ZANDERY/PARAMARIBO SM	
Latitude = 5.45 N	WMO No. 812250
Longitude = 55.20 W	Elevation = 49 feet
Period of Record = 1973 to 1995	Average Pressure = 29.80 inches Hg

Design Criteria Data

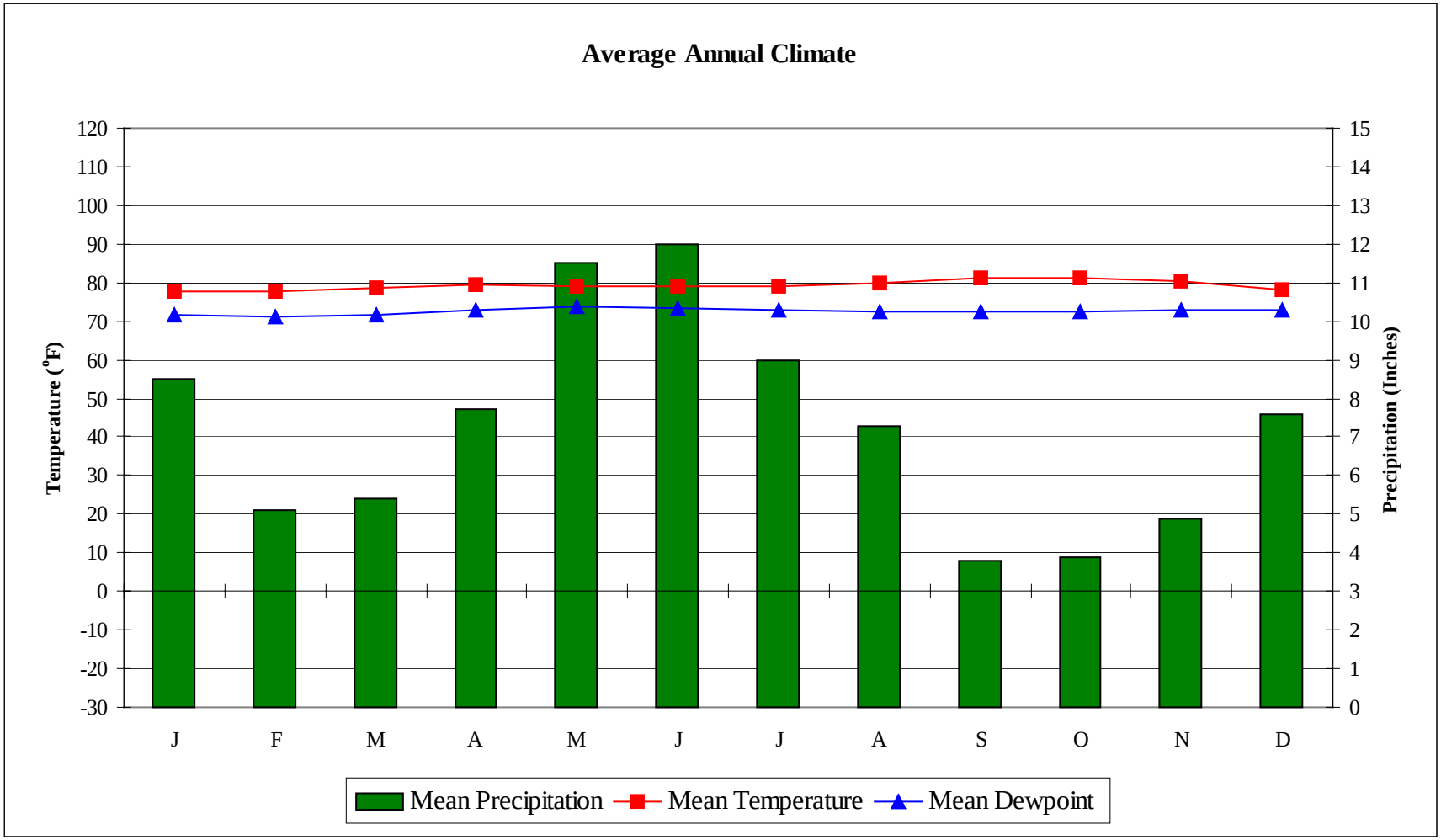
		Mean Coincident (Average) Values			
Dry Bulb Temperature (T)	**Design Value (^oF)**	Wet Bulb Temperature (^oF)	Humidity Ratio (gr/lb)	Wind Speed (mph)	Prevailing Direction (NSEW)
Median of Extreme Highs	97	76	105	7.4	E
0.4% Occurrence	95	77	109	7.3	E
1.0% Occurrence	93	77	112	7.1	E
2.0% Occurrence	93	77	112	7.1	E
Mean Daily Range	15	-	-	-	-
97.5% Occurrence	72	72	116	0.3	E
99.0% Occurrence	70	69	105	0.1	MISSING
99.6% Occurrence	68	67	98	0.1	MISSING
Median of Extreme Lows	66	65	93	0.0	CALM
		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	84	88	171	7.2	E
0.4% Occurrence	80	88	137	6.8	NNE
1.0% Occurrence	79	87	133	6.4	E
2.0% Occurrence	79	87	133	6.4	E
		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	168	88	1.12	4.9	NNE
0.4% Occurrence	143	83	0.94	4.7	N
1.0% Occurrence	141	82	0.94	4.5	NNE
2.0% Occurrence	141	82	0.94	4.5	NNE
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	213	3339	6759	8452

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	N/A	N/A	10.5 + 3.9
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 (#)**
81.8	N/A	N/A	0

