

Table 5.18(k) Banded weather data: Nottingham

Hour	Dry-bulb / °C	Incident solar irradiation / W·m ⁻²									
		Horizontal		N		NE		E		SE	
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse
May											
1	11.24	0	0	0	0	0	0	0	0	0	0
2	10.70	0	0	0	0	0	0	0	0	0	0
3	10.39	0	0	0	0	0	0	0	0	0	0
4	10.33	0	0	0	0	0	0	0	0	0	0
5	10.54	13	38	40	36	93	48	91	48	36	35
6	11.00	44	82	33	65	128	87	148	91	82	76
7	11.67	85	128	3	90	131	120	183	131	127	119
8	12.51	126	175	0	92	103	145	183	164	156	158
9	13.47	162	219	0	116	58	165	159	189	167	191
10	14.47	191	258	0	137	5	178	117	206	160	217
11	15.46	209	285	0	151	0	151	62	211	136	230
12	16.35	215	296	0	156	0	156	0	156	98	227
13	17.10	209	286	0	151	0	151	0	151	49	207
14	17.65	191	258	0	137	0	137	0	137	0	137
15	17.96	163	219	0	116	0	116	0	116	0	116
16	18.01	127	175	0	92	0	92	0	92	0	92
17	17.80	86	129	3	91	0	67	0	67	0	67
18	17.34	44	83	33	66	0	42	0	42	0	42
19	16.67	13	39	40	37	0	19	0	19	0	19
20	15.83	0	0	0	0	0	0	0	0	0	0
21	14.87	0	0	0	0	0	0	0	0	0	0
22	13.87	0	0	0	0	0	0	0	0	0	0
23	12.89	0	0	0	0	0	0	0	0	0	0
24	11.99	0	0	0	0	0	0	0	0	0	0

Hour	Dry-bulb / °C	Incident solar irradiation / W·m ⁻²								Altitude	Azimuth
		S		SW		W		NW			
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse		
1	11.24	0	0	0	0	0	0	0	0	0	14.61
2	10.70	0	0	0	0	0	0	0	0	0	28.69
3	10.39	0	0	0	0	0	0	0	0	0	41.95
4	10.33	0	0	0	0	0	0	0	0	0	54.34
5	10.54	0	19	0	19	0	19	0	19	7.50	66.06
6	11.00	0	42	0	42	0	42	0	42	16.07	77.46
7	11.67	0	67	0	67	0	67	0	67	25.02	89.07
8	12.51	37	130	0	92	0	92	0	92	34.00	101.54
9	13.47	77	170	0	116	0	116	0	116	42.55	115.82
10	14.47	109	204	0	137	0	137	0	137	50.00	133.16
11	15.46	131	229	49	207	0	151	0	151	55.33	154.74
12	16.35	138	238	98	227	0	201	0	156	57.33	180.00
13	17.10	131	229	136	230	62	211	0	151	55.35	205.27
14	17.65	109	204	160	217	117	206	5	178	50.02	226.86
15	17.96	77	170	167	192	159	190	58	165	42.59	244.22
16	18.01	37	130	156	158	183	164	103	146	34.05	258.51
17	17.80	0	67	127	119	183	131	131	120	25.09	270.99
18	17.34	0	42	82	77	149	92	129	87	16.15	282.60
19	16.67	0	19	36	36	91	48	93	48	7.60	294.01
20	15.83	0	0	0	0	0	0	0	0	0.00	305.73
21	14.87	0	0	0	0	0	0	0	0	0.00	318.12
22	13.87	0	0	0	0	0	0	0	0	0.00	331.36
23	12.89	0	0	0	0	0	0	0	0	0.00	345.43
24	11.99	0	0	0	0	0	0	0	0	0.00	360.00

Dirfac = 0.29; Diffac = 1.03; Maximum dry-bulb = 18.02 °C; Minimum dry-bulb = 10.32 °C; Adaptive comfort range = 21.4–25.4 °C

