



# ATLAS

**AMETEK**  
MEASUREMENT, COMMUNICATIONS  
& TESTING

## Weather Summary July 2020 Phoenix, Arizona

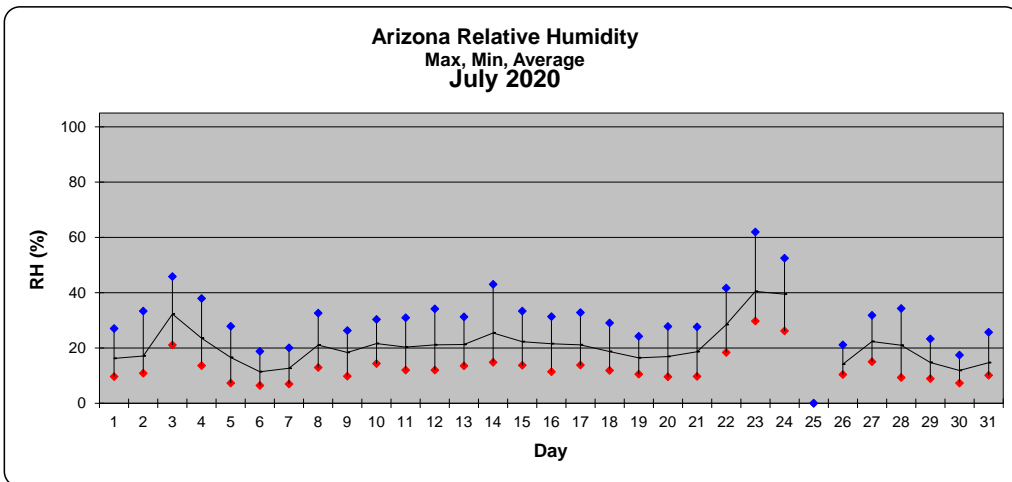
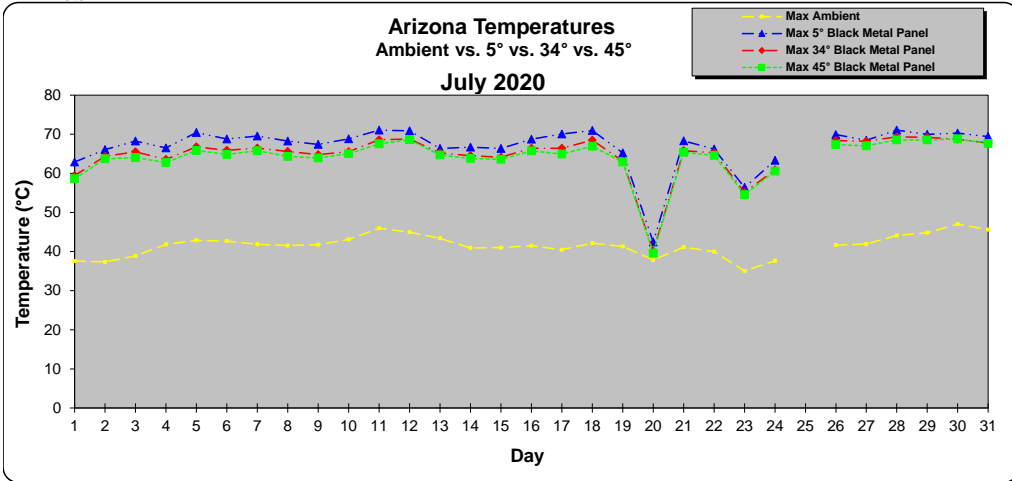
**WEATHERING SERVICES GROUP**

Latitude 33° 54' North, Longitude 112° 08' West, Elevation 610 (m)

Month	Temperature Summary												Climate Summary						
	Ambient Temperature			Black Metal Panel Temperature (ASTM G179) (° C)									Relative Humidity			Wind Speed		Wind Direction	Rainfall
	(° C)			5 °			34 °			45 °			(% )			m/sec		360°/0°=N	(mm)
Day	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Avg.	Avg	Total
1	38	21	29	63	18	35	59	18	34	59	18	34	27	10	16	12.4	2.0	164°	0.0
2	37	23	31	66	20	37	64	21	36	64	21	36	33	11	17	7.6	1.5	119°	0.0
3	39	28	33	68	25	39	66	26	38	64	26	38	46	21	32	8.2	1.6	180°	0.0
4	42	27	35	67	25	41	64	26	40	63	26	40	38	14	24	11.2	2.2	282°	0.0
5	43	27	35	70	25	41	67	25	40	66	25	40	28	7	17	10.7	1.8	254°	0.0
6	43	27	35	69	23	40	66	24	39	65	24	39	19	6	11	8.5	2.0	278°	0.0
7	42	27	35	70	24	42	66	24	41	66	24	40	20	7	13	8.5	1.9	271°	0.0
8	42	27	35	68	24	41	66	24	40	64	24	40	33	13	21	9.1	1.8	217°	0.0
9	42	26	35	67	23	40	65	23	39	64	24	39	26	10	18	8.0	1.6	209°	0.0
10	43	28	36	69	25	42	66	26	41	65	26	41	30	14	22	8.2	1.9	282°	0.0
11	46	30	38	71	27	44	69	27	43	68	27	43	31	12	20	10.2	1.9	10°	0.0
12	45	30	38	71	28	43	69	28	43	69	28	43	34	12	21	10.9	1.7	229°	0.0
13	43	30	37	66	27	41	65	27	41	65	28	41	31	14	21	8.9	1.8	191°	0.0
14	41	28	35	67	25	41	65	25	40	64	26	40	43	15	25	8.8	1.6	203°	0.0
15	41	28	35	66	24	41	64	25	40	64	25	40	33	14	22	7.8	1.4	169°	0.0
16	41	28	35	69	25	41	66	25	41	66	25	40	31	11	22	9.9	1.9	129°	0.0
17	40	27	34	70	24	40	66	24	39	65	25	39	33	14	21	7.7	1.6	275°	0.0
18	42	28	35	71	25	41	68	26	40	67	26	40	29	12	19	9.3	1.7	234°	0.0
19	41	29	36	65	26	40	63	27	39	63	27	39	24	11	16	9.1	1.9	188°	0.0
20	38	29	33	42	24	33	40	24	33	40	24	33	28	10	17	11.7	1.4	210°	0.0
21	41	28	34	68	25	40	66	26	39	65	27	39	28	10	19	7.2	1.6	220°	0.0
22	40	27	34	66	24	40	65	25	40	65	25	39	42	18	28	9.0	1.5	218°	0.0
23	35	27	31	56	22	34	55	23	34	55	23	34	62	30	40	8.3	1.6	169°	0.0
24	38	25	31	63	22	37	61	23	37	61	23	36	52	26	39	13.6	2.3	70°	0.0
25	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
26	42	31	38	70	27	46	68	28	45	67	28	45	21	10	14	7.2	1.6	217°	0.0
27	42	27	36	68	26	41	68	26	41	67	26	41	32	15	22	7.1	1.6	181°	0.0
28	44	29	37	71	28	42	69	28	42	69	28	42	34	9	21	8.6	2.0	335°	0.0
29	45	28	38	70	24	44	69	24	43	69	25	43	23	9	15	9.6	2.2	159°	0.0
30	47	33	40	70	30	45	69	30	45	69	30	45	17	7	12	9.4	2.5	165°	0.0
31	46	32	39	69	27	44	68	28	44	68	28	44	26	10	15	7.2	1.8	63°	0.0
Monthly Avg.	42	28	35	67	25	41	65	25	40	64	25	40	32	13	21	9.0	1.8	196°	0.0
Monthly Total																			0.0
YTD <sup>†</sup> Avg.	29	15	22	53	12	26	54	13	27	55	13	27	47	18	31	8.9	2.0	116°	150.1
YTD <sup>†</sup> Total																			

† Year To Date

Note:



Latitude 25° 34' North, Longitude 80° 28' West, Elevation 2 (m)

**Miami, Florida**

Latitude 33° 54' North, Longitude 112° 08' West, Elevation 610 (m)