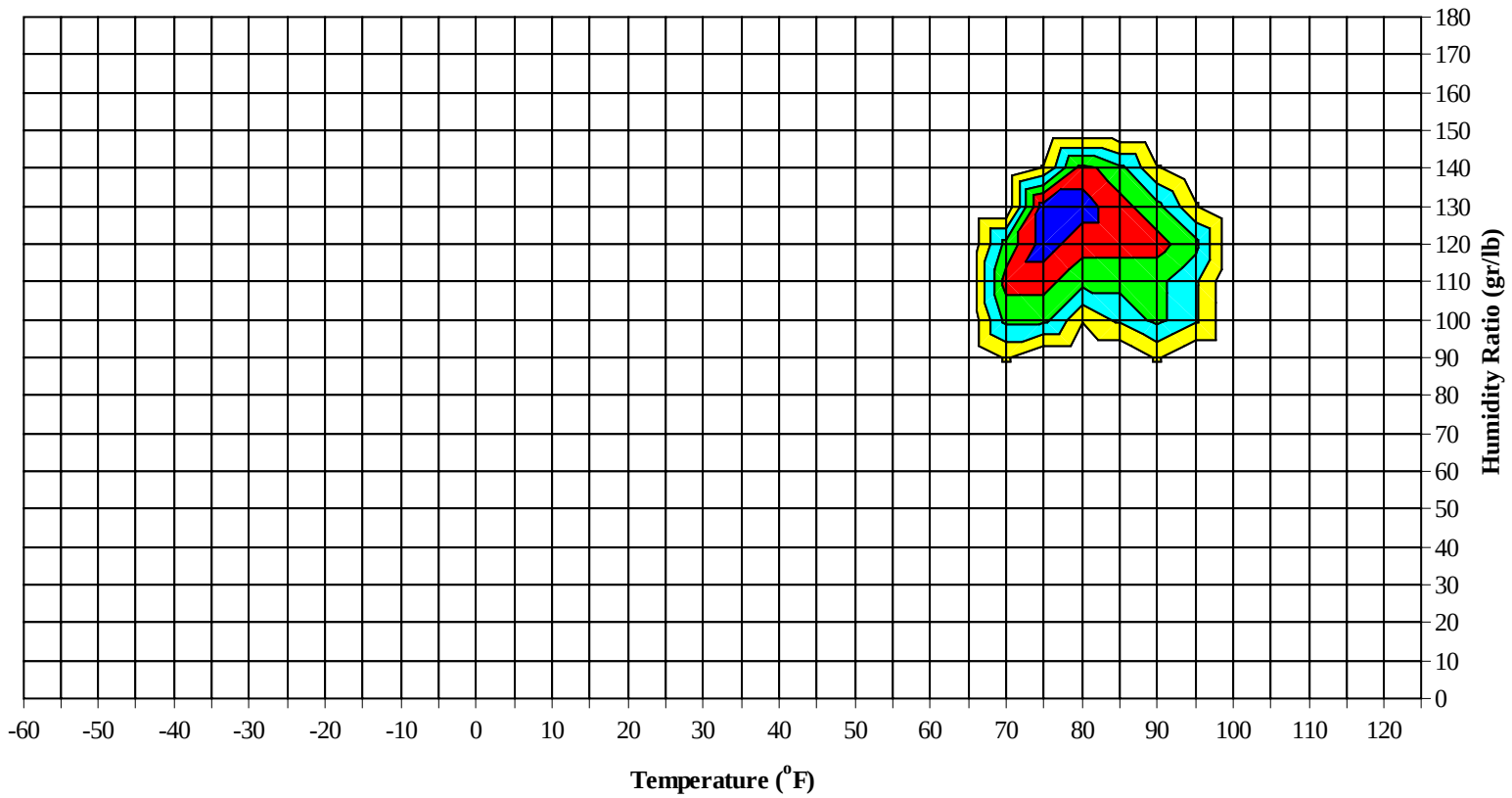
*Note: Temperatures at greater depths can be estimated by adding 1.5°F per 100 feet additional depth.

ZANDERY/PARAMARIBO SM WMO No. 812250



ZANDERY/PARAMARIBO SM WMO No. 812250

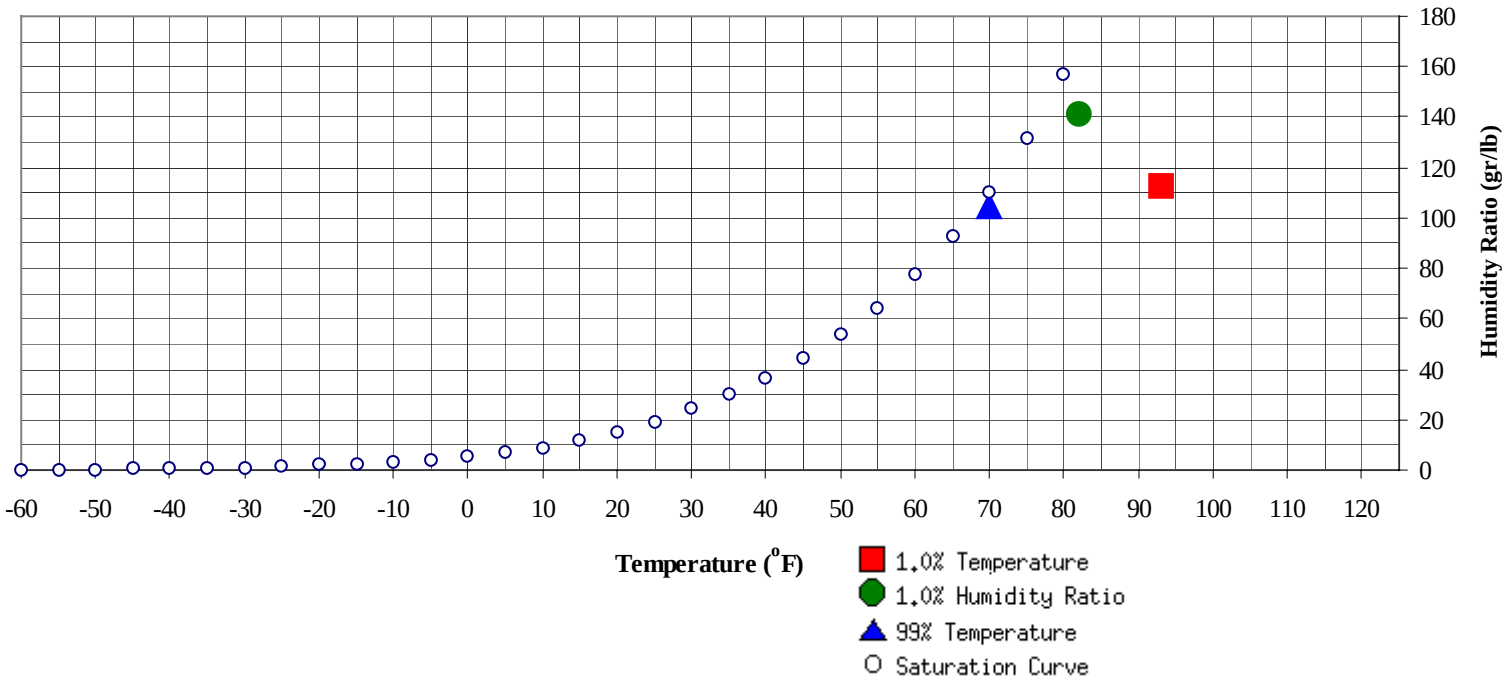
Long Term Psychrometric Summary



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

ZANDERY/PARAMARIBO SM WMO No. 812250

Psychrometric Summary of Peak Design Values



	(°F)	MCHR (gr/lb)	Enthalpy (btu/lb)
99% Dry Bulb	70	104.6	33.1

	(gr/lb)	MCDB (°F)	MCWB (°F)	MC Dewpt (°F)	Enthalpy (btu/lb)
1.0% Humidity Ratio	141.4	82	78.4	77	41.8

	(°F)	MCHR (gr/lb)	MCWB (°F)	Enthalpy (btu/lb)
1.0% Dry Bulb	93	112.8	76.8	40.1

ZANDERY/PARAMARIBO SM WMO No. 812250

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

Period of Record = 1973 to 1995

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)
105 / 109															
100 / 104															
95 / 99												1	0	1	76.9
90 / 94	0	16	2	18	76.2		18	2	20	75.3		36	6	42	75.8
85 / 89	0	71	14	85	75.7	0	67	20	87	75.0	0	74	22	95	75.6
80 / 84	0	84	46	130	75.4	0	73	38	110	75.0	0	74	48	123	75.4
75 / 79	48	70	140	258	73.9	40	58	128	226	73.5	64	59	144	267	73.7
70 / 74	184	7	46	237	71.2	155	8	36	199	70.7	168	4	28	200	71.0
65 / 69	17	0	0	17	66.9	28		0	28	66.8	16	0		16	66.8
60 / 64	0	0		0	63.3	1			1	63.3	0			0	63.8

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.