Table continues

Table 5.18(k) Banded weather data: Nottingham — *continued*

Hour	Dry-bulb /°C	Incident solar irradiation / W·m ⁻²									
		Horizontal		N		NE		E		SE	
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse
June											
1	11.79	0	0	0	0	0	0	0	0	0	0
2	11.17	0	0	0	0	0	0	0	0	0	0
3	10.84	0	0	0	0	0	0	0	0	0	0
4	10.84	1	12	20	11	34	17	27	14	5	3
5	11.17	23	50	57	48	124	62	118	61	43	45
6	11.79	64	92	48	75	165	101	185	105	97	86
7	12.68	113	137	12	98	162	131	217	143	145	127
8	13.77	160	182	0	99	127	154	214	175	176	166
9	14.98	202	225	0	123	74	172	185	198	187	199
10	16.24	234	264	0	144	13	182	135	213	178	223
11	17.45	255	292	0	159	0	159	71	215	149	236
12	18.54	262	303	0	164	0	164	0	164	105	231
13	19.43	255	292	0	159	0	159	0	159	49	210
14	20.06	234	264	0	144	0	144	0	144	0	144
15	20.38	202	225	0	123	0	123	0	123	0	123
16	20.38	160	182	0	99	0	99	0	99	0	99
17	20.06	113	137	12	98	0	74	0	74	0	74
18	19.43	64	92	48	75	0	48	0	48	0	48
19	18.54	23	50	57	48	0	25	0	25	0	25
20	17.45	1	12	20	11	0	6	0	6	0	6
21	16.24	0	0	0	0	0	0	0	0	0	0
22	14.98	0	0	0	0	0	0	0	0	0	0
23	13.77	0	0	0	0	0	0	0	0	0	0
24	12.68	0	0	0	0	0	0	0	0	0	0

Hour	Dry-bulb /°C	Incident solar irradiation / W·m ⁻²								Altitude	Azimuth
		S		SW		W		NW			
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse		
1	11.79	0	0	0	0	0	0	0	0	0	14.07
2	11.17	0	0	0	0	0	0	0	0	0	27.70
3	10.84	0	0	0	0	0	0	0	0	0	40.58
4	10.84	0	6	0	6	0	6	0	6	2.38	52.68
5	11.17	0	25	0	25	0	25	0	25	10.06	64.17
6	11.79	0	48	0	48	0	48	0	48	18.52	75.38
7	12.68	0	74	0	74	0	74	0	74	27.42	86.79
8	13.77	34	133	0	99	0	99	0	99	36.42	99.08
9	14.98	79	173	0	123	0	123	0	123	45.08	113.25
10	16.24	116	208	0	144	0	144	0	144	52.73	130.74
11	17.45	140	233	49	210	0	159	0	159	58.32	153.12
12	18.54	149	243	105	231	0	164	0	164	60.44	180.00
13	19.43	140	233	149	236	71	215	0	159	58.32	206.88
14	20.06	116	208	178	223	135	213	13	182	52.73	229.25
15	20.38	79	173	187	199	185	198	74	172	45.08	246.75
16	20.38	34	133	176	166	214	175	127	154	36.42	260.92
17	20.06	0	74	145	127	217	143	162	131	27.42	273.21
18	19.43	0	48	97	86	185	105	165	101	18.52	284.62
19	18.54	0	25	43	45	118	61	124	62	10.06	295.83
20	17.45	0	6	5	3	27	14	33	17	2.38	307.32
21	16.24	0	0	0	0	0	0	0	0	0	319.42
22	14.98	0	0	0	0	0	0	0	0	0	332.30
23	13.77	0	0	0	0	0	0	0	0	0	345.92
24	12.68	0	0	0	0	0	0	0	0	0	360.00

Dirfac = 0.34; Diffac = 1.00; Maximum dry-bulb = 20.43 °C; Minimum dry-bulb = 10.80 °C; Adaptive comfort range = 22.1–26.1 °C

