

Table 5.18(g) Banded weather data: London

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	14.42	0	0	0	0	0	0	0	0	0	0
2	13.64	0	0	0	0	0	0	0	0	0	0
3	13.23	0	0	0	0	0	0	0	0	0	0
4	13.23	0	0	0	0	0	0	0	0	0	0
5	13.64	18	39	61	42	139	62	136	61	53	41
6	14.42	65	89	52	74	195	109	224	117	122	91
7	15.52	130	142	8	98	203	147	279	166	192	144
8	16.88	195	195	0	108	162	172	282	203	236	191
9	18.39	253	246	0	137	94	187	245	228	252	230
10	19.95	298	291	0	163	13	193	180	240	240	257
11	21.46	326	324	0	180	0	180	95	237	203	268
12	22.82	336	336	0	187	0	187	0	187	144	259
13	23.92	326	324	0	180	0	180	0	180	69	229
14	24.70	298	291	0	163	0	163	0	163	0	163
15	25.11	253	246	0	138	0	138	0	138	0	138
16	25.11	196	195	0	109	0	109	0	109	0	109
17	24.70	131	142	8	98	0	78	0	78	0	78
18	23.92	65	90	52	74	0	47	0	47	0	47
19	22.82	18	40	61	43	0	20	0	20	0	20
20	21.46	0	0	0	0	0	0	0	0	0	0
21	19.95	0	0	0	0	0	0	0	0	0	0
22	18.39	0	0	0	0	0	0	0	0	0	0
23	16.88	0	0	0	0	0	0	0	0	0	0
24	15.52	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	14.42	0	0	0	0	0	0	0	0	0	14.72
2	13.64	0	0	0	0	0	0	0	0	0	28.86
3	13.23	0	0	0	0	0	0	0	0	0	42.08
4	13.23	0	0	0	0	0	0	0	0	0	54.35
5	13.64	0	20	0	20	0	20	0	20	6.88	65.88
6	14.42	0	47	0	47	0	47	0	47	15.73	77.04
7	15.52	0	78	0	78	0	78	0	78	24.99	88.36
8	16.88	52	143	0	108	0	108	0	108	34.29	100.53
9	18.39	112	192	0	137	0	137	0	137	43.19	114.54
10	19.95	161	234	0	163	0	163	0	163	51.02	131.80
11	21.46	192	265	69	229	0	180	0	180	56.7	153.76
12	22.82	203	276	144	259	0	216	0	187	58.85	180.00
13	23.92	192	265	203	268	95	237	0	180	56.72	206.25
14	24.70	160	234	240	257	180	240	14	193	51.05	228.22
15	25.11	112	192	252	230	245	228	94	187	43.23	245.50
16	25.11	52	143	236	191	282	203	162	172	34.34	259.53
17	24.70	0	78	192	144	280	166	204	147	25.05	271.70
18	23.92	0	47	122	92	224	117	195	110	15.81	283.02
19	22.82	0	20	53	41	136	61	140	62	6.97	294.19
20	21.46	0	0	0	0	0	0	0	0	0	305.72
21	19.95	0	0	0	0	0	0	0	0	0	317.98
22	18.39	0	0	0	0	0	0	0	0	0	331.19
23	16.88	0	0	0	0	0	0	0	0	0	345.31
24	15.52	0	0	0	0	0	0	0	0	0	360.00

Dirfac = 0.44; Diffac = 1.14; Maximum dry-bulb = 25.16 °C; Minimum dry-bulb = 13.18 °C; Adaptive comfort range = 23–27 °C

