

Table 2.14(c) Air and corresponding sol-air temperatures: Cardiff (St Athan) (January 2002–December 2011)

January 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	3.4	2.9	2.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
0130	2.4	0.1	0.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
0230	1.5	-1.1	-1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
0330	0.7	-1.9	-1.9	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
0430	0.8	-2.5	-2.5	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
0530	0.9	-2.4	-2.4	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
0630	0.3	-3.0	-3.0	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
0730	-0.5	-3.1	-3.1	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4
0830	0.0	-1.6	-2.1	-0.2	-0.5	-0.2	-0.5	-0.2	-0.5	-0.1	-0.5	-0.2	-0.5	-0.2	-0.5	-0.2	-0.5	-0.1	-0.5
0930	2.1	4.3	2.2	2.9	2.2	2.9	2.2	25.8	14.9	37.7	21.5	29.2	16.7	5.1	3.4	2.9	2.2	2.9	2.2
1030	3.6	9.4	5.7	5.4	4.2	5.4	4.2	24.1	14.6	44.1	25.7	41.2	24.1	17.1	10.7	5.4	4.2	5.4	4.2
1130	4.1	12.6	7.7	6.7	5.2	6.7	5.2	16.6	10.6	43.9	25.8	49.2	28.7	29.2	17.7	6.7	5.2	6.7	5.2
1230	4.7	13.7	8.4	7.5	5.8	7.5	5.8	7.5	5.8	37.9	22.7	51.7	30.3	39.2	23.4	7.9	6.0	7.5	5.8
1330	4.8	13.2	8.1	7.5	5.9	7.5	5.9	7.5	5.9	29.1	17.8	50.9	29.9	46.9	27.7	19.5	12.5	7.5	5.9
1430	4.7	10.2	6.6	6.4	5.2	6.4	5.2	6.4	5.2	16.7	11.0	42.0	25.0	46.2	27.3	26.9	16.6	6.4	5.2
1530	3.5	4.4	2.8	4.2	3.5	4.2	3.5	4.2	3.5	4.9	3.9	18.6	11.5	23.9	14.4	17.8	11.0	4.2	3.5
1630	2.2	-0.4	-0.8	1.6	1.4	1.6	1.4	1.6	1.4	1.6	1.4	1.6	1.4	1.6	1.4	1.6	1.4	1.6	1.4
1730	1.6	-1.4	-1.4	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
1830	0.5	-2.5	-2.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
1930	0.6	-1.3	-1.3	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
2030	0.6	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2130	0.4	-0.5	-0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2230	-0.4	-3.0	-3.0	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3
2330	3.0	2.1	2.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Mean	1.9	2.0	0.8	1.9	1.5	1.9	1.5	4.1	2.7	9.2	5.5	12.0	7.1	8.9	5.4	3.8	2.6	1.9	1.5

* Greenwich Mean Time

February 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	-1.4	-4.7	-4.7	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5
0130	-2.5	-5.8	-5.8	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6
0230	-2.0	-5.0	-5.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0
0330	-1.3	-4.3	-4.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3	-2.3
0430	-2.7	-6.0	-6.0	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8
0530	-3.5	-6.8	-6.8	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6	-4.6
0630	-2.7	-6.0	-6.0	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8
0730	-2.8	-5.3	-5.3	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6	-3.6
0830	-1.9	-1.3	-2.8	-0.9	-1.7	1.1	-0.7	4.9	1.5	5.6	1.9	2.7	0.3	-0.9	-1.7	-0.9	-1.7	-0.9	-1.7
0930	1.3	7.3	3.3	3.5	2.1	3.9	2.3	27.0	15.1	36.2	20.3	26.2	14.7	3.5	2.1	3.5	2.1	3.5	2.1
1030	3.1	14.1	7.9	6.5	4.6	6.5	4.6	27.6	16.3	46.3	26.6	41.2	23.8	15.5	9.5	6.5	4.6	6.5	4.6
1130	4.4	17.7	10.4	8.5	6.2	8.5	6.2	18.8	12.0	43.2	25.5	46.8	27.5	27.5	16.8	8.5	6.2	8.5	6.2
1230	5.0	23.6	14.8	12.6	9.0	12.6	9.0	12.6	9.0	39.7	24.1	51.8	30.8	40.4	24.5	12.1	8.7	12.6	9.0
1330	4.8	22.2	14.1	11.3	8.2	11.3	8.2	11.3	8.2	30.0	18.6	50.7	30.2	47.8	28.5	22.8	14.7	11.3	8.2
1430	4.5	20.1	12.8	11.3	8.1	11.3	8.1	11.3	8.1	19.0	12.4	44.4	26.5	50.0	29.6	32.5	19.9	11.3	8.1
1530	4.3	11.0	6.7	6.4	5.0	6.4	5.0	6.4	5.0	6.4	5.0	33.1	19.8	45.9	26.9	35.3	21.1	7.6	5.7
1630	2.4	3.0	1.3	3.1	2.3	3.1	2.3	3.1	2.3	3.1	2.3	13.1	7.8	22.3	13.0	20.4	11.9	8.5	5.3
1730	1.0	-0.6	-0.7	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.5	0.6	0.5
1830	0.6	-2.0	-2.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
1930	-0.3	-2.2	-2.2	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
2030	1.2	0.3	0.3	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
2130	0.9	-1.0	-1.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
2230	0.4	-1.2	-1.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
2330	-0.9	-4.2	-4.2	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Mean	0.5	2.6	0.5	1.4	0.6	1.5	0.7	3.9	2.0	8.3	4.5	11.7	6.3	9.3	5.0	4.7	2.4	1.7	0.8

* Greenwich Mean Time

Table 2.14(c) Air and corresponding sol-air temperatures: Cardiff (St Athan) (January 2002–December 2011) — *continued*

March 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	0.9	-1.4	-1.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
0130	0.9	-2.1	-2.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
0230	1.1	-2.2	-2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0330	1.0	-2.3	-2.3	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
0430	1.1	-2.2	-2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0530	1.2	-1.4	-1.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
0630	1.6	1.0	0.9	1.5	1.4	1.5	1.4	1.5	1.4	1.5	1.4	1.5	1.4	1.5	1.4	1.5	1.4	1.5	1.4
0730	2.6	4.7	3.4	4.1	3.3	6.4	4.6	8.0	5.5	7.6	5.2	5.4	4.0	4.1	3.3	4.1	3.3	4.1	3.3
0830	4.2	12.5	8.0	7.3	5.6	17.3	11.2	35.5	21.3	37.0	22.1	21.0	13.2	7.3	5.6	7.3	5.6	7.3	5.6
0930	5.8	19.8	12.5	9.9	7.7	12.6	9.2	39.9	24.4	49.2	29.6	35.1	21.7	9.9	7.7	9.9	7.7	9.9	7.7
1030	6.5	25.1	15.8	11.6	9.0	11.6	9.0	33.9	21.4	51.6	31.2	45.2	27.6	18.4	12.8	11.6	9.0	11.6	9.0
1130	8.1	29.7	19.1	13.9	11.0	13.9	11.0	24.3	16.7	49.3	30.7	52.8	32.6	32.8	21.4	13.9	11.0	13.9	11.0
1230	9.3	30.8	19.7	15.0	11.9	15.0	11.9	15.0	11.9	41.8	26.8	55.6	34.5	44.8	28.5	15.7	12.3	15.0	11.9
1330	10.4	30.9	20.3	15.8	12.9	15.8	12.9	15.8	12.9	31.5	21.6	54.7	34.5	54.3	34.3	30.5	21.1	15.8	12.9
1430	10.6	28.3	18.9	15.2	12.7	15.2	12.7	15.2	12.7	18.7	14.6	49.4	31.7	59.4	37.2	42.8	28.0	15.2	12.7
1530	10.0	23.2	15.9	13.4	11.4	13.4	11.4	13.4	11.4	13.4	11.4	40.2	26.3	59.4	36.9	51.1	32.3	20.3	15.2
1630	9.1	16.6	11.8	11.1	9.7	11.1	9.7	11.1	9.7	11.1	9.7	28.0	19.1	53.2	33.1	53.5	33.2	28.6	19.4
1730	7.9	9.7	7.6	8.4	7.7	8.4	7.7	8.4	7.7	8.4	7.7	15.2	11.5	41.5	26.1	48.4	29.9	31.7	20.7
1830	6.7	3.9	3.6	5.9	5.8	6.0	5.8	6.0	5.8	6.0	5.8	5.9	5.8	6.0	5.8	6.0	5.8	6.0	5.8
1930	5.8	2.8	2.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
2030	5.2	2.2	2.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
2130	5.3	2.0	2.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
2230	4.9	1.9	1.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
2330	0.9	-2.4	-2.4	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Mean	5.0	9.6	6.3	6.3	5.3	6.9	5.6	10.2	7.5	14.3	9.8	17.8	11.7	17.1	11.3	13.0	9.1	8.2	6.4

* Greenwich Mean Time

April 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	6.2	2.9	2.9	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
0130	5.7	2.4	2.4	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
0230	4.8	1.5	1.5	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
0330	5.1	1.8	1.8	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
0430	4.1	0.8	0.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
0530	3.9	1.2	0.9	3.3	3.1	3.3	3.1	3.3	3.1	3.3	3.1	3.3	3.1	3.3	3.1	3.3	3.1	3.3	3.1
0630	5.7	8.2	6.1	8.7	7.0	19.0	12.8	22.7	14.8	17.5	11.9	7.3	6.2	7.3	6.2	7.3	6.2	7.3	6.2
0730	6.5	16.0	10.9	9.8	8.0	30.3	19.4	43.6	26.8	36.9	23.1	14.0	10.4	9.8	8.0	9.8	8.0	9.8	8.0
0830	8.6	23.0	15.1	12.8	10.4	28.1	18.9	48.6	30.3	47.5	29.7	25.6	17.6	12.8	10.4	12.8	10.4	12.8	10.4
0930	10.5	30.6	20.2	15.9	13.0	21.3	16.0	46.9	30.2	53.6	33.9	37.5	25.0	15.9	13.0	15.9	13.0	15.9	13.0
1030	12.0	36.2	24.0	18.4	15.1	18.4	15.1	39.2	26.6	53.6	34.6	46.4	30.6	22.0	17.0	18.4	15.1	18.4	15.1
1130	13.1	39.9	26.5	20.2	16.5	20.2	16.5	28.2	21.0	49.1	32.6	52.1	34.3	35.3	24.9	20.2	16.5	20.2	16.5
1230	11.9	39.3	25.6	19.1	15.4	19.1	15.4	19.1	15.4	38.9	26.4	52.0	33.7	44.7	29.6	21.4	16.7	19.1	15.4
1330	12.7	39.2	25.9	19.7	16.1	19.7	16.1	19.7	16.1	28.3	20.9	50.7	33.3	53.9	35.1	35.9	25.1	19.7	16.1
1430	13.2	37.2	25.0	19.5	16.2	19.5	16.2	19.5	16.2	19.5	16.2	46.1	31.0	59.9	38.6	49.0	32.6	19.9	16.4
1530	13.3	32.7	22.6	18.3	15.6	18.3	15.6	18.3	15.6	18.3	15.6	37.4	26.2	60.7	39.2	58.4	37.8	31.8	23.1
1630	15.0	28.3	20.9	18.4	16.4	18.4	16.4	18.4	16.4	18.4	16.4	28.1	21.8	58.2	38.5	64.4	41.9	43.1	30.1
1730	14.4	20.9	16.5	16.1	14.9	16.1	14.9	16.1	14.9	16.1	14.9	16.1	14.8	48.1	32.6	61.0	39.8	47.4	32.2
1830	12.9	13.2	11.6	13.5	12.7	13.6	12.8	13.9	13.0	13.8	12.9	13.5	12.7	13.6	12.8	13.9	13.0	13.8	12.9
1930	11.1	8.0	7.9	10.1	10.1	10.1	10.1	10.2	10.1	10.2	10.1	10.1	10.1	10.1	10.1	10.2	10.1	10.2	10.1
2030	10.2	6.9	6.9	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
2130	10.1	6.8	6.8	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
2230	9.1	5.8	5.8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
2330	8.2	4.9	4.9	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1
Mean	9.5	17.0	12.2	11.5	10.2	13.7	11.4	17.5	13.5	19.9	14.8	20.6	15.2	21.2	15.5	19.0	14.3	14.4	11.7

* Greenwich Mean Time

Table 2.14(c) Air and corresponding sol-air temperatures: Cardiff (St Athan) (January 2002–December 2011) — *continued*

May 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	7.5	4.2	4.2	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
0130	6.9	3.6	3.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
0230	6.9	3.6	3.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
0330	6.3	3.0	3.0	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
0430	6.4	3.2	3.1	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
0530	7.7	6.8	5.7	9.4	8.2	10.9	9.0	10.9	9.0	9.6	8.3	8.1	7.4	8.1	7.4	8.1	7.4	8.1	7.4
0630	8.6	13.6	9.9	14.8	11.5	28.1	18.9	31.7	20.9	23.5	16.4	11.3	9.6	11.3	9.6	11.3	9.6	11.3	9.6
0730	9.6	20.1	13.9	14.0	11.5	32.1	21.6	40.8	26.4	33.6	22.4	14.8	12.0	14.0	11.5	14.0	11.5	14.0	11.5
0830	10.7	27.8	18.9	16.4	13.4	31.7	21.9	46.7	30.3	43.5	28.5	23.8	17.5	16.4	13.4	16.4	13.4	16.4	13.4
0930	11.5	34.7	22.9	17.6	14.4	25.4	18.7	46.7	30.5	50.1	32.4	33.7	23.3	17.6	14.4	17.6	14.4	17.6	14.4
1030	12.0	40.0	26.1	18.6	15.2	18.6	15.2	39.0	26.5	50.2	32.7	41.9	28.1	19.0	15.4	18.6	15.2	18.6	15.2
1130	12.4	44.7	29.3	19.5	16.0	19.5	16.0	27.5	20.4	45.7	30.6	47.7	31.6	32.1	23.0	19.5	16.0	19.5	16.0
1230	12.3	44.7	29.3	19.5	16.0	19.5	16.0	19.5	16.0	35.8	25.0	47.9	31.7	42.4	28.7	22.5	17.6	19.5	16.0
1330	12.4	42.9	28.1	19.2	15.8	19.2	15.8	19.2	15.8	23.9	18.4	45.0	30.1	50.0	32.9	36.1	25.1	19.2	15.8
1430	12.4	39.9	26.5	18.6	15.4	18.6	15.4	18.6	15.4	18.6	15.4	39.3	26.9	54.6	35.4	48.0	31.8	23.2	18.0
1530	12.3	35.2	23.8	17.6	14.8	17.6	14.8	17.6	14.8	17.6	14.8	30.7	22.1	54.8	35.5	56.4	36.4	34.5	24.2
1630	11.3	26.9	18.5	15.5	13.1	15.5	13.1	15.5	13.1	15.5	13.1	19.2	15.2	47.2	30.8	56.1	35.7	40.6	27.1
1730	10.5	16.8	12.5	15.9	13.0	13.8	11.8	13.8	11.8	13.8	11.8	13.8	11.8	26.5	18.9	33.5	22.8	29.1	20.3
1830	9.9	12.2	9.7	17.2	13.5	11.4	10.2	11.4	10.2	11.4	10.2	11.4	10.2	21.0	15.6	30.5	20.9	29.0	20.0
1930	9.2	6.8	6.4	8.9	8.5	8.9	8.5	8.9	8.5	8.9	8.5	8.9	8.5	8.9	8.5	8.9	8.5	8.9	8.5
2030	9.0	5.7	5.7	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
2130	8.7	5.4	5.4	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
2230	8.7	6.1	6.1	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
2330	7.7	4.4	4.4	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
Mean	9.6	18.8	13.3	12.5	10.8	14.5	11.9	17.8	13.7	19.2	14.4	19.0	14.3	20.1	15.0	19.0	14.4	15.3	12.3

* Greenwich Mean Time

June 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	7.4	5.1	5.1	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
0130	7.4	5.8	5.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
0230	7.4	5.1	5.1	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
0330	7.0	3.7	3.7	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
0430	7.1	4.5	4.2	6.6	6.3	6.6	6.3	6.6	6.3	6.6	6.3	6.6	6.3	6.6	6.3	6.6	6.3	6.6	6.3
0530	8.9	10.4	8.3	17.5	13.2	27.1	18.5	26.8	18.4	16.9	12.9	10.1	9.1	10.1	9.1	10.1	9.1	10.1	9.1
0630	10.9	18.4	13.6	20.5	15.7	41.3	27.3	45.8	29.8	31.2	21.7	13.7	12.0	13.7	12.0	13.7	12.0	13.7	12.0
0730	12.2	26.5	18.7	16.1	13.9	45.1	30.0	56.6	36.3	43.8	29.3	16.2	13.9	16.2	13.9	16.2	13.9	16.2	13.9
0830	13.4	34.5	24.0	18.7	15.9	40.2	27.9	57.5	37.5	51.3	34.1	25.2	19.6	18.7	15.9	18.7	15.9	18.7	15.9
0930	13.8	40.7	28.1	20.4	17.2	31.0	23.1	51.7	34.6	53.1	35.4	34.6	25.1	20.4	17.2	20.4	17.2	20.4	17.2
1030	13.3	43.2	28.7	20.2	16.7	19.1	16.1	41.4	28.5	50.3	33.5	40.7	28.1	20.2	16.7	20.2	16.7	20.2	16.7
1130	14.6	40.8	28.5	23.8	19.5	23.8	19.5	29.5	22.6	39.6	28.2	39.8	28.3	30.0	22.9	23.8	19.5	23.8	19.5
1230	13.9	34.5	25.0	24.0	19.4	24.0	19.4	24.0	19.4	30.2	22.8	33.4	24.6	31.6	23.6	26.0	20.5	24.0	19.4
1330	14.9	47.8	31.8	21.6	18.2	21.6	18.2	21.6	18.2	26.0	20.6	46.5	32.0	51.4	34.7	38.0	27.3	21.6	18.2
1430	14.6	43.5	29.2	20.7	17.5	20.7	17.5	20.7	17.5	20.7	17.5	39.8	28.1	55.1	36.6	49.3	33.3	25.8	20.3
1530	14.6	39.1	27.5	20.8	17.8	20.8	17.8	20.8	17.8	20.8	17.8	31.3	23.6	53.4	35.9	55.6	37.1	36.6	26.6
1630	14.0	32.6	22.9	18.3	15.9	18.3	15.9	18.3	15.9	18.3	15.9	21.0	17.4	51.7	34.5	62.2	40.3	46.3	31.4
1730	13.8	26.2	19.2	21.5	17.6	16.9	15.0	16.9	15.0	16.9	15.0	16.9	15.0	44.6	30.4	61.9	40.0	52.3	34.7
1830	12.9	19.1	15.0	26.7	20.1	14.9	13.5	14.9	13.5	14.9	13.5	14.9	13.5	32.9	23.5	52.8	34.6	50.3	33.2
1930	11.9	12.0	10.5	24.3	18.3	12.3	11.6	12.3	11.6	12.3	11.6	12.3	11.6	19.3	15.5	34.1	23.7	36.2	24.9
2030	10.2	7.1	7.0	9.3	9.2	9.3	9.2	9.3	9.2	9.3	9.2	9.3	9.2	9.3	9.2	9.3	9.2	9.3	9.2
2130	9.1	5.8	5.8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
2230	7.9	4.6	4.6	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
2330	7.8	4.8	4.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Mean	11.2	21.5	15.7	15.8	13.3	18.3	14.8	21.8	16.6	21.2	16.4	19.1	15.2	22.2	16.9	23.6	17.7	20.0	15.7

* Greenwich Mean Time

Table 2.14(c) Air and corresponding sol-air temperatures: Cardiff (St Athan) (January 2002–December 2011) — *continued*

July 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	16.0	12.7	12.7	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
0130	15.3	12.3	12.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
0230	14.3	11.0	11.0	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
0330	13.8	10.8	10.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
0430	13.7	11.1	10.9	13.0	12.9	13.0	12.9	13.0	12.9	13.0	12.9	13.0	12.9	13.0	12.9	13.0	12.9	13.0	12.9
0530	15.1	15.6	14.2	20.3	17.6	26.2	20.9	26.2	20.9	20.3	17.6	15.9	15.1	15.9	15.1	15.9	15.1	15.9	15.1
0630	16.7	22.2	18.6	24.1	20.4	39.4	28.9	42.9	30.9	32.7	25.2	19.3	17.8	19.3	17.8	19.3	17.8	19.3	17.8
0730	18.1	30.2	23.8	22.3	20.1	45.4	32.9	55.3	38.4	45.5	33.0	21.8	19.8	22.3	20.1	22.3	20.1	22.3	20.1
0830	19.1	35.9	26.9	24.2	21.4	42.3	31.5	57.9	40.1	53.1	37.5	30.9	25.1	24.2	21.4	24.2	21.4	24.2	21.4
0930	20.1	42.5	31.4	26.5	23.3	35.5	28.3	54.9	39.0	56.9	40.1	40.3	30.9	26.5	23.3	26.5	23.3	26.5	23.3
1030	21.7	48.0	35.1	28.8	25.3	27.4	24.4	48.7	36.3	57.5	41.2	48.6	36.2	28.8	25.3	28.8	25.3	28.8	25.3
1130	23.4	50.9	37.3	31.0	27.2	31.0	27.2	39.2	31.7	53.3	39.6	53.4	39.6	39.4	31.9	31.0	27.2	31.0	27.2
1230	24.9	54.0	39.6	32.2	28.4	32.2	28.4	32.2	28.4	48.1	37.3	57.5	42.5	51.0	38.9	32.6	28.7	32.2	28.4
1330	26.1	54.7	40.5	33.0	29.4	33.0	29.4	33.0	29.4	39.0	32.7	57.2	42.9	60.4	44.6	46.5	36.9	33.0	29.4
1430	25.9	51.5	38.6	32.3	29.0	32.3	29.0	32.3	29.0	32.3	29.0	51.7	39.7	64.2	46.7	57.1	42.7	34.6	30.2
1530	25.2	46.9	35.8	30.7	27.7	30.7	27.7	30.7	27.7	30.7	27.7	43.7	35.0	64.7	46.7	65.0	46.8	44.4	35.4
1630	25.9	42.8	34.0	30.4	27.9	30.4	27.9	30.4	27.9	30.4	27.9	35.3	30.7	62.8	45.9	70.6	50.3	54.2	41.2
1730	26.1	36.8	30.5	31.1	28.4	29.2	27.3	29.2	27.3	29.2	27.3	29.2	27.3	56.2	42.3	70.3	50.2	59.9	44.4
1830	25.2	29.8	26.3	35.9	30.6	26.8	25.6	26.8	25.6	26.8	25.6	26.8	25.6	44.9	35.6	61.8	45.1	58.1	43.0
1930	22.7	21.6	20.6	23.1	22.4	23.1	22.4	23.3	22.5	23.3	22.5	23.1	22.4	23.1	22.4	23.3	22.5	23.3	22.5
2030	21.9	18.8	18.7	21.0	20.9	21.0	20.9	21.0	20.9	21.0	20.9	21.0	20.9	21.0	20.9	21.0	20.9	21.0	20.9
2130	20.5	17.2	17.2	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
2230	19.3	16.0	16.0	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
2330	16.1	12.8	12.8	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Mean	20.3	29.4	24.0	23.7	21.7	26.1	23.1	29.4	24.9	30.0	25.2	29.0	24.7	31.1	25.8	30.7	25.6	27.1	23.6

* Greenwich Mean Time

August 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	14.5	13.6	13.6	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
0130	14.2	13.3	13.3	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
0230	13.3	11.7	11.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
0330	12.7	11.1	11.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
0430	12.7	9.7	9.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7	11.7
0530	13.2	11.2	10.6	12.9	12.5	13.0	12.6	13.0	12.6	12.9	12.5	12.9	12.5	13.0	12.6	13.0	12.6	12.9	12.5
0630	14.5	16.9	14.3	18.2	16.0	37.6	26.8	44.2	30.5	34.0	24.8	15.7	14.7	15.7	14.7	15.7	14.7	15.7	14.7
0730	15.4	23.6	18.6	18.4	16.6	39.0	28.1	51.7	35.1	44.6	31.2	22.0	18.6	18.4	16.6	18.4	16.6	18.4	16.6
0830	16.4	30.5	23.1	21.0	18.5	35.7	26.7	54.2	37.0	52.7	36.2	32.2	24.8	21.0	18.5	21.0	18.5	21.0	18.5
0930	16.9	35.8	26.3	22.6	19.7	28.2	22.8	50.8	35.3	56.2	38.3	41.3	30.1	22.6	19.7	22.6	19.7	22.6	19.7
1030	17.7	40.3	29.1	24.2	20.9	24.2	20.9	43.6	31.7	55.9	38.5	48.9	34.6	26.7	22.3	24.2	20.9	24.2	20.9
1130	17.6	41.5	29.7	24.8	21.2	24.8	21.2	32.4	25.4	49.5	34.9	51.4	36.0	36.9	27.9	24.8	21.2	24.8	21.2
1230	18.1	41.9	30.1	25.6	21.9	25.6	21.9	25.6	21.9	42.0	31.0	51.7	36.4	45.4	32.9	26.7	22.5	25.6	21.9
1330	18.1	41.8	29.9	24.8	21.4	24.8	21.4	24.8	21.4	33.2	26.0	51.9	36.4	53.9	37.5	38.1	28.7	24.8	21.4
1430	17.9	39.5	28.4	23.6	20.6	23.6	20.6	23.6	20.6	23.6	20.6	48.0	34.1	59.6	40.6	49.3	34.9	23.2	20.4
1530	17.7	35.9	26.3	22.2	19.7	22.2	19.7	22.2	19.7	22.2	19.7	41.0	30.1	62.2	41.9	59.3	40.3	34.1	26.3
1630	17.1	29.9	22.7	20.4	18.4	20.4	18.4	20.4	18.4	20.4	18.4	30.4	24.0	58.3	39.5	63.6	42.4	43.0	31.0
1730	17.0	22.8	18.8	19.1	17.7	19.1	17.7	19.1	17.7	19.1	17.7	19.8	18.0	45.0	32.1	54.9	37.5	43.6	31.3
1830	16.0	18.0	15.6	26.5	21.3	16.0	15.5	16.0	15.5	16.0	15.5	16.0	15.5	51.3	35.1	76.7	49.2	66.5	43.5
1930	15.1	13.0	12.5	15.1	14.6	15.1	14.6	15.1	14.6	15.1	14.6	15.1	14.6	15.1	14.6	15.1	14.6	15.1	14.6
2030	14.8	11.5	11.5	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
2130	14.0	10.7	10.7	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
2230	12.9	9.6	9.6	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
2330	15.0	14.1	14.1	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
Mean	15.5	22.8	18.4	18.2	16.6	20.3	17.8	23.9	19.8	25.6	20.7	25.7	20.7	27.6	21.8	26.7	21.3	22.2	18.8

* Greenwich Mean Time

Table 2.14(c) Air and corresponding sol-air temperatures: Cardiff (St Athan) (January 2002–December 2011) — *continued*

September 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	12.2	8.9	8.9	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
0130	10.8	7.5	7.5	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
0230	9.7	6.4	6.4	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
0330	10.0	6.7	6.7	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9	8.9
0430	9.1	5.8	5.8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
0530	9.5	6.4	6.3	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
0630	11.1	10.6	9.3	11.0	10.5	11.1	10.6	11.3	10.7	11.2	10.6	11.0	10.5	11.1	10.6	11.3	10.7	11.2	10.6
0730	13.9	17.7	14.6	15.3	14.2	32.2	23.6	49.2	33.0	46.2	31.3	24.9	19.5	15.3	14.2	15.3	14.2	15.3	14.2
0830	15.6	24.3	18.9	18.5	16.7	27.9	21.9	49.5	33.9	52.6	35.7	35.5	26.2	18.5	16.7	18.5	16.7	18.5	16.7
0930	16.9	29.9	22.6	21.0	18.7	21.3	18.8	46.3	32.8	56.2	38.2	45.0	32.0	21.0	18.7	21.0	18.7	21.0	18.7
1030	17.3	33.9	25.2	22.4	19.7	22.4	19.7	39.1	29.0	55.5	38.1	51.9	36.1	30.5	24.2	22.4	19.7	22.4	19.7
1130	17.7	36.4	26.8	23.3	20.3	23.3	20.3	29.4	23.7	51.5	36.1	56.5	38.8	41.4	30.4	23.3	20.3	23.3	20.3
1230	18.7	38.0	28.1	24.3	21.3	24.3	21.3	24.3	21.3	45.2	33.0	59.0	40.6	51.8	36.6	27.9	23.3	24.3	21.3
1330	19.3	37.7	28.2	24.5	21.7	24.5	21.7	24.5	21.7	35.9	28.1	58.1	40.4	60.0	41.4	40.4	30.6	24.5	21.7
1430	19.7	35.8	27.3	24.1	21.7	24.1	21.7	24.1	21.7	24.6	22.0	54.5	38.6	66.0	45.0	52.3	37.4	24.1	21.7
1530	19.7	31.8	25.0	22.8	20.9	22.8	20.9	22.8	20.9	22.8	20.9	47.7	34.7	69.0	46.6	62.7	43.1	32.6	26.4
1630	19.2	26.8	21.9	21.1	19.7	21.1	19.7	21.1	19.7	21.1	19.7	38.6	29.4	70.5	47.2	73.0	48.6	44.8	32.9
1730	18.9	22.0	19.3	23.4	20.9	23.4	20.9	23.4	20.9	23.4	20.9	23.4	20.9	23.4	20.9	23.4	20.9	23.4	20.9
1830	17.3	15.6	14.9	17.7	17.0	17.7	17.0	17.7	17.0	17.7	17.0	17.7	17.0	17.7	17.0	17.7	17.0	17.7	17.0
1930	14.9	11.6	11.6	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
2030	14.1	10.8	10.8	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
2130	12.6	9.3	9.3	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
2230	12.5	9.2	9.2	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
2330	11.7	8.4	8.4	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
Mean	14.7	18.8	15.5	16.0	14.9	17.1	15.5	20.7	17.5	24.1	19.4	26.6	20.8	25.4	20.2	21.8	18.2	17.4	15.7

* Greenwich Mean Time

October 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	11.3	8.0	8.0	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
0130	10.5	7.2	7.2	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
0230	10.3	7.0	7.0	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2
0330	9.8	6.5	6.5	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7	8.7
0430	9.6	6.3	6.3	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
0530	9.1	5.8	5.8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
0630	7.9	4.7	4.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
0730	9.1	8.6	7.3	9.4	8.8	9.4	8.8	9.6	8.9	9.7	8.9	9.4	8.8	9.4	8.8	9.6	8.9	9.7	8.9
0830	11.7	15.1	12.1	13.2	12.0	17.2	14.2	37.5	25.5	43.4	28.8	31.6	22.3	13.2	12.0	13.2	12.0	13.2	12.0
0930	13.4	20.6	15.9	16.1	14.4	16.1	14.4	36.6	25.8	48.7	32.5	41.5	28.5	19.2	16.1	16.1	14.4	16.1	14.4
1030	14.0	24.3	18.3	17.5	15.4	17.5	15.4	31.4	23.2	50.0	33.5	49.3	33.1	29.7	22.2	17.5	15.4	17.5	15.4
1130	14.4	27.4	20.3	18.3	16.1	18.3	16.1	23.0	18.7	49.0	33.2	56.6	37.4	41.4	28.9	18.3	16.1	18.3	16.1
1230	14.7	28.3	20.8	18.5	16.3	18.5	16.3	18.5	16.3	43.4	30.2	60.8	39.8	52.8	35.4	24.2	19.5	18.5	16.3
1330	15.0	28.1	21.1	18.5	16.6	18.5	16.6	18.5	16.6	33.6	25.0	59.7	39.4	61.2	40.3	37.2	26.9	18.5	16.6
1430	14.9	24.4	18.7	17.3	15.8	17.3	15.8	17.3	15.8	21.1	17.8	54.2	36.2	65.3	42.4	48.0	32.8	17.3	15.8
1530	14.6	20.3	16.3	15.9	14.8	15.9	14.8	15.9	14.8	15.9	14.8	48.1	32.7	69.6	44.7	59.4	39.0	23.4	19.0
1630	14.0	15.2	13.2	16.9	15.1	16.9	15.1	16.9	15.1	16.9	15.1	16.9	15.1	16.9	15.1	16.9	15.1	16.9	15.1
1730	12.4	9.7	9.4	11.4	11.3	11.4	11.3	11.4	11.3	11.4	11.3	11.4	11.3	11.4	11.3	11.4	11.3	11.4	11.3
1830	11.9	8.6	8.6	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
1930	11.4	8.4	8.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
2030	9.3	6.0	6.0	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
2130	9.2	5.9	5.9	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
2230	9.6	6.6	6.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
2330	11.9	8.6	8.6	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
Mean	11.7	13.0	10.9	12.1	11.4	12.3	11.5	14.7	12.9	19.2	15.4	23.2	17.6	21.1	16.4	16.2	13.7	12.4	11.6

* Greenwich Mean Time

Table 2.14(c) Air and corresponding sol-air temperatures: Cardiff (St Athan) (January 2002–December 2011) — *continued*

November 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	1.7	-1.6	-1.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
0130	1.6	-1.7	-1.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
0230	0.3	-3.0	-3.0	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
0330	-0.2	-3.5	-3.5	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3
0430	1.4	-1.9	-1.9	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
0530	-0.3	-3.6	-3.6	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4	-1.4
0630	1.4	-1.9	-1.9	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
0730	1.2	-1.8	-2.0	0.4	0.2	0.4	0.2	0.4	0.2	0.4	0.2	0.4	0.2	0.4	0.2	0.4	0.2	0.4	0.2
0830	2.7	1.9	0.7	3.1	2.4	3.0	2.3	3.1	2.4	3.2	2.5	3.1	2.4	3.0	2.3	3.1	2.4	3.2	2.5
0930	5.7	8.6	5.8	6.7	5.8	6.7	5.8	27.4	17.2	41.8	25.2	35.6	21.8	12.4	8.9	6.7	5.8	6.7	5.8
1030	10.1	16.1	11.9	12.0	10.6	12.0	10.6	26.5	18.7	48.4	30.9	48.8	31.1	27.3	19.2	12.0	10.6	12.0	10.6
1130	10.3	17.7	12.9	12.6	11.1	12.6	11.1	17.3	13.7	43.8	28.4	51.8	32.9	36.6	24.4	12.6	11.1	12.6	11.1
1230	10.9	18.5	13.6	13.2	11.7	13.2	11.7	13.2	11.7	37.8	25.3	53.6	34.1	45.4	29.6	18.2	14.4	13.2	11.7
1330	11.3	17.7	13.3	13.2	11.9	13.2	11.9	13.2	11.9	29.4	20.9	52.4	33.6	52.1	33.5	28.8	20.5	13.2	11.9
1430	11.3	15.5	12.3	12.6	11.6	12.6	11.6	12.6	11.6	19.5	15.4	48.9	31.7	56.8	36.1	38.7	26.0	12.6	11.6
1530	10.7	11.1	9.6	11.4	10.6	11.7	10.8	11.5	10.7	11.2	10.5	11.4	10.6	11.7	10.8	11.5	10.7	11.2	10.5
1630	8.9	6.6	6.3	8.5	8.2	8.5	8.2	8.5	8.2	8.5	8.2	8.5	8.2	8.5	8.2	8.5	8.2	8.5	8.2
1730	7.8	5.5	5.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
1830	7.0	4.7	4.7	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
1930	6.5	4.2	4.2	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
2030	5.3	2.7	2.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
2130	5.4	2.1	2.1	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
2230	4.1	0.8	0.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
2330	2.7	-0.6	-0.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Mean	5.3	4.7	3.6	5.2	4.8	5.2	4.8	6.8	5.7	11.4	8.2	14.4	9.9	11.8	8.5	7.1	5.8	5.2	4.8

* Greenwich Mean Time

December 21

Time*	Air temp.	Sol-air temperature (°C) for stated orientation and surface colour																	
		Horizontal		North		North-east		East		South-east		South		South-west		West		North-west	
		Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light	Dark	Light
0030	6.3	5.4	5.4	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
0130	5.0	2.7	2.7	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
0230	4.4	1.1	1.1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
0330	4.7	1.4	1.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
0430	3.9	0.6	0.6	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
0530	4.0	0.7	0.7	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
0630	2.8	-0.5	-0.5	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
0730	2.9	-0.4	-0.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
0830	2.6	0.0	-0.3	1.9	1.7	1.9	1.7	1.9	1.7	2.0	1.7	1.9	1.7	1.9	1.7	1.9	1.7	2.0	1.7
0930	4.5	4.9	3.2	4.7	4.1	4.7	4.1	24.6	15.2	37.5	22.3	31.2	18.8	9.3	6.7	4.7	4.1	4.7	4.1
1030	6.2	9.6	6.6	7.3	6.3	7.3	6.3	22.8	14.9	43.4	26.4	42.7	26.0	21.1	14.0	7.3	6.3	7.3	6.3
1130	8.0	13.2	9.4	9.6	8.4	9.6	8.4	16.3	12.1	42.5	26.7	49.3	30.4	32.6	21.2	9.6	8.4	9.6	8.4
1230	7.8	13.4	9.4	9.5	8.3	9.5	8.3	9.5	8.3	36.2	23.1	50.5	31.0	40.5	25.5	12.2	9.8	9.5	8.3
1330	8.1	12.5	9.0	9.5	8.4	9.5	8.4	9.5	8.4	27.2	18.2	47.3	29.4	45.1	28.1	21.8	15.2	9.5	8.4
1430	7.2	9.1	6.8	7.8	7.0	7.8	7.0	7.8	7.0	16.4	11.8	40.3	25.1	45.0	27.7	27.8	18.2	7.8	7.0
1530	4.7	2.4	1.9	4.4	4.1	4.5	4.1	4.4	4.1	4.4	4.0	4.4	4.1	4.5	4.1	4.4	4.1	4.4	4.0
1630	2.6	-0.7	-0.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
1730	1.5	-1.8	-1.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
1830	0.8	-2.5	-2.5	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
1930	1.8	-1.5	-1.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
2030	0.6	-2.7	-2.7	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
2130	1.1	-2.2	-2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2230	0.3	-3.0	-3.0	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
2330	5.9	3.3	3.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Mean	4.1	2.7	1.9	3.6	3.3	3.6	3.3	5.4	4.3	10.1	6.9	12.5	8.3	9.7	6.7	5.1	4.1	3.6	3.3

* Greenwich Mean Time