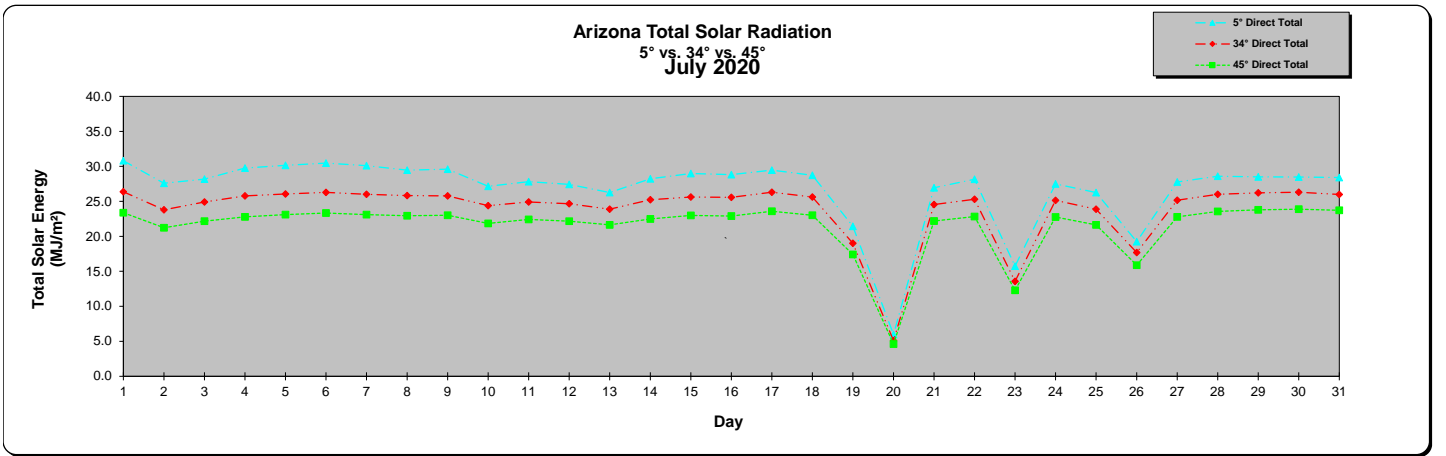
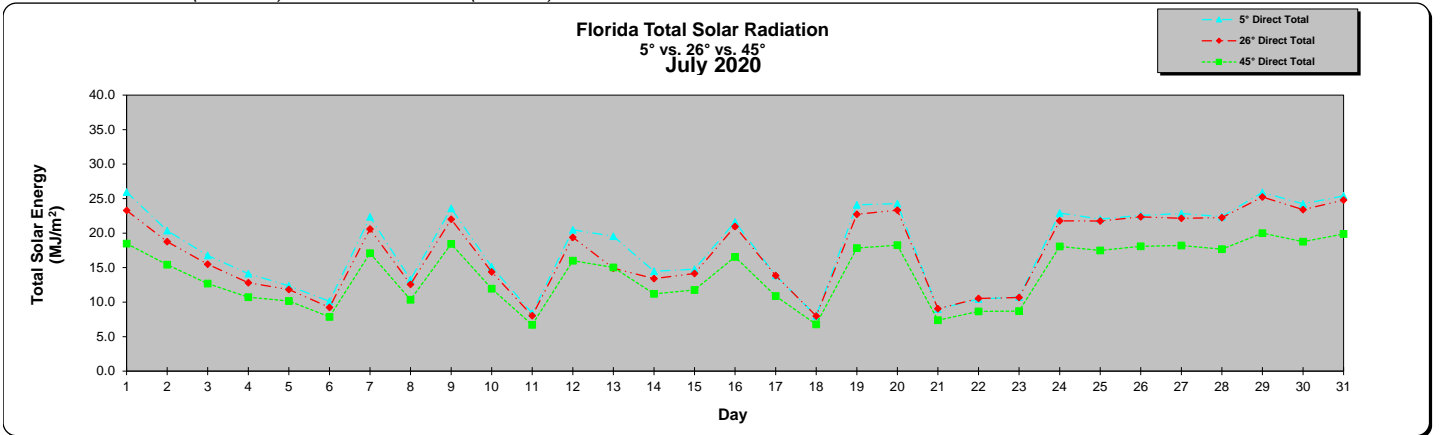
**Phoenix, Arizona**