Table continues

Table 5.18(k) Banded weather data: Nottingham — *continued*

Hour	Dry-bulb / °C	Incident solar irradiation / W·m ⁻²									
		Horizontal		N		NE		E		SE	
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse
July											
1	14.37	0	0	0	0	0	0	0	0	0	0
2	14.09	0	0	0	0	0	0	0	0	0	0
3	14.12	0	0	0	0	0	0	0	0	0	0
4	14.47	0	0	0	0	0	0	0	0	0	0
5	15.11	13	38	42	36	96	48	94	48	37	35
6	16.00	45	82	34	65	133	87	154	92	85	77
7	17.08	88	128	2	90	136	121	190	133	133	120
8	18.27	131	174	0	93	107	146	192	166	164	159
9	19.50	169	219	0	117	60	165	167	191	176	193
10	20.67	198	257	0	137	5	177	122	207	168	218
11	21.72	217	285	0	152	0	152	65	210	143	231
12	22.56	224	296	0	157	0	157	0	157	103	228
13	23.15	217	285	0	152	0	152	0	152	52	207
14	23.43	198	257	0	137	0	137	0	137	0	137
15	23.40	168	218	0	116	0	116	0	116	0	116
16	23.05	131	174	0	92	0	92	0	92	0	92
17	22.41	88	127	2	89	0	67	0	67	0	67
18	21.52	44	81	33	65	0	41	0	41	0	41
19	20.44	13	37	41	36	0	18	0	18	0	18
20	19.25	0	0	0	0	0	0	0	0	0	0
21	18.02	0	0	0	0	0	0	0	0	0	0
22	16.85	0	0	0	0	0	0	0	0	0	0
23	15.80	0	0	0	0	0	0	0	0	0	0
24	14.96	0	0	0	0	0	0	0	0	0	0

Hour	Dry-bulb / °C	Incident solar irradiation / W·m ⁻²								Altitude	Azimuth
		S		SW		W		NW			
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse		
1	14.37	0	0	0	0	0	0	0	0	0	14.64
2	14.09	0	0	0	0	0	0	0	0	0	28.76
3	14.12	0	0	0	0	0	0	0	0	0	42.05
4	14.47	0	0	0	0	0	0	0	0	0	54.47
5	15.11	0	18	0	18	0	18	0	18	7.28	66.22
6	16.00	0	42	0	42	0	42	0	42	15.84	77.66
7	17.08	0	67	0	67	0	67	0	67	24.78	89.29
8	18.27	40	130	0	93	0	93	0	93	33.75	101.79
9	19.50	82	170	0	117	0	117	0	117	42.27	116.09
10	20.67	116	205	0	137	0	137	0	137	49.67	133.42
11	21.72	138	230	52	207	0	152	0	152	54.97	154.92
12	22.56	146	239	103	228	0	200	0	157	56.93	180.00
13	23.15	138	230	143	231	65	210	0	152	54.95	205.07
14	23.43	116	205	168	218	122	207	5	177	49.64	226.55
15	23.40	82	170	176	193	167	191	60	165	42.22	243.87
16	23.05	40	130	164	159	192	166	107	146	33.69	258.16
17	22.41	0	67	133	120	190	133	136	120	24.72	270.65
18	21.52	0	41	85	76	153	92	132	87	15.76	282.28
19	20.44	0	18	37	35	94	48	96	48	7.18	293.71
20	19.25	0	0	0	0	0	0	0	0	0	305.45
21	18.02	0	0	0	0	0	0	0	0	0	317.88
22	16.85	0	0	0	0	0	0	0	0	0	331.18
23	15.80	0	0	0	0	0	0	0	0	0	345.33
24	14.96	0	0	0	0	0	0	0	0	0	360.00

Dirfac = 0.30; Diffac = 1.03; Maximum dry-bulb = 23.46 °C; Minimum dry-bulb = 14.06 °C; Adaptive comfort range = 23.0–27.0 °C

