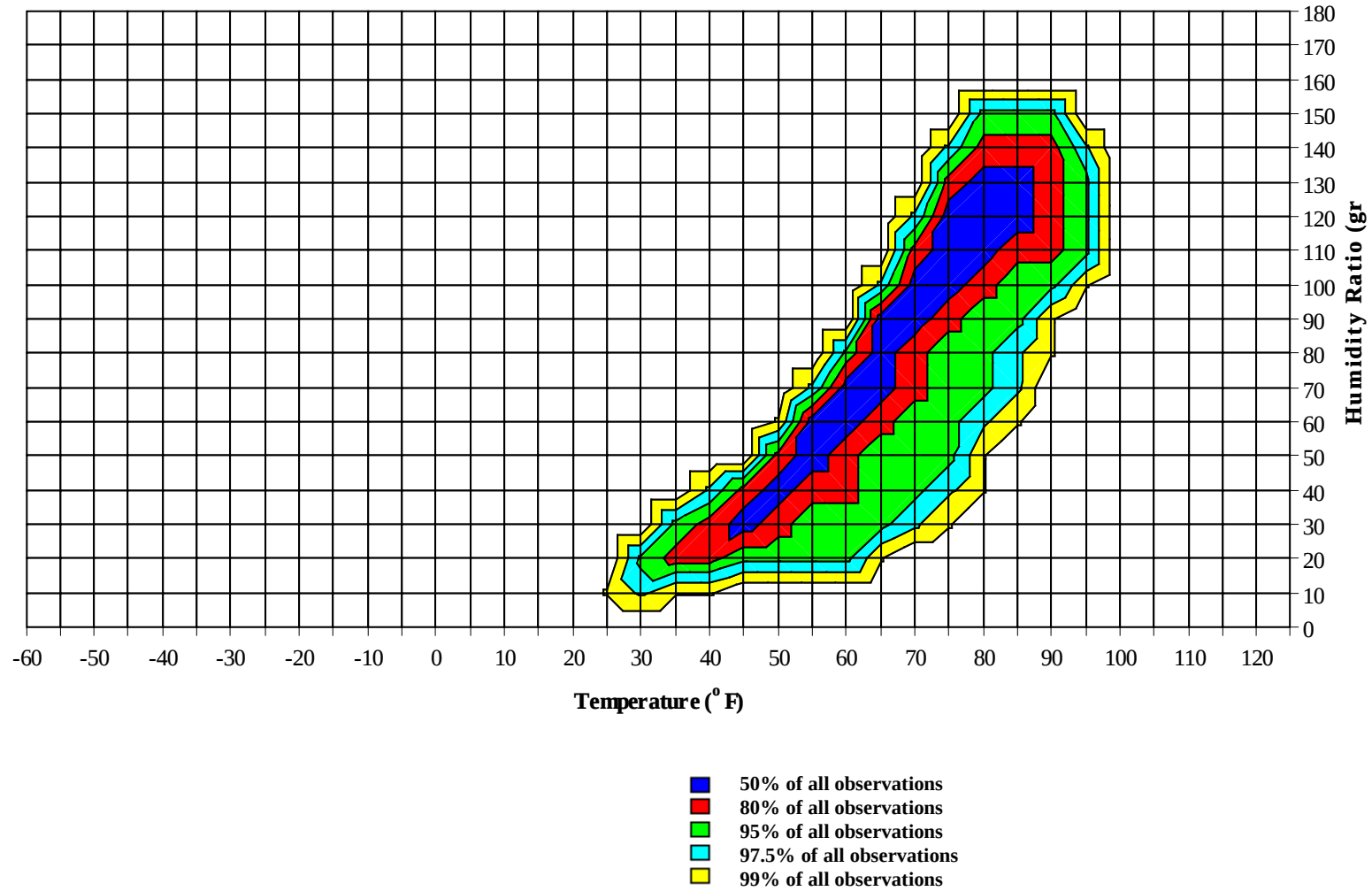
Average Annual Climate



HOUSTON/ELLINGTON TX

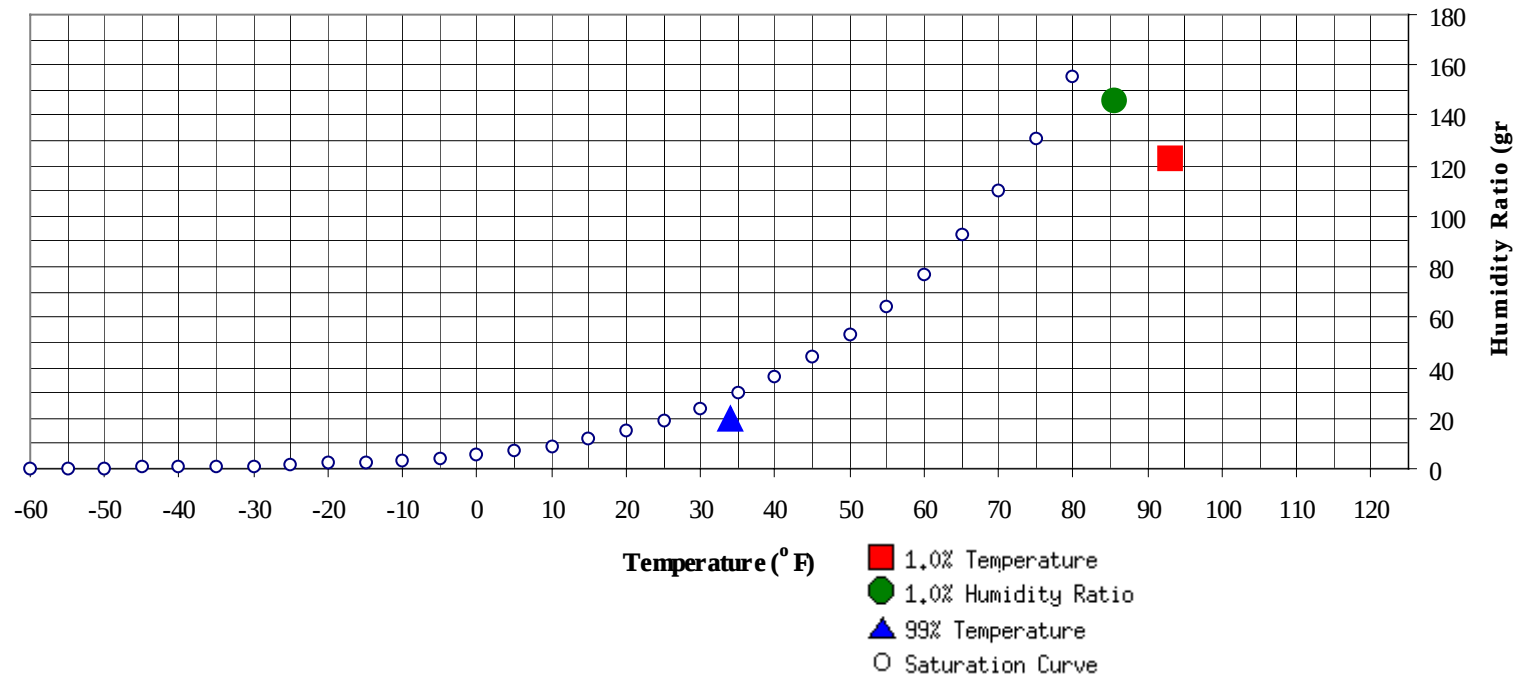
WMO No. 722436

Long Term Psychrometric Summary



HOUSTON/ELLINGTON TX

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Psychrometric Summary of Peak Design Values

	(°F)	MCHR	Enthalpy	1.0% Humidity	(gr/lb)	MCDB	MCWB	MC Dewpt	Enthalpy
		(gr/lb)	(btu/lb)			(°F)	(°F)	(°F)	(btu/lb)
99% Dry Bulb	34	20	11.2	Ratio	145.6	85.5	80	78.1	43.4

	(°F)	MCHR	MCWB	Enthalpy
		(gr/lb)	(°F)	(btu/lb)
1.0% Dry Bulb	93	122.7	78.4	41.6

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Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)**Period of Record = 1967 to 1996**

Temperature Range (°F)	January					February					March				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99															
90 / 94															
85 / 89							1	0	1	69.2		0		0	67.2
80 / 84		1	0	2	68.8		4	1	4	65.5		11	1	13	68.3
75 / 79		12	1	14	67.8		17	2	19	65.6	0	39	7	46	66.8
70 / 74	4	28	11	43	65.4	3	30	13	47	64.4	18	61	40	119	65.4
65 / 69	19	29	25	73	62.5	19	35	29	83	61.5	42	52	54	149	61.5
60 / 64	20	34	28	82	57.2	25	35	36	96	56.7	46	37	55	138	57.2
55 / 59	29	37	40	106	52.6	31	33	41	105	52.5	46	21	42	108	52.1
50 / 54	35	36	44	115	47.6	37	28	39	104	47.6	41	14	26	80	47.6
45 / 49	38	28	40	106	42.7	40	20	31	91	43.0	29	8	13	51	43.3
40 / 44	47	25	34	105	38.3	34	13	19	65	38.7	15	3	7	26	38.4
35 / 39	30	11	15	56	33.8	20	6	10	36	34.1	7	1	1	10	33.5
30 / 34	16	5	8	30	29.4	10	3	4	17	29.3	3	0	0	3	28.6
25 / 29	7	1	2	10	24.9	4	1	1	6	25.2	0			0	24.9
20 / 24	2	0	0	2	20.1	0	0		0	21.7					
15 / 19	0	0		0	14.7										
10 / 14															

Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

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Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)**Period of Record = 1967 to 1996**