Table continues

Table 5.18(g) Banded weather data: London — *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	16.81	0	0	0	0	0	0	0	0	0	0
2	15.80	0	0	0	0	0	0	0	0	0	0
3	15.18	0	0	0	0	0	0	0	0	0	0
4	14.98	1	8	15	8	24	12	19	10	3	2
5	15.23	24	52	64	52	138	70	131	69	47	48
6	15.90	72	101	57	84	190	116	211	121	109	96
7	16.95	130	152	17	108	189	151	250	166	164	145
8	18.31	186	204	0	112	151	176	248	201	200	189
9	19.88	236	255	0	140	91	194	214	227	212	227
10	21.56	275	301	0	165	20	204	156	242	201	254
11	23.24	300	335	0	183	0	183	82	243	168	268
12	24.79	308	348	0	189	0	189	0	189	116	261
13	26.12	300	335	0	183	0	183	0	183	51	233
14	27.13	275	301	0	165	0	165	0	165	0	165
15	27.75	236	255	0	140	0	140	0	140	0	140
16	27.95	186	204	0	112	0	112	0	112	0	112
17	27.70	130	152	17	108	0	82	0	82	0	82
18	27.03	72	101	57	84	0	53	0	53	0	53
19	25.97	24	52	64	52	0	26	0	26	0	26
20	24.62	1	8	15	8	0	4	0	4	0	4
21	23.04	0	0	0	0	0	0	0	0	0	0
22	21.36	0	0	0	0	0	0	0	0	0	0
23	19.69	0	0	0	0	0	0	0	0	0	0
24	18.13	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	16.81	0	0	0	0	0	0	0	0	0	14.16
2	15.80	0	0	0	0	0	0	0	0	0	27.82
3	15.18	0	0	0	0	0	0	0	0	0	40.66
4	14.98	0	4	0	4	0	4	0	4	1.46	52.64
5	15.23	0	26	0	26	0	26	0	26	9.4	63.93
6	15.90	0	53	0	53	0	53	0	53	18.13	74.89
7	16.95	0	82	0	82	0	82	0	82	27.33	86.00
8	18.31	35	146	0	112	0	112	0	112	36.65	97.97
9	19.88	86	193	0	140	0	140	0	140	45.66	111.83
10	21.56	127	234	0	165	0	165	0	165	53.71	129.19
11	23.24	155	264	51	233	0	183	0	183	59.67	151.95
12	24.79	164	275	116	261	0	189	0	189	61.96	180.00
13	26.12	155	264	168	268	82	243	0	183	59.67	208.05
14	27.13	127	234	201	254	156	242	20	204	53.71	230.81
15	27.75	86	193	212	227	214	227	91	194	45.66	248.17
16	27.95	35	146	200	189	248	201	151	176	36.65	262.03
17	27.70	0	82	164	145	250	166	189	151	27.33	274.00
18	27.03	0	53	109	96	211	121	190	116	18.13	285.11
19	25.97	0	26	47	48	131	69	138	70	9.4	296.06
20	24.62	0	4	3	2	19	10	24	12	1.46	307.36
21	23.04	0	0	0	0	0	0	0	0	0	319.34
22	21.36	0	0	0	0	0	0	0	0	0	332.18
23	19.69	0	0	0	0	0	0	0	0	0	345.84
24	18.13	0	0	0	0	0	0	0	0	0	360.00

Dirfac = 0.39; Diffac = 1.12; Maximum dry-bulb = 27.95 °C; Minimum dry-bulb = 14.98 °C; Adaptive comfort range = 23.9–27.9 °C

Table continues

Table 5.18(g) Banded weather data: London — *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	18.94	0	0	0	0	0	0	0	0	0	0
2	17.92	0	0	0	0	0	0	0	0	0	0
3	17.29	0	0	0	0	0	0	0	0	0	0
4	17.10	0	0	0	0	0	0	0	0	0	0
5	17.34	20	35	68	40	157	60	154	59	60	38
6	18.01	72	81	57	69	219	106	252	113	138	87
7	19.06	146	129	8	89	230	141	317	161	218	138
8	20.42	220	178	0	103	183	162	320	195	269	183
9	21.99	285	224	0	131	106	174	278	217	288	219
10	23.68	336	266	0	155	14	176	204	225	275	244
11	25.35	369	296	0	172	0	172	108	219	232	252
12	26.91	380	307	0	178	0	178	0	178	165	241
13	28.24	369	295	0	172	0	172	0	172	80	211
14	29.26	336	265	0	155	0	155	0	155	0	155
15	29.89	285	224	0	131	0	131	0	131	0	131
16	30.08	220	177	0	103	0	103	0	103	0	103
17	29.84	146	129	7	89	0	73	0	73	0	73
18	29.17	71	80	57	68	0	44	0	44	0	44
19	28.12	19	34	68	40	0	18	0	18	0	18
20	26.76	0	0	0	0	0	0	0	0	0	0
21	25.19	0	0	0	0	0	0	0	0	0	0
22	23.50	0	0	0	0	0	0	0	0	0	0
23	21.83	0	0	0	0	0	0	0	0	0	0
24	20.27	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	18.94	0	0	0	0	0	0	0	0	0	14.76
2	17.92	0	0	0	0	0	0	0	0	0	28.93
3	17.29	0	0	0	0	0	0	0	0	0	42.19
4	17.10	0	0	0	0	0	0	0	0	0	54.49
5	17.34	0	18	0	18	0	18	0	18	6.66	66.05
6	18.01	0	44	0	44	0	44	0	44	15.51	77.24
7	19.06	0	73	0	73	0	73	0	73	24.76	88.59
8	20.42	61	133	0	103	0	103	0	103	34.04	100.78
9	21.99	129	179	0	131	0	131	0	131	42.92	114.82
10	23.68	184	220	0	155	0	155	0	155	50.71	132.08
11	25.35	221	249	80	211	0	172	0	172	56.34	153.96
12	26.91	233	260	165	241	0	196	0	178	58.45	180.00
13	28.24	221	249	232	252	108	219	0	172	56.32	206.03
14	29.26	185	220	275	243	204	225	14	176	50.68	227.89
15	29.89	129	179	288	219	278	216	106	173	42.88	245.13
16	30.08	61	133	270	183	320	195	183	162	33.99	259.16
17	29.84	0	73	219	138	317	161	229	140	24.69	271.35
18	29.17	0	44	138	87	252	113	218	105	15.43	282.69
19	28.12	0	18	60	38	153	59	156	60	6.56	293.88
20	26.76	0	0	0	0	0	0	0	0	0	305.43
21	25.19	0	0	0	0	0	0	0	0	0	317.74
22	23.50	0	0	0	0	0	0	0	0	0	331.01
23	21.83	0	0	0	0	0	0	0	0	0	345.21
24	20.27	0	0	0	0	0	0	0	0	0	360.00