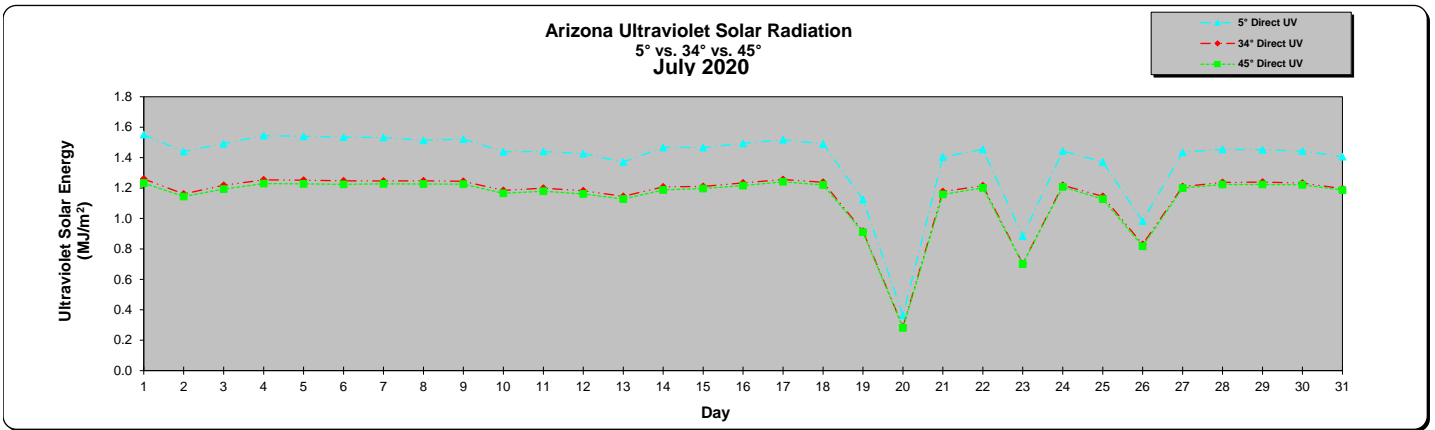
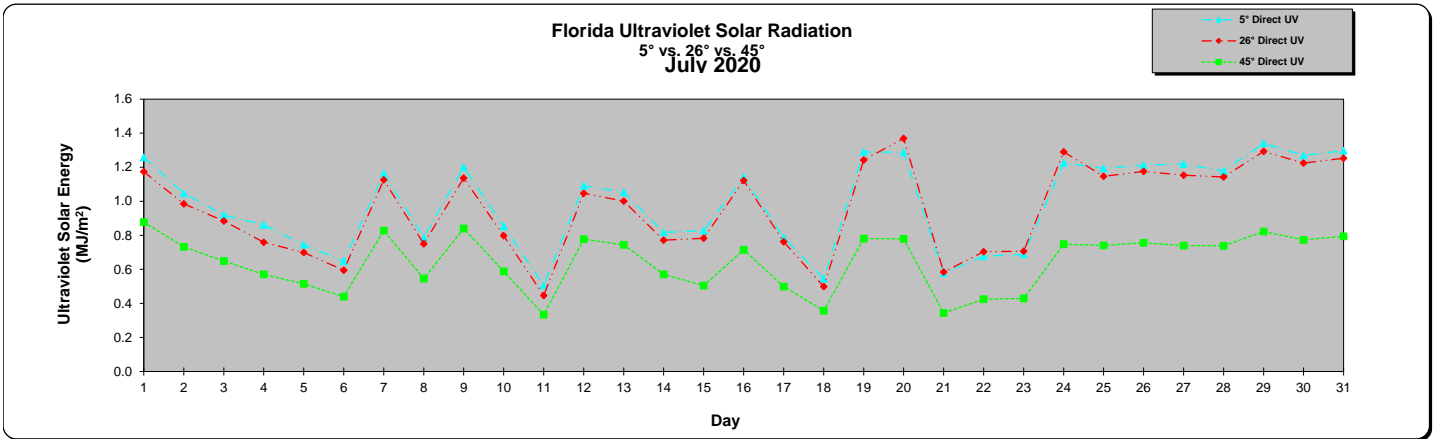
Solar Radiation Summary														
Month	Total Solar Radiation (MJ/m <sup>2</sup> )						Ultraviolet Solar Radiation (MJ/m <sup>2</sup> )						EMMAQUA™ (MJ/m <sup>2</sup> )	
	Direct			Underglass			Direct			Underglass				
Day	5°	26°	45°	5°	26°	45°	5°	26°	45°	5°	26°	45°	Total	UV
1	26.0	23.3	18.5	21.8	18.6	15.2	1.26	1.17	0.88	0.96	0.84	0.49	164	5.88
2	20.4	18.8	15.4	17.3	14.9	12.5	1.05	0.98	0.73	0.79	0.69	0.41	0	0.00
3	16.8	15.5	12.7	14.1	12.2	10.4	0.92	0.88	0.65	0.69	0.60	0.37	0	0.00
4	14.1	12.8	10.7	11.8	9.9	8.2	0.86	0.76	0.57	0.62	0.52	0.31	0	0.00
5	12.4	11.8	10.2	10.5	9.2	8.1	0.75	0.70	0.51	0.55	0.48	0.29	187	6.62
6	10.1	9.2	7.9	8.5	7.0	6.0	0.65	0.60	0.44	0.48	0.40	0.25	199	6.89
7	22.4	20.6	17.1	19.1	16.3	13.9	1.16	1.13	0.83	0.89	0.78	0.47	198	6.97
8	13.3	12.6	10.3	11.3	9.7	8.5	0.79	0.75	0.55	0.59	0.51	0.31	194	6.84
9	23.6	22.0	18.4	20.4	17.7	15.0	1.20	1.14	0.84	0.91	0.80	0.48	147	5.23
10	15.1	14.4	11.9	12.9	11.2	9.7	0.85	0.80	0.59	0.64	0.55	0.33	105	3.82
11	8.4	8.0	6.7	7.1	6.1	5.2	0.51	0.45	0.33	0.38	0.31	0.19	154	5.24
12	20.5	19.4	16.0	17.8	15.4	13.3	1.09	1.05	0.78	0.85	0.73	0.45	0	0.00
13	19.6	14.9	15.0	15.8	14.8	12.4	1.05	1.00	0.74	0.81	0.71	0.43	55	1.79
14	14.5	13.4	11.2	11.8	10.7	8.9	0.82	0.77	0.57	0.62	0.54	0.33	176	6.05
15	14.8	14.2	11.8	12.2	11.5	9.5	0.83	0.78	0.50	0.63	0.57	0.34	188	6.23
16	21.6	21.0	16.6	17.9	17.4	14.6	1.14	1.12	0.72	0.90	0.81	0.49	154	5.49
17	13.9	13.8	10.9	11.5	11.3	10.0	0.79	0.76	0.50	0.62	0.55	0.34	170	6.03
18	8.0	8.0	6.8	6.6	6.4	6.1	0.54	0.50	0.36	0.42	0.36	0.24	176	6.13
19	24.1	22.7	17.8	19.7	18.6	15.4	1.29	1.24	0.78	0.92	0.89	0.53	0	0.00
20	24.3	23.3	18.2	20.1	19.2	15.8	1.29	1.37	0.78	0.99	0.89	0.53	194	6.54
21	9.0	9.0	7.4	7.3	7.0	6.5	0.58	0.58	0.34	0.44	0.38	0.23	169	5.89
22	10.5	10.5	8.6	8.6	8.2	7.6	0.68	0.70	0.42	0.53	0.46	0.29	173	5.81
23	10.7	10.7	8.7	8.8	8.5	7.7	0.69	0.71	0.43	0.53	0.46	0.29	0	0.00
24	22.9	21.8	18.1	18.6	17.7	15.0	1.23	1.29	0.75	0.94	0.84	0.51	141	4.96
25	22.0	21.8	17.5	18.2	17.7	15.2	1.19	1.15	0.74	0.93	0.83	0.50	55	1.79
26	22.6	22.4	18.1	18.7	18.2	15.5	1.21	1.18	0.76	0.93	0.85	0.51	0	0.00
27	22.8	22.2	18.2	18.7	18.0	15.2	1.22	1.15	0.74	0.92	0.83	0.50	164	5.50
28	22.4	22.2	17.7	18.5	18.3	15.8	1.18	1.14	0.74	0.91	0.82	0.50	194	6.67
29	25.9	25.2	20.0	21.1	20.5	17.1	1.34	1.29	0.82	1.02	0.93	0.56	194	6.54
30	24.2	23.4	18.8	19.6	18.9	15.8	1.27	1.22	0.77	0.96	0.87	0.53	194	6.45
31	25.4	24.8	19.9	20.5	20.1	17.0	1.30	1.25	0.79	0.98	0.90	0.54	136	4.36
<b>Monthly Total</b>	<b>562.0</b>	<b>533.7</b>	<b>437.1</b>	<b>466.8</b>	<b>430.9</b>	<b>367.1</b>	<b>30.71</b>	<b>29.63</b>	<b>19.96</b>	<b>23.42</b>	<b>20.71</b>	<b>12.54</b>	<b>3683</b>	<b>127.15</b>
<b>YTD<sup>1</sup> Total</b>	<b>3785.8</b>	<b>4187.6</b>	<b>3951.0</b>	<b>3341.1</b>	<b>3331.7</b>	<b>2835.0</b>	<b>190.02</b>	<b>196.74</b>	<b>178.76</b>	<b>159.70</b>	<b>135.11</b>	<b>97.77</b>	<b>26998.56</b>	<b>860.94</b>

Solar Radiation Summary																	
Month	Total Solar Radiation (MJ/m <sup>2</sup> )						Ultraviolet Solar Radiation (MJ/m <sup>2</sup> )						EMMAQUA™ (MJ/m <sup>2</sup> )				
	Direct			Underglass			Direct			Underglass							
Day	5°	34°	45°	5°	34°	45°	5°	34°	45°	5°	34°	45°	Total	UV			
1	30.8	26.4	23.4	26.6	22.1	19.8	1.55	1.26	1.23	1.05	0.95	0.80	164	5.88			
2	27.6	23.8	21.2	23.6	19.9	18.0	1.44	1.16	1.14	0.97	0.87	0.73	0	0.00			
3	28.2	24.9	22.2	24.6	21.0	19.2	1.49	1.22	1.19	1.01	0.92	0.78	0	0.00			
4	29.8	25.8	22.8	25.8	21.5	19.4	1.55	1.25	1.23	1.04	0.93	0.79	0	0.00			
5	30.1	26.1	23.1	26.1	21.8	19.6	1.54	1.25	1.23	1.04	0.93	0.78	187	6.62			
6	30.5	26.3	23.3	26.3	21.9	19.8	1.54	1.25	1.22	1.03	0.93	0.78	199	6.89			
7	30.1	26.0	23.1	25.9	21.8	19.6	1.53	1.25	1.23	1.04	0.93	0.79	198	6.97			
8	29.5	25.8	23.0	25.7	21.6	19.6	1.51	1.25	1.23	1.04	0.93	0.79	194	6.84			
9	29.6	25.8	23.0	25.6	21.7	19.7	1.52	1.24	1.23	1.03	0.93	0.78	147	5.23			
10	27.2	24.4	21.9	23.8	20.6	19.0	1.44	1.18	1.17	0.97	0.89	0.75	105	3.82			
11	27.8	24.9	22.4	24.3	21.0	19.3	1.44	1.20	1.18	0.98	0.89	0.76	154	5.24			
12	30.1	26.0	23.1	23.8	20.7	19.2	1.43	1.18	1.16	0.96	0.87	0.75	0	0.00			
13	26.3	23.9	21.6	23.0	20.2	18.7	1.37	1.15	1.13	0.93	0.85	0.73	55	1.79			
14	28.2	25.2	22.5	24.7	21.1	19.3	1.47	1.21	1.19	0.99	0.90	0.76	176	6.05			
15	29.0	25.6	23.0	25.0	21.5	19.5	1.47	1.21	1.20	0.99	0.91	0.77	188	6.23			
16	28.8	25.6	22.9	25.1	21.4	19.5	1.49	1.23	1.22	1.01	0.92	0.78	154	5.49			
17	29.5	26.3	23.6	25.5	22.1	20.3	1.52	1.26	1.24	1.03	0.94	0.81	170	6.03			
18	28.7	25.6	23.0	24.9	21.6	19.8	1.49	1.24	1.22	1.01	0.93	0.79	176	6.13			
19	21.4	19.0	17.4	18.2	15.8	14.8	1.12	0.92	0.91	0.76	0.68	0.58	0	0.00			
20	6.0	5.1	4.6	5.0	4.3	4.0	0.36	0.29	0.28	0.24	0.21	0.18	0	0.00			
21	27.0	24.5	22.2	23.3	20.8	19.2	1.40	1.18	1.16	0.95	0.88	0.75	169	5.89			
22	28.2	25.3	22.8	24.3	21.2	19.6	1.46	1.22	1.20	0.99	0.91	0.77	173	5.81			
23	15.7	13.6	12.3	13.1	11.1	10.2	0.88	0.70	0.70	0.59	0.52	0.44	0	0.00			
24	27.5	25.1	22.8	23.8	21.1	19.6	1.44	1.22	1.21	0.99	0.91	0.78	141	4.96			
25	26.3	23.9	21.6	23.0	20.2	18.7	1.37	1.15	1.13	0.93	0.85	0.73	55	1.79			
26	19.2	17.7	15.9	16.5	14.8	13.9	0.98	0.83	0.82	0.67	0.63	0.54	0	0.00			
27	27.8	25.2	22.8	23.7	21.0	19.5	1.44	1.21	1.20	0.97	0.90	0.77	164	5.50			
28	28.6	26.0	23.6	24.5	21.8	20.1	1.46	1.24	1.22	0.99	0.92	0.79	194	6.67			
29	28.5	26.2	23.8	24.7	22.0	20.4	1.45	1.24	1.22	0.99	0.92	0.79	194	6.54			
30	28.5	26.3	23.9	24.8	22.2	20.6	1.44	1.23	1.22	0.98	0.92	0.79	194	6.45			
31	28.4	26.0	23.7	24.4	21.9	20.3	1.41	1.20	1.19	0.96	0.90	0.77	136	4.36			
<b>Monthly Total</b>	<b>831.9</b>	<b>740.9</b>	<b>665.5</b>	<b>719.4</b>	<b>621.6</b>	<b>570.1</b>	<b>43.00</b>	<b>35.60</b>	<b>35.09</b>	<b>29.14</b>	<b>26.55</b>	<b>22.60</b>	<b>3683</b>	<b>127.15</b>			
<b>YTD<sup>1</sup> Total</b>	<b>4882.5</b>	<b>5046.9</b>	<b>4857.7</b>	<b>4132.5</b>	<b>4252.2</b>	<b>4200.0</b>	<b>232.81</b>	<b>216.02</b>	<b>215.09</b>	<b>162.01</b>	<b>161.21</b>	<b>146.59</b>	<b>26998.56</b>	<b>860.94</b>			

