LONDON/GATWICK, UK	
Latitude = 51.15 N	WMO No. 037760
Longitude = 0.18 W	Elevation = 203 feet
Period of Record = 1973 to 1996	Average Pressure = 29.75 inches Hg

Design Criteria Data

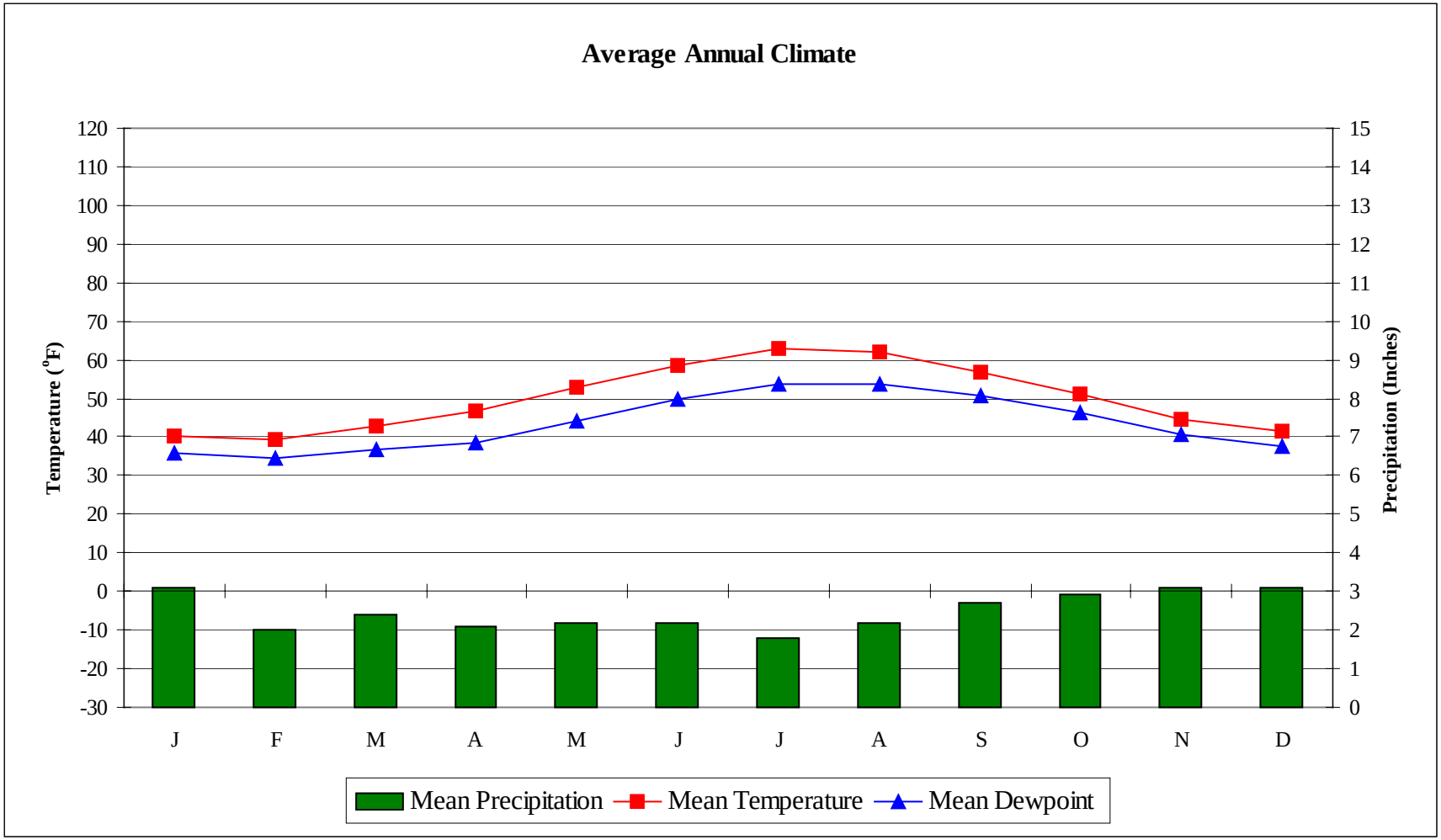
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	84	66	66	8.9	ENE
0.4% Occurrence	81	65	67	8.7	E
1.0% Occurrence	77	63	66	8.5	ENE
2.0% Occurrence	73	62	65	8.8	ENE
Mean Daily Range	14	-	-	-	-
97.5% Occurrence	29	28	20	4.5	ENE
99.0% Occurrence	26	25	18	4.1	ENE
99.6% Occurrence	23	22	15	2.8	ENE
Median of Extreme Lows	19	18	12	2.0	E
		Mean Coincident (Average) Values			
Wet Bulb Temperature (T_{wb})	**Design Value (^oF)**	Dry Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	70	80	90	7.4	SSW
0.4% Occurrence	67	77	81	7.8	SW
1.0% Occurrence	65	74	77	8.1	SW
2.0% Occurrence	63	70	74	8.2	SW
		Mean Coincident (Average) Values			
Humidity Ratio (HR)	**Design Value (gr/lb)**	Dry Bulb Temperature (^oF)	Vapor Pressure (in. Hg)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	97	73	0.65	8.0	SW
0.4% Occurrence	87	68	0.58	7.6	SW
1.0% Occurrence	83	68	0.56	6.9	SW
2.0% Occurrence	80	66	0.54	8.1	SW
Air Conditioning/		$T \geq 93^oF$	$T \geq 80^oF$	$T_{wb} \geq 73^oF$	$T_{wb} \geq 67^oF$
Humid Area Criteria	# of Hours	0	44	0	41

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
6	N/A	N/A	0.0 + 0.0
Ground Water Temperature (^oF) 50 Foot Depth *	Frost Depth 50 Year Recurrence (in.)	Ground Snow Load 50 Year Recurrence (lb/ft^2)	Average Annual Freeze-Thaw Cycles (#)
52.4	N/A	N/A	44