ZANDERY/PARAMARIBO SM WMO No. 812250

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

Period of Record = 1973 to 1995

Temperature Range (°F)	April Hour Group (LST) 01 To 08	April 09 To 16	April 17 To 00	April Total Obs	April MCWB (°F)	May Hour Group (LST) 01 To 08	May 09 To 16	May 17 To 00	May Total Obs	May MCWB (°F)	June Hour Group (LST) 01 To 08	June 09 To 16	June 17 To 00	June Total Obs	June MCWB (°F)
105 / 109															
100 / 104		0		0	80.5										
95 / 99		2	0	2	76.7		0	0	0	79.0		0		0	77.5
90 / 94	0	42	5	47	76.7	0	32	3	35	77.6		32	5	37	77.4
85 / 89	0	69	21	89	76.5	0	67	14	80	77.2	0	72	9	81	77.0
80 / 84	0	78	49	127	76.2	0	92	43	135	76.8	0	81	35	116	76.7
75 / 79	122	48	151	322	74.5	163	56	180	400	74.9	121	54	178	353	74.7
70 / 74	112	1	14	127	71.3	84	1	8	93	71.9	119	1	13	133	72.2
65 / 69	6	0		6	67.0	1	0		1	67.6		0		0	
60 / 64															

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.

ZANDERY/PARAMARIBO SM WMO No. 812250

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

Period of Record = 1973 to 1995

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)
105 / 109															
100 / 104															
95 / 99		0	0	0	77.7		2	1	3	77.1		18	3	21	76.7
90 / 94	0	48	9	57	76.7	0	85	18	102	76.9	0	100	25	125	76.7
85 / 89	0	78	13	92	76.5	0	69	16	85	76.6	0	51	17	68	76.7
80 / 84	0	69	38	108	76.1	0	57	45	102	76.2	0	51	60	112	76.0
75 / 79	77	51	157	285	74.4	107	34	150	292	74.4	133	20	123	275	74.4
70 / 74	171	2	30	203	71.8	141	1	19	160	71.7	107	1	12	120	71.7
65 / 69	0	0		0	66.8	0	0	0	0	67.0					
60 / 64							0	0	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.

ZANDERY/PARAMARIBO SM WMO No. 812250

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

Period of Record = 1973 to 1995

Temperature Range (°F)	October Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	November Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)	December Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
105 / 109		0	0	0	81.0										
100 / 104		0	0	0	80.0										
95 / 99		18	3	21	76.6		6	1	7	76.8		0		0	77.0
90 / 94	0	103	24	127	76.9	0	84	15	99	76.9		30	3	33	77.0
85 / 89	0	51	18	69	76.8	0	60	16	76	76.9	0	73	14	86	76.6
80 / 84	0	57	60	116	76.1	0	62	51	113	76.4	0	77	40	118	76.2
75 / 79	141	19	136	295	74.5	134	29	148	311	74.6	71	65	159	295	74.4
70 / 74	107	1	8	116	71.7	106	0	9	115	71.9	168	3	32	203	71.7
65 / 69			0	0							10	0		10	66.9
60 / 64															

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.

ZANDERY/PARAMARIBO SM WMO No. 812250

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

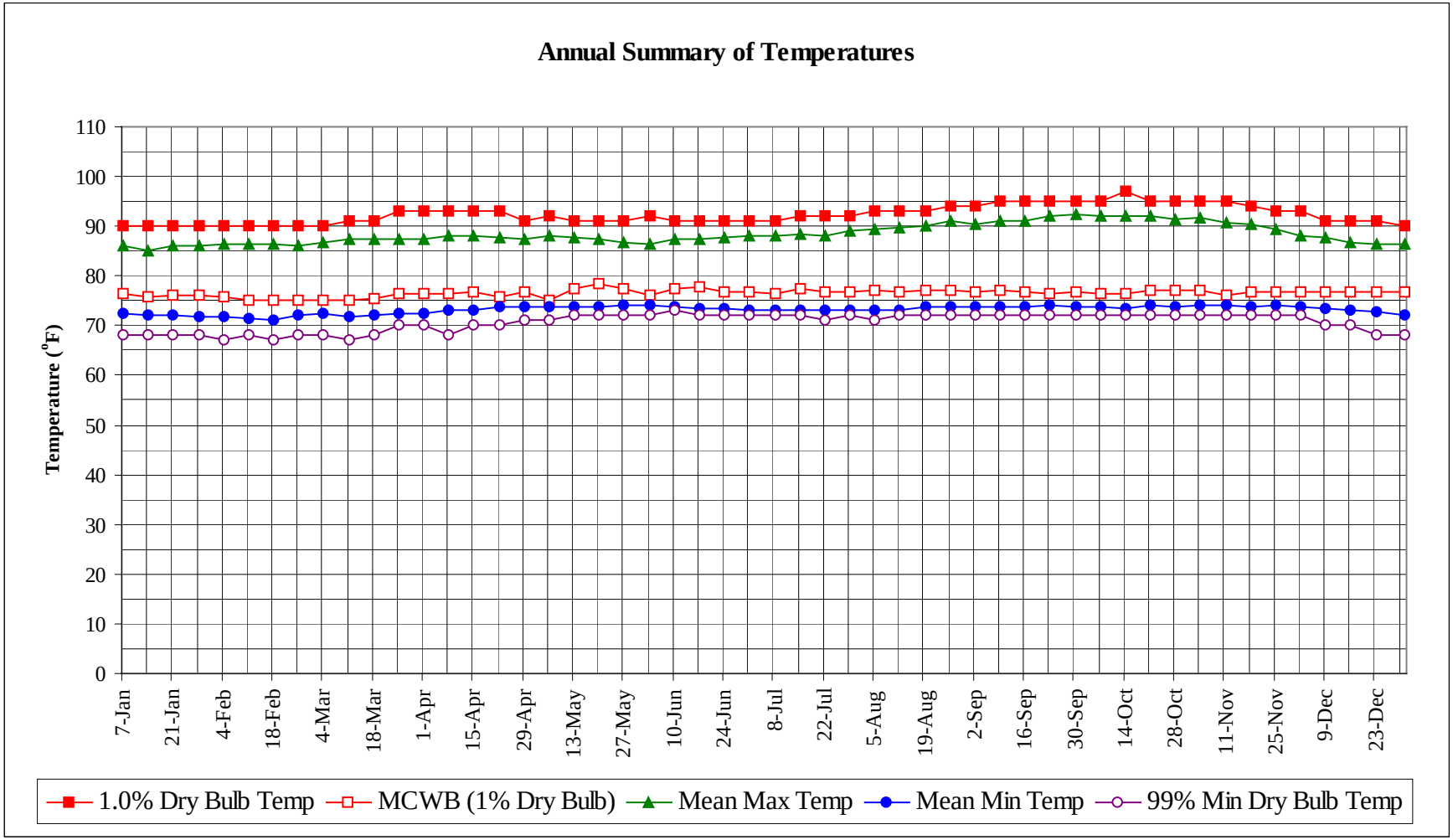
Period of Record = 1973 to 1995

Annual Totals

Temperature Range (°F)	Hour Group (LST) 01 To 08	09 To 16	17 To 00	Total Obs	MCWB (°F)
105 / 109		0	0	0	81.0
100 / 104		0	0	0	80.3
95 / 99		45	8	53	76.7
90 / 94	1	623	116	740	76.8
85 / 89	1	802	192	995	76.4
80 / 84	3	857	552	1413	76.1
75 / 79	1235	562	1804	3601	74.4
70 / 74	1605	29	248	1881	71.5
65 / 69	74	1	0	75	66.9
60 / 64	1	0	0	1	63.4

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.

ZANDERY/PARAMARIBO SM WMO No. 812250



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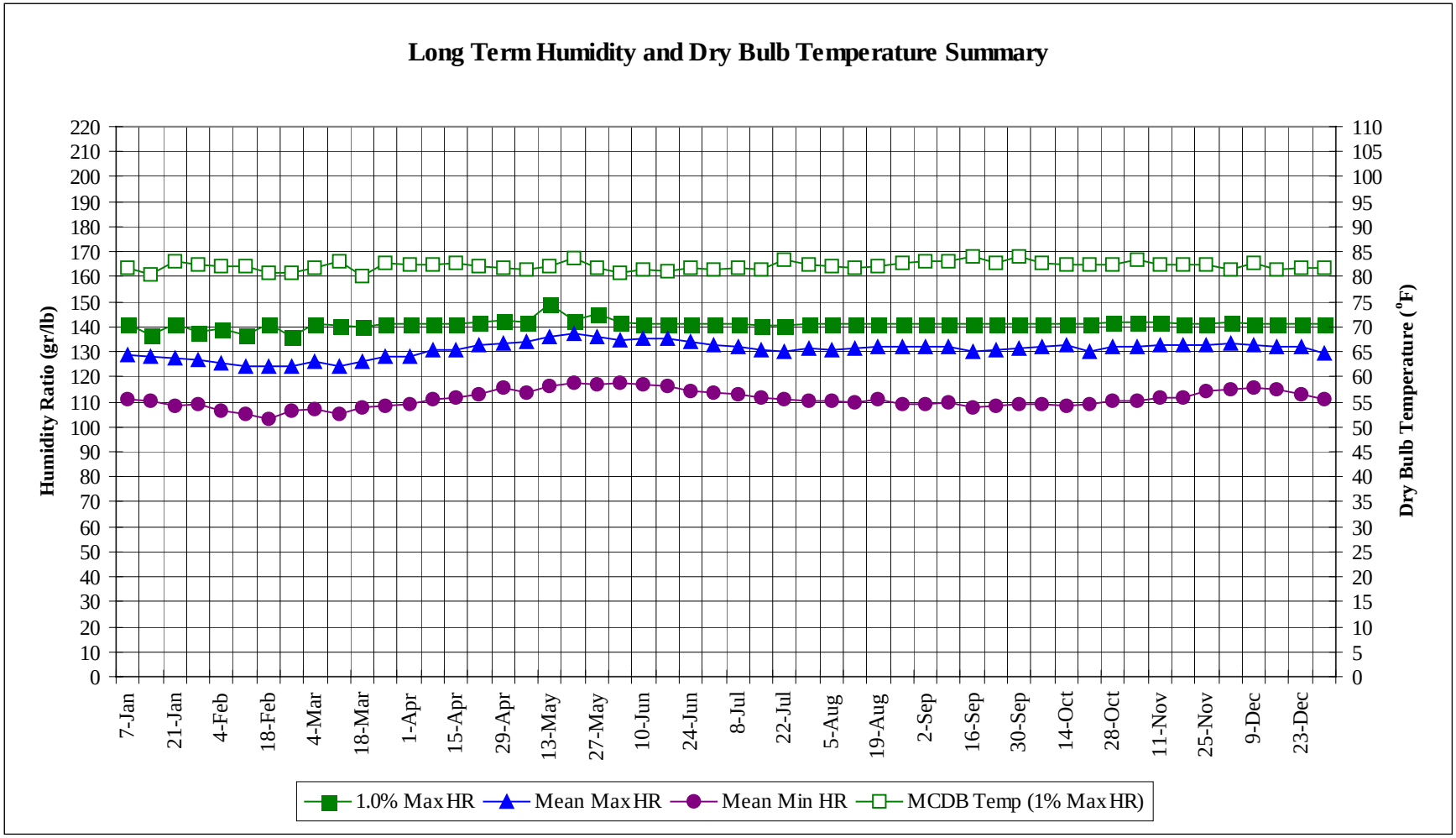
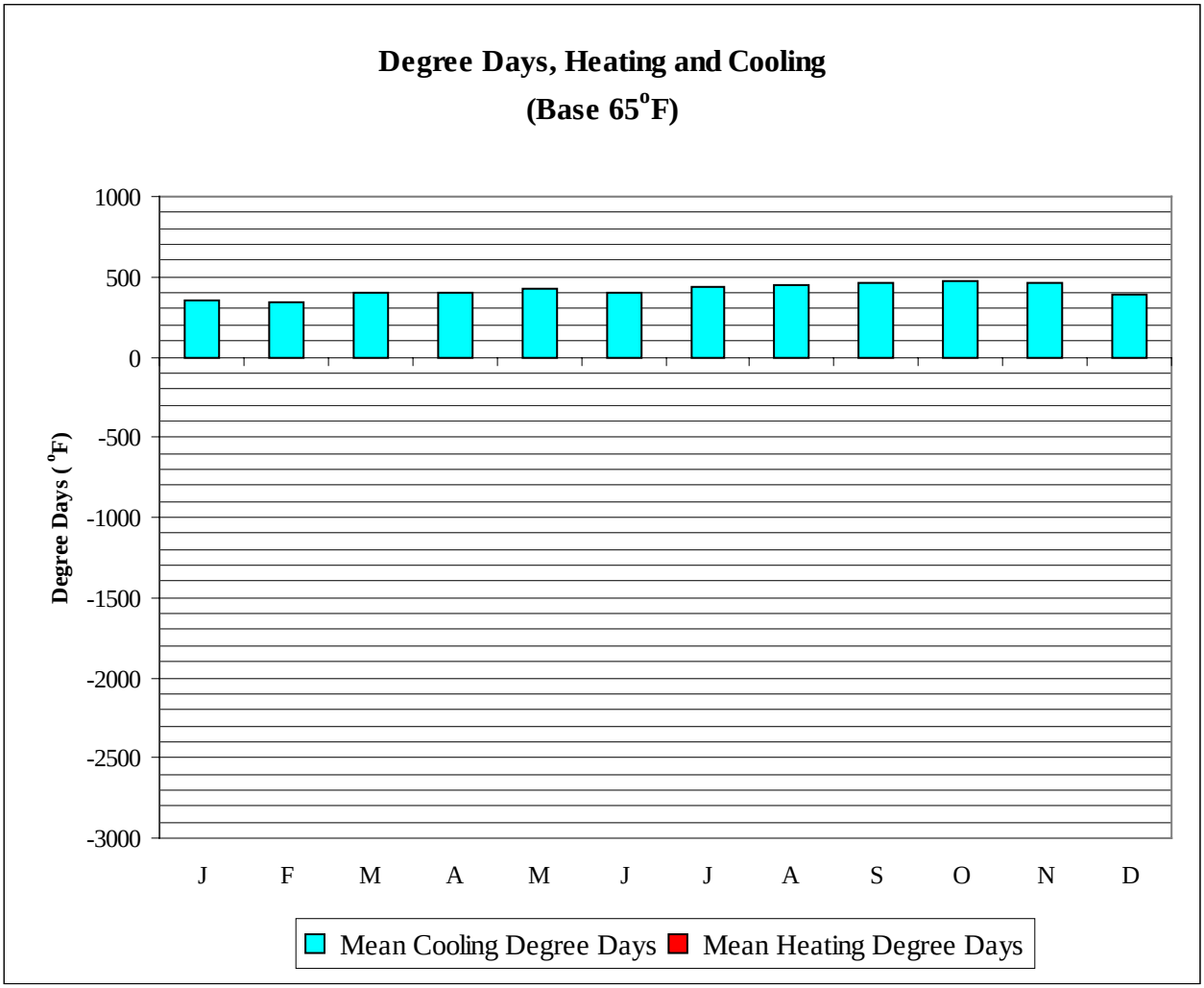


ZANDERY/PARAMARIBO SM WMO No. 812250

Long Term Dry Bulb Temperature and Humidity Summary

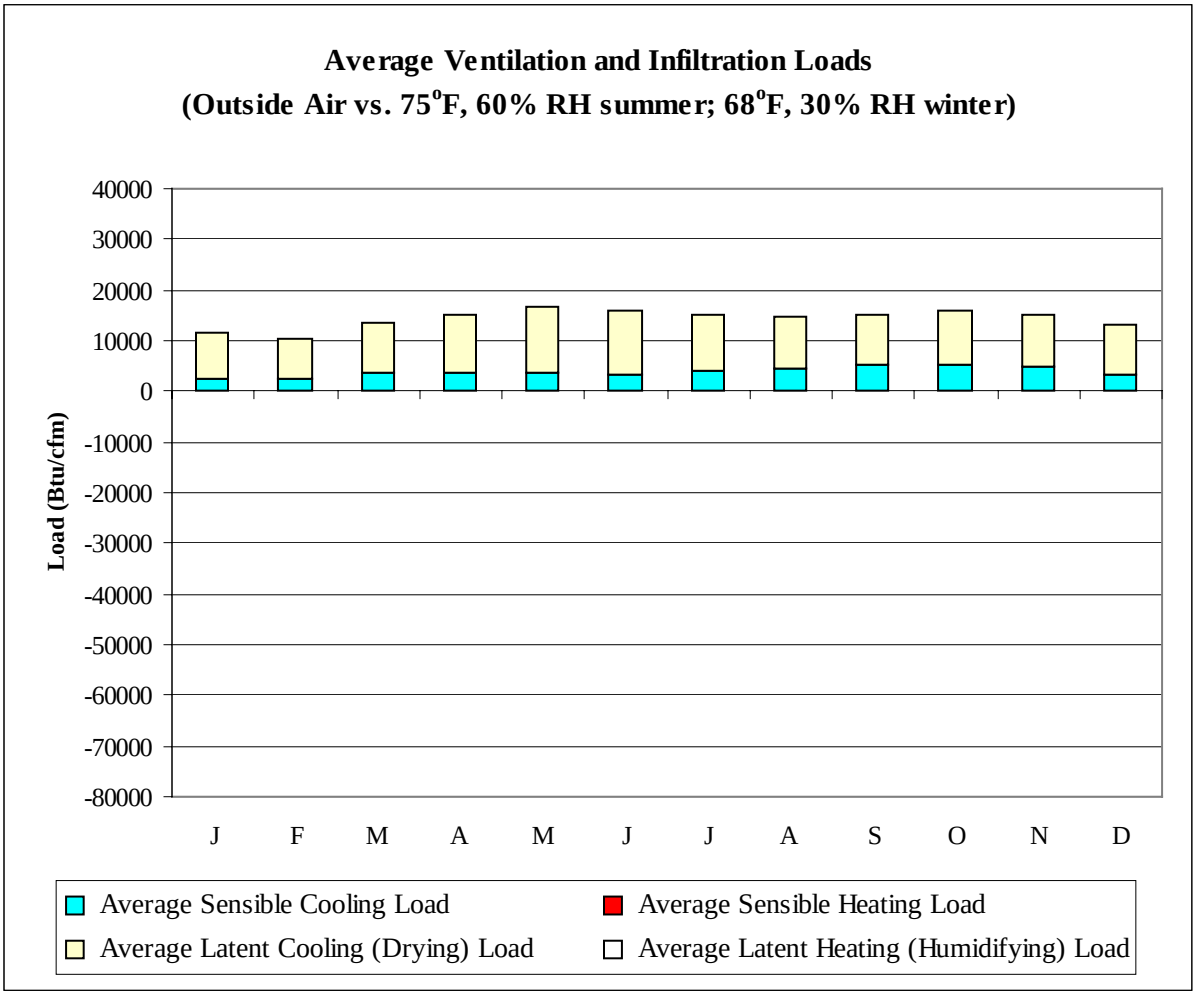
Week Ending	1.0% Temp (°F)	MCWB @ 1% Temp (°F)	Mean Max Temp (°F)	Mean Min Temp (°F)	99% Temp (°F)	1.0% HR (gr/lb)	MCDB @ 1% HR (°F)	Mean Max HR (gr/lb)	Mean Min HR (gr/lb)
7-Jan	90.0	76.5	86.1	72.6	68.0	141.4	81.8	128.9	111.2
14-Jan	90.0	75.8	85.2	72.2	68.0	136.5	80.4	128.2	110.4
21-Jan	90.0	76.0	85.9	72.0	68.0	141.4	83.0	127.7	108.1
28-Jan	90.0	76.1	86.2	71.7	68.0	137.9	82.5	126.5	108.9
4-Feb	90.0	75.6	86.3	71.6	67.0	139.3	82.0	125.5	106.5
11-Feb	90.0	75.2	86.5	71.4	68.0	136.5	82.1	124.3	105.1
18-Feb	90.0	75.2	86.4	71.1	67.0	141.4	80.7	123.9	103.0
25-Feb	90.0	75.2	86.1	72.0	68.0	135.8	80.6	124.4	106.6
4-Mar	90.0	75.1	86.9	72.3	68.0	141.4	81.6	125.9	107.2
11-Mar	91.0	75.0	87.3	71.9	67.0	140.7	83.1	124.4	105.2
18-Mar	91.0	75.5	87.5	72.3	68.0	140.0	80.0	125.9	108.0
25-Mar	93.0	76.5	87.5	72.6	70.0	141.4	82.7	127.9	108.1
1-Apr	93.0	76.4	87.3	72.6	70.0	141.4	82.4	128.1	108.9
8-Apr	93.0	76.4	87.9	73.0	68.0	141.4	82.3	130.5	111.3
15-Apr	93.0	76.9	88.0	73.2	70.0	141.4	82.7	130.5	111.5
22-Apr	93.0	75.7	87.9	73.7	70.0	142.1	82.2	132.6	112.8
29-Apr	91.0	76.9	87.3	73.8	71.0	142.8	81.9	133.6	115.9
6-May	92.0	75.1	88.0	73.9	71.0	142.1	81.3	133.9	113.9
13-May	91.0	77.6	87.8	73.9	72.0	149.1	82.3	136.0	116.0
20-May	91.0	78.3	87.4	73.8	72.0	142.8	83.7	137.3	117.3
27-May	91.0	77.5	86.6	74.0	72.0	144.9	81.9	136.0	117.2
3-Jun	92.0	76.2	86.5	74.1	72.0	142.1	80.9	134.8	117.4
10-Jun	91.0	77.3	87.5	73.7	73.0	141.4	81.6	135.2	117.0
17-Jun	91.0	77.7	87.4	73.4	72.0	141.4	81.1	135.3	116.4
24-Jun	91.0	76.9	87.6	73.4	72.0	141.4	81.8	133.7	114.6
1-Jul	91.0	76.7	88.2	73.2	72.0	141.4	81.4	132.8	113.8
8-Jul	91.0	76.6	88.0	73.0	72.0	141.4	81.8	132.2	112.7
15-Jul	92.0	77.4	88.5	73.1	72.0	140.7	81.3	130.7	111.7
22-Jul	92.0	76.6	88.1	73.0	71.0	140.7	83.2	130.2	111.1
29-Jul	92.0	76.6	89.1	73.2	72.0	141.4	82.4	131.7	110.6
5-Aug	93.0	77.1	89.3	73.2	71.0	141.4	82.0	130.4	110.4
12-Aug	93.0	76.8	89.9	73.3	72.0	141.4	81.7	131.0	109.9
19-Aug	93.0	77.0	90.0	73.7	72.0	141.4	82.2	132.1	111.0
26-Aug	94.0	77.0	90.9	73.9	72.0	141.4	82.8	131.8	109.0
2-Sep	94.0	76.9	90.5	73.8	72.0	141.4	83.1	131.9	109.2
9-Sep	95.0	77.1	91.0	73.8	72.0	141.4	83.0	132.2	109.9
16-Sep	95.0	76.8	91.1	73.7	72.0	141.4	84.1	129.8	107.7
23-Sep	95.0	76.6	92.2	74.0	72.0	141.4	82.7	130.9	108.5
30-Sep	95.0	76.9	92.3	73.8	72.0	141.4	84.1	131.5	109.3
7-Oct	95.0	76.5	92.1	73.9	72.0	141.4	82.7	132.1	109.2
14-Oct	97.0	76.4	92.2	73.6	72.0	141.4	82.4	132.3	108.6
21-Oct	95.0	77.0	92.1	74.0	72.0	141.4	82.3	130.2	108.9
28-Oct	95.0	76.9	91.5	73.7	72.0	142.1	82.4	132.1	110.4
4-Nov	95.0	77.1	91.6	74.2	72.0	142.1	83.3	132.1	110.0
11-Nov	95.0	76.1	90.7	74.2	72.0	142.1	82.5	132.6	111.7
18-Nov	94.0	76.7	90.5	73.8	72.0	141.4	82.4	132.3	111.6
25-Nov	93.0	76.8	89.3	74.0	72.0	141.4	82.5	132.9	114.4
2-Dec	93.0	76.7	88.2	73.7	72.0	142.1	81.5	133.5	114.9
9-Dec	91.0	76.6	87.6	73.3	70.0	141.4	82.6	132.9	115.8
16-Dec	91.0	76.9	86.9	73.2	70.0	141.4	81.6	132.2	115.1
23-Dec	91.0	76.7	86.5	72.7	68.0	141.4	81.8	131.7	113.3
31-Dec	90.0	76.7	86.6	72.3	68.0	141.4	81.6	129.7	110.9

ZANDERY/PARAMARIBO SM WMO No. 812250



	Mean Cooling Degree Days (°F)	Mean Heating Degree Days (°F)
JAN	354	0
FEB	339	0
MAR	397	0
APR	397	0
MAY	429	0
JUN	402	0
JUL	432	0
AUG	445	0
SEP	463	0
OCT	475	0
NOV	461	0
DEC	395	0
ANN	4990	0

ZANDERY/PARAMARIBO SM WMO No. 812250



	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	2680	-4	8964	0
FEB	2635	-8	7943	0
MAR	3563	-4	10134	0
APR	3730	-1	11213	0
MAY	3711	0	13120	0
JUN	3433	0	12451	0
JUL	3971	0	11044	0
AUG	4525	-1	10253	-2
SEP	5153	0	9870	0
OCT	5261	0	10713	0
NOV	4783	0	10372	0
DEC	3325	-2	9960	0
ANN	46770	-20	126037	-2

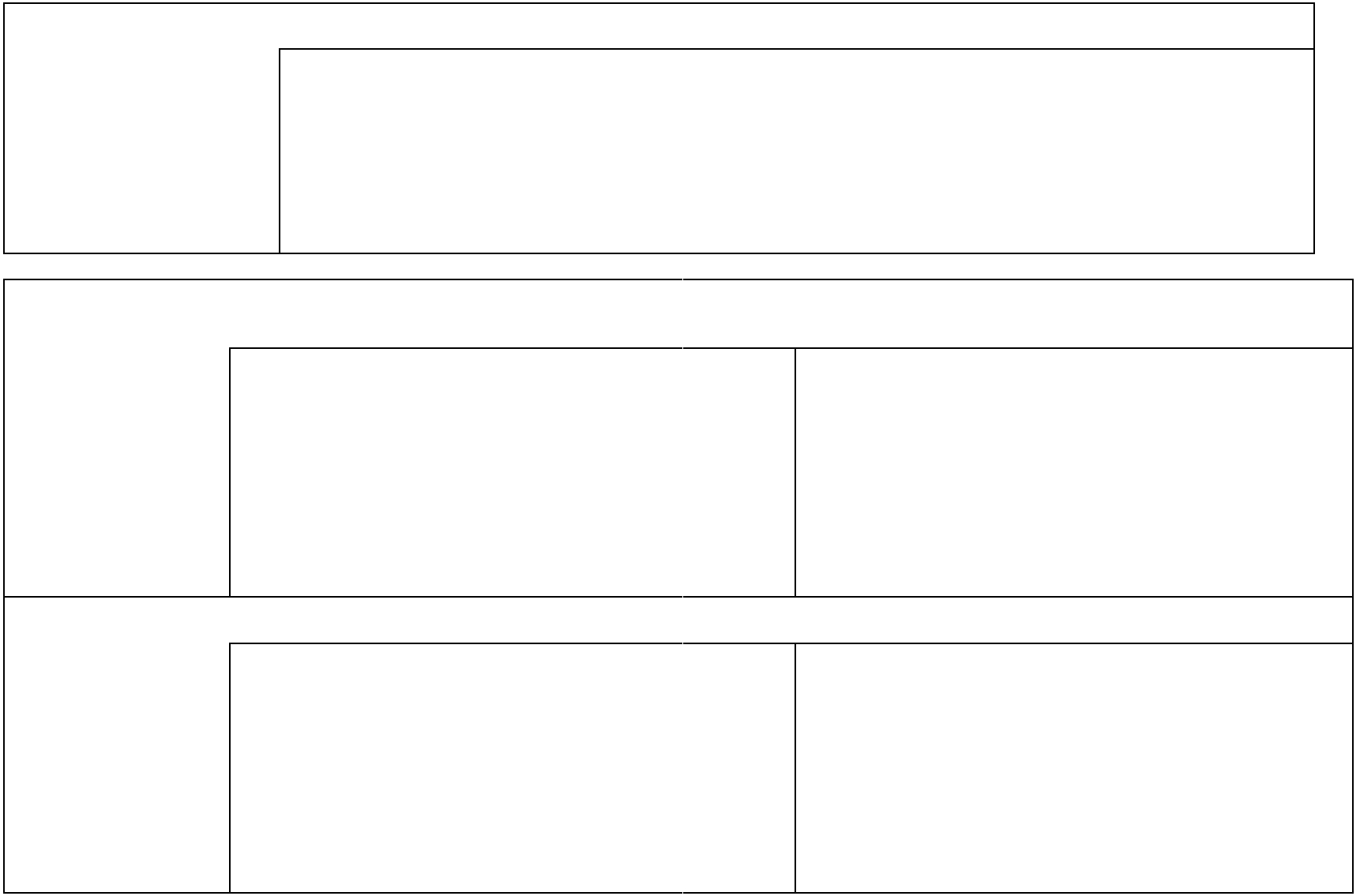
Average Annual Solar Radiation – Nearest Available Site

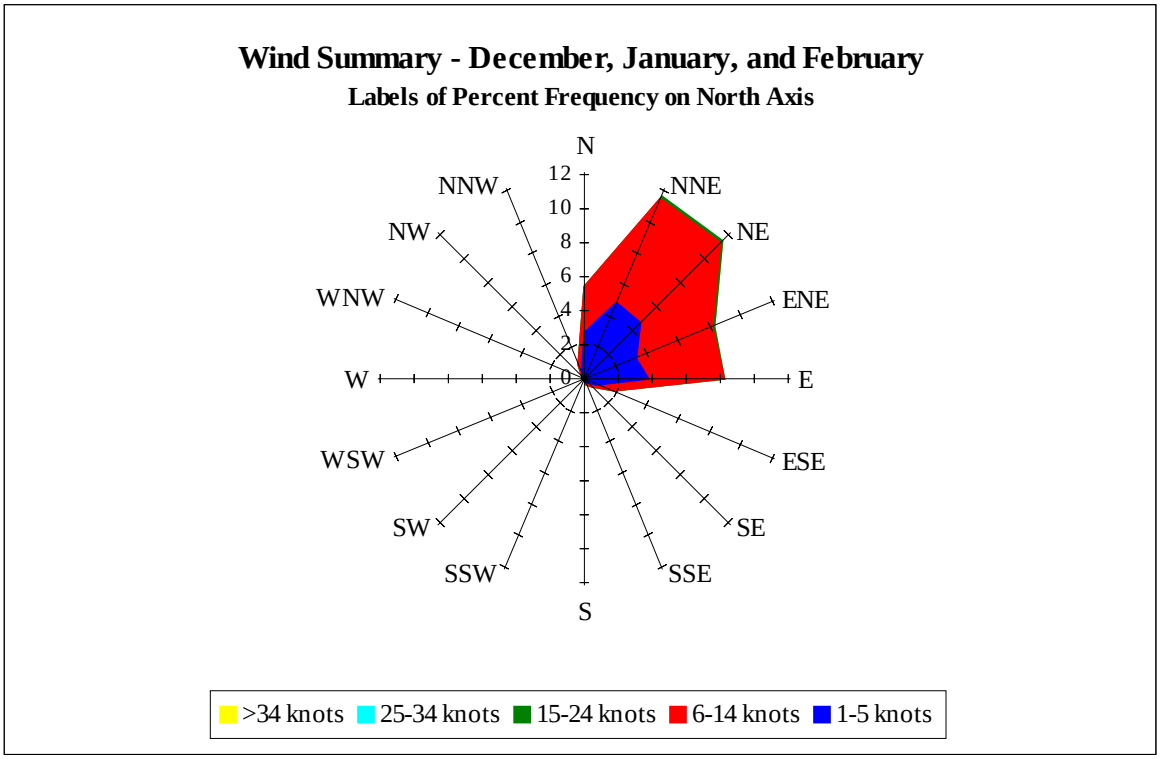
(Source: National Renewable Energy Laboratory, Golden CO, 1995)

No Solar Radiation
Data Available

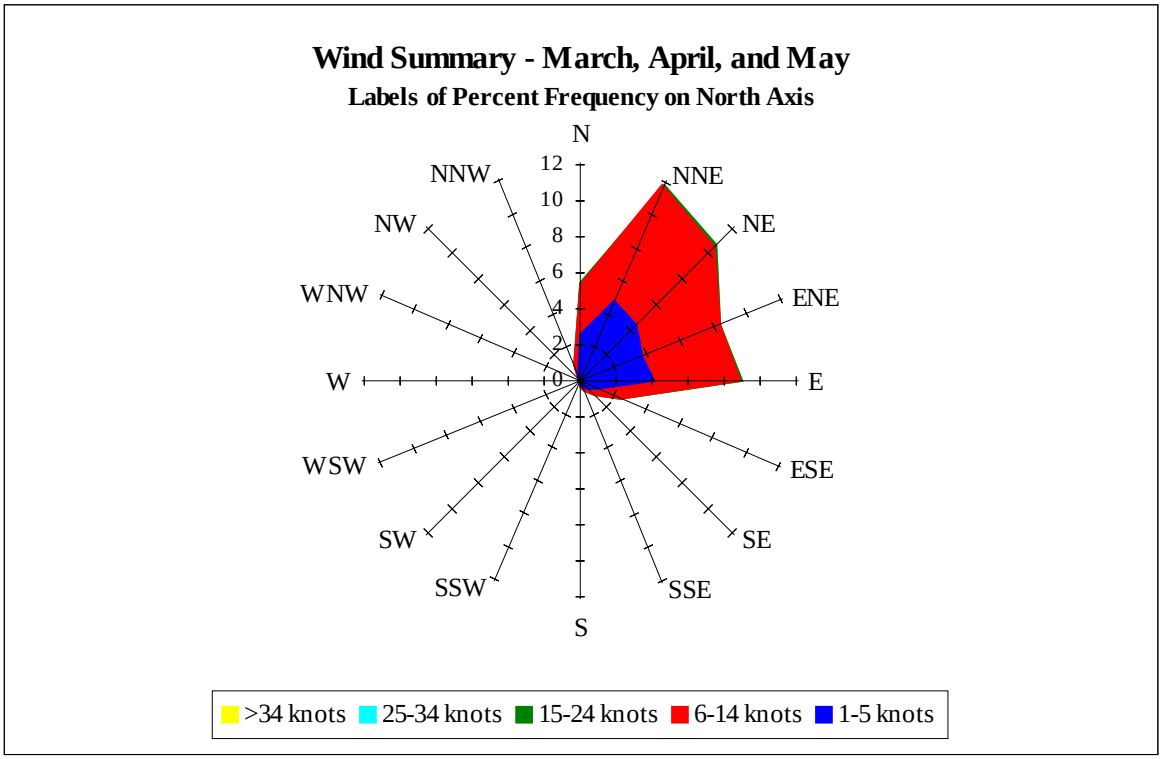
Average Annual Solar Heat and Illumination – Nearest Available Site

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

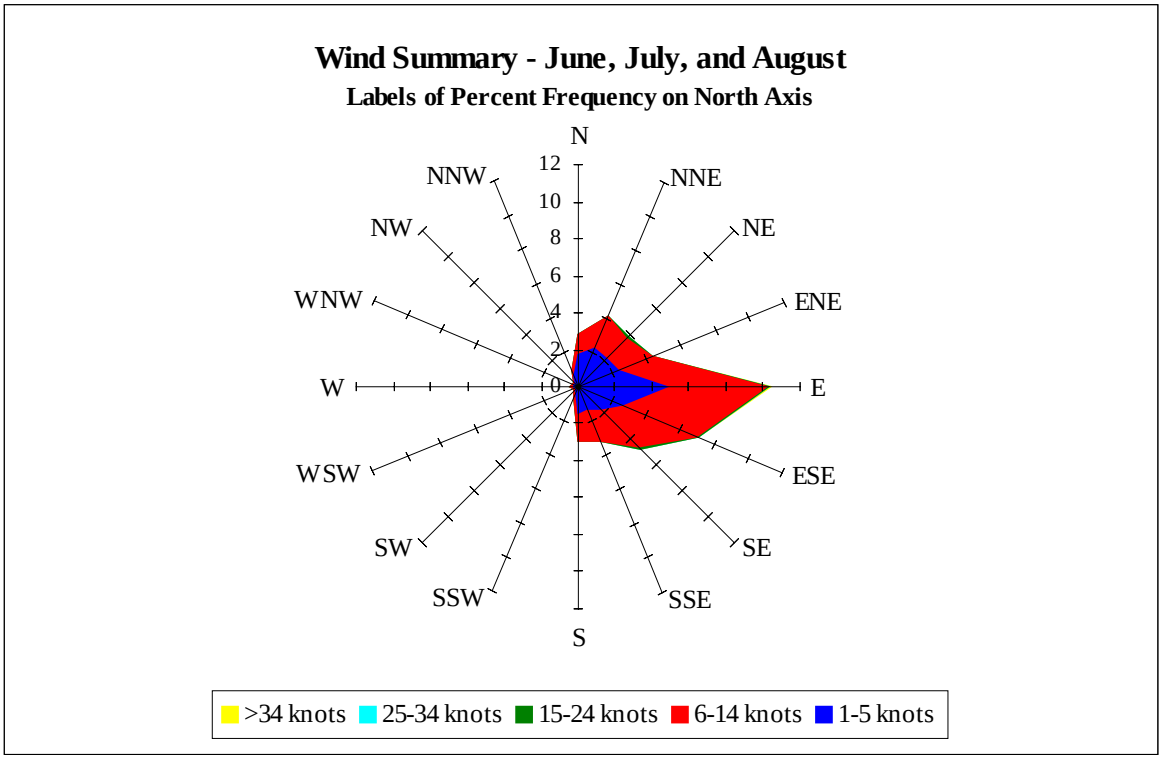




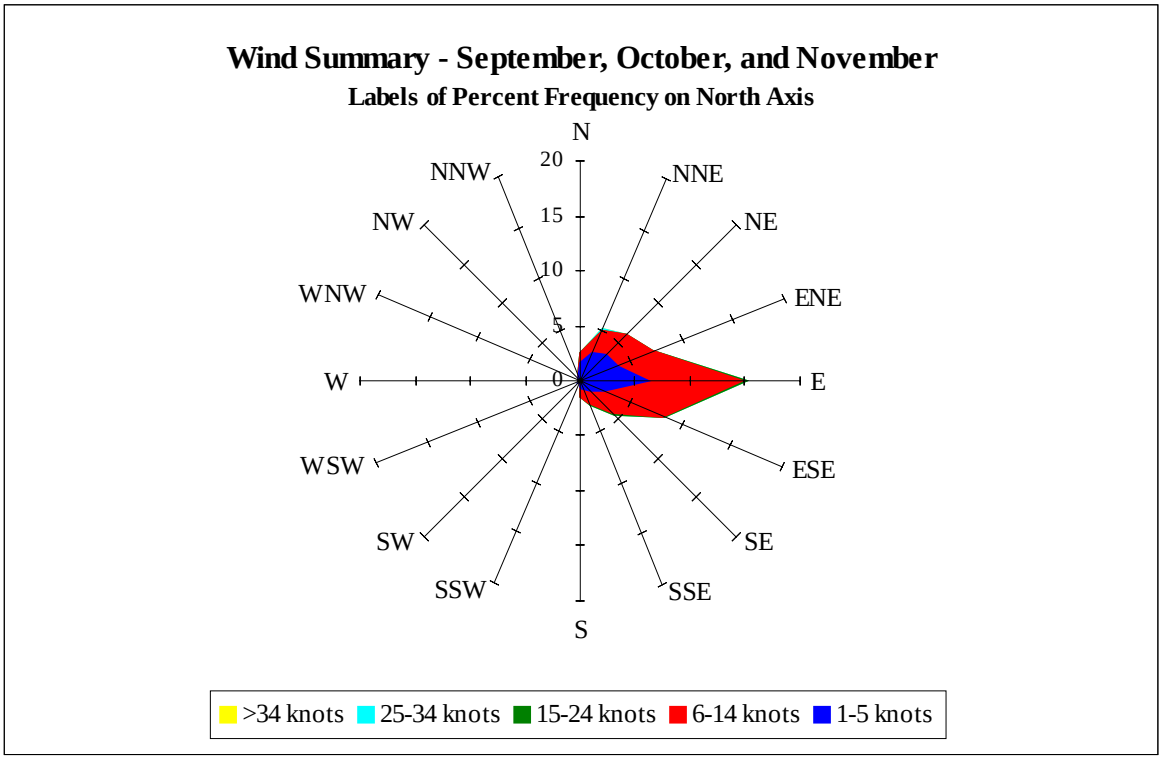
Percent Calm = 50.65



Percent Calm = 49.00



Percent Calm = 53.79



Percent Calm = 45.88