<sup>1</sup> Year To Date

Note: Total Solar Radiation - (290-3000 nm) Ultraviolet Solar Radiation - (295-385 nm).



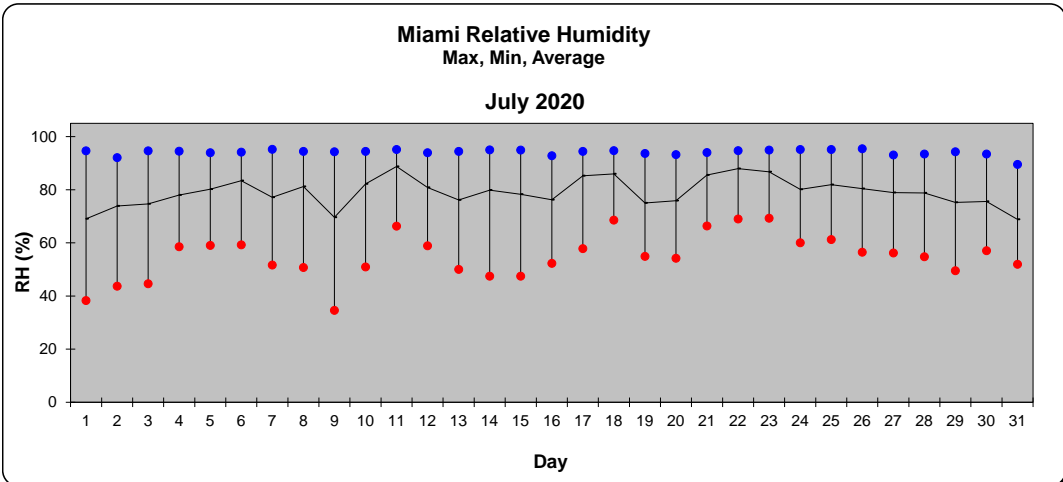
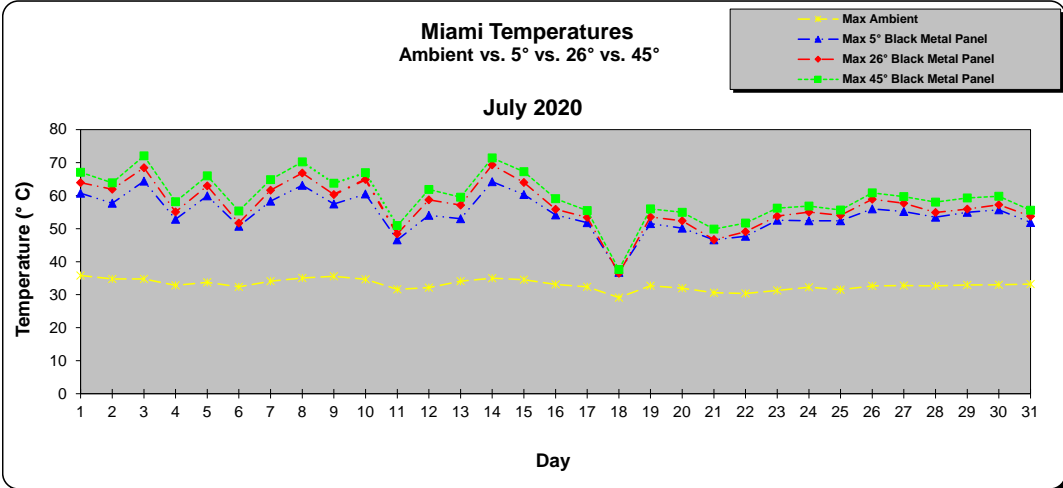


Latitude 25° 34' North, Longitude 80° 28' West, Elevation 2 (m)

AWSG		Temperature Summary												Climate Summary					
Month	Ambient Temperature			Black Metal Panel Temperature (ASTM G179) (° C)									Relative Humidity			Wind Speed		Wind Direction	Rainfall
July	(° C)			5 °			26 °			45 °			(%)			m/sec		360°/0°=N	(mm)
Day	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Min	Avg.	Max	Avg.	Avg.	Total
1	36	24	29	61	22	34	64	23	35	67	22	36	95	38	69	17.6	0.0	172°	0.0
2	35	24	28	58	22	32	62	22	32	64	22	33	92	44	74	21.2	0.0	219°	7.6
3	35	23	29	64	22	32	68	22	32	72	22	33	95	45	75	24.1	0.0	155°	0.0
4	33	24	28	53	23	30	55	23	31	58	23	31	95	59	78	30.6	0.0	175°	0.5
5	34	23	27	60	21	29	63	21	30	66	22	30	94	59	80	28.0	0.0	192°	10.4
6	32	23	26	51	22	28	52	21	28	55	21	29	94	59	83	19.0	0.0	197°	0.3
7	34	23	29	58	22	33	62	22	33	65	22	34	95	52	77	15.8	0.0	220°	0.0
8	35	24	28	63	23	31	67	23	31	70	23	31	94	51	81	21.9	0.0	175°	9.4
9	36	24	29	57	23	34	60	23	35	64	23	36	94	35	70	21.9	0.0	160°	0.0
10	35	24	28	60	23	30	65	23	31	67	23	31	94	51	82	16.2	0.0	138°	5.1
11	32	23	26	47	22	27	48	22	27	51	22	27	95	66	89	22.3	0.0	179°	31.5
12	32	24	27	54	23	30	59	23	31	62	23	31	94	59	81	19.8	0.0	204°	7.9
13	34	24	29	53	22	31	57	22	32	60	22	33	94	50	76	24.8	0.0	155°	3.3
14	35	24	28	64	23	30	69	23	31	71	23	31	95	47	80	21.6	0.0	145°	2.0
15	35	24	27	60	22	31	64	22	31	67	22	32	95	47	78	37.4	0.0	190°	0.3
16	33	24	28	54	22	32	56	22	32	59	22	33	93	52	76	19.4	0.0	195°	10.2
17	32	23	26	52	22	28	53	22	29	55	22	29	94	58	85	22.3	0.0	224°	37.3
18	29	23	26	37	22	27	36	22	27	38	22	27	95	69	86	28.0	0.0	219°	13.5
19	33	24	29	52	22	33	54	22	33	56	22	34	94	55	75	26.6	0.0	230°	1.0
20	32	23	28	50	22	32	52	22	32	55	22	33	93	54	76	28.4	0.0	240°	10.7
21	31	23	26	47	22	27	47	22	27	50	22	27	94	66	86	33.8	0.0	248°	22.4
22	30	25	28	48	22	27	49	22	27	52	22	27	95	69	88	34.9	0.0	229°	34.5
23	31	24	26	53	22	28	54	22	28	56	22	28	95	69	87	24.8	0.0	248°	3.0
24	32	24	28	52	22	31	55	22	32	57	22	32	95	60	80	34.5	0.0	236°	5.6
25	31	23	27	52	22	31	54	22	31	56	22	31	95	61	82	25.2	0.0	238°	16.5
26	33	23	27	56	21	32	59	21	32	61	21	33	95	56	80	29.8	0.0	244°	15.0
27	33	24	28	55	22	32	58	22	33	60	22	33	93	56	79	22.3	0.0	257°	0.0
28	33	25	28	53	23	32	55	23	33	58	23	33	93	55	79	20.8	0.0	245°	0.0
29	33	24	28	55	22	33	56	22	33	59	22	34	94	50	75	21.6	0.0	256°	0.0
30	33	24	29	56	22	33	57	22	33	60	22	34	93	57	76	20.8	0.0	236°	0.0
31	33	26	30	52	24	34	54	24	35	56	24	35	90	52	69	21.3	0.0	236°	1.8
Monthly Avg.	33	24	28	54	22	31	57	22	31	60	22	32	94	55	79	24.4	0.0	208°	
Monthly Total																			249.7
YTD <sup>1</sup> Avg.	30	20	25	52	18	28	54	18	28	54	18	28	93	51	76	21.2	0.4	218°	
YTD <sup>1</sup> Total																			900.2