Table continues

Table 5.18(k) Banded weather data: Nottingham — *continued*

Hour	Dry-bulb /°C	Incident solar irradiation / W·m ⁻²									
		Horizontal		N		NE		E		SE	
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse
August											
1	15.88	0	0	0	0	0	0	0	0	0	0
2	15.08	0	0	0	0	0	0	0	0	0	0
3	14.55	0	0	0	0	0	0	0	0	0	0
4	14.33	0	0	0	0	0	0	0	0	0	0
5	14.43	0	0	0	0	0	0	0	0	0	0
6	14.85	18	44	13	34	90	51	113	56	71	47
7	15.57	56	89	0	46	112	87	175	101	135	92
8	16.52	101	133	0	71	92	113	193	136	181	133
9	17.66	142	175	0	94	45	131	173	161	200	167
10	18.89	174	209	0	113	0	113	129	174	196	190
11	20.13	194	233	0	126	0	126	68	176	171	201
12	21.31	201	242	0	130	0	130	0	130	129	197
13	22.34	194	233	0	126	0	126	0	126	74	177
14	23.14	174	209	0	113	0	113	0	113	14	147
15	23.67	142	174	0	94	0	94	0	94	0	94
16	23.89	101	133	0	71	0	71	0	71	0	71
17	23.79	56	88	0	46	0	46	0	46	0	46
18	23.37	17	43	13	34	0	21	0	21	0	21
19	22.65	0	0	0	0	0	0	0	0	0	0
20	21.70	0	0	0	0	0	0	0	0	0	0
21	20.56	0	0	0	0	0	0	0	0	0	0
22	19.33	0	0	0	0	0	0	0	0	0	0
23	18.09	0	0	0	0	0	0	0	0	0	0
24	16.91	0	0	0	0	0	0	0	0	0	0

Hour	Dry-bulb /°C	Incident solar irradiation / W·m ⁻²								Altitude	Azimuth
		S		SW		W		NW			
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse		
1	15.88	0	0	0	0	0	0	0	0	0	16.24
2	15.08	0	0	0	0	0	0	0	0	0	31.73
3	14.55	0	0	0	0	0	0	0	0	0	46.05
4	14.33	0	0	0	0	0	0	0	0	0	59.21
5	14.43	0	0	0	0	0	0	0	0	0	71.49
6	14.85	0	22	0	22	0	22	0	22	8.73	83.36
7	15.57	16	66	0	46	0	46	0	46	17.73	95.34
8	16.52	63	107	0	71	0	71	0	71	26.54	108.10
9	17.66	110	146	0	94	0	94	0	94	34.68	122.40
10	18.89	148	179	14	147	0	113	0	113	41.51	139.03
11	20.13	173	201	74	177	0	126	0	126	46.19	158.46
12	21.31	182	210	129	197	0	165	0	130	47.87	180.00
13	22.34	173	201	171	201	68	176	0	126	46.16	201.53
14	23.14	148	179	196	190	129	174	0	113	41.46	220.94
15	23.67	110	146	200	166	173	160	45	131	34.61	237.55
16	23.89	63	107	181	133	193	136	91	113	26.45	251.82
17	23.79	17	66	135	92	175	100	112	87	17.62	264.56
18	23.37	0	21	71	46	113	55	89	50	8.59	276.54
19	22.65	0	0	0	0	0	0	0	0	0	288.39
20	21.70	0	0	0	0	0	0	0	0	0	300.67
21	20.56	0	0	0	0	0	0	0	0	0	313.83
22	19.33	0	0	0	0	0	0	0	0	0	328.18
23	18.09	0	0	0	0	0	0	0	0	0	343.70
24	16.91	0	0	0	0	0	0	0	0	0	360.00

Dirfac = 0.32; Diffac = 1.01; Maximum dry-bulb = 23.90 °C; Minimum dry-bulb = 14.32 °C; Adaptive comfort range = 23.0–27.0 °C