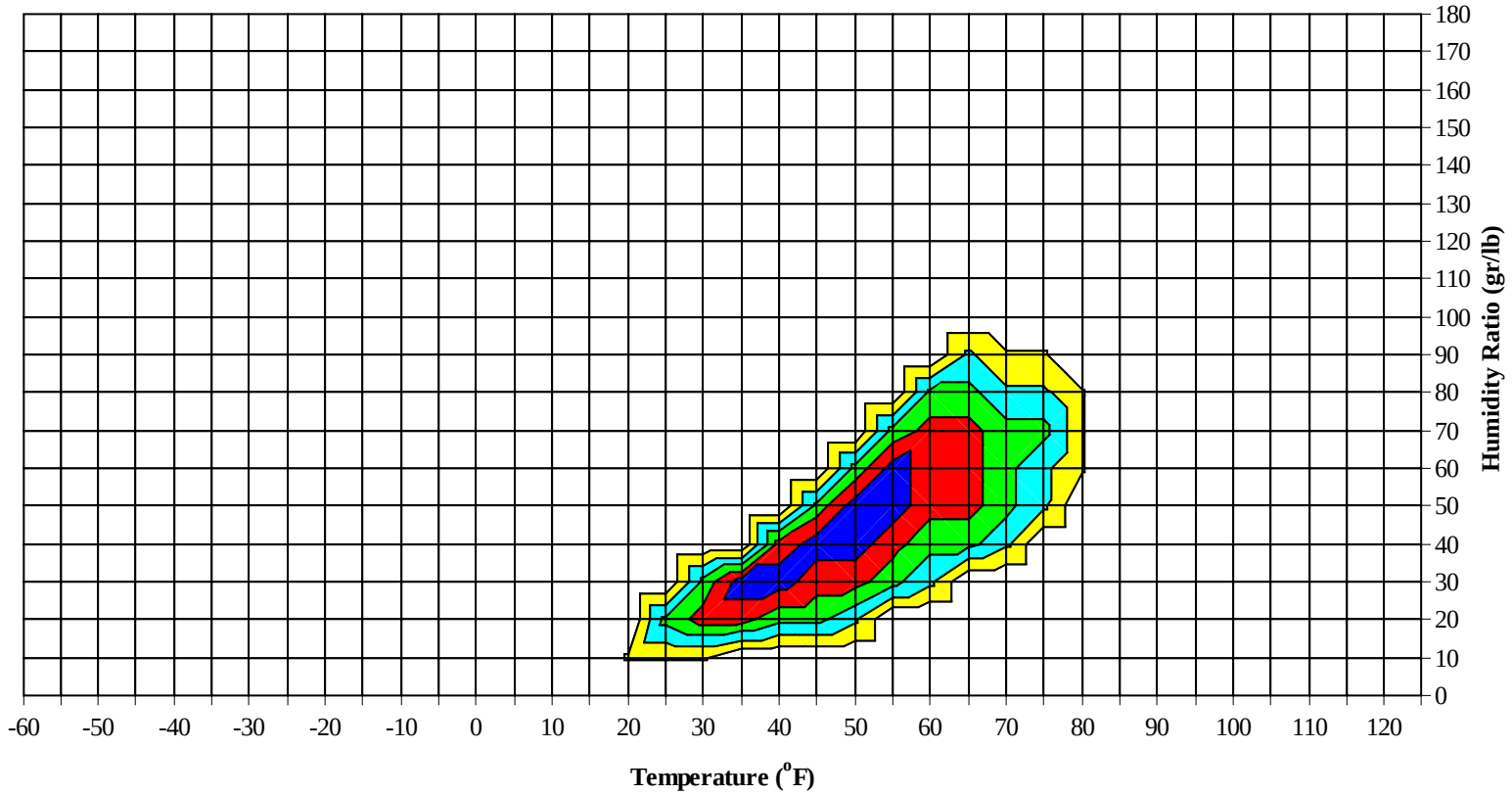
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

LONDON/GATWICK, UK WMO No. 037760



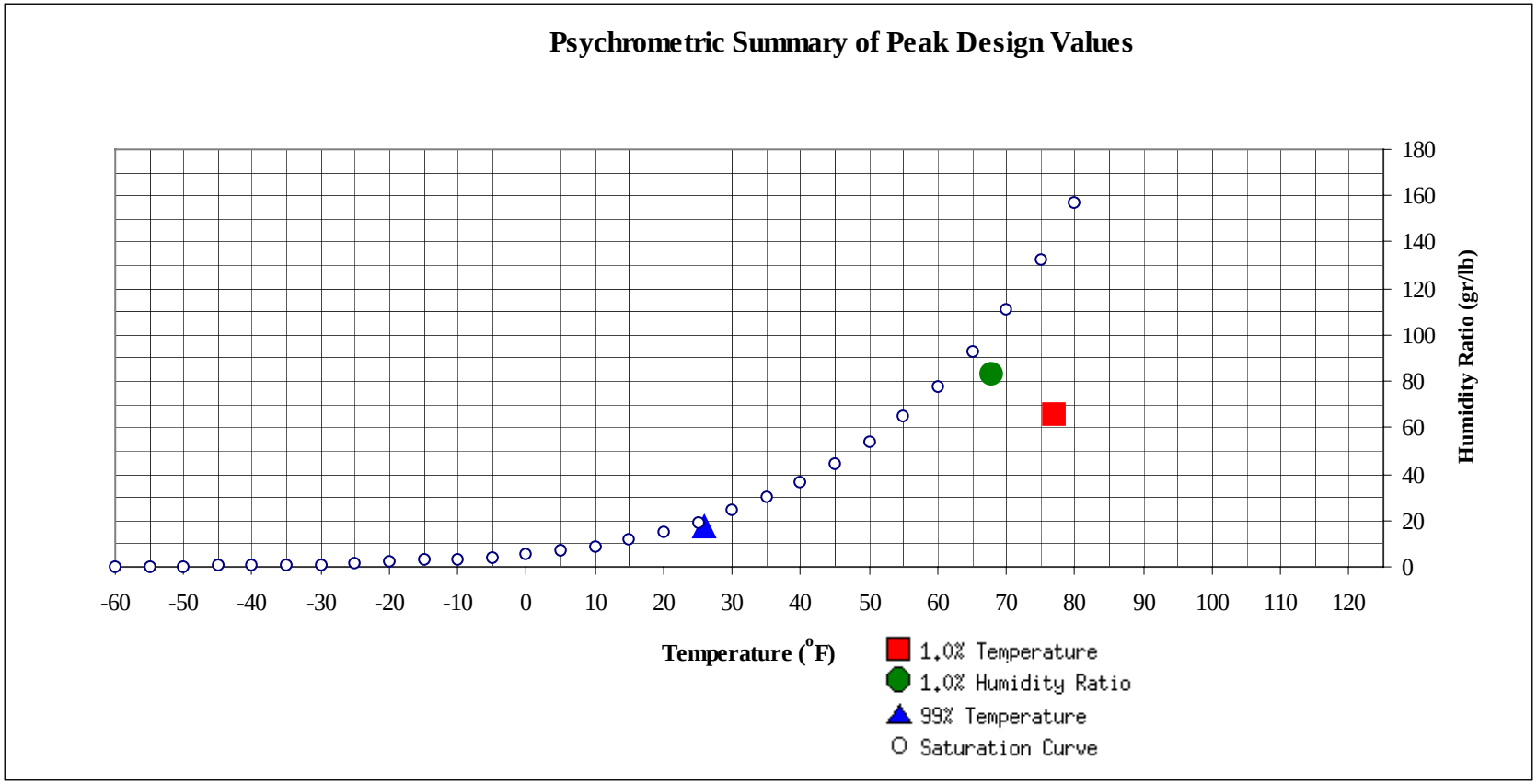
LONDON/GATWICK, UK WMO No. 037760

Long Term Psychrometric Summary



- **50% of all observations**
- **80% of all observations**
- **95% of all observations**
- **97.5% of all observations**
- **99% of all observations**

LONDON/GATWICK, UK WMO No. 037760



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	26	17.4	8.9

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	83.3	67.9	63.9	61.8	29.3

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	77	65.7	63.4	28.8

LONDON/GATWICK, UK WMO No. 037760

Dry-Bulb Temperature Hours For An Average Year (Sheet 1 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	January Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	February Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	March Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79															
70 / 74															
65 / 69												0	0	0	54.0
60 / 64							0		0	54.0		4	1	5	51.8
55 / 59						0	2	0	2	51.0		15	4	19	49.7
50 / 54	17	30	19	66	48.9	5	26	10	41	48.1	12	60	28	100	47.3
45 / 49	50	75	59	185	44.7	41	66	52	158	44.5	47	89	75	211	43.7
40 / 44	50	55	53	158	40.0	36	48	48	132	39.6	60	52	69	180	39.6
35 / 39	53	49	57	159	35.6	55	45	56	156	35.1	63	23	51	137	35.5
30 / 34	43	26	41	110	31.0	51	28	43	122	30.6	49	5	18	72	31.2
25 / 29	24	9	14	47	26.3	26	7	12	45	26.1	16	0	3	19	26.9
20 / 24	7	2	3	12	21.5	7	1	3	11	21.3	2		0	2	22.6
15 / 19	3	1	1	5	16.9	3	0	0	3	17.5					
10 / 14	1	0		1	12.0	1	0	0	1	12.2					
5 / 9						0	0		0	7.4					

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.