<sup>1</sup> Year To Date

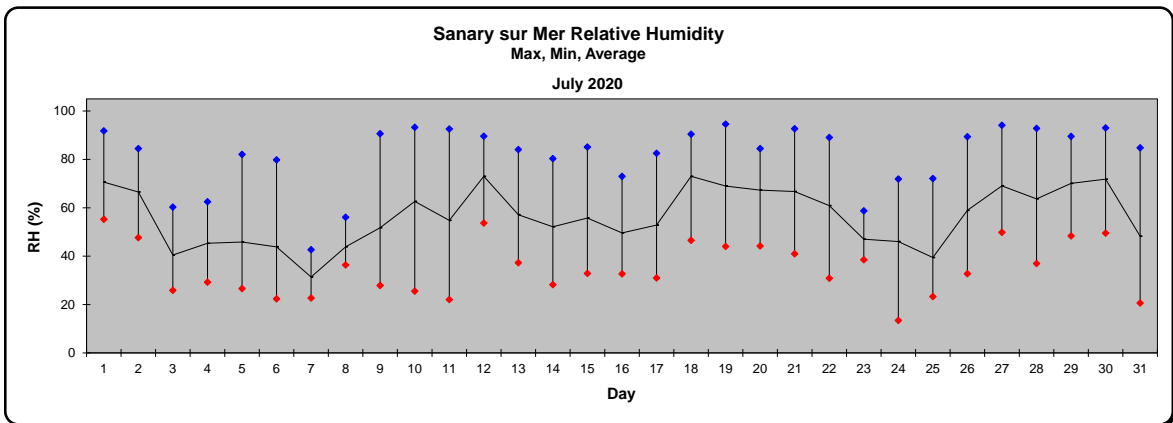
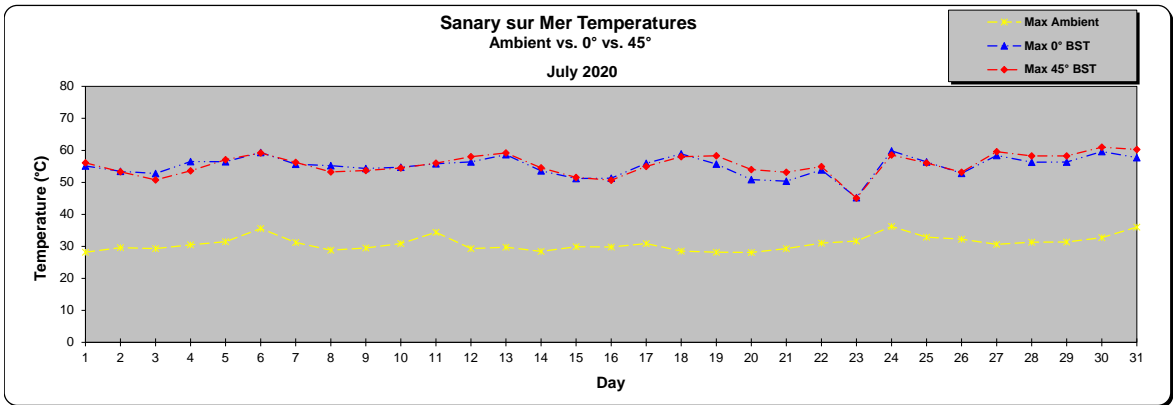
Note:



Month	Temperature Summary																		Climate Summary										
	Ambient Temperature			Black Standard Temperature BST (°C)						Black Panel Temperature BPT (°C)						Black Metal Panel Temperature (ASTM G179) (°C)						Relative Humidity			Wind Speed		Wind Direction	Rainfall	
	°C			0°			45°			0°			45°			0°			45°			%			(m/s)		360°/0°=N	(mm)	
Day	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Avg	Avg	Total	
1	28	19	23	55	17	31	56	17	31	51	16	29	53	15	28	56	16	31	55	17	30	92	55	71	4.4	0.9	172°	0.0	
2	30	19	25	53	18	28	53	18	28	50	17	28	49	16	27	58	17	28	57	18	28	85	48	66	5.4	0.8	280°	0.0	
3	29	20	25	53	17	31	51	18	31	45	17	28	46	15	28	52	17	30	51	17	30	60	26	40	7.1	1.4	277°	0.0	
4	30	18	24	57	15	32	54	16	31	46	14	29	47	14	27	54	14	31	54	15	30	63	29	45	4.9	0.9	265°	0.0	
5	31	18	25	56	16	33	57	17	32	52	15	30	51	14	29	58	15	32	58	16	31	82	27	46	4.0	0.7	216°	0.0	
6	36	19	27	59	17	34	59	17	33	54	16	31	53	15	30	59	16	33	60	17	32	80	22	44	9.1	1.4	279°	0.0	
7	31	19	25	56	17	33	56	17	32	50	16	30	50	14	29	57	16	32	56	17	32	43	23	31	4.7	0.9	248°	0.0	
8	29	20	24	55	17	32	53	18	31	49	16	29	48	15	28	53	17	31	53	17	30	56	36	44	4.9	1.1	193°	0.0	
9	30	18	23	54	15	31	54	16	30	47	14	28	48	13	27	55	15	30	55	15	29	91	28	52	4.7	0.9	262°	0.0	
10	31	18	24	55	15	30	54	16	30	47	14	28	48	13	27	54	14	30	54	15	29	93	26	63	4.5	0.9	264°	0.0	
11	34	19	26	56	18	33	56	18	33	49	17	31	50	15	30	56	17	32	56	18	32	93	22	55	6.4	1.0	277°	0.0	
12	29	20	24	56	17	30	58	18	31	52	17	29	53	15	28	58	17	30	58	17	30	90	54	73	5.9	0.8	117°	0.0	
13	30	20	25	59	17	32	59	18	32	53	17	30	53	15	29	58	17	31	57	17	31	84	37	57	4.9	0.9	30°	0.0	
14	28	18	24	54	16	30	55	17	30	47	16	28	48	14	27	56	16	30	55	16	30	80	28	52	4.8	1.0	313°	0.0	
15	30	18	24	51	15	29	52	16	29	44	15	27	44	13	26	52	15	29	52	15	28	85	33	56	8.0	1.2	283°	0.0	
16	30	17	24	51	15	30	51	15	30	43	14	28	43	13	27	50	14	30	51	15	29	73	33	50	5.5	1.0	247°	0.0	
17	31	18	25	56	16	32	55	17	32	48	15	29	49	14	28	55	15	31	56	16	31	83	31	53	4.7	0.9	154°	0.0	
18	29	19	23	59	17	30	58	18	30	53	16	28	53	15	27	58	17	30	57	17	29	90	47	73	4.3	0.8	116°	0.0	
19	28	18	23	56	16	31	58	17	32	52	16	29	53	14	28	57	16	31	57	16	30	95	44	69	4.9	0.9	93°	0.0	
20	28	18	24	51	16	30	54	16	30	46	15	28	46	14	27	54	15	30	54	16	29	85	44	67	4.4	0.9	269°	0.0	
21	29	19	25	50	18	31	53	18	32	46	17	29	47	16	29	52	17	31	53	18	31	93	41	67	4.4	0.9	272°	0.0	
22	31	20	25	54	18	32	55	18	32	52	17	29	52	17	29	57	18	31	56	18	31	89	31	61	5.2	0.9	262°	0.0	
23	32	26	29	45	25	30	45	26	30	41	25	29	40	25	29	45	25	30	44	25	30	59	39	47	5.2	0.9	276°	0.0	
24	36	21	28	60	18	34	59	19	34	52	17	31	53	15	31	58	17	33	60	18	33	72	13	46	7.5	1.1	284°	0.0	
25	33	21	26	56	18	32	56	19	32	51	17	30	52	15	29	55	17	32	55	18	31	72	23	39	6.4	1.0	270°	0.0	
26	32	19	25	53	16	32	53	17	32	46	16	29	46	13	28	52	16	31	53	17	31	89	33	59	5.9	0.9	270°	0.0	
27	31	21	25	58	19	34	60	19	34	53	18	31	54	17	31	58	19	33	59	19	33	94	50	69	5.0	0.8	89°	0.0	
28	31	20	25	56	18	31	58	19	31	52	17	29	52	16	29	60	18	31	60	18	31	93	37	64	4.5	0.8	269°	0.0	
29	31	21	26	56	19	33	58	20	34	52	18	31	53	18	31	57	19	33	57	19	33	90	48	70	4.0	0.7	146°	0.0	
30	33	21	26	60	19	34	61	20	34	54	18	32	55	18	32	58	19	33	60	19	33	93	50	72	4.9	0.8	98°	0.0	
31	36	21	28	58	19	35	60	20	35	54	19	33	54	19	33	60	19	35	61	19	35	85	21	48	4.0	0.8	257°	0.0	
Monthly Avg.	31	19	25	55	17	32	56	18	32	49	17	29	50	15	29	55	17	31	56	17	31	82	35	56	5.3	0.9	221°	0.0	
Monthly Total																													0.0
YTD <sup>†</sup> Avg.	21	12	16	40	9	20	44	10	21	36	9	19	40	9	19	41	9	20	45	9	20	85	42	64	6.0	1.1	172°	0.0	
YTD <sup>†</sup> Total																													153.9