Temperature Range (°F)	April					May					June				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99		0		0	66.7		0	0	0	74.4		5	0	5	78.9
90 / 94		2	0	2	68.9		10	1	10	76.1		64	8	72	77.9
85 / 89		10	2	12	70.7	0	60	10	70	74.8	5	101	37	143	76.4
80 / 84	0	50	8	58	70.8	9	93	39	141	72.8	40	44	78	163	75.1
75 / 79	14	80	42	135	68.8	57	56	84	197	71.0	114	19	87	221	73.1
70 / 74	62	51	74	187	66.9	91	20	73	184	68.3	63	6	25	94	69.5
65 / 69	59	27	57	143	62.5	53	8	31	92	63.8	15	1	3	18	64.4
60 / 64	44	13	34	91	57.4	26	1	10	37	58.7	3	0	0	3	60.0
55 / 59	32	5	16	53	52.6	10	0	1	12	54.3	0			0	55.3
50 / 54	18	2	7	27	48.0	1		0	2	50.3					
45 / 49	8	0	1	9	43.5										
40 / 44	2		0	2	39.7										
35 / 39	0			0	35.3										
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															

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Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)**Period of Record = 1967 to 1996**

Temperature Range (°F)	July					August					September				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104		0	0	1	77.0		0		0	79.4		0		0	76.0
95 / 99		16	1	17	78.7		17	1	18	78.7		4	0	4	78.1
90 / 94		100	19	119	78.4	0	88	16	104	78.3		38	3	40	77.7
85 / 89	9	84	47	140	77.5	6	89	43	138	77.5	1	85	19	105	76.3
80 / 84	49	32	96	177	76.0	41	36	93	169	76.2	19	62	60	141	74.6
75 / 79	152	13	74	239	73.9	154	16	82	252	74.1	99	34	93	227	72.9
70 / 74	36	3	11	49	70.7	44	2	12	58	70.8	67	13	41	121	68.9
65 / 69	2	0	0	2	64.7	4	0	1	4	64.7	28	4	15	47	62.9
60 / 64						0		0	0	60.5	16	1	7	24	57.9
55 / 59											8	0	1	10	54.2
50 / 54											1		0	1	49.9
45 / 49															
40 / 44															
35 / 39															
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															

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HOUSTON/ELLINGTON TX

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Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)**Period of Record = 1967 to 1996**

Temperature Range (°F)	October					November					December				
	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00			01 To 08	09 To 16	17 To 00		
100 / 104															
95 / 99															
90 / 94		5	0	5	75.0		0		0	75.0					
85 / 89	0	40	2	42	74.2		4	0	4	73.7					
80 / 84	3	67	17	88	72.1	0	24	2	26	72.1		2		2	71.1
75 / 79	25	58	51	135	69.9	7	43	16	67	69.8	0	24	2	26	69.1
70 / 74	51	39	64	155	66.8	29	42	35	106	66.5	11	34	20	65	66.8
65 / 69	52	21	50	123	62.4	32	37	40	109	61.9	26	34	31	91	62.6
60 / 64	48	11	35	94	57.6	33	32	40	105	56.9	29	38	36	103	57.5
55 / 59	37	5	19	60	53.0	33	27	40	101	51.8	28	38	38	104	52.4
50 / 54	22	2	7	31	48.6	39	19	35	93	47.4	36	32	45	113	47.6
45 / 49	7	0	2	9	44.1	33	8	19	60	42.8	42	25	40	106	43.3
40 / 44	2	0	0	3	39.0	19	3	9	32	38.6	37	12	23	73	38.5
35 / 39	0			0	33.0	10	1	3	14	34.4	24	5	9	37	33.9
30 / 34	0			0	30.0	3	0	0	3	29.5	9	2	4	14	29.0
25 / 29						0			0	25.1	4	1	1	6	24.0
20 / 24											1	0	1	2	19.0
15 / 19											1	0	0	1	14.6
10 / 14											0			0	11.0

Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

HOUSTON/ELLINGTON TX

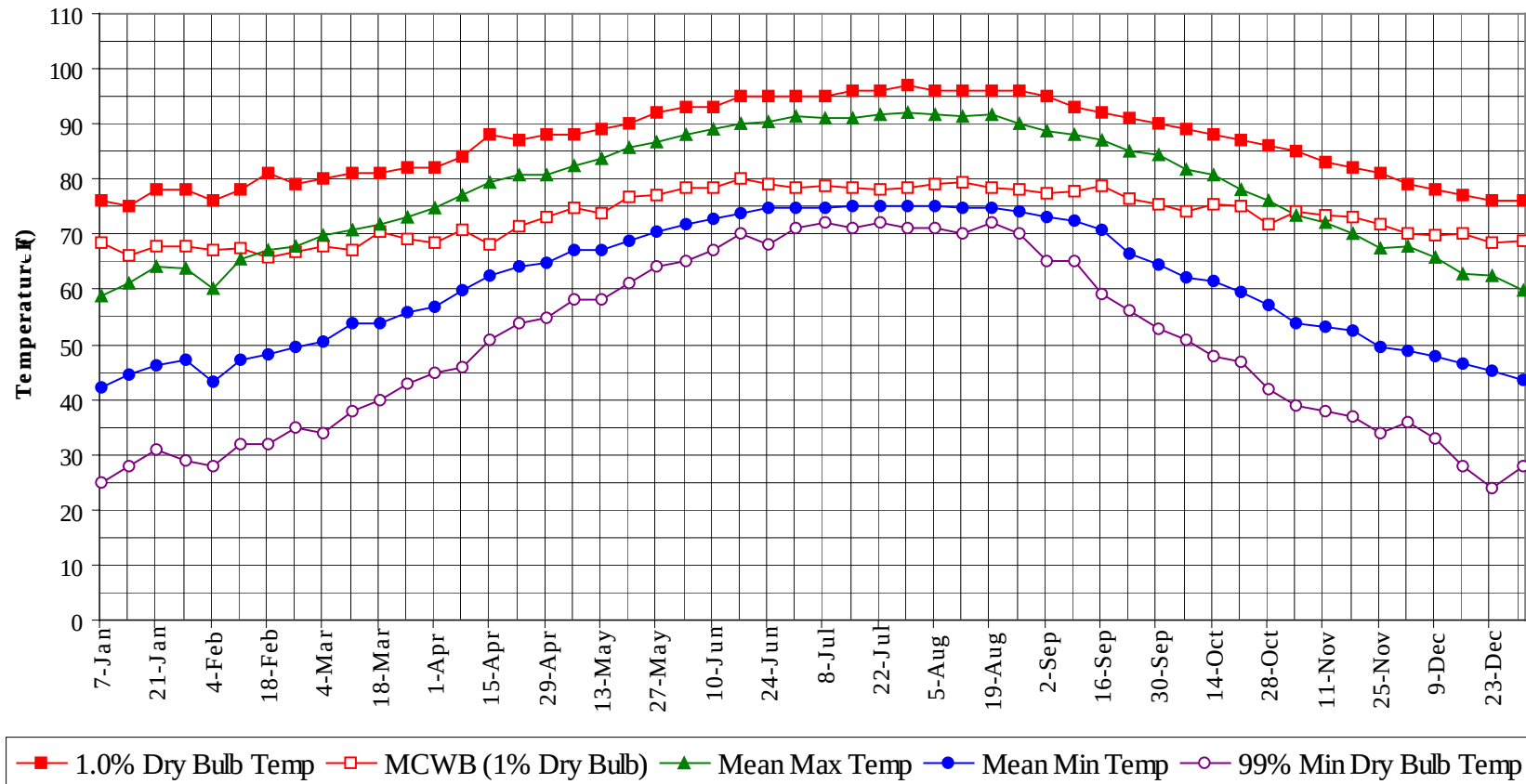
WMO No. 722436

Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)**Period of Record = 1967 to 1996**

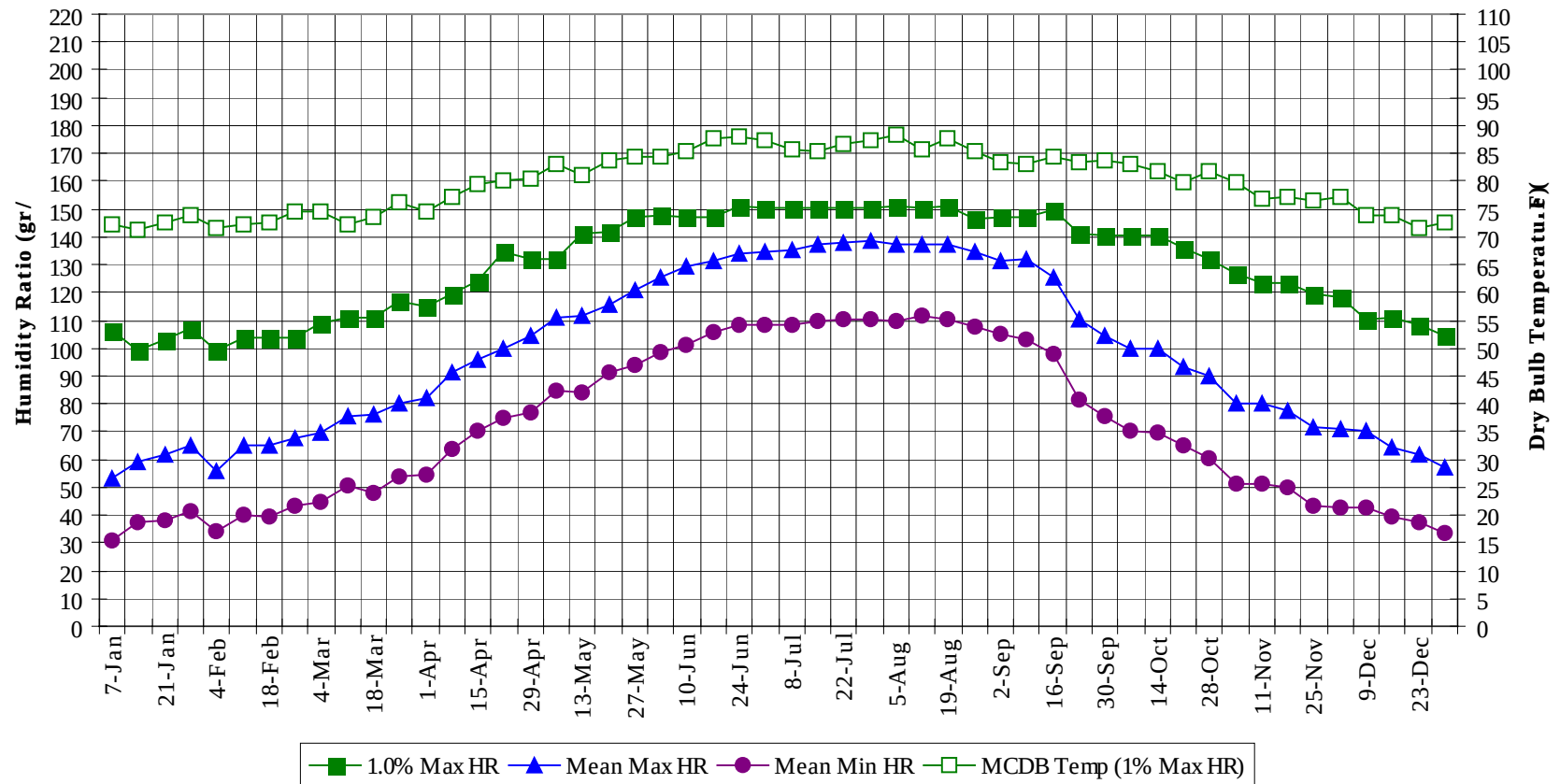
Annual Totals					
Temperature Range (°F)	Hour Group (LST)			Total Obs	M C W B (°F)
	01 To 08	09 To 16	17 To 00		
100 / 104		1	0	1	77.8
95 / 99		41	3	44	78.6
90 / 94	0	302	47	349	78.0
85 / 89	21	470	159	650	76.4
80 / 84	160	424	390	974	74.3
75 / 79	617	410	537	1564	71.9
70 / 74	477	329	418	1224	67.5
65 / 69	350	249	337	936	62.4
60 / 64	291	205	282	777	57.3
55 / 59	256	168	240	665	52.4
50 / 54	233	134	205	572	47.7
45 / 49	200	91	148	439	43.0
40 / 44	160	58	94	312	38.5
35 / 39	93	25	39	156	33.9
30 / 34	41	11	17	69	29.3
25 / 29	16	3	4	23	24.7
20 / 24	3	1	1	4	19.8
15 / 19	1	0	0	1	14.6
10 / 14	0			0	11.0

Caution: This summary reflects the typical distribution of temperature in a typical year. It does not reflect the typical moisture distribution. Because wet bulb temperatures are averaged, this summary understates the annual moisture load. For accurate moisture load data, see the long-term humidity summary and the ventilation and infiltration load pages in this manual.

Annual Summary of Temperatures



Long Term Humidity and Dry Bulb Temperature Summary



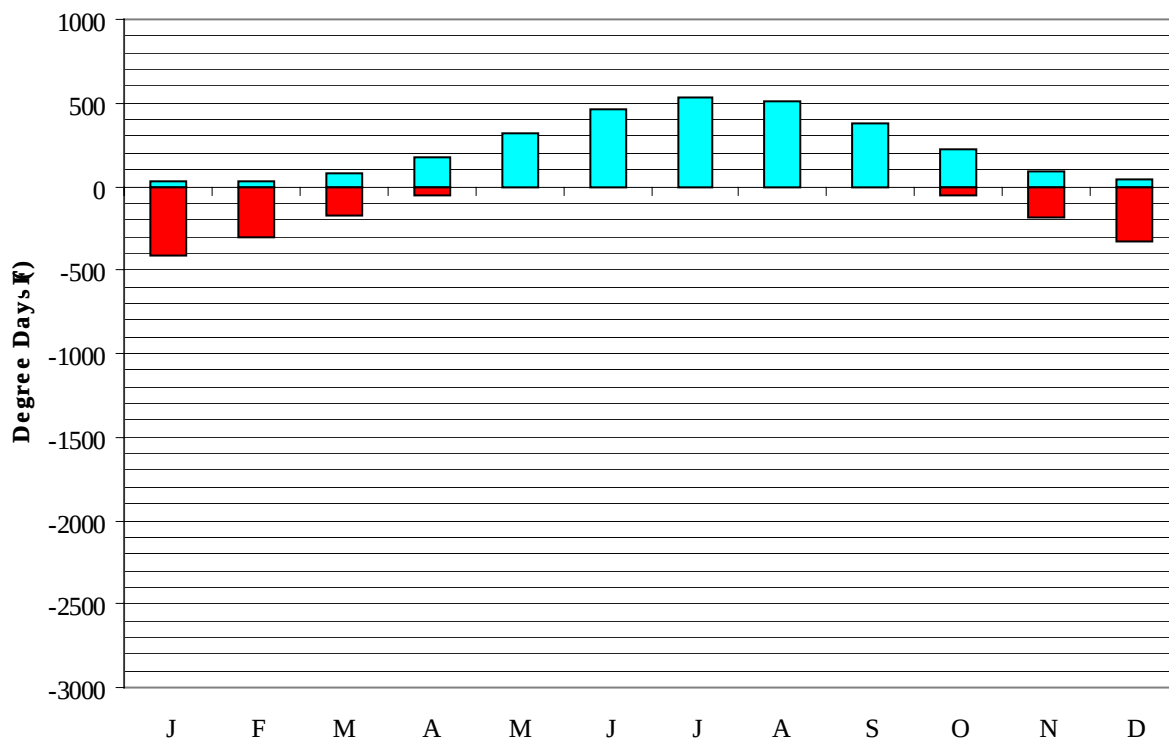
HOUSTON/ELLINGTON TX**WMO No. 722436****Long Term Dry Bulb Temperature and Humidity Summary**

Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	76.0	68.3	58.9	42.3	25.0	106.4	72.3	53.4	31.2
14-Jan	75.0	66.1	61.0	44.4	28.0	99.4	71.2	59.0	37.2
21-Jan	78.0	67.7	64.1	46.2	31.0	102.9	72.5	61.9	38.2
28-Jan	78.0	67.9	63.8	47.1	29.0	107.1	73.8	65.0	41.3
4-Feb	76.0	67.0	60.2	43.3	28.0	99.4	71.6	55.8	34.3
11-Feb	78.0	67.6	65.6	47.3	32.0	103.6	72.2	64.8	40.2
18-Feb	81.0	65.9	67.0	48.3	32.0	103.6	72.4	64.9	39.5
25-Feb	79.0	66.7	67.9	49.5	35.0	103.6	74.6	67.8	43.6
4-Mar	80.0	67.7	69.8	50.5	34.0	109.2	74.7	69.8	44.5
11-Mar	81.0	67.0	71.0	54.0	38.0	111.3	72.2	75.4	50.4
18-Mar	81.0	70.5	71.7	53.7	40.0	111.3	73.6	76.2	47.9
25-Mar	82.0	69.1	73.3	55.9	43.0	116.9	76.2	80.1	54.0
1-Apr	82.0	68.3	74.7	56.8	45.0	114.8	74.5	82.1	54.2
8-Apr	84.0	70.6	76.9	60.0	46.0	119.7	77.2	91.3	63.8
15-Apr	88.0	68.2	79.4	62.6	51.0	123.9	79.4	96.1	70.1
22-Apr	87.0	71.6	80.7	64.1	54.0	134.4	80.3	100.0	74.6
29-Apr	88.0	73.0	80.8	64.7	55.0	132.3	80.6	104.6	76.9
6-May	88.0	74.6	82.4	67.1	58.0	132.3	83.1	110.9	84.9
13-May	89.0	73.7	83.8	67.0	58.0	141.4	81.0	111.9	84.2
20-May	90.0	76.7	85.8	68.9	61.0	142.1	83.9	115.4	91.1
27-May	92.0	77.2	86.6	70.5	64.0	147.0	84.3	121.1	93.7
3-Jun	93.0	78.3	88.2	71.8	65.0	147.7	84.4	125.7	98.8
10-Jun	93.0	78.6	89.0	72.7	67.0	147.0	85.2	129.3	101.2
17-Jun	95.0	79.9	90.1	73.7	70.0	147.0	87.7	131.2	106.0
24-Jun	95.0	79.3	90.5	74.7	68.0	151.2	88.1	134.0	108.3
1-Jul	95.0	78.4	91.4	74.8	71.0	150.5	87.2	134.8	108.6
8-Jul	95.0	78.9	91.2	74.9	72.0	150.5	85.6	135.6	108.5
15-Jul	96.0	78.3	91.2	75.0	71.0	150.5	85.2	137.1	109.7
22-Jul	96.0	78.3	91.7	75.2	72.0	150.5	86.6	137.9	110.5
29-Jul	97.0	78.6	92.1	75.0	71.0	150.5	87.5	138.8	110.6
5-Aug	96.0	79.0	91.6	74.9	71.0	151.2	88.3	137.4	109.7
12-Aug	96.0	79.4	91.6	74.7	70.0	150.5	85.8	137.5	111.4
19-Aug	96.0	78.4	91.7	74.7	72.0	151.2	87.7	137.5	110.1
26-Aug	96.0	78.2	90.0	74.1	70.0	146.3	85.4	134.8	107.4
2-Sep	95.0	77.3	88.8	73.1	65.0	147.0	83.5	131.6	105.3
9-Sep	93.0	77.8	88.1	72.5	65.0	147.0	83.0	132.0	103.1
16-Sep	92.0	78.8	87.0	70.9	59.0	149.8	84.5	125.2	97.9
23-Sep	91.0	76.6	85.1	66.5	56.0	141.4	83.5	110.0	81.3
30-Sep	90.0	75.4	84.4	64.5	53.0	140.7	83.7	104.7	75.4
7-Oct	89.0	74.1	81.7	62.2	51.0	140.7	83.2	99.7	70.6
14-Oct	88.0	75.6	80.7	61.5	48.0	140.7	81.8	99.6	69.9
21-Oct	87.0	75.0	78.2	59.3	47.0	135.8	79.9	93.0	64.9
28-Oct	86.0	71.8	76.1	57.1	42.0	132.3	81.9	90.0	60.3
4-Nov	85.0	74.3	73.5	54.0	39.0	126.7	79.8	80.4	51.2
11-Nov	83.0	73.6	72.2	53.2	38.0	123.2	77.0	80.1	51.4
18-Nov	82.0	73.2	70.2	52.7	37.0	123.2	77.2	77.4	49.9
25-Nov	81.0	71.8	67.4	49.4	34.0	119.7	76.6	71.6	43.1
2-Dec	79.0	70.2	67.7	48.7	36.0	118.3	77.2	71.0	42.5
9-Dec	78.0	69.9	65.7	47.8	33.0	110.6	73.8	70.3	42.5
16-Dec	77.0	70.3	63.0	46.4	28.0	111.3	73.8	64.5	39.6
23-Dec	76.0	68.5	62.4	45.1	24.0	108.5	71.5	61.9	37.5
31-Dec	76.0	68.9	59.7	43.6	28.0	104.3	72.5	57.2	33.3

HOUSTON/ELLINGTON TX

WMO No. 722436

Degree Days, Heating and Cooling
(Base 65°F)



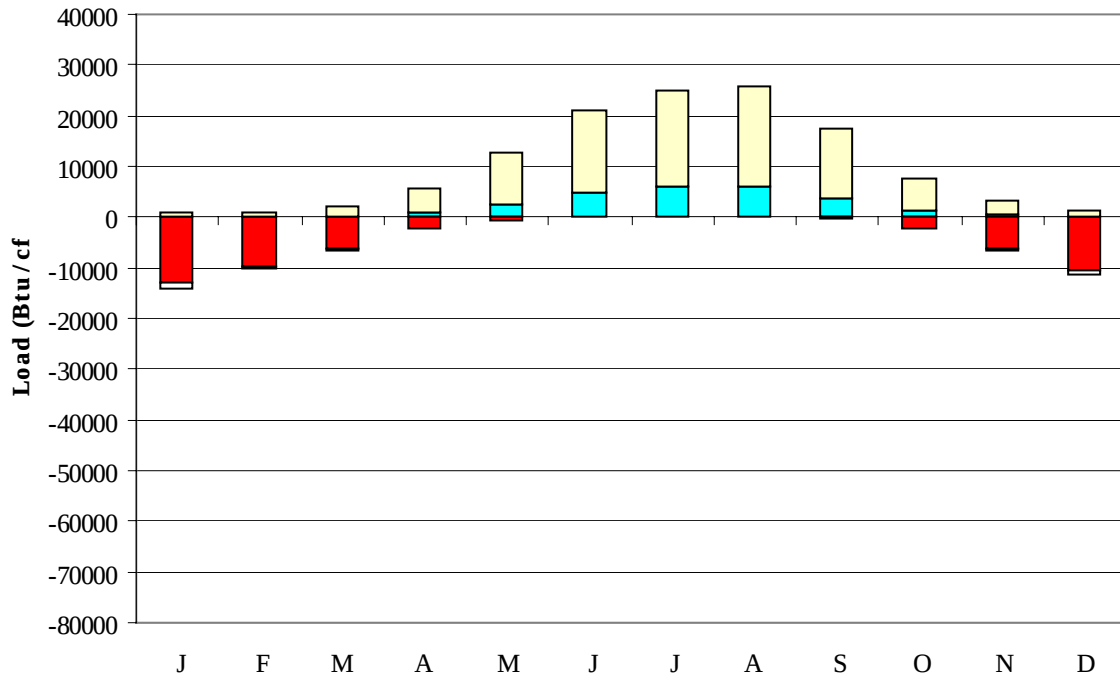
■ Mean Cooling Degree Days ■ Mean Heating Degree Days

	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	25	414
FEB	31	301
MAR	75	174
APR	179	52
MAY	322	9
JUN	458	0
JUL	528	0
AUG	512	0
SEP	382	6
OCT	219	55
NOV	90	186
DEC	39	334
ANN	2859	1531

HOUSTON/ELLINGTON TX

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Average Ventilation and Infiltration Loads
(Outside Air vs. 75°F, 60% RH summer; 68°F, 30% RH winter)



■ Average Sensible Cooling Load	■ Average Sensible Heating Load
■ Average Latent Cooling (Drying) Load	■ Average Latent Heating (Humidifying) Load

	Average Sensible Cooling Load (Btu/cfm)	Average Sensible Heating Load (Btu/cfm)	Average Latent Cooling Load (Btu/cfm)	Average Latent Heating Load (Btu/cfm)
JAN	30	-12828	766	-1195
FEB	64	-9545	692	-741
MAR	183	-6067	2001	-344
APR	833	-2108	4681	-49
MAY	2467	-480	10422	0
JUN	4765	-35	16111	0
JUL	6019	-1	18833	0
AUG	5877	-3	19824	0
SEP	3623	-317	14038	0
OCT	1455	-2186	6296	-25
NOV	338	-6235	2878	-328
DEC	55	-10596	1400	-848
ANN	25709	-50401	97942	-3530

Average Annual Solar Radiation – Nearest Available Site

(Source: National Renewable Energy Laboratory, Golden CO, 1995)

City: HOUSTON
 State: TX
 WBAN No: 12960
 Lat(N): 29.98
 Long(W): 95.37
 Elev(ft): 108

Stn Type: Secondary
 SHADING GEOMETRY IN DIMENSIONLESS UNITS

Window: 1
 Overhang: 0.876
 Vert Gap: 0.649

AVERAGE INCIDENT SOLAR RADIATION (Btu/sq.ft./day), Percentage Uncertainty = 9		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Global	840	1080	1340	1590	1780	1910	1880	1780	1540	1330	970	790	1400
	Std Dev	80	93	113	152	144	156	122	126	121	128	104	54	39
	Minimum	710	880	1130	1350	1470	1620	1600	1520	1330	1040	690	690	1330
	Maximum	1000	1290	1600	2020	2030	2180	2130	2000	1790	1660	1240	930	1510
	Diffuse	420	500	630	760	830	860	860	790	680	520	430	390	640
Clear Day	Global	1300	1620	2010	2350	2520	2570	2520	2350	2060	1680	1340	1190	1960
NORTH	Global	260	310	380	450	550	630	590	500	410	340	270	240	410
	Diffuse	260	310	380	440	490	520	510	470	410	340	270	240	390
Clear Day	Global	240	290	360	430	590	700	640	490	390	320	260	230	410
EAST	Global	490	620	730	840	930	1020	1030	1010	900	780	580	470	780
	Diffuse	300	370	450	530	590	620	620	590	520	430	330	290	470
Clear Day	Global	860	1030	1200	1320	1360	1350	1330	1280	1180	1030	860	800	1130
SOUTH	Global	990	1050	950	780	630	570	610	750	960	1190	1130	1000	880
	Diffuse	390	440	490	520	520	510	520	540	540	500	420	380	480
Clear Day	Global	2000	1900	1570	1070	730	610	660	920	1340	1720	1900	1960	1360
WEST	Global	530	660	800	910	980	1030	980	950	870	800	610	490	800
	Diffuse	310	370	460	540	600	620	610	580	510	430	330	290	470
Clear Day	Global	860	1030	1200	1320	1360	1350	1330	1280	1180	1030	860	800	1130

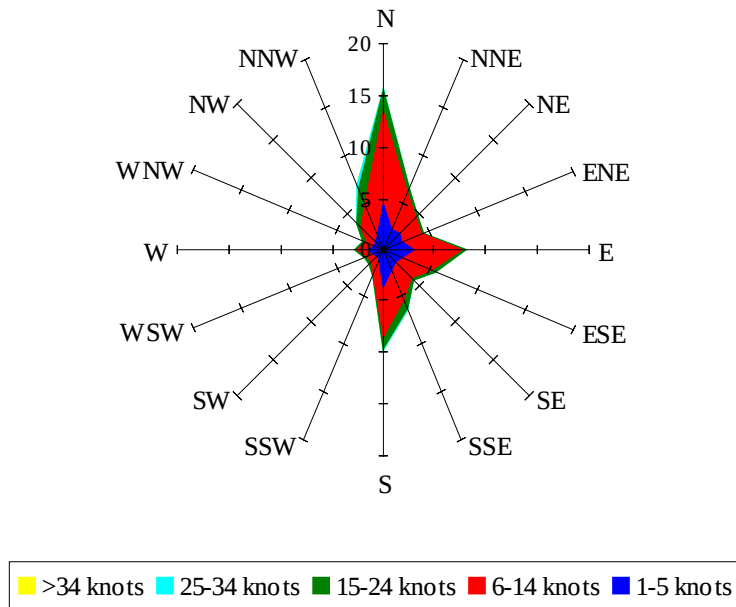
Average Annual Solar Heat and Illumination – Nearest Available Site

(Source: National Renewable Energy Laboratory, Golden CO, 1995)

AVERAGE TRANSMITTED SOLAR RADIATION (Btu/sq.ft./day) FOR DOUBLE GLAZING, Percentage Uncertainty = 9		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
HORIZ	Unshaded	580	760	960	1150	1290	1390	1370	1290	1110	950	670	540	1010
NORTH	Unshaded	180	220	260	310	360	400	380	330	280	240	190	170	280
	Shaded	150	190	230	270	310	340	330	290	250	210	170	140	240
EAST	Unshaded	340	440	520	600	650	720	730	720	640	550	400	330	550
	Shaded	290	370	430	490	540	590	600	600	530	460	350	280	460
SOUTH	Unshaded	730	740	630	480	390	360	380	450	610	830	820	740	600
	Shaded	680	600	370	310	310	320	320	330	340	590	740	710	470
WEST	Unshaded	370	470	570	650	690	730	690	670	610	560	420	340	570
	Shaded	320	400	480	540	570	610	570	560	520	480	360	290	470

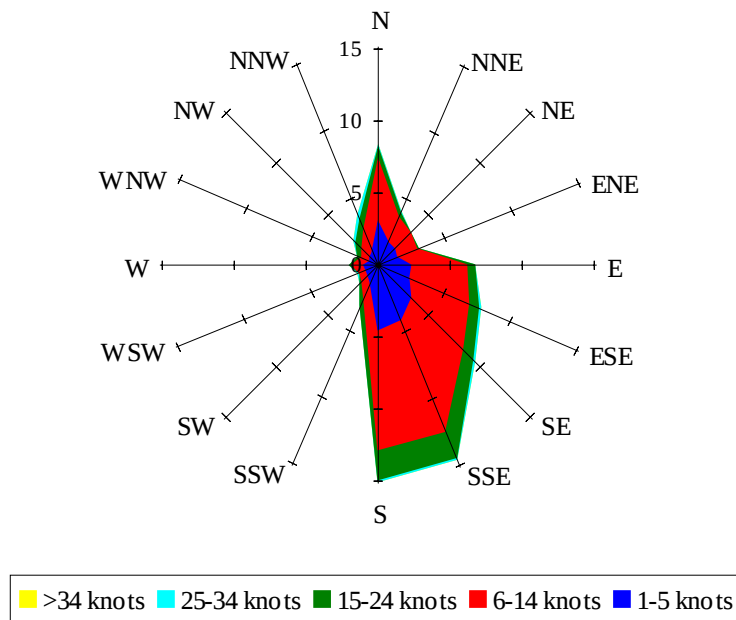
AVERAGE INCIDENT ILLUMINANCE (klux-hr) FOR MOSTLY CLEAR AND MOSTLY CLOUDY CONDITIONS, Percentage Uncertainty = 9		March					June				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	39	78	94	79	39	36	78	101	99	72
	M.Cloudy	20	44	54	45	22	24	56	73	71	51
NORTH	M.Clear	10	15	16	15	10	24	18	17	18	19
	M.Cloudy	9	16	18	16	9	15	18	19	19	18
EAST	M.Clear	77	65	16	15	10	64	74	39	18	17
	M.Cloudy	21	31	19	16	9	31	49	32	19	17
SOUTH	M.Clear	31	61	72	62	31	11	17	29	28	17
	M.Cloudy	12	29	38	31	15	10	18	26	25	17
WEST	M.Clear	10	15	16	65	76	11	17	17	46	74
	M.Cloudy	9	16	19	32	25	10	18	19	36	47
M.Clear	(% hrs)	28	29	30	32	36	42	31	28	30	38
		Sept					Dec				
		9am	11am	1pm	3pm	5pm	9am	11am	1pm	3pm	5pm
HORIZ.	M.Clear	23	68	92	86	56	20	54	65	48	12
	M.Cloudy	15	46	64	61	39	10	29	36	26	7
NORTH	M.Clear	8	15	17	17	14	7	11	13	11	5
	M.Cloudy	7	16	19	18	14	5	12	14	11	4
EAST	M.Clear	53	74	38	17	14	51	50	13	11	5
	M.Cloudy	21	43	30	18	14	12	21	14	11	4
SOUTH	M.Clear	14	45	64	60	38	40	80	91	74	26
	M.Cloudy	8	29	43	40	24	10	28	34	25	8
WEST	M.Clear	8	15	17	48	73	7	11	18	55	37
	M.Cloudy	7	16	19	34	40	5	12	15	21	10
M.Clear	(% hrs)	51	38	33	34	39	29	29	30	32	32

Wind Summary - December, January, and February **Labels of Percent Frequency on North Axis**



Percent Calm = 13.96

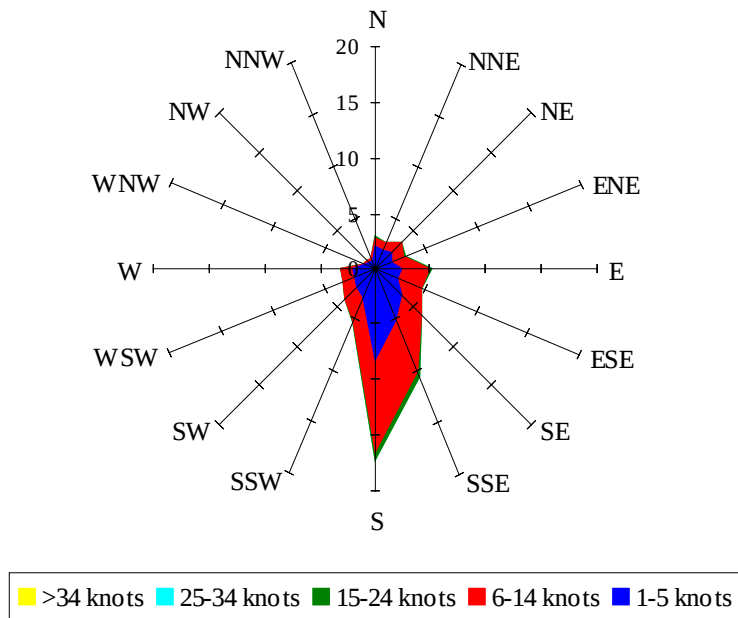
Wind Summary - March, April, and May **Labels of Percent Frequency on North Axis**



Percent Calm = 13.28

Wind Summary - June, July, and August

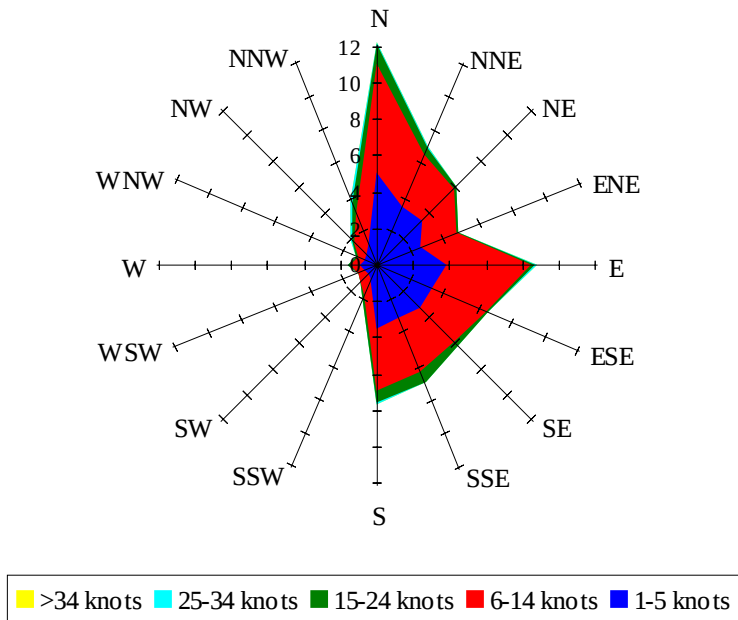
Labels of Percent Frequency on North Axis



Percent Calm = 27.12

Wind Summary - September, October, and November

Labels of Percent Frequency on North Axis



Percent Calm = 21.92