Dirfac = 0.51; Diffac = 1.04; Maximum dry-bulb = 30.09 °C; Minimum dry-bulb = 17.09 °C; Adaptive comfort range = 24.5–28.5 °C

Table continues

Table 5.18(g) Banded weather data: London — *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	15.96	0	0	0	0	0	0	0	0	0	0
2	15.24	0	0	0	0	0	0	0	0	0	0
3	14.88	0	0	0	0	0	0	0	0	0	0
4	14.91	0	0	0	0	0	0	0	0	0	0
5	15.32	0	0	0	0	0	0	0	0	0	0
6	16.10	22	47	18	38	117	61	148	68	92	55
7	17.18	75	99	0	52	150	104	231	124	177	111
8	18.49	136	149	0	82	124	132	255	164	237	159
9	19.94	192	196	0	109	63	148	229	190	261	198
10	21.44	235	236	0	131	0	131	170	202	255	224
11	22.88	262	264	0	147	0	147	90	199	221	234
12	24.16	272	274	0	152	0	152	0	152	165	225
13	25.20	262	264	0	147	0	147	0	147	93	199
14	25.93	235	236	0	131	0	131	0	131	14	161
15	26.28	191	196	0	108	0	108	0	108	0	108
16	26.26	136	149	0	81	0	81	0	81	0	81
17	25.84	74	98	0	52	0	52	0	52	0	52
18	25.06	22	47	17	37	0	23	0	23	0	23
19	23.98	0	0	0	0	0	0	0	0	0	0
20	22.67	0	0	0	0	0	0	0	0	0	0
21	21.22	0	0	0	0	0	0	0	0	0	0
22	19.72	0	0	0	0	0	0	0	0	0	0
23	18.28	0	0	0	0	0	0	0	0	0	0
24	17.00	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	15.96	0	0	0	0	0	0	0	0	0	16.44
2	15.24	0	0	0	0	0	0	0	0	0	32.04
3	14.88	0	0	0	0	0	0	0	0	0	46.36
4	14.91	0	0	0	0	0	0	0	0	0	59.40
5	15.32	0	0	0	0	0	0	0	0	0	71.50
6	16.10	0	24	0	24	0	24	0	24	8.55	83.13
7	17.18	20	73	0	52	0	52	0	52	17.86	94.86
8	18.49	80	121	0	82	0	82	0	82	27	107.37
9	19.94	140	167	0	109	0	109	0	109	35.49	121.49
10	21.44	190	207	14	161	0	131	0	131	42.65	138.12
11	22.88	222	234	93	199	0	147	0	147	47.6	157.86
12	24.16	233	244	165	225	0	181	0	152	49.39	180.00
13	25.20	222	234	221	233	90	199	0	147	47.57	202.13
14	25.93	190	207	255	223	170	201	0	131	42.6	221.85
15	26.28	141	167	261	198	229	189	63	147	35.42	238.45
16	26.26	80	121	237	159	255	164	124	131	26.91	252.55
17	25.84	20	72	177	110	230	123	149	103	17.75	265.05
18	25.06	0	23	92	55	147	68	116	60	8.42	276.76
19	23.98	0	0	0	0	0	0	0	0	0	288.38
20	22.67	0	0	0	0	0	0	0	0	0	300.47
21	21.22	0	0	0	0	0	0	0	0	0	313.51
22	19.72	0	0	0	0	0	0	0	0	0	327.85
23	18.28	0	0	0	0	0	0	0	0	0	343.50
24	17.00	0	0	0	0	0	0	0	0	0	360.00

Dirfac = 0.42; Diffac = 1.11; Maximum dry-bulb = 26.32 °C; Minimum dry-bulb = 14.84 °C; Adaptive comfort range = 23.6–27.6 °C

Table continues

Table 5.18(g) Banded weather data: London — *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	14.85	0	0	0	0	0	0	0	0	0	0
2	14.41	0	0	0	0	0	0	0	0	0	0
3	14.27	0	0	0	0	0	0	0	0	0	0
4	14.45	0	0	0	0	0	0	0	0	0	0
5	14.92	0	0	0	0	0	0	0	0	0	0
6	15.66	0	1	0	0	1	1	2	1	1	1
7	16.62	25	52	0	26	82	56	146	71	125	66
8	17.73	74	100	0	53	80	88	206	118	211	119
9	18.92	126	144	0	78	31	106	202	147	254	160
10	20.10	167	181	0	99	0	99	155	160	257	186
11	21.20	194	205	0	113	0	113	83	159	230	196
12	22.13	203	213	0	117	0	117	0	117	180	189
13	22.84	193	204	0	113	0	113	0	113	113	166
14	23.28	167	180	0	99	0	99	0	99	39	132
15	23.42	125	144	0	78	0	78	0	78	0	78
16	23.25	74	100	0	53	0	53	0	53	0	53
17	22.77	24	51	0	26	0	26	0	26	0	26
18	22.03	0	0	0	0	0	0	0	0	0	0
19	21.07	0	0	0	0	0	0	0	0	0	0
20	19.96	0	0	0	0	0	0	0	0	0	0
21	18.78	0	0	0	0	0	0	0	0	0	0
22	17.59	0	0	0	0	0	0	0	0	0	0
23	16.50	0	0	0	0	0	0	0	0	0	0
24	15.56	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	14.85	0	0	0	0	0	0	0	0	0	18.85
2	14.41	0	0	0	0	0	0	0	0	0	36.33
3	14.27	0	0	0	0	0	0	0	0	0	51.85
4	14.45	0	0	0	0	0	0	0	0	0	65.58
5	14.92	0	0	0	0	0	0	0	0	0	78.06
6	15.66	0	0	0	0	0	0	0	0	0.12	89.91
7	16.62	30	44	0	26	0	26	0	26	9.38	101.76
8	17.73	93	91	0	53	0	53	0	53	18.24	114.24
9	18.92	157	137	0	78	0	78	0	78	26.21	127.98
10	20.10	209	174	39	132	0	99	0	99	32.72	143.54
11	21.20	243	199	113	166	0	113	0	113	37.05	161.08
12	22.13	254	207	180	189	0	143	0	117	38.57	180.00
13	22.84	243	198	230	195	83	159	0	113	37.02	198.91
14	23.28	209	174	257	185	155	160	0	99	32.66	216.43
15	23.42	158	136	254	160	201	147	31	106	26.13	231.96
16	23.25	93	91	210	119	205	117	79	88	18.13	245.68
17	22.77	30	43	124	65	145	70	81	55	9.25	258.14
18	22.03	0	0	0	0	0	0	0	0	0	269.97
19	21.07	0	0	0	0	0	0	0	0	0	281.80
20	19.96	0	0	0	0	0	0	0	0	0	294.26
21	18.78	0	0	0	0	0	0	0	0	0	307.99
22	17.59	0	0	0	0	0	0	0	0	0	323.53
23	16.50	0	0	0	0	0	0	0	0	0	341.06
24	15.56	0	0	0	0	0	0	0	0	0	360.00

Dirfac = 0.40; Diffac = 1.10; Maximum dry-bulb = 23.42 °C; Minimum dry-bulb = 14.27 °C; Adaptive comfort range = 23.0–27.0 °C