<sup>†</sup> Year To Date

Note: \*No data available



**Solar Radiation Summary  
July 2020**

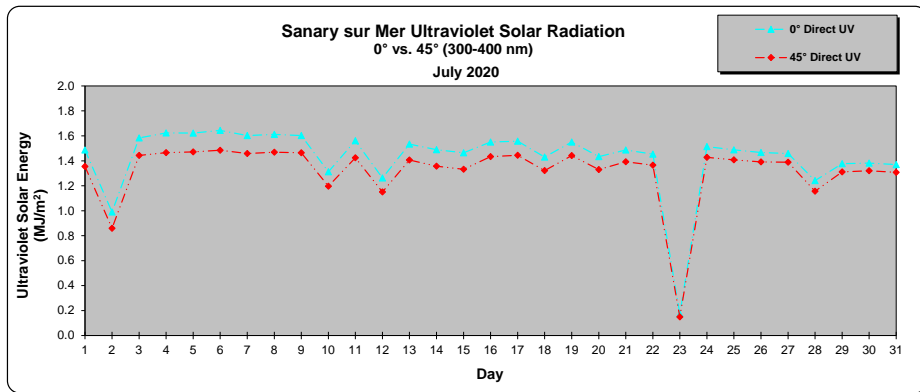
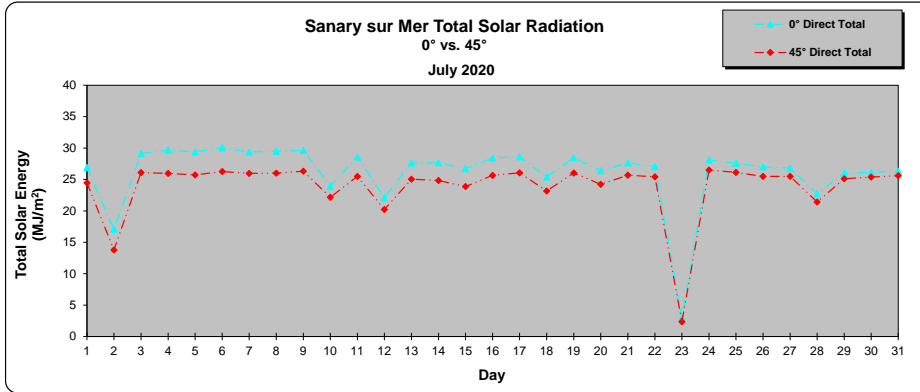
**Sanary sur Mer, France**

Latitude 43° 08' North, Longitude 05° 49' East, Elevation 110 (m)

Month	Solar Radiation Summary					
	Total Solar Radiation (MJ/m <sup>2</sup> )		Ultraviolet Solar Radiation (MJ/m <sup>2</sup> )			
	Direct		295-385 nm		300-400 nm	
Day	0°	45°	0°	45°	0°	45°
1	26.9	24.5	*	*	1.49	1.36
2	17.1	13.8	*	*	0.99	0.86
3	29.1	26.1	*	*	1.58	1.44
4	29.7	26.0	*	*	1.62	1.47
5	29.4	25.7	*	*	1.62	1.47
6	30.1	26.3	*	*	1.64	1.49
7	29.4	26.0	*	*	1.60	1.46
8	29.5	26.0	*	*	1.61	1.47
9	29.7	26.3	*	*	1.60	1.46
10	24.0	22.2	*	*	1.31	1.20
11	28.6	25.5	*	*	1.56	1.42
12	22.1	20.2	*	*	1.26	1.15
13	27.6	25.0	*	*	1.53	1.41
14	27.7	24.8	*	*	1.49	1.36
15	26.7	23.9	*	*	1.46	1.33
16	28.4	25.7	*	*	1.55	1.43
17	28.6	26.1	*	*	1.56	1.44
18	25.4	23.2	*	*	1.43	1.32
19	28.5	26.0	1.18	1.10	1.55	1.44
20	26.4	24.2	1.09	1.01	1.43	1.33
21	27.7	25.7	1.13	1.06	1.49	1.39
22	27.1	25.4	1.11	1.04	1.45	1.37
23	3.0	2.3	0.13	0.11	0.17	0.15
24	28.1	26.5	1.16	1.09	1.51	1.43
25	27.6	26.1	1.14	1.07	1.49	1.41
26	27.0	25.5	1.12	1.06	1.47	1.39
27	26.8	25.5	1.11	1.06	1.46	1.39
28	22.7	21.4	0.95	0.88	1.24	1.16
29	26.0	25.1	1.05	1.00	1.38	1.31
30	26.1	25.4	1.05	1.01	1.38	1.32
31	26.3	25.6	1.05	1.00	1.37	1.31
<b>Monthly Total</b>	<b>813.2</b>	<b>742.0</b>	<b>13.27</b>	<b>12.47</b>	<b>44.33</b>	<b>40.93</b>
<b>YTD<sup>†</sup> Total</b>	<b>3848.6</b>	<b>4221.9</b>	<b>13.27</b>	<b>12.47</b>	<b>203.56</b>	<b>203.70</b>