LONDON/GATWICK, UK WMO No. 037760

Dry-Bulb Temperature Hours For An Average Year (Sheet 2 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	April					May					June				
	Hour Group (LST)				MCWB	Hour Group (LST)				MCWB	Hour Group (LST)				MCWB
	01 To 08	09 To 16	17 To 00	Total Obs	(°F)	01 To 08	09 To 16	17 To 00	Total Obs	(°F)	01 To 08	09 To 16	17 To 00	Total Obs	(°F)
95 / 99															
90 / 94												0	0	0	67.5
85 / 89												1	0	1	67.4
80 / 84							1	0	1	63.9		5	1	6	64.9
75 / 79							7	1	8	60.9	0	14	6	20	62.9
70 / 74		2	0	2	57.0	0	14	5	19	58.9	1	31	14	46	60.7
65 / 69		7	2	9	54.6	0	22	11	33	56.7	3	39	24	66	58.3
60 / 64	0	19	6	25	52.4	4	44	25	73	53.8	18	66	50	134	56.0
55 / 59	2	43	19	64	49.5	21	76	52	149	51.1	69	67	82	218	53.4
50 / 54	21	72	51	144	46.7	66	60	76	201	48.3	93	15	50	158	50.2
45 / 49	65	65	77	207	43.4	91	23	59	173	44.8	43	1	12	56	45.9
40 / 44	68	26	51	145	39.7	42	2	14	58	40.7	10	0	1	11	41.6
35 / 39	52	6	27	85	35.9	18	0	4	22	36.8	3		0	3	37.4
30 / 34	26	0	7	33	31.5	6		1	7	32.2					
25 / 29	7		0	7	27.2	1			1	27.8					
20 / 24	0			0	23.4										
15 / 19															
10 / 14															
5 / 9															

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.

LONDON/GATWICK, UK WMO No. 037760

Dry-Bulb Temperature Hours For An Average Year (Sheet 3 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	July Hour Group (LST) 01 To 08	July 09 To 16	July 17 To 00	July Total Obs	July MCWB (°F)	August Hour Group (LST) 01 To 08	August 09 To 16	August 17 To 00	August Total Obs	August MCWB (°F)	September Hour Group (LST) 01 To 08	September 09 To 16	September 17 To 00	September Total Obs	September MCWB (°F)
95 / 99							0		0	68.0					
90 / 94		1	0	1	67.7		1	0	1	67.8					
85 / 89		3	1	4	66.6		2	1	3	66.4					
80 / 84		11	3	14	65.8		9	2	11	64.7		1		1	66.3
75 / 79	0	29	12	41	64.1	0	26	8	34	63.6		5	1	6	63.8
70 / 74	2	53	27	82	61.9	1	49	21	71	61.7		18	3	21	61.3
65 / 69	11	61	45	117	59.8	7	69	41	117	59.6	0	43	13	56	58.9
60 / 64	61	69	78	208	58.0	56	72	82	210	58.1	24	92	54	170	57.2
55 / 59	100	21	63	184	54.9	95	19	69	182	55.1	67	64	84	215	54.0
50 / 54	58	1	17	76	50.9	60	2	20	83	50.9	70	16	58	144	50.3
45 / 49	14		1	15	46.6	23		4	27	46.5	48	2	22	72	46.0
40 / 44	2			2	42.8	4		0	4	42.4	24		5	29	41.8
35 / 39	0			0	39.0	1			1	38.5	7		0	7	37.7
30 / 34															
25 / 29															
20 / 24															
15 / 19															
10 / 14															
5 / 9															

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.

LONDON/GATWICK, UK WMO No. 037760

Dry-Bulb Temperature Hours For An Average Year (Sheet 4 of 5)

Period of Record = 1973 to 1996

Temperature Range (°F)	October					November					December				
	Hour Group (LST)				MCWB	Hour Group (LST)				MCWB	Hour Group (LST)				MCWB
	01 To 08	09 To 16	17 To 00	Total Obs	(°F)	01 To 08	09 To 16	17 To 00	Total Obs	(°F)	01 To 08	09 To 16	17 To 00	Total Obs	(°F)
95 / 99															
90 / 94															
85 / 89															
80 / 84															
75 / 79		0		0	62.5										
70 / 74		2	0	2	62.1										
65 / 69	0	8	1	9	59.5										
60 / 64	6	41	15	62	57.3		3	0	3	56.5					
55 / 59	41	86	58	185	53.7	16	34	19	69	54.1	3	7	3	13	53.0
50 / 54	59	72	71	202	49.5	43	63	49	155	49.8	32	43	36	111	49.6
45 / 49	65	30	60	155	45.1	43	68	55	166	44.6	49	65	51	165	44.9
40 / 44	35	6	27	68	41.1	46	41	46	133	40.1	47	59	55	161	40.0
35 / 39	27	2	12	41	36.8	40	22	41	103	36.0	50	46	51	147	35.7
30 / 34	14	0	4	18	32.1	32	8	22	62	31.5	40	22	36	98	31.3
25 / 29	2		0	2	27.6	15	2	7	24	26.9	18	5	13	36	26.4
20 / 24						4	0	1	5	22.2	8	1	2	11	22.2
15 / 19						1	0	0	1	18.5	1	0	0	1	18.4
10 / 14											0		0	0	11.8
5 / 9															

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.

LONDON/GATWICK, UK WMO No. 037760

Dry-Bulb Temperature Hours For An Average Year (Sheet 5 of 5)

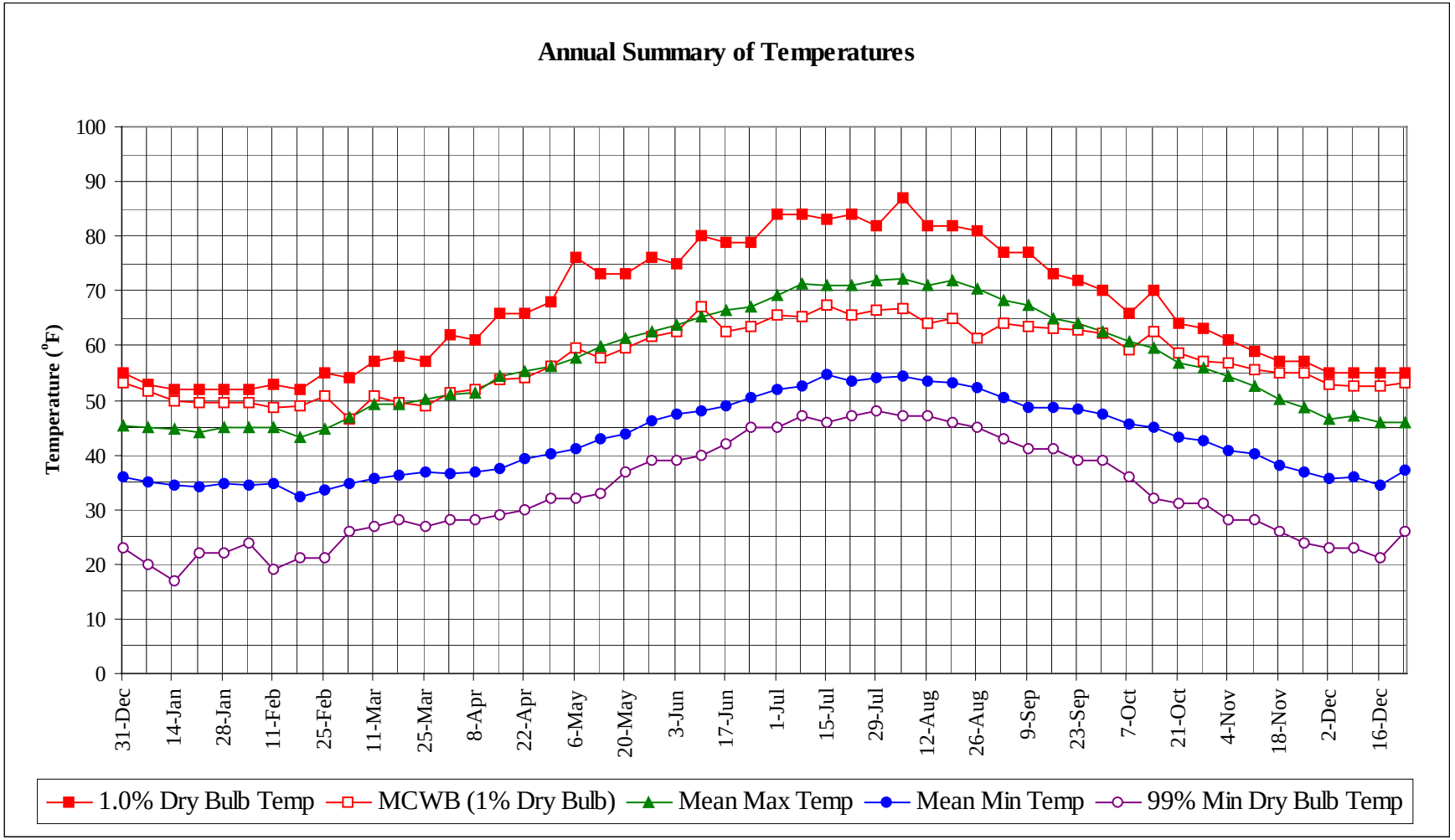
Period of Record = 1973 to 1996

Annual Totals

Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
95 / 99		0		0	68.0
90 / 94		2	0	2	67.7
85 / 89		6	2	8	66.7
80 / 84		27	7	34	65.2
75 / 79	0	80	28	108	63.4
70 / 74	4	168	71	243	61.3
65 / 69	23	249	137	409	59.0
60 / 64	169	410	311	890	57.0
55 / 59	411	434	452	1297	53.5
50 / 54	536	458	485	1479	49.2
45 / 49	580	484	527	1591	44.6
40 / 44	423	290	370	1083	40.1
35 / 39	369	193	299	861	35.7
30 / 34	260	90	170	520	31.1
25 / 29	109	24	48	181	26.5
20 / 24	27	4	9	40	21.8
15 / 19	8	1	2	11	17.4
10 / 14	2	0	0	2	12.1
5 / 9	0	0		0	7.4

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.

LONDON/GATWICK, UK WMO No. 037760



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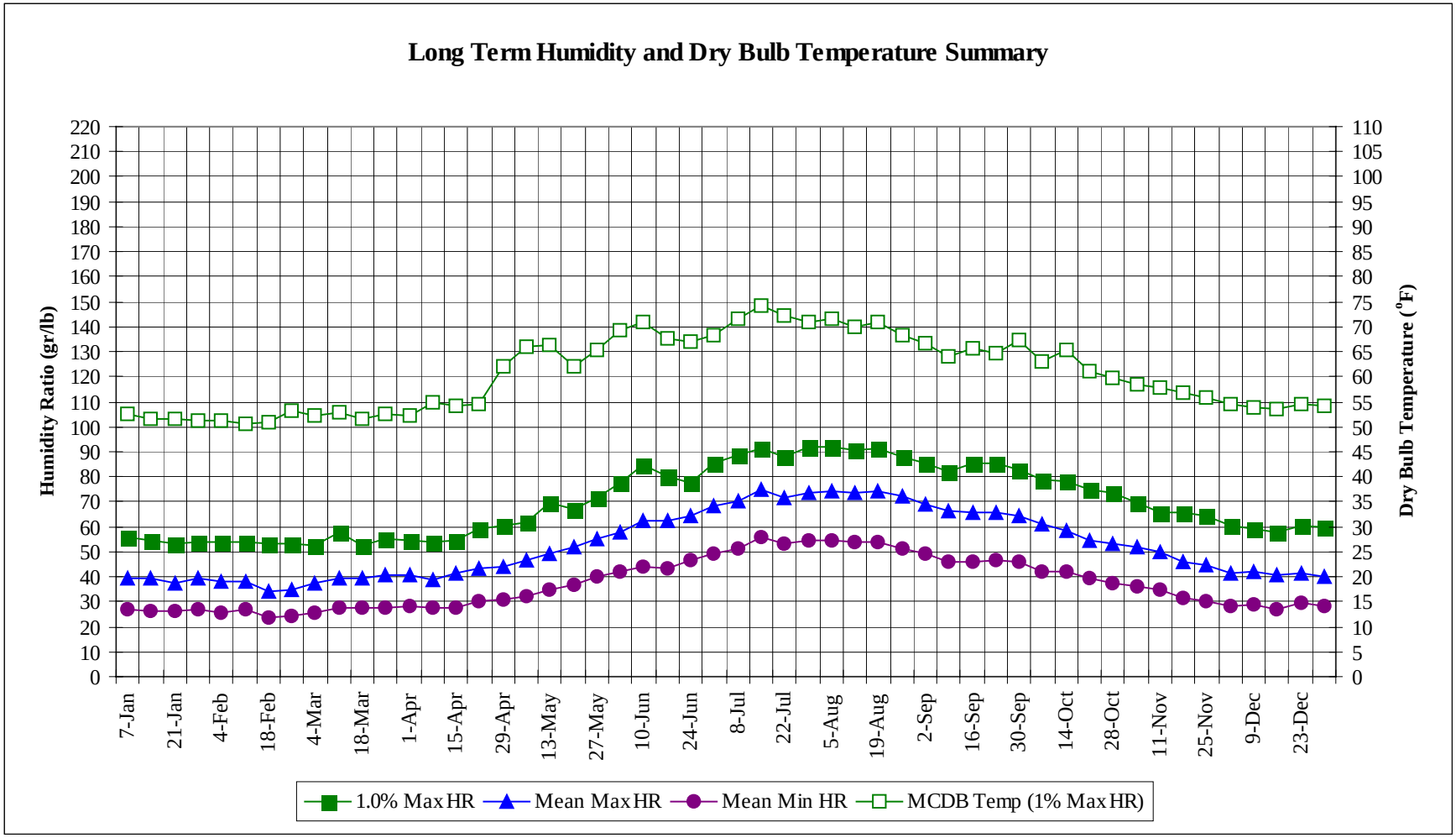
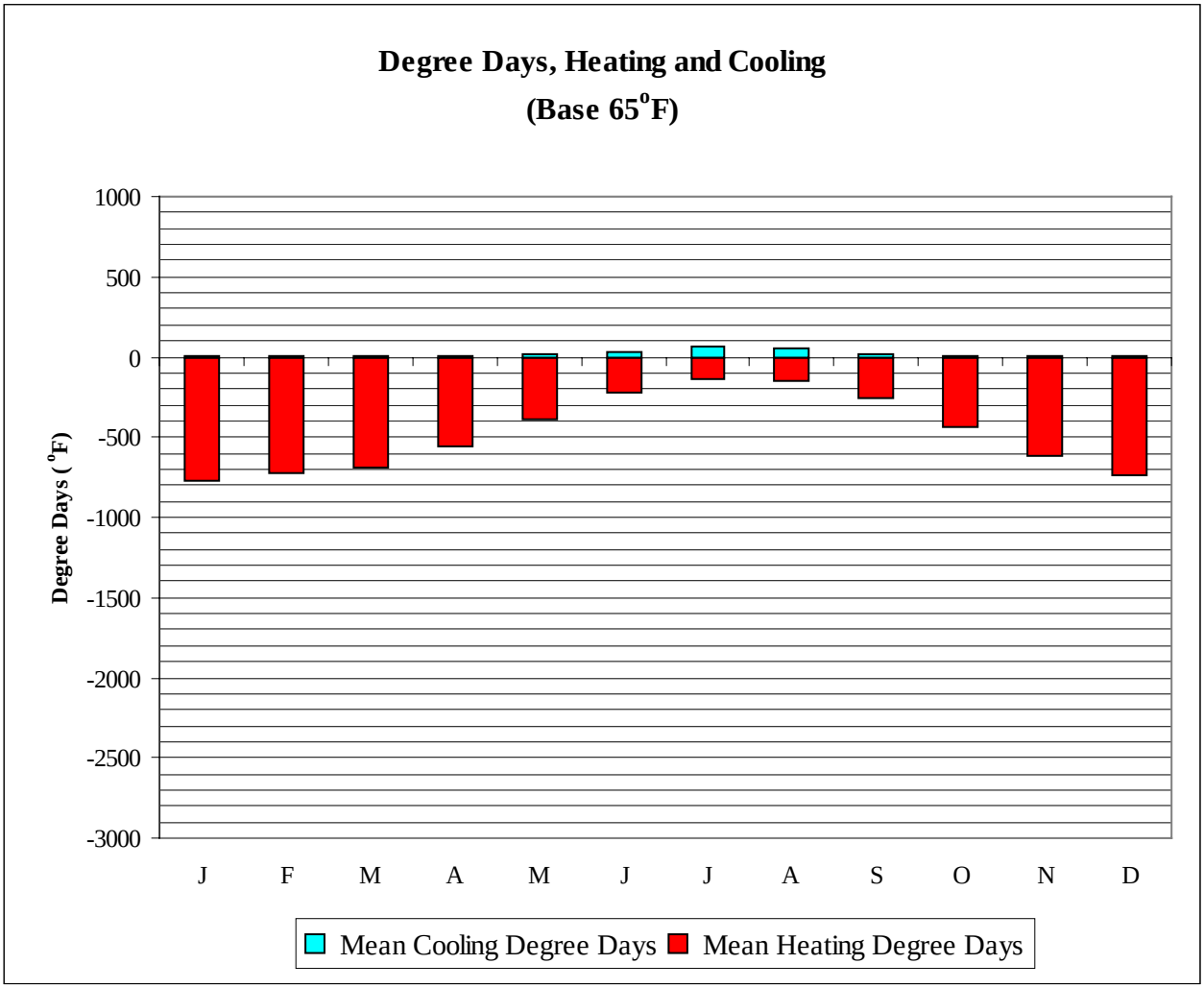


LONDON/GATWICK, UK WMO No. 037760

Long Term Dry Bulb Temperature and Humidity Summary

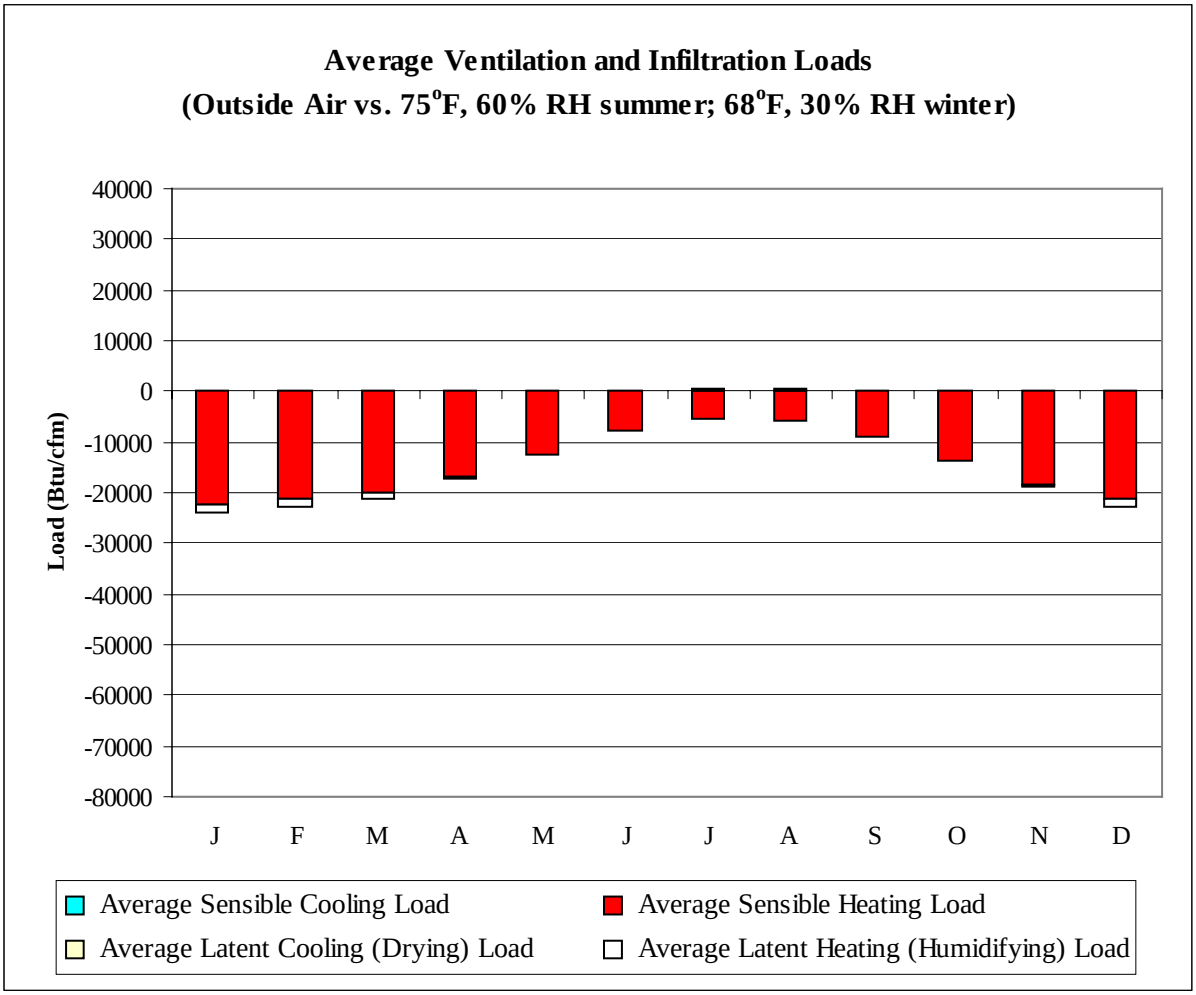
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	53.0	51.7	45.1	35.0	20.0	56.0	52.4	39.7	27.0
14-Jan	52.0	49.8	44.7	34.5	17.0	54.6	51.5	39.2	26.6
21-Jan	52.0	49.5	44.1	34.1	22.0	53.2	51.5	37.6	26.1
28-Jan	52.0	49.7	45.2	34.7	22.0	53.9	51.2	39.3	26.8
4-Feb	52.0	49.6	44.9	34.3	24.0	53.9	51.2	38.3	25.9
11-Feb	53.0	48.6	45.0	34.6	19.0	53.9	50.7	38.4	26.7
18-Feb	52.0	48.9	43.2	32.2	21.0	53.2	51.0	34.1	23.6
25-Feb	55.0	50.7	44.6	33.5	21.0	53.2	53.3	34.9	24.6
4-Mar	54.0	46.6	46.9	34.6	26.0	52.5	52.2	37.7	25.9
11-Mar	57.0	50.8	49.3	35.6	27.0	58.1	53.0	39.5	27.4
18-Mar	58.0	49.5	49.2	36.3	28.0	52.5	51.5	39.4	27.5
25-Mar	57.0	49.1	50.0	36.8	27.0	55.3	52.4	40.7	27.5
1-Apr	62.0	51.4	51.0	36.7	28.0	54.6	52.2	40.4	28.0
8-Apr	61.0	52.1	51.3	36.9	28.0	53.9	55.0	38.7	27.4
15-Apr	66.0	53.8	54.3	37.6	29.0	54.6	54.2	41.4	27.8
22-Apr	66.0	54.2	55.3	39.4	30.0	58.8	54.6	43.1	30.4
29-Apr	68.0	56.1	56.1	40.1	32.0	60.2	62.0	44.2	30.6
6-May	76.0	59.5	57.9	40.9	32.0	61.6	66.0	46.8	32.3
13-May	73.0	57.8	59.9	42.9	33.0	69.3	66.3	49.5	34.6
20-May	73.0	59.6	61.3	43.9	37.0	67.2	62.1	51.7	36.6
27-May	76.0	61.7	62.6	46.1	39.0	71.4	65.3	54.9	40.0
3-Jun	75.0	62.6	63.7	47.3	39.0	77.7	69.4	57.9	42.3
10-Jun	80.0	67.2	65.2	48.2	40.0	84.7	71.1	62.2	44.2
17-Jun	79.0	62.6	66.6	49.1	42.0	79.8	67.5	62.1	43.6
24-Jun	79.0	63.6	67.2	50.5	45.0	77.7	67.1	64.4	46.6
1-Jul	84.0	65.6	69.1	51.8	45.0	85.4	68.5	68.0	48.9
8-Jul	84.0	65.3	71.3	52.6	47.0	88.9	71.5	70.4	50.9
15-Jul	83.0	67.3	71.0	54.6	46.0	91.0	74.1	74.8	55.7
22-Jul	84.0	65.5	70.9	53.5	47.0	88.2	72.1	71.9	53.1
29-Jul	82.0	66.3	72.0	54.0	48.0	91.7	70.9	73.6	54.6
5-Aug	87.0	66.6	72.2	54.3	47.0	91.7	71.5	74.5	54.8
12-Aug	82.0	64.2	71.0	53.6	47.0	90.3	69.9	73.4	54.0
19-Aug	82.0	64.8	71.8	53.2	46.0	91.0	70.9	74.4	54.1
26-Aug	81.0	61.5	70.3	52.3	45.0	88.2	68.4	72.4	51.3
2-Sep	77.0	64.0	68.3	50.5	43.0	85.4	66.5	68.8	49.1
9-Sep	77.0	63.6	67.5	48.8	41.0	81.9	64.0	66.5	46.2
16-Sep	73.0	63.0	64.9	48.5	41.0	85.4	65.8	65.8	46.3
23-Sep	72.0	62.8	63.9	48.2	39.0	85.4	64.5	65.5	46.4
30-Sep	70.0	62.2	62.6	47.6	39.0	82.6	67.4	64.0	46.0
7-Oct	66.0	59.3	60.6	45.6	36.0	79.1	63.1	61.2	42.3
14-Oct	70.0	62.6	59.6	44.9	32.0	78.4	65.4	58.7	42.3
21-Oct	64.0	58.5	56.8	43.3	31.0	74.9	61.2	54.8	39.2
28-Oct	63.0	57.2	56.0	42.6	31.0	73.5	59.7	53.5	37.4
4-Nov	61.0	56.8	54.3	40.6	28.0	69.3	58.4	51.7	36.2
11-Nov	59.0	55.7	52.6	40.3	28.0	65.8	57.8	50.1	34.9
18-Nov	57.0	54.9	50.2	38.1	26.0	65.8	56.7	46.2	31.7
25-Nov	57.0	55.0	48.8	36.9	24.0	64.4	55.8	44.4	30.1
2-Dec	55.0	52.9	46.6	35.6	23.0	60.2	54.4	41.5	28.4
9-Dec	55.0	52.7	47.0	35.9	23.0	58.8	53.9	42.3	28.8
16-Dec	55.0	52.6	46.0	34.5	21.0	58.1	53.4	40.9	27.1
23-Dec	55.0	53.1	46.0	37.2	26.0	60.2	54.5	41.6	29.4
31-Dec	55.0	53.2	45.3	35.9	23.0	59.5	54.1	40.0	28.5

LONDON/GATWICK, UK WMO No. 037760



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	0	774
FEB	0	725
MAR	0	683
APR	1	553
MAY	12	389
JUN	33	227
JUL	65	137
AUG	57	152
SEP	12	258
OCT	1	437
NOV	0	614
DEC	0	731
ANN	181	5680

LONDON/GATWICK, UK WMO No. 037760

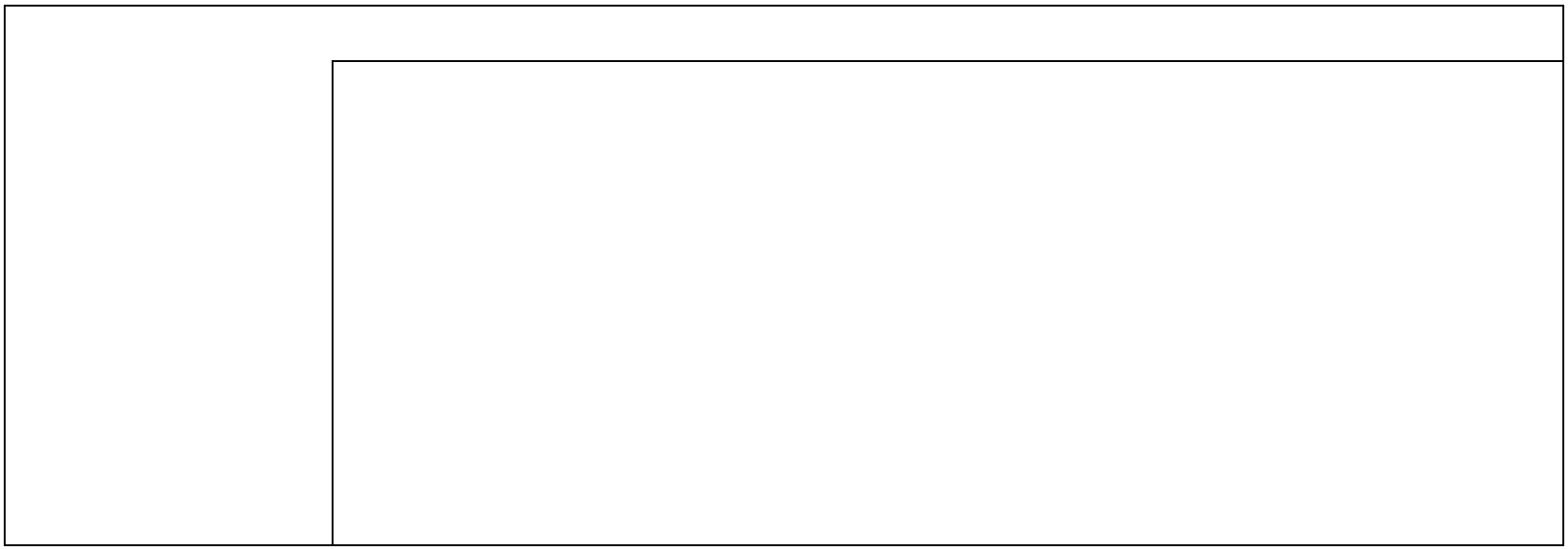


	Average Sensible Cooling Load (Btu/cfm)	Average Sensible Heating Load (Btu/cfm)	Average Latent Cooling Load (Btu/cfm)	Average Latent Heating Load (Btu/cfm)
JAN	0	-22480	0	-1550
FEB	0	-20989	0	-1792
MAR	0	-20121	0	-1233
APR	0	-16657	0	-754
MAY	18	-12354	2	-175
JUN	100	-7861	50	-9
JUL	234	-5279	234	0
AUG	202	-5751	181	0
SEP	12	-8843	63	-3
OCT	0	-13717	3	-120
NOV	0	-18241	0	-717
DEC	0	-21355	0	-1236
ANN	566	-173648	533	-7589

Average Annual Solar Radiation – Nearest Available Site

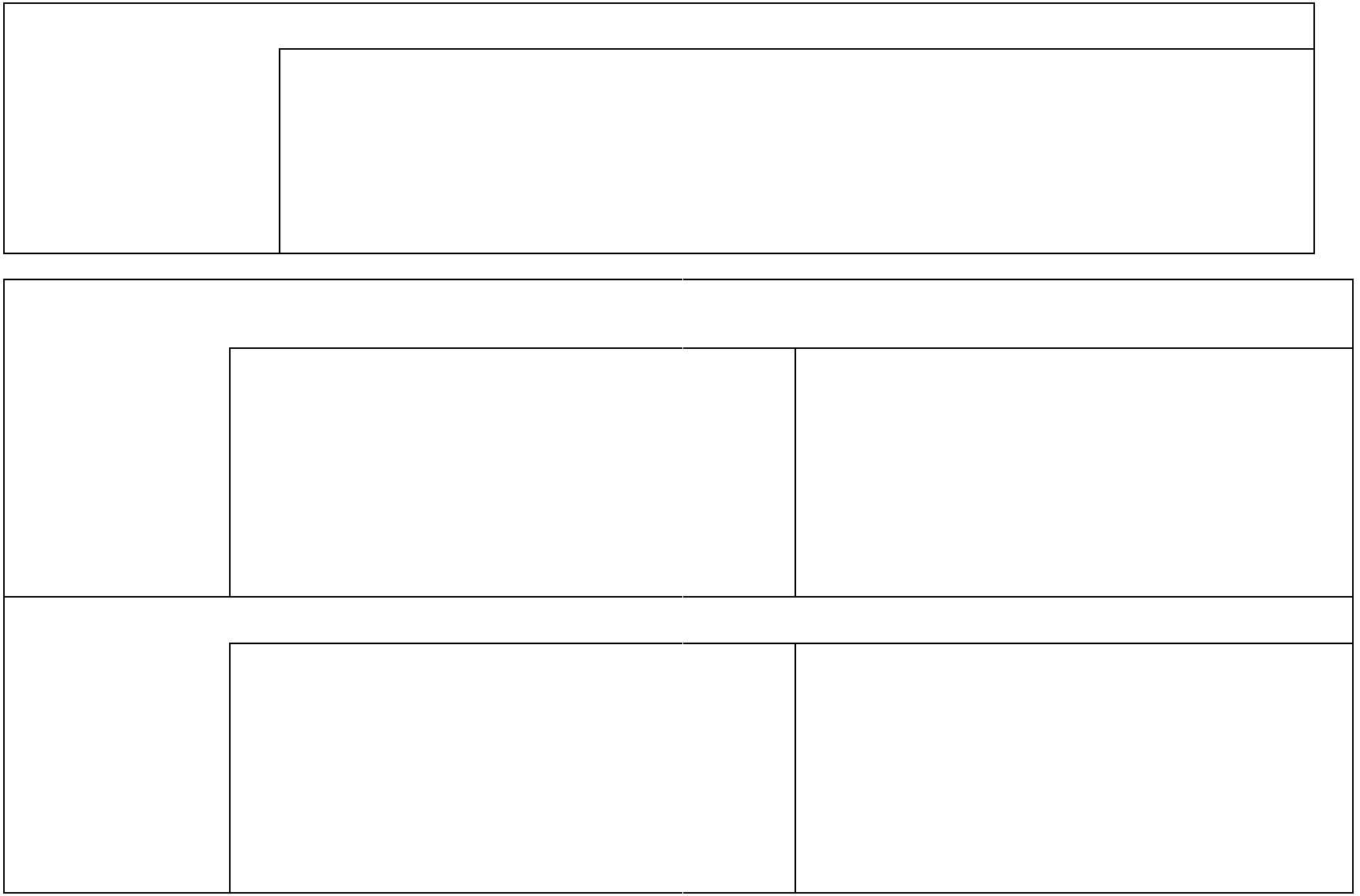
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

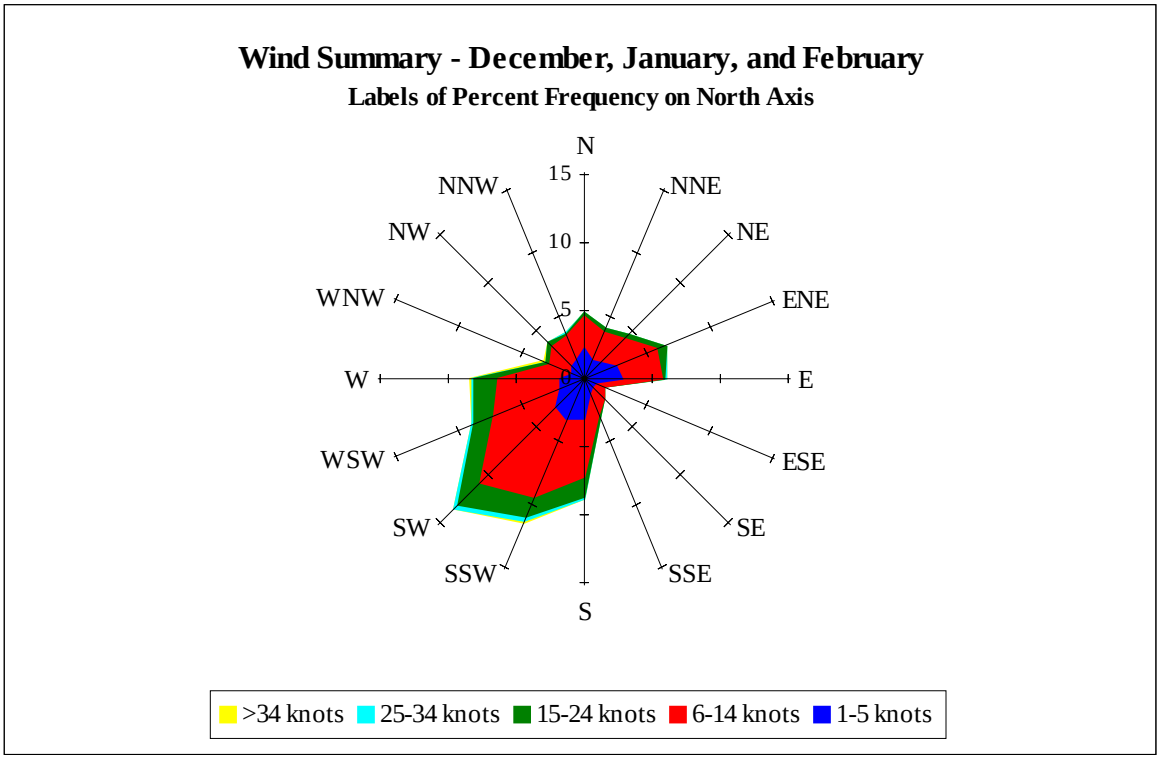
No Solar Radiation
Data Available



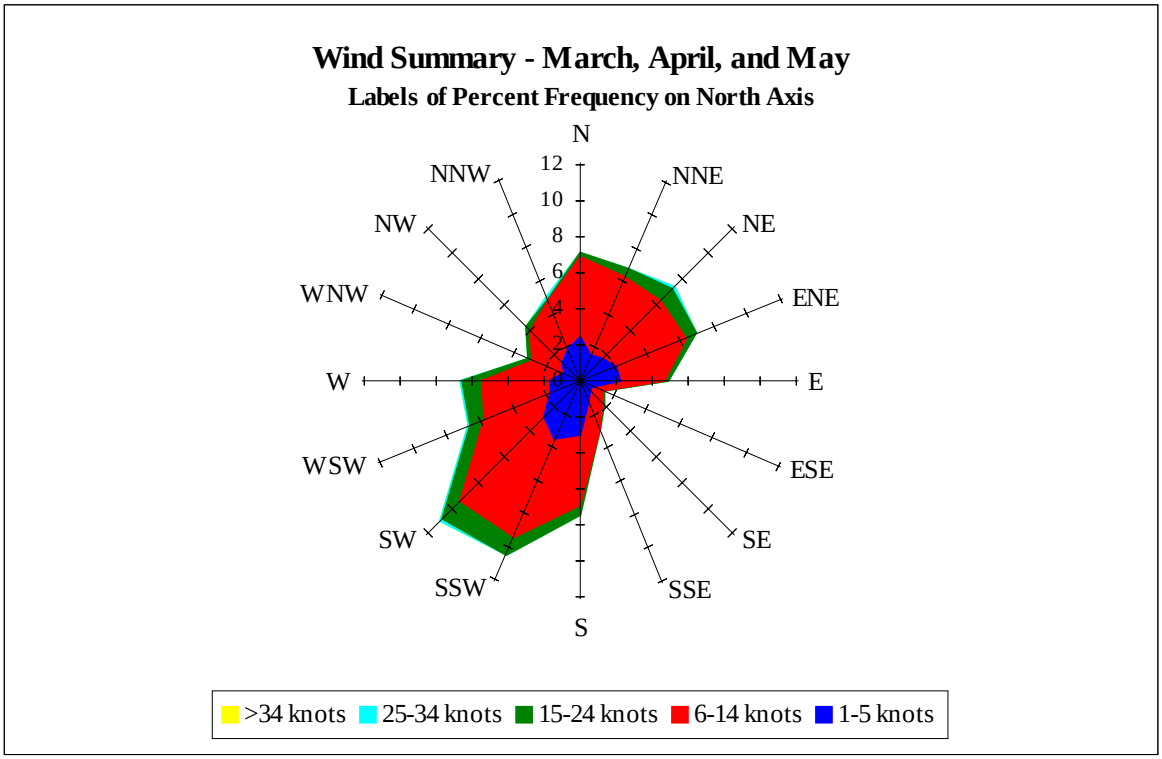
Average Annual Solar Heat and Illumination – Nearest Available Site

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

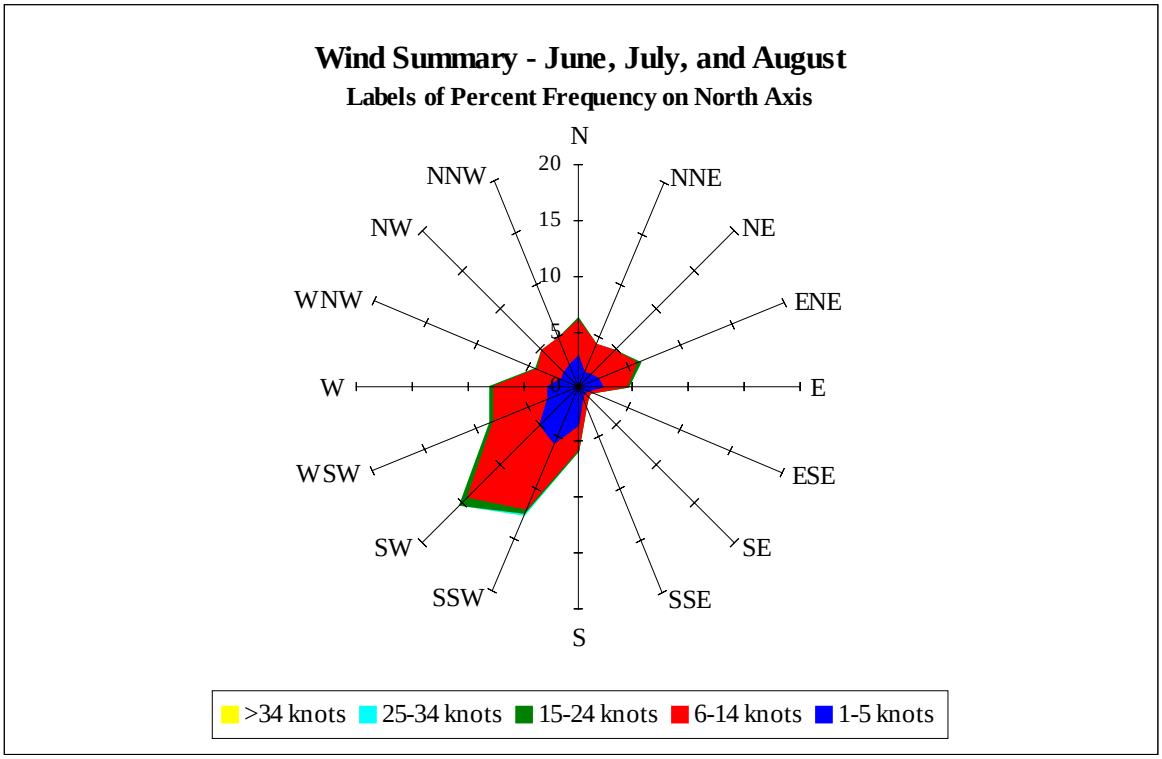




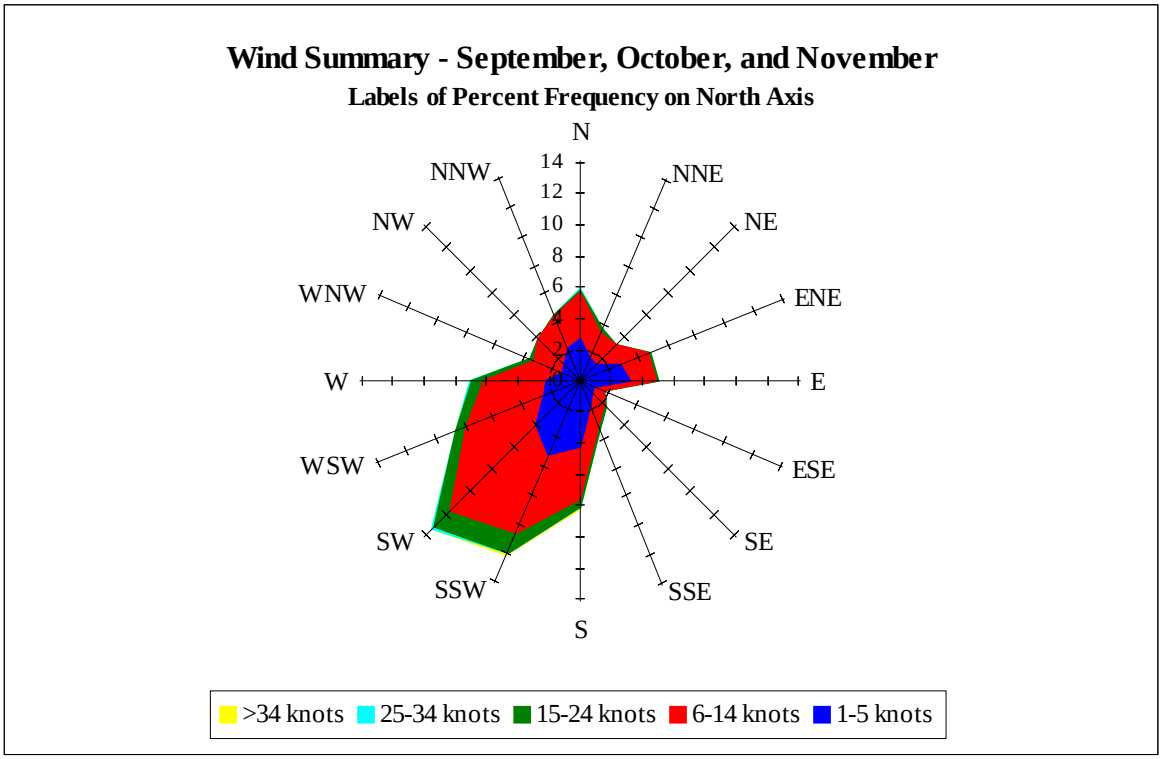
Percent Calm = 6.68



Percent Calm = 6.69



Percent Calm = 7.70



Percent Calm = 9.62