



Appendix 1: Total Measured Radiation over Nottinghamma

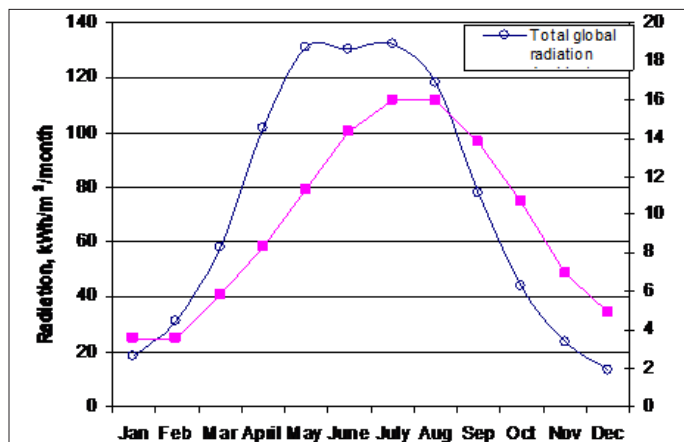
Appendix (1.1): Temperature in January 2020.

Time	Ambient temperature	Bottom temperature	Top temperature
09:00	17.5	16.2	17.5
10:00	17.7	16.1	17.4
11:00	18.2	16.1	17.2
12:00	18.8	16.4	17.2
13:00	19.8	17.9	18.6
14:00	20.8	18.5	19.6
15:00	20.3	17.5	19.3
16:00	20.1	17.4	18.2
17:00	19.8	17.3	18.1

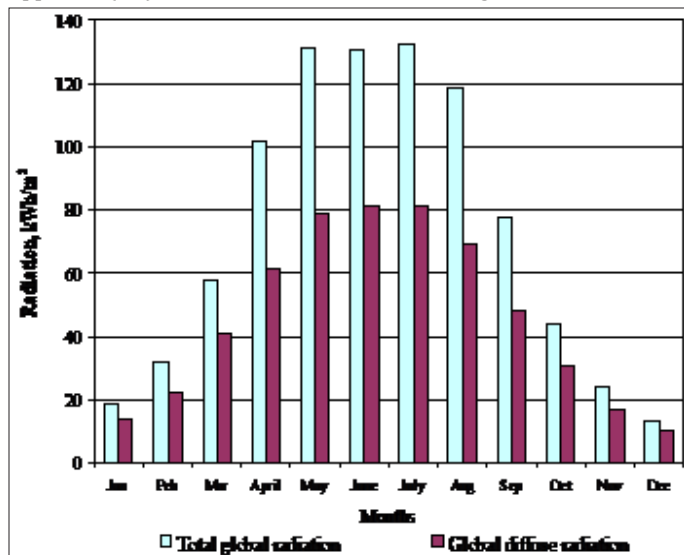
Appendix (1.2): Total Radiation and Ambient Temperature.

Month	Total global radiation	Diffuse radiation	Ambient temperature
January	18.6	14.1	3.6
February	31.6	22.2	3.6
March	58	40.9	5.8
April	101.5	61.2	8.3
May	130.9	78.9	11.3
June	130.3	81.4	14.3
July	132.4	81.1	16
August	118.3	69.2	16
September	77.8	48.2	13.8
October	43.9	30.5	10.7
November	23.8	16.6	6.9
December	13.4	10.4	4.9

Appendix (1.3): Total global and diffuse radiation.

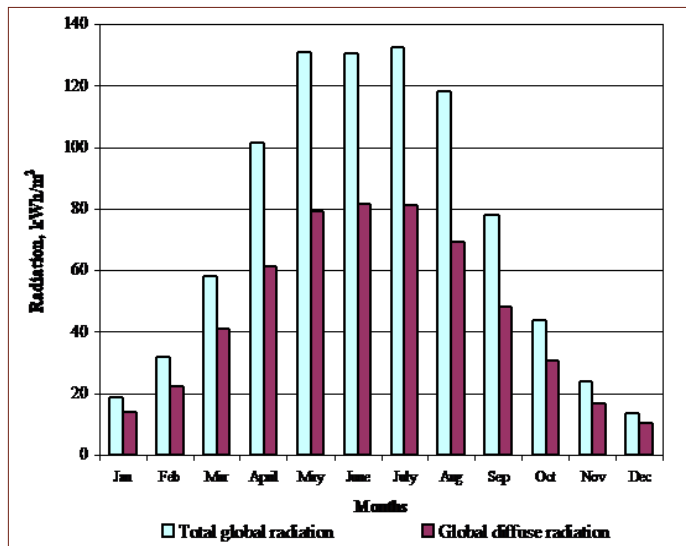


Appendix (1.4): Enhancement of solar radiation in greenhouse.

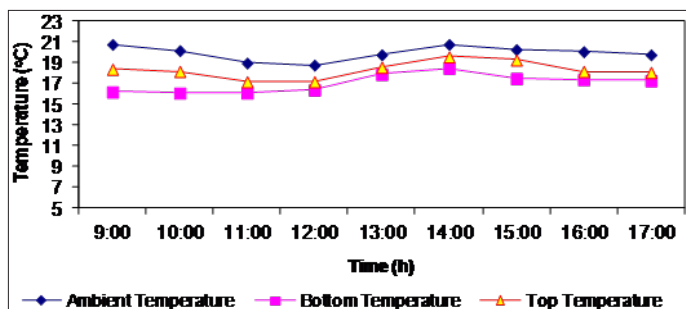


Appendix 2

Appendix 2: Experimental results.

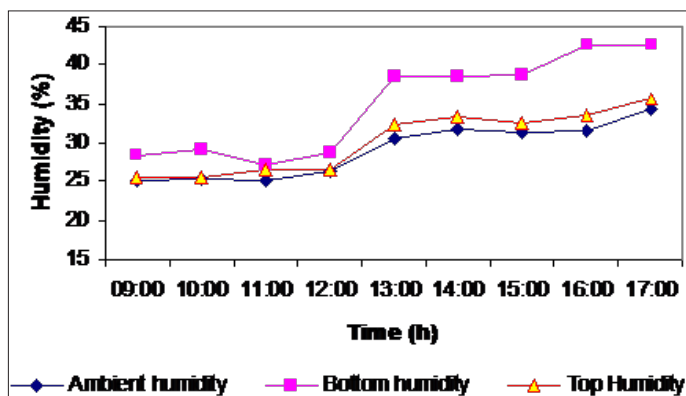


Appendix 2.1: Temperature variation in January.



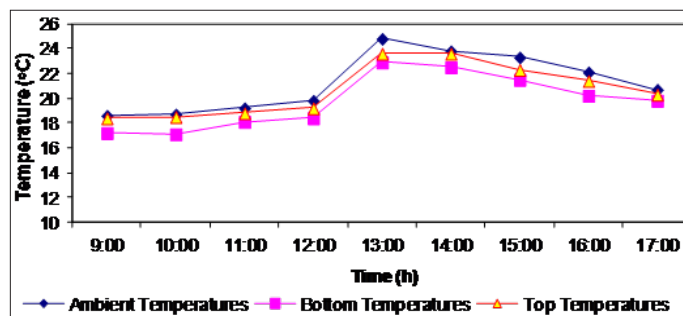
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.2: Average daily variation of humidity in January.



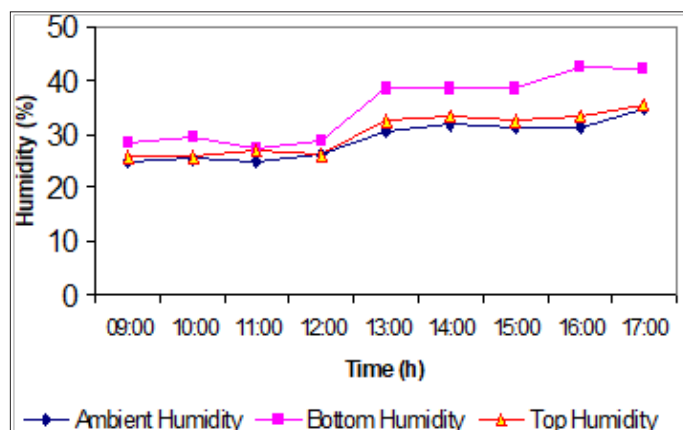
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.3: Temperature variation in February.



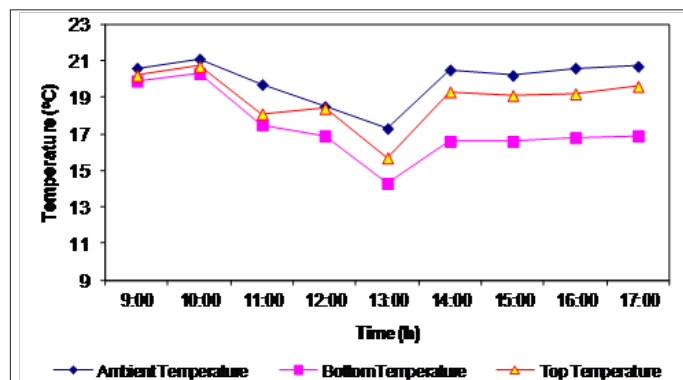
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.4: Average daily variation of humidity in February.



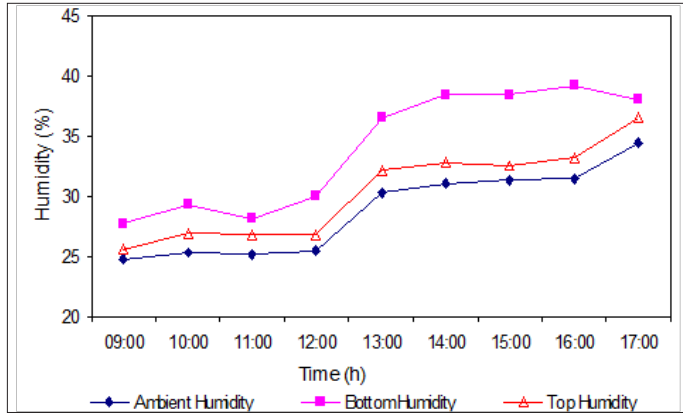
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.5: Temperature variation in March.



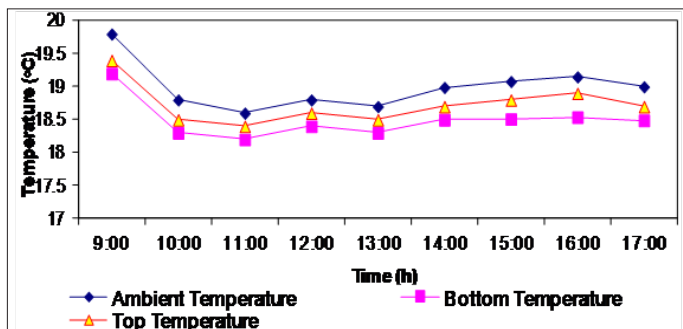
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.6: Average daily variation of humidity in March.