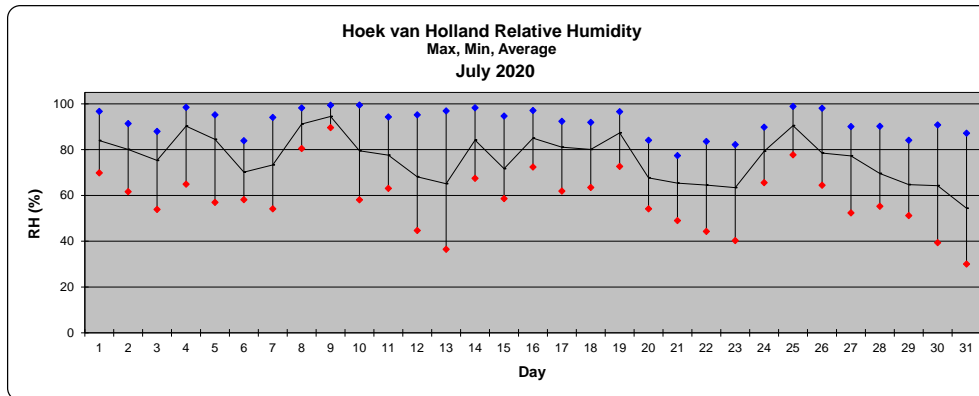
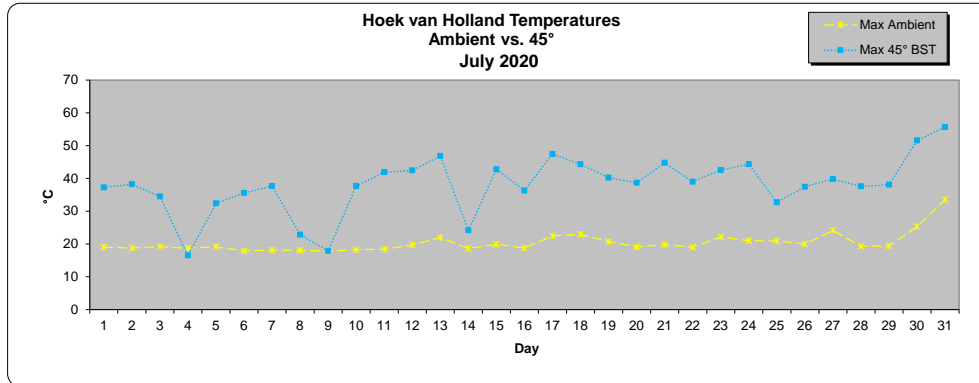
<sup>†</sup> Year To Date Total Solar Radiation - (290-3000 nm) Ultraviolet Solar Radiation - (295-385 nm) or (300-400 nm).

Note: \* No data available



Month	Temperature Summary						Climate Summary						
	Ambient Temperature			Black Metal Panel Temperature (ASTM G179) (°C)			Relative Humidity			Wind Speed		Wind Direction	Rainfall
July	° C			45 °			%			(m/s)		360°/0° = N	(mm)
Day	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Avg	Avg	Total
1	19	17	18	37	13	19	97	70	84	11.3	5.3	64°	0.5
2	19	17	17	38	13	20	91	62	80	10.5	4.7	81°	0.0
3	19	15	17	35	11	19	88	54	75	15.4	6.1	77°	0.0
4	19	15	17	17	11	14	99	65	90	14.4	7.2	54°	8.6
5	19	17	18	32	13	18	95	57	85	17.9	8.5	67°	0.0
6	18	14	16	36	8	16	84	58	70	15.7	7.0	126°	0.0
7	18	14	16	38	9	18	94	54	73	9.2	3.5	99°	2.5
8	18	14	16	23	10	14	98	81	91	7.1	2.5	70°	4.8
9	18	16	17	18	13	14	99	90	95	10.7	5.2	61°	6.4
10	18	13	16	38	8	17	100	58	80	9.8	3.7	170°	5.6
11	18	11	15	42	5	18	94	63	78	8.0	2.5	177°	8.4
12	20	10	16	42	4	18	95	45	68	6.9	2.3	214°	0.0
13	22	10	18	47	3	22	97	36	65	5.1	1.8	76°	0.0
14	19	14	17	24	9	15	98	67	84	6.2	2.7	147°	2.3
15	20	13	17	43	7	19	95	59	72	6.2	2.9	131°	0.5
16	19	15	17	36	11	17	97	72	85	8.7	3.9	151°	1.5
17	22	16	19	47	10	21	92	62	81	5.3	2.0	109°	0.0
18	23	15	19	44	10	23	92	64	80	6.3	2.2	60°	0.0
19	21	14	17	40	8	18	97	73	87	7.6	3.1	97°	3.6
20	19	14	16	39	8	19	84	54	68	8.8	3.3	185°	0.0
21	20	13	16	45	7	19	77	49	65	7.6	3.2	162°	0.0
22	19	12	16	39	5	17	84	44	65	7.0	2.2	203°	0.0
23	22	12	19	43	5	20	82	40	63	7.7	3.6	47°	0.0
24	21	18	19	44	14	21	90	66	79	8.1	3.8	99°	0.0
25	21	16	18	33	12	16	99	78	91	11.0	4.6	43°	19.1
26	20	17	18	37	12	20	98	64	79	10.0	4.9	78°	1.0
27	24	16	19	40	12	18	90	52	77	13.0	4.3	29°	0.0
28	19	17	18	38	13	19	90	55	70	12.0	5.6	101°	0.0
29	19	14	17	38	7	18	84	51	65	10.0	4.3	122°	0.0
30	25	13	20	52	6	24	91	39	64	5.6	1.6	309°	0.0
31	34	15	25	56	9	30	87	30	54	8.3	1.3	299°	0.0
<b>Monthly Avg.</b>	20	14	17	38	9	19	92	58	76	9.4	3.9	120°	
<b>Monthly Total</b>													64.8
<b>YTD<sup>1</sup> Avg.</b>	15	8	12	30	3	12	91	57	76	10.7	4.4	177°	
<b>YTD<sup>1</sup> Total</b>													371.8

<sup>1</sup> Year To Date For Pollution (SO2, NOx, O3) visit [www.lml.rivm.nl](http://www.lml.rivm.nl)  
Note: = 5 year average





# ATLAS

WEATHERING SERVICES GROUP



North Sea Corrosion Test Centre

## Solar Radiation Summary

July 2020

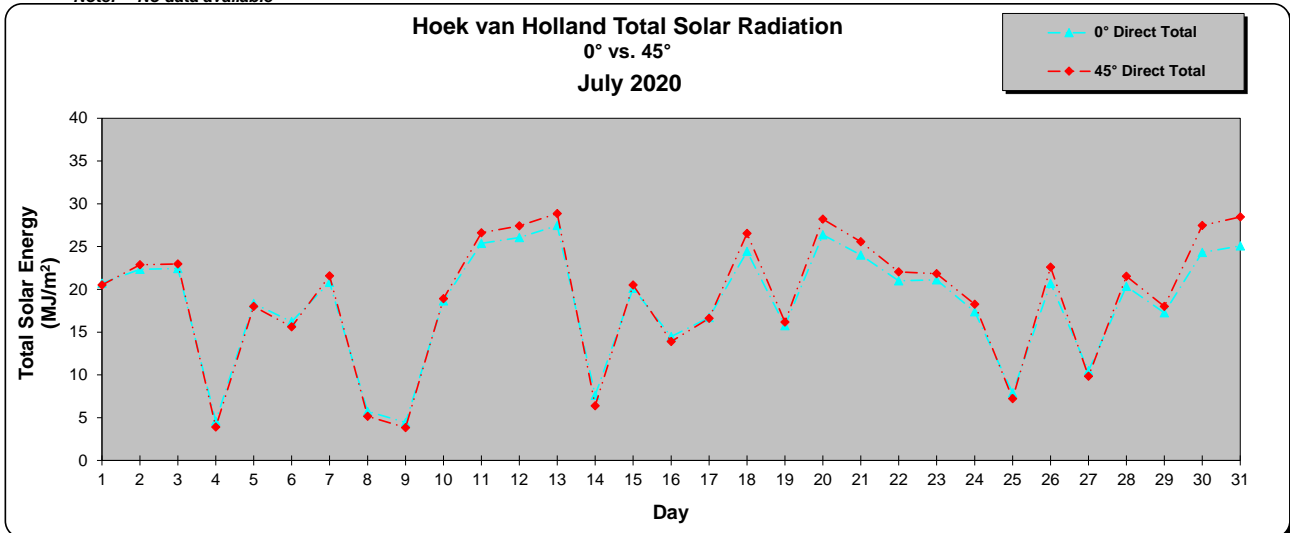
Hoek van Holland, The Netherlands

Latitude 51° 57' North, Longitude 04° 10' East Elevation 6 (m)

AWSG	Solar Radiation Summary	
Month	Total Solar Radiation (MJ/m <sup>2</sup> )	
July	Direct	
Day	0°	45°
1	20.7	20.5
2	22.3	22.9
3	22.4	23.0
4	4.6	3.9
5	18.4	18.0
6	16.2	15.6
7	20.8	21.6
8	5.7	5.2
9	4.4	3.8
10	18.7	18.9
11	25.4	26.6
12	26.1	27.4
13	27.5	28.9
14	7.6	6.4
15	20.1	20.5
16	14.5	13.9
17	16.7	16.6
18	24.4	26.5
19	15.8	16.2
20	26.4	28.2
21	24.0	25.6
22	21.0	22.0
23	21.1	21.8
24	17.4	18.3
25	7.9	7.2
26	20.7	22.6
27	10.5	9.8
28	20.3	21.5
29	17.3	18.0
30	24.3	27.5
31	25.1	28.5
<b>Monthly Total</b>	<b>568.3</b>	<b>587.4</b>
<b>YTD<sup>†</sup> Total</b>	<b>2972.0</b>	<b>3489.8</b>

<sup>†</sup> Year To Date Total Solar Radiation - (290-3000nm)

Note: \* No data available



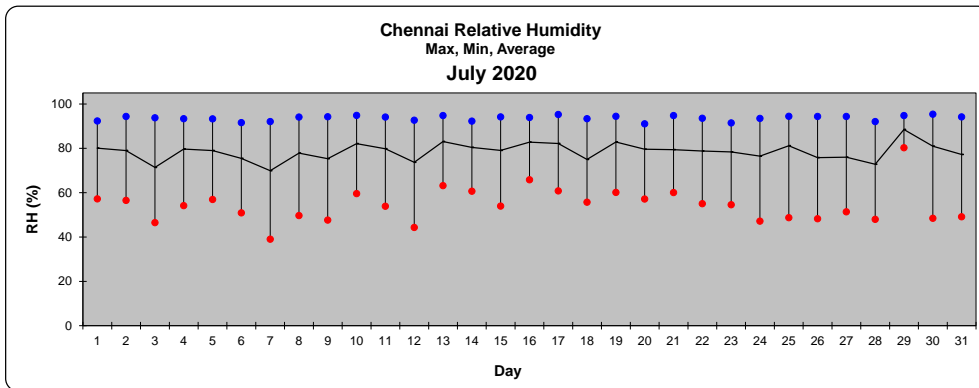
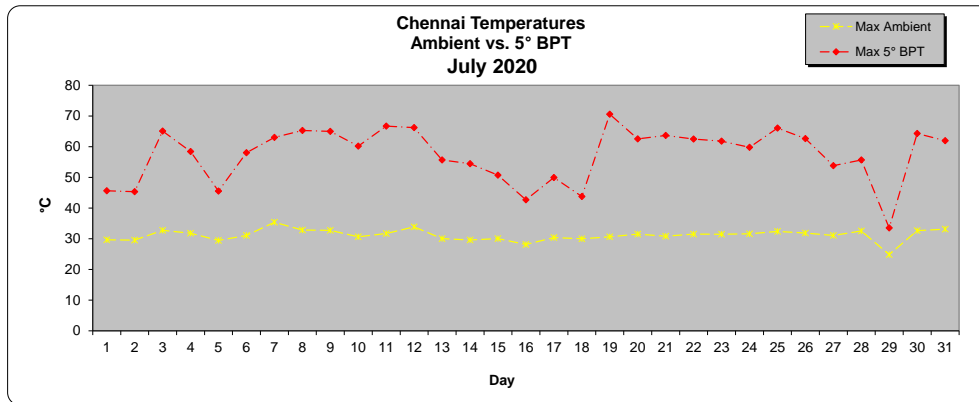


Latitude 12° 35' North, Longitude 79° 48' East Elevation 45 (m)

Month	Temperature Summary						Climate Summary						
	Ambient Temperature			Black Metal Panel Temperature (ASTM G179) (°C)			Relative Humidity			Wind Speed		Wind Direction	Rainfall
July	°C			5 °			%			(m/s)		360°/70° = N	(mm)
Day	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Avg	Avg	Total
1	30	22	26	46	24	31	92	57	80	2.4	0.5	202°	0.0
2	30	24	26	45	25	31	94	57	79	2.7	0.6	241°	1.0
3	33	21	26	65	23	34	94	47	71	5.5	1.2	247°	30.7
4	32	21	25	58	23	33	93	54	80	7.4	0.8	202°	5.1
5	29	23	26	46	25	31	93	57	79	3.4	0.6	212°	0.0
6	31	23	27	58	25	33	92	51	75	4.4	0.8	242°	0.0
7	35	22	28	63	23	36	92	39	70	5.4	1.0	227°	0.0
8	33	22	26	65	23	35	94	50	78	7.2	0.9	235°	1.8
9	33	21	26	65	23	35	94	48	75	3.8	0.8	137°	0.0
10	31	21	25	60	23	32	95	60	82	4.8	0.9	287°	14.2
11	32	21	25	67	23	33	94	54	80	6.3	0.7	59°	7.9
12	34	22	27	66	24	36	93	44	74	3.9	0.9	281°	0.0
13	30	21	25	56	23	32	95	63	83	3.8	0.7	279°	9.4
14	30	23	26	54	24	32	92	61	80	3.7	0.7	333°	0.0
15	30	21	25	51	24	32	94	54	79	6.0	0.7	233°	16.0
16	28	22	25	43	24	30	94	66	83	3.6	0.6	227°	13.2
17	30	22	25	50	24	32	95	61	82	3.0	0.6	189°	0.3
18	30	22	26	44	23	31	93	56	75	4.0	0.7	231°	0.0
19	31	23	26	71	25	33	95	60	83	3.5	0.6	42°	0.0
20	32	22	26	63	23	34	91	57	80	7.2	0.8	128°	6.1
21	31	23	26	64	24	35	95	60	79	4.1	0.7	98°	0.0
22	31	22	26	62	24	35	94	55	79	4.4	0.7	98°	0.0
23	31	22	26	62	24	34	92	55	78	3.3	0.7	73°	0.0
24	32	22	26	60	24	34	94	47	77	3.6	0.7	113°	8.1
25	32	21	25	66	23	32	95	49	81	5.3	0.9	319°	11.7
26	32	21	26	63	22	34	94	48	76	4.4	0.9	271°	1.3
27	31	22	26	54	24	33	94	51	76	4.0	0.9	323°	0.0
28	33	23	27	56	24	34	92	48	73	6.4	1.3	300°	0.0
29	25	22	23	34	24	26	95	80	89	2.3	0.5	14°	5.6
30	33	22	26	64	24	34	95	49	81	5.4	0.7	344°	14.7
31	33	22	27	62	24	36	94	49	77	4.3	0.8	217°	0.0
Monthly Avg.	31	22	26	57	24	33	94	54	79	4.5	0.8	207°	
Monthly Total													147.1
YTD <sup>†</sup> Avg.	32	21	25	61	22	33	93	44	74	5.1	0.9	145°	
YTD <sup>†</sup> Total													304.5

<sup>†</sup> Year To Date

Note: \* Data Unavailable





# ATLAS

**WEATHERING SERVICES GROUP**



## Solar Radiation Summary July 2020

Chennai, India

Latitude 12° 35' North, Longitude 79° 48' East Elevation 45 (m)

AWSG Solar Radiation Summary			
Month	Total Solar Radiation (MJ/m <sup>2</sup> )	Ultraviolet Solar Radiation (MJ/m <sup>2</sup> )	
		295-385 nm	300-400 nm
July	Direct	295-385 nm	300-400 nm
Day	5°	5°	
1	9.3	0.47	0.53
2	8.6	0.44	0.49
3	20.2	0.86	0.96
4	17.5	0.78	0.87
5	10.8	0.52	0.58
6	15.8	0.70	0.78
7	25.2	1.01	1.12
8	22.3	0.95	1.06
9	22.2	0.96	1.07
10	15.42	0.70	0.78
11	17.8	0.79	0.88
12	25.2	1.01	1.13
13	13.7	0.65	0.73
14	12.8	0.59	0.66
15	13.8	0.64	0.71
16	8.5	0.44	0.49
17	12.4	0.57	0.64
18	12.1	0.58	0.64
19	14.9	0.65	0.73
20	21.0	0.86	0.96
21	23.6	0.96	1.07
22	23.0	0.95	1.06
23	20.0	0.85	0.94
24	20.0	0.84	0.94
25	18.3	0.76	0.85
26	23.5	0.98	1.09
27	20.0	0.85	0.94
28	23.2	0.95	1.06
29	3.9	0.24	0.27
30	22.1	0.91	1.01
31	23.8	0.98	1.09
<b>Monthly Total</b>	<b>540.7</b>	<b>23.40</b>	<b>26.12</b>
<b>YTD<sup>1</sup> Total</b>	<b>4375.5</b>	<b>188.38</b>	<b>210.29</b>

<sup>1</sup> Year To Date Total Solar Radiation - (290-3000nm)

Note:

