

Table 2.14(i) Air and corresponding sol-air temperatures: Newcastle (Leeming) (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	1.2	-1.1	-1.1	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
0130	1.3	0.4	0.4	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
0230	1.5	1.0	1.0	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
0330	1.8	1.3	1.3	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
0430	2.3	0.7	0.7	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	1.7
0530	2.3	-1.0	-1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
0630	3.0	0.0	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	2.0
0730	3.1	2.2	2.2	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
0830	3.3	2.7	2.1	3.2	3.0	3.1	2.9	3.3	3.0	3.3	3.0	3.2	3.0	3.1	2.9	3.3	3.0	3.3	3.0
0930	3.9	7.4	5.0	4.8	4.1	4.8	4.1	39.1	23.2	59.0	34.2	46.9	27.5	10.0	7.0	4.8	4.1	4.8	4.1
1030	5.2	8.3	5.6	6.8	5.6	6.8	5.6	18.0	11.9	31.1	19.2	30.0	18.5	15.3	10.4	6.8	5.6	6.8	5.6
1130	5.5	9.4	6.2	7.6	6.1	7.6	6.1	12.5	8.9	27.8	17.4	31.3	19.3	21.0	13.6	7.6	6.1	7.6	6.1
1230	5.5	9.8	6.4	7.7	6.2	7.7	6.2	7.7	6.2	24.1	15.3	32.1	19.8	25.9	16.3	9.1	7.0	7.7	6.2
1330	6.1	12.0	8.5	8.3	7.0	8.3	7.0	8.3	7.0	23.8	15.6	40.5	24.9	38.3	23.7	18.4	12.6	8.3	7.0
1430	5.9	12.0	9.1	7.8	6.9	7.8	6.9	7.8	6.9	17.9	12.5	45.7	27.9	51.1	30.9	31.0	19.7	7.8	6.9
1530	4.5	6.6	4.8	5.8	4.9	6.1	5.1	5.8	4.9	5.5	4.7	5.8	4.9	6.1	5.1	5.8	4.9	5.5	4.7
1630	3.7	3.5	3.2	3.9	3.7	3.9	3.7	3.9	3.7	3.9	3.7	3.9	3.7	3.9	3.7	3.9	3.7	3.9	3.7
1730	3.0	2.5	2.5	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
1830	2.0	1.1	1.1	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
1930	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
2030	4.2	3.3	3.3	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
2130	4.4	3.9	3.9	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	4.5	4.0	4.0	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
2330	0.7	-0.2	-0.2	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
Mean	3.4	3.9	3.0	3.7	3.3	3.7	3.3	5.8	4.5	9.5	6.6	11.3	7.6	8.6	6.1	5.1	4.1	3.7	3.3

* 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	-1.7	-3.3	-3.3	-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
0130	-1.6	-2.1	-2.1	-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
0230	-2.0	-2.9	-2.9	-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
0330	-1.7	-2.2	-2.2	-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	-1.9
0430	-1.5	-2.4	-2.4	-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
0530	-1.2	-1.7	-1.7	-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	-2.5	-2.6	-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
0730	-1.2	-1.9	-2.0	-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	-1.5
0830	-0.6	0.6	-0.1	0.4	-0.1	0.6	0.0	1.2	0.3	1.4	0.4	0.9	0.2	0.4	-0.1	0.4	-0.1	0.4	-0.1
0930	0.5	6.1	2.7	3.1	1.7	3.1	1.7	19.4	10.7	26.6	14.7	20.2	11.1	3.8	2.1	3.1	1.7	3.1	1.7
1030	1.6	13.0	6.4	4.7	2.8	4.7	2.8	28.9	16.2	53.5	29.9	49.0	27.4	18.0	10.2	4.7	2.8	4.7	2.8
1130	2.7	14.6	7.8	6.2	4.1	6.2	4.1	15.6	9.3	42.6	24.4	47.9	27.3	28.3	16.4	6.2	4.1	6.2	4.1
1230	3.7	17.5	9.9	7.5	5.3	7.5	5.3	7.5	5.3	39.6	23.2	55.8	32.1	43.0	25.0	8.8	6.0	7.5	5.3
1330	4.4	17.3	10.1	7.9	5.8	7.9	5.8	7.9	5.8	29.2	17.7	54.9	31.9	52.4	30.6	23.3	14.4	7.9	5.8
1430	4.8	14.8	8.9	7.5	5.8	7.5	5.8	7.5	5.8	16.2	10.6	48.5	28.5	56.2	32.9	35.0	21.1	7.5	5.8
1530	4.3	8.5	5.1	6.0	4.7	6.0	4.7	6.0	4.7	6.0	4.7	28.1	17.0	39.4	23.3	30.9	18.6	7.8	5.7
1630	2.5	1.4	0.4	3.1	2.3	3.2	2.4	3.2	2.4	3.1	2.3	3.1	2.3	3.2	2.4	3.2	2.4	3.1	2.3
1730	1.2	-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
1830	0.4	-2.9	-2.9	-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
1930	0.0	-3.3	-3.3	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
2030	0.0	-3.3	-3.3	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
2130	-0.6	-3.9	-3.9	-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
2230	-1.3	-4.6	-4.6	-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
2330	-1.7	-2.6	-2.6	-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	0.4	2.2	0.4	0.9	0.4	0.9	0.4	3.0	1.5	8.1	4.3	11.9	6.4	9.2	4.9	3.8	2.0	1.0	0.4

* Greenwich Mean Time

Table 2.14(i) Air and corresponding sol-air temperatures: Newcastle (Leeming) (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	-0.2	-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
0130	-1.0	-4.3	-4.3	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1
0230	-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
0330	-1.9	-5.2	-5.2	-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
0430	-2.3	-5.6	-5.6	-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	-3.4
0530	-2.3	-5.6	-5.6	-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	-3.4
0630	-2.0	-5.3	-5.3	-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	-3.1
0730	-1.5	-1.8	-3.1	-0.7	-1.6	1.4	-0.4	2.8	0.4	2.5	0.2	0.7	-0.8	-0.7	-1.6	-0.7	-1.6	-0.7	-1.6
0830	0.1	10.0	4.1	2.7	1.0	16.2	8.5	46.4	25.3	50.6	27.6	26.2	14.1	2.7	1.0	2.7	1.0	2.7	1.0
0930	3.1	21.3	11.7	8.9	5.8	8.9	5.8	49.1	28.2	64.6	36.8	46.3	26.6	8.9	5.8	8.9	5.8	8.9	5.8
1030	4.6	24.5	14.3	9.9	7.1	9.9	7.1	34.3	20.6	57.2	33.4	51.6	30.2	20.6	13.0	9.9	7.1	9.9	7.1
1130	5.4	26.0	15.5	10.9	8.0	10.9	8.0	19.9	13.0	47.9	28.6	53.5	31.7	33.2	20.4	10.9	8.0	10.9	8.0
1230	6.2	27.3	16.5	11.8	8.8	11.8	8.8	11.8	8.8	39.8	24.4	56.2	33.5	45.7	27.6	14.5	10.3	11.8	8.8
1330	7.0	26.3	16.5	12.3	9.6	12.3	9.6	12.3	9.6	27.2	17.8	51.3	31.2	51.8	31.5	28.4	18.5	12.3	9.6
1430	6.9	22.2	13.9	11.2	8.8	11.2	8.8	11.2	8.8	13.9	10.3	43.7	26.8	53.8	32.5	38.4	23.9	11.2	8.8
1530	6.2	13.9	9.0	9.8	7.7	9.8	7.7	9.8	7.7	9.8	7.7	23.9	15.5	34.2	21.2	30.2	19.0	14.2	10.2
1630	4.8	5.5	3.7	6.2	5.1	6.2	5.1	6.2	5.1	6.2	5.1	8.0	6.1	9.7	7.0	9.8	7.0	8.1	6.2
1730	3.9	1.4	1.0	3.5	3.2	3.5	3.2	3.5	3.2	3.5	3.2	3.5	3.2	3.5	3.2	3.5	3.2	3.5	3.2
1830	3.1	-0.2	-0.2	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
1930	2.3	-1.0	-1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
2030	2.3	-1.0	-1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
2130	2.0	-1.3	-1.3	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
2230	1.2	-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
2330	0.0	-3.3	-3.3	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Mean	1.9	5.5	2.5	3.0	2.0	3.6	2.4	8.0	4.8	12.8	7.5	14.6	8.5	10.4	6.1	5.9	3.6	3.3	2.2

* 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	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
0130	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
0230	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
0330	3.6	0.3	0.3	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
0430	2.3	-1.0	-1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
0530	2.0	-1.2	-1.3	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
0630	4.2	3.7	2.4	5.1	4.2	6.0	4.7	6.3	4.8	5.9	4.6	5.1	4.2	5.1	4.2	5.1	4.2	5.1	4.2
0730	6.4	12.2	8.1	9.8	7.8	19.2	13.0	25.9	16.7	23.3	15.3	13.1	9.6	9.8	7.8	9.8	7.8	9.8	7.8
0830	10.2	22.2	15.4	15.0	12.4	24.8	17.8	40.3	26.4	40.8	26.7	26.0	18.5	15.0	12.4	15.0	12.4	15.0	12.4
0930	11.1	30.0	20.1	16.7	13.7	19.3	15.2	44.2	29.0	52.3	33.5	38.9	26.1	16.7	13.7	16.7	13.7	16.7	13.7
1030	12.7	36.2	24.3	19.2	15.8	19.2	15.8	38.2	26.4	54.7	35.5	49.4	32.6	25.5	19.3	19.2	15.8	19.2	15.8
1130	13.6	38.6	26.0	20.5	16.9	20.5	16.9	26.6	20.3	48.8	32.7	53.5	35.3	37.9	26.6	20.5	16.9	20.5	16.9
1230	14.1	40.6	27.3	21.2	17.6	21.2	17.6	21.2	17.6	41.4	28.8	56.5	37.1	49.8	33.5	25.3	19.8	21.2	17.6
1330	13.9	40.6	27.2	21.1	17.4	21.1	17.4	21.1	17.4	30.0	22.4	55.6	36.6	59.8	38.9	40.1	27.9	21.1	17.4
1430	13.4	36.3	24.6	19.5	16.3	19.5	16.3	19.5	16.3	19.5	16.3	47.6	31.9	62.3	40.1	51.0	33.8	20.3	16.7
1530	12.5	30.2	20.8	17.2	14.6	17.2	14.6	17.2	14.6	17.2	14.6	36.4	25.3	59.9	38.3	57.6	37.1	30.9	22.2
1630	10.8	21.6	15.3	14.1	12.1	14.1	12.1	14.1	12.1	14.1	12.1	22.3	16.7	48.4	31.2	54.0	34.3	35.8	24.2
1730	8.1	10.3	7.9	10.5	8.9	10.0	8.6	10.0	8.6	10.0	8.6	10.0	8.6	18.6	13.4	22.0	15.3	18.6	13.4
1830	6.5	6.4	6.1	6.8	6.5	6.8	6.5	6.8	6.5	6.8	6.5	6.8	6.5	6.8	6.5	6.8	6.5	6.8	6.5
1930	5.8	5.3	5.3	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
2030	5.6	5.1	5.1	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
2130	5.2	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	5.1	5.1
2230	5.4	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	5.3	5.3
2330	5.8	2.5	2.5	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
Mean	7.7	14.7	10.4	9.8	8.5	10.8	9.0	13.8	10.7	16.8	12.4	19.2	13.7	19.0	13.5	15.9	11.9	11.7	9.5

* Greenwich Mean Time

Table 2.14(i) Air and corresponding sol-air temperatures: Newcastle (Leeming) (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	3.8	0.5	0.5	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
0130	4.3	1.0	1.0	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
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	5.0	1.8	1.7	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
0530	6.9	4.9	4.3	7.1	6.5	7.9	6.9	7.9	7.0	7.3	6.6	6.7	6.3	6.7	6.3	6.7	6.3	6.7	6.3
0630	7.9	9.8	8.6	10.0	8.9	10.8	9.4	11.1	9.5	10.6	9.3	9.3	8.5	9.3	8.5	9.3	8.5	9.3	8.5
0730	8.0	12.9	10.5	11.3	9.8	13.0	10.7	13.4	10.9	13.2	10.8	12.5	10.4	11.3	9.8	11.3	9.8	11.3	9.8
0830	9.5	16.7	13.3	14.3	12.1	16.3	13.2	16.8	13.5	16.8	13.5	16.2	13.1	14.3	12.1	14.3	12.1	14.3	12.1
0930	9.4	20.2	15.0	16.4	13.2	18.8	14.5	20.2	15.3	20.6	15.5	19.6	14.9	16.4	13.2	16.4	13.2	16.4	13.2
1030	8.9	33.0	22.1	18.1	13.9	18.1	13.9	30.1	20.6	38.5	25.2	34.5	23.1	20.6	15.3	18.1	13.9	18.1	13.9
1130	9.2	35.4	23.5	18.7	14.4	18.7	14.4	22.7	16.6	35.8	23.9	38.3	25.3	28.8	20.0	18.7	14.4	18.7	14.4
1230	11.5	38.3	25.4	20.0	15.9	20.0	15.9	20.0	15.9	32.5	22.8	43.3	28.8	39.6	26.7	23.5	17.8	20.0	15.9
1330	12.3	39.4	26.0	20.0	16.1	20.0	16.1	20.0	16.1	23.9	18.3	44.1	29.5	49.1	32.3	36.0	25.0	20.0	16.1
1430	12.1	37.2	24.6	18.9	15.4	18.9	15.4	18.9	15.4	18.9	15.4	39.3	26.7	54.3	35.1	47.6	31.3	23.0	17.7
1530	11.2	31.7	21.1	16.9	13.8	16.9	13.8	16.9	13.8	16.9	13.8	29.4	20.8	52.4	33.6	53.7	34.3	32.6	22.6
1630	10.3	24.2	16.5	14.8	12.3	14.8	12.3	14.8	12.3	14.8	12.3	18.2	14.2	43.2	28.1	51.1	32.5	37.2	24.8
1730	9.5	16.8	12.4	15.5	12.4	13.1	11.1	13.1	11.1	13.1	11.1	13.1	11.1	27.6	19.2	35.9	23.8	30.9	21.0
1830	8.1	11.0	8.7	14.8	11.5	10.0	8.8	10.0	8.8	10.0	8.8	10.0	8.8	17.3	12.8	24.6	16.9	23.6	16.4
1930	7.6	7.1	7.0	7.6	7.4	7.6	7.4	7.6	7.4	7.6	7.4	7.6	7.4	7.6	7.4	7.6	7.4	7.6	7.4
2030	7.4	6.9	6.9	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	7.2
2130	7.3	6.8	6.8	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
2230	7.3	6.8	6.8	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
2330	5.2	1.9	1.9	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	4.1
Mean	8.0	15.3	11.2	11.1	9.4	11.2	9.4	11.9	9.9	13.5	10.7	16.0	12.2	18.4	13.5	17.4	12.9	13.9	10.9

* 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	7.9	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
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	6.2	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
0330	6.6	3.3	3.3	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
0430	7.5	5.6	5.0	7.6	7.1	7.6	7.1	7.6	7.1	7.6	7.1	7.6	7.1	7.6	7.1	7.6	7.1	7.6	7.1
0530	10.6	12.7	10.3	17.6	14.0	25.0	18.1	25.2	18.2	18.1	14.3	12.4	11.1	12.4	11.1	12.4	11.1	12.4	11.1
0630	13.3	20.8	16.0	21.2	17.2	37.8	26.4	42.1	28.8	31.5	22.9	16.7	14.7	16.7	14.7	16.7	14.7	16.7	14.7
0730	16.7	29.9	22.6	21.5	18.9	42.9	30.8	53.1	36.4	44.5	31.6	22.0	19.1	21.5	18.9	21.5	18.9	21.5	18.9
0830	17.9	36.6	26.8	23.9	20.7	39.6	29.4	55.2	38.1	51.9	36.3	31.5	25.0	23.9	20.7	23.9	20.7	23.9	20.7
0930	19.7	42.9	31.1	26.7	23.1	33.2	26.7	52.5	37.4	55.8	39.3	41.3	31.2	26.7	23.1	26.7	23.1	26.7	23.1
1030	20.4	47.0	33.7	28.2	24.2	28.2	24.2	45.0	33.6	54.9	39.1	48.2	35.3	28.7	24.5	28.2	24.2	28.2	24.2
1130	21.5	50.3	36.0	29.7	25.5	29.7	25.5	35.4	28.7	51.1	37.5	53.2	38.6	40.3	31.5	29.7	25.5	29.7	25.5
1230	22.0	51.2	36.7	30.2	26.1	30.2	26.1	30.2	26.1	43.5	33.4	54.3	39.5	49.9	37.0	32.8	27.5	30.2	26.1
1330	21.9	49.9	36.0	29.8	25.8	29.8	25.8	29.8	25.8	33.1	27.6	51.7	38.0	56.4	40.5	44.3	33.9	29.8	25.8
1430	22.6	47.8	35.1	29.8	26.1	29.8	26.1	29.8	26.1	29.8	26.1	46.9	35.6	60.4	43.1	54.9	40.0	33.7	28.3
1530	22.8	43.9	33.0	29.0	25.7	29.0	25.7	29.0	25.7	29.0	25.7	39.3	31.5	60.1	43.0	61.9	44.0	43.6	33.8
1630	22.5	38.4	29.8	27.5	24.8	27.5	24.8	27.5	24.8	27.5	24.8	29.9	26.1	55.4	40.3	63.9	45.0	50.5	37.6
1730	21.8	32.0	26.0	29.1	25.4	25.4	23.3	25.4	23.3	25.4	23.3	25.4	23.3	46.8	35.2	60.2	42.6	52.8	38.5
1830	20.6	25.1	21.6	31.1	25.9	22.8	21.3	22.8	21.3	22.8	21.3	22.8	21.3	34.6	27.9	47.8	35.2	46.4	34.4
1930	19.1	18.8	17.4	25.6	22.2	19.6	18.9	19.6	18.9	19.6	18.9	19.6	18.9	22.9	20.7	29.9	24.6	31.0	25.2
2030	16.8	13.8	13.7	16.0	15.8	16.0	15.8	16.0	15.8	16.0	15.8	16.0	15.8	16.0	15.8	16.0	15.8	16.0	15.8
2130	14.6	11.3	11.3	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
2230	11.8	8.5	8.5	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
2330	8.5	5.2	5.2	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
Mean	15.8	25.2	19.6	20.0	17.6	22.0	18.8	25.0	20.4	25.7	20.8	24.7	20.3	26.5	21.2	26.4	21.2	23.1	19.4

* Greenwich Mean Time

Table 2.14(i) Air and corresponding sol-air temperatures: Newcastle (Leeming) (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	11.4	8.1	8.1	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
0130	11.6	10.7	10.7	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
0230	11.5	9.6	9.6	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
0330	12.8	12.0	12.0	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
0430	13.4	13.5	13.2	13.7	13.5	13.7	13.5	13.7	13.5	13.7	13.5	13.7	13.5	13.7	13.5	13.7	13.5	13.7	13.5
0530	15.4	17.2	15.7	19.1	17.2	21.8	18.7	22.0	18.8	19.4	17.4	16.9	16.0	16.9	16.0	16.9	16.0	16.9	16.0
0630	17.6	23.8	19.6	24.6	21.0	42.4	30.9	47.3	33.6	36.4	27.5	20.4	18.7	20.4	18.7	20.4	18.7	20.4	18.7
0730	20.0	31.7	25.0	24.3	21.9	45.6	33.7	56.3	39.7	48.1	35.1	25.6	22.6	24.3	21.9	24.3	21.9	24.3	21.9
0830	22.0	38.7	29.8	27.7	24.6	42.7	33.0	58.5	41.8	55.8	40.3	36.0	29.3	27.7	24.6	27.7	24.6	27.7	24.6
0930	23.3	44.4	33.5	30.0	26.5	36.2	29.9	55.6	40.8	59.4	42.9	45.2	35.0	30.0	26.5	30.0	26.5	30.0	26.5
1030	24.1	48.7	36.3	31.6	27.8	31.6	27.8	48.9	37.4	59.1	43.1	52.4	39.3	32.6	28.3	31.6	27.8	31.6	27.8
1130	24.9	51.2	38.0	32.9	28.8	32.9	28.8	39.3	32.4	54.9	41.1	56.7	42.1	43.5	34.7	32.9	28.8	32.9	28.8
1230	26.0	53.0	39.5	34.0	30.0	34.0	30.0	34.0	30.0	48.7	38.1	58.9	43.8	53.5	40.8	35.7	30.9	34.0	30.0
1330	26.5	52.6	39.5	34.2	30.3	34.2	30.3	34.2	30.3	39.5	33.2	57.5	43.2	60.8	45.1	47.6	37.7	34.2	30.3
1430	26.9	50.6	38.6	33.9	30.3	33.9	30.3	33.9	30.3	33.9	30.3	52.9	40.8	65.0	47.6	58.0	43.7	35.9	31.4
1530	26.9	46.2	36.1	32.9	29.7	32.9	29.7	32.9	29.7	32.9	29.7	44.9	36.4	63.7	46.9	63.8	46.9	45.1	36.5
1630	26.7	39.1	32.1	31.8	29.1	31.8	29.1	31.8	29.1	31.8	29.1	35.5	31.1	53.0	40.8	58.0	43.6	47.5	37.7
1730	26.0	34.1	29.0	31.3	28.4	29.5	27.5	29.5	27.5	29.5	27.5	29.5	27.5	47.7	37.6	57.2	42.8	50.4	39.1
1830	24.7	28.2	25.2	33.4	29.1	26.5	25.2	26.5	25.2	26.5	25.2	26.5	25.2	39.1	32.2	51.2	38.9	48.9	37.6
1930	22.1	22.5	20.8	22.6	21.9	22.5	21.8	22.9	22.0	22.9	22.1	22.6	21.9	22.5	21.8	22.9	22.0	22.9	22.1
2030	19.4	16.5	16.3	18.7	18.5	18.7	18.5	18.7	18.5	18.7	18.5	18.7	18.5	18.7	18.5	18.7	18.5	18.7	18.5
2130	18.0	14.7	14.7	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
2230	16.6	13.3	13.3	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
2330	12.6	10.3	10.3	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
Mean	20.0	28.8	23.6	23.6	21.6	25.8	22.8	29.0	24.6	30.0	25.1	29.3	24.7	30.1	25.2	29.2	24.7	26.0	22.9

* 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	10.3	9.1	9.1	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
0130	10.2	9.3	9.3	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
0230	8.9	5.6	5.6	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
0330	9.1	6.1	6.1	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	8.1
0430	8.9	7.0	7.0	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
0530	12.2	13.0	12.4	13.0	12.6	13.1	12.6	13.1	12.6	13.0	12.6	13.0	12.6	13.1	12.6	13.1	12.6	13.0	12.6
0630	13.1	18.9	15.8	16.9	15.0	40.6	28.2	49.4	33.1	38.1	26.8	15.3	14.1	15.3	14.1	15.3	14.1	15.3	14.1
0730	13.6	24.0	19.0	17.7	15.7	34.8	25.2	46.8	31.9	41.7	29.1	22.4	18.3	17.7	15.7	17.7	15.7	17.7	15.7
0830	14.3	30.1	22.9	20.0	17.4	31.7	23.9	49.5	33.8	49.7	33.8	32.0	24.1	20.0	17.4	20.0	17.4	20.0	17.4
0930	15.1	34.6	25.6	21.9	18.7	24.9	20.4	46.0	32.1	52.4	35.7	40.5	29.1	21.9	18.7	21.9	18.7	21.9	18.7
1030	16.3	38.6	28.3	24.0	20.4	24.0	20.4	39.5	29.0	51.6	35.8	47.0	33.2	28.4	22.9	24.0	20.4	24.0	20.4
1130	17.4	40.8	29.2	24.8	21.1	24.8	21.1	30.9	24.5	49.9	35.0	53.3	36.9	39.2	29.1	24.8	21.1	24.8	21.1
1230	17.6	41.7	30.1	25.3	21.6	25.3	21.6	25.3	21.6	42.2	31.0	53.7	37.4	47.8	34.1	27.9	23.0	25.3	21.6
1330	17.5	40.1	28.7	24.4	20.9	24.4	20.9	24.4	20.9	32.5	25.4	52.3	36.4	54.9	37.8	38.8	28.9	24.4	20.9
1430	16.3	39.0	28.5	23.0	19.9	23.0	19.9	23.0	19.9	23.0	19.9	47.4	33.4	59.2	40.0	49.1	34.4	22.9	19.8
1530	15.3	33.7	25.3	21.1	18.4	21.1	18.4	21.1	18.4	21.1	18.4	37.6	27.6	56.3	38.0	53.9	36.7	31.7	24.3
1630	15.6	26.1	21.2	20.5	18.2	20.5	18.2	20.5	18.2	20.5	18.2	25.4	21.0	37.8	27.8	40.2	29.2	31.2	24.2
1730	15.5	18.3	16.8	17.7	16.6	17.7	16.6	17.7	16.6	17.7	16.6	17.7	16.6	18.4	17.0	18.7	17.2	18.4	17.0
1830	15.5	16.3	15.7	16.4	15.9	16.4	15.9	16.4	15.9	16.4	15.9	16.4	15.9	16.4	15.9	16.4	15.9	16.4	15.9
1930	14.9	14.6	14.3	15.0	14.8	15.0	14.8	15.0	14.8	15.0	14.8	15.0	14.8	15.0	14.8	15.0	14.8	15.0	14.8
2030	15.3	14.4	14.4	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
2130	15.1	14.6	14.6	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
2230	14.8	12.5	12.5	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
2330	11.1	9.5	9.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5
Mean	13.9	21.6	17.6	16.7	15.2	19.0	16.5	22.4	18.4	24.3	19.5	24.5	19.6	23.3	18.9	20.6	17.4	17.5	15.7

* Greenwich Mean Time

Table 2.14(i) Air and corresponding sol-air temperatures: Newcastle (Leeming) (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	12.7	11.8	11.8	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
0130	12.7	11.8	11.8	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
0230	12.9	12.4	12.4	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	11.7	11.2	11.2	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
0430	11.0	10.1	10.1	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7	10.7
0530	10.6	7.6	7.4	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	9.5
0630	11.6	11.6	10.3	11.9	11.3	12.1	11.4	12.3	11.5	12.2	11.5	11.9	11.3	12.1	11.4	12.3	11.5	12.2	11.5
0730	13.8	20.1	16.9	16.2	15.0	30.2	22.7	45.8	31.5	44.1	30.5	26.0	20.4	16.2	15.0	16.2	15.0	16.2	15.0
0830	15.9	24.4	19.3	19.2	17.3	26.2	21.2	46.1	32.2	50.1	34.4	35.7	26.5	19.2	17.3	19.2	17.3	19.2	17.3
0930	17.9	31.0	24.3	22.7	20.3	22.7	20.3	44.0	32.1	53.8	37.5	45.1	32.7	23.1	20.5	22.7	20.3	22.7	20.3
1030	19.3	35.3	27.3	24.9	22.1	24.9	22.1	38.7	29.8	54.4	38.5	52.5	37.4	34.1	27.2	24.9	22.1	24.9	22.1
1130	19.7	37.6	28.8	25.7	22.7	25.7	22.7	30.0	25.1	51.5	37.0	57.3	40.3	44.2	33.0	25.7	22.7	25.7	22.7
1230	20.8	39.0	30.0	26.8	23.8	26.8	23.8	26.8	23.8	45.6	34.3	59.4	42.0	53.6	38.7	31.5	26.4	26.8	23.8
1330	21.3	38.7	30.2	26.9	24.2	26.9	24.2	26.9	24.2	36.9	29.7	57.9	41.4	60.3	42.7	42.6	32.9	26.9	24.2
1430	21.7	35.6	28.4	26.2	23.9	26.2	23.9	26.2	23.9	26.2	23.9	52.5	38.5	63.0	44.3	51.5	37.9	26.2	23.9
1530	21.1	31.3	25.7	24.4	22.6	24.4	22.6	24.4	22.6	24.4	22.6	44.5	33.7	62.4	43.7	57.7	41.1	33.1	27.4
1630	21.0	28.1	24.4	23.1	22.0	23.1	22.0	23.1	22.0	23.1	22.0	36.7	29.5	62.9	44.1	65.6	45.6	43.1	33.1
1730	18.4	22.8	20.5	22.8	20.7	22.8	20.7	22.8	20.7	22.8	20.7	22.8	20.7	22.8	20.7	22.8	20.7	22.8	20.7
1830	17.1	17.2	16.8	16.9	16.8	16.9	16.8	16.9	16.8	16.9	16.8	16.9	16.8	16.9	16.8	16.9	16.8	16.9	16.8
1930	16.3	15.8	15.8	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
2030	16.0	15.5	15.5	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8
2130	15.5	15.0	15.0	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3	15.3
2230	14.7	14.2	14.2	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
2330	13.0	12.5	12.5	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
Mean	16.1	21.3	18.4	18.0	16.9	18.9	17.4	22.0	19.2	25.2	21.0	27.6	22.3	26.4	21.6	23.0	19.7	19.2	17.6

* 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	6.3	4.4	4.4	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
0130	6.7	6.2	6.2	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
0230	6.9	5.3	5.3	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	6.3
0330	6.9	4.6	4.6	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
0430	7.2	5.3	5.3	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
0530	7.3	6.1	6.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
0630	6.9	3.9	3.9	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	5.9
0730	6.6	4.3	3.8	6.4	6.0	6.4	6.0	6.4	6.0	6.4	6.0	6.4	6.0	6.4	6.0	6.4	6.0	6.4	6.0
0830	7.9	9.4	7.3	9.4	8.2	11.0	9.1	19.4	13.8	22.2	15.3	17.7	12.8	9.4	8.2	9.4	8.2	9.4	8.2
0930	8.6	15.8	11.1	11.2	9.5	11.2	9.5	32.7	21.5	47.0	29.4	40.2	25.6	16.1	12.3	11.2	9.5	11.2	9.5
1030	8.9	21.2	14.9	12.6	10.7	12.6	10.7	27.9	19.2	51.9	32.5	52.5	32.8	29.2	19.9	12.6	10.7	12.6	10.7
1130	9.6	22.8	16.4	14.0	11.8	14.0	11.8	17.1	13.6	42.7	27.8	51.1	32.4	37.4	24.8	14.0	11.8	14.0	11.8
1230	10.1	27.0	18.5	15.0	12.5	15.0	12.5	15.0	12.5	46.2	29.8	70.4	43.3	61.3	38.2	24.1	17.5	15.0	12.5
1330	10.4	23.5	17.1	14.1	12.3	14.1	12.3	14.1	12.3	28.7	20.4	56.4	35.8	58.9	37.1	34.6	23.7	14.1	12.3
1430	10.3	18.6	14.5	13.4	11.9	13.4	11.9	13.4	11.9	15.5	13.0	38.6	25.9	46.9	30.5	35.4	24.1	13.4	11.9
1530	10.0	12.5	11.0	11.6	10.8	11.6	10.8	11.6	10.8	11.6	10.8	15.8	13.1	18.4	14.5	17.3	13.9	13.2	11.6
1630	9.1	7.5	7.0	8.9	8.6	9.0	8.6	9.0	8.6	8.9	8.6	8.9	8.6	9.0	8.6	9.0	8.6	8.9	8.6
1730	8.5	5.2	5.2	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
1830	7.8	4.5	4.5	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	6.7
1930	7.6	4.3	4.3	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
2030	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
2130	8.1	4.8	4.8	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
2230	8.0	4.7	4.7	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
2330	6.2	5.0	5.0	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
Mean	8.0	9.6	7.9	8.6	8.0	8.7	8.0	10.7	9.2	15.5	11.8	18.7	13.6	15.9	12.1	11.0	9.3	8.7	8.0

* Greenwich Mean Time

Table 2.14(i) Air and corresponding sol-air temperatures: Newcastle (Leeming) (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	5.5	2.2	2.2	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
0130	5.2	1.9	1.9	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	4.1
0230	5.0	1.7	1.7	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
0330	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
0430	4.9	1.6	1.6	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	4.9	1.6	1.6	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
0630	4.5	1.5	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	3.5
0730	4.5	1.2	1.2	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	3.4
0830	5.3	2.7	2.4	4.8	4.5	4.8	4.5	4.8	4.5	4.8	4.5	4.8	4.5	4.8	4.5	4.8	4.5	4.8	4.5
0930	6.3	8.0	5.8	7.2	6.3	7.2	6.3	23.4	15.3	35.8	22.2	31.5	19.8	12.9	9.5	7.2	6.3	7.2	6.3
1030	6.8	11.1	7.7	8.5	7.2	8.5	7.2	20.1	13.7	40.0	24.7	41.3	25.4	23.2	15.4	8.5	7.2	8.5	7.2
1130	7.3	14.1	10.0	9.6	8.2	9.6	8.2	12.9	10.0	38.7	24.4	47.3	29.2	33.7	21.6	9.6	8.2	9.6	8.2
1230	6.6	12.4	8.3	8.5	7.2	8.5	7.2	8.5	7.2	32.0	20.2	48.5	29.4	41.4	25.4	14.7	10.6	8.5	7.2
1330	6.9	11.3	7.9	8.3	7.2	8.3	7.2	8.3	7.2	23.4	15.6	46.7	28.5	47.3	28.8	24.8	16.4	8.3	7.2
1430	6.6	8.7	6.5	7.3	6.5	7.3	6.5	7.3	6.5	12.9	9.6	41.2	25.4	49.5	30.0	33.0	20.8	7.3	6.5
1530	5.3	4.5	3.3	6.4	5.4	6.4	5.4	6.4	5.4	6.4	5.4	6.4	5.4	6.4	5.4	6.4	5.4	6.4	5.4
1630	3.5	0.5	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	2.5
1730	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
1830	2.8	1.6	1.6	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
1930	2.5	1.3	1.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
2030	4.5	3.6	3.6	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	4.2	3.7	3.7	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
2230	4.3	3.8	3.8	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	4.1
2330	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
Mean	5.0	4.3	3.4	4.9	4.5	4.9	4.5	6.2	5.2	10.4	7.6	13.5	9.3	11.5	8.2	6.9	5.6	4.9	4.5

* 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	-10.2	-13.5	-13.5	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3	-11.3
0130	-10.4	-13.7	-13.7	-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
0230	-9.3	-12.6	-12.6	-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
0330	-9.9	-13.2	-13.2	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0
0430	-7.5	-8.4	-8.4	-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
0530	-7.5	-8.0	-8.0	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7	-7.7
0630	-7.6	-10.6	-10.6	-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
0730	-7.3	-10.6	-10.6	-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
0830	-6.4	-9.3	-9.5	-7.3	-7.4	-7.3	-7.4	-7.3	-7.4	-7.2	-7.4	-7.3	-7.4	-7.3	-7.4	-7.3	-7.4	-7.2	-7.4
0930	-5.3	-5.9	-7.1	-4.6	-5.4	-4.8	-5.5	-4.7	-5.5	-4.5	-5.4	-4.6	-5.4	-4.8	-5.5	-4.7	-5.5	-4.5	-5.4
1030	-5.0	-0.4	-3.9	-3.6	-4.7	-3.6	-4.7	18.7	7.7	52.5	26.4	53.0	26.7	20.0	8.4	-3.6	-4.7	-3.6	-4.7
1130	-4.1	1.2	-2.7	-2.8	-3.9	-2.8	-3.9	4.4	0.1	40.8	20.3	51.3	26.2	29.9	14.3	-2.8	-3.9	-2.8	-3.9
1230	-4.0	-0.2	-3.4	-2.7	-3.8	-2.7	-3.8	-2.7	-3.8	22.1	10.0	36.7	18.1	28.1	13.3	1.2	-1.6	-2.7	-3.8
1330	-3.3	-0.7	-3.4	-2.4	-3.3	-2.4	-3.3	-2.4	-3.3	13.9	5.8	34.0	16.9	32.7	16.2	10.7	4.0	-2.4	-3.3
1430	-3.4	-3.4	-4.9	-2.5	-3.4	-2.4	-3.3	-2.7	-3.5	-2.8	-3.6	-2.5	-3.4	-2.4	-3.3	-2.7	-3.5	-2.8	-3.6
1530	-3.5	-6.1	-6.5	-4.2	-4.4	-4.1	-4.4	-4.2	-4.4	-4.2	-4.4	-4.2	-4.4	-4.1	-4.4	-4.2	-4.4	-4.2	-4.4
1630	-4.4	-7.7	-7.7	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5	-5.5
1730	-4.1	-7.4	-7.4	-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
1830	-4.3	-7.6	-7.6	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4	-5.4
1930	-3.9	-6.9	-6.9	-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	-4.9
2030	-4.8	-8.1	-8.1	-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
2130	-4.5	-7.8	-7.8	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6	-5.6
2230	-4.7	-8.0	-8.0	-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
2330	-9.9	-13.2	-13.2	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0	-11.0
Mean	-6.1	-7.6	-8.3	-6.5	-6.8	-6.5	-6.8	-5.3	-6.1	-0.7	-3.5	1.3	-2.5	-1.4	-4.0	-5.8	-6.4	-6.5	-6.8

* Greenwich Mean Time