Table continues

Table 5.18(k) Banded weather data: Nottingham — *continued*

Hour	Dry-bulb /°C	Incident solar irradiation / W·m ⁻²									
		Horizontal		N		NE		E		SE	
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse
September											
1	9.89	0	0	0	0	0	0	0	0	0	0
2	8.92	0	0	0	0	0	0	0	0	0	0
3	8.31	0	0	0	0	0	0	0	0	0	0
4	8.10	0	0	0	0	0	0	0	0	0	0
5	8.31	0	0	0	0	0	0	0	0	0	0
6	8.92	0	0	0	0	3	1	4	1	3	1
7	9.89	46	38	0	22	159	55	285	78	244	71
8	11.15	139	74	0	48	153	79	399	124	412	126
9	12.62	238	106	0	72	56	84	394	146	500	165
10	14.20	317	132	0	92	0	92	303	147	510	186
11	15.78	367	150	0	105	0	105	163	133	459	189
12	17.25	384	156	0	109	0	109	0	109	360	174
13	18.51	367	149	0	105	0	105	0	105	228	145
14	19.48	316	132	0	92	0	92	0	92	82	106
15	20.09	237	106	0	72	0	72	0	72	0	72
16	20.30	138	73	0	47	0	47	0	47	0	47
17	20.09	45	37	0	22	0	22	0	22	0	22
18	19.48	0	0	0	0	0	0	0	0	0	0
19	18.51	0	0	0	0	0	0	0	0	0	0
20	17.25	0	0	0	0	0	0	0	0	0	0
21	15.78	0	0	0	0	0	0	0	0	0	0
22	14.20	0	0	0	0	0	0	0	0	0	0
23	12.62	0	0	0	0	0	0	0	0	0	0
24	11.15	0	0	0	0	0	0	0	0	0	0
Hour	Dry-bulb /°C	Incident solar irradiation / W·m ⁻²								Altitude	Azimuth
		S		SW		W		NW			
		Direct	Diffuse	Direct	Diffuse	Direct	Diffuse	Direct	Diffuse		
1	9.89	0	0	0	0	0	0	0	0	0	18.49
2	8.92	0	0	0	0	0	0	0	0	0	35.78
3	8.31	0	0	0	0	0	0	0	0	0	51.29
4	8.10	0	0	0	0	0	0	0	0	0	65.14
5	8.31	0	0	0	0	0	0	0	0	0	77.82
6	8.92	0	0	0	0	0	0	0	0	0.12	89.91
7	9.89	61	38	0	22	0	22	0	22	9.07	102.00
8	11.15	184	85	0	48	0	48	0	48	17.61	114.69
9	12.62	314	131	0	72	0	72	0	72	25.27	128.56
10	14.20	419	169	82	106	0	92	0	92	31.49	144.10
11	15.78	486	194	228	145	0	105	0	105	35.61	161.44
12	17.25	509	203	360	174	0	106	0	109	37.05	180.00
13	18.51	486	194	459	189	163	133	0	105	35.58	198.56
14	19.48	419	169	510	186	303	147	0	92	31.43	215.87
15	20.09	314	131	500	165	393	145	56	84	25.19	231.39
16	20.30	183	85	411	125	398	123	152	79	17.5	245.24
17	20.09	61	38	243	70	283	77	157	55	8.94	257.90
18	19.48	0	0	0	0	0	0	0	0	0	269.97
19	18.51	0	0	0	0	0	0	0	0	0	282.04
20	17.25	0	0	0	0	0	0	0	0	0	294.71
21	15.78	0	0	0	0	0	0	0	0	0	308.56
22	14.20	0	0	0	0	0	0	0	0	0	324.09
23	12.62	0	0	0	0	0	0	0	0	0	341.42
24	11.15	0	0	0	0	0	0	0	0	0	360.00

Dirfac = 0.80; Diffac = 0.84; Maximum dry-bulb = 20.30 °C; Minimum dry-bulb = 8.10 °C; Adaptive comfort range = 21.7–25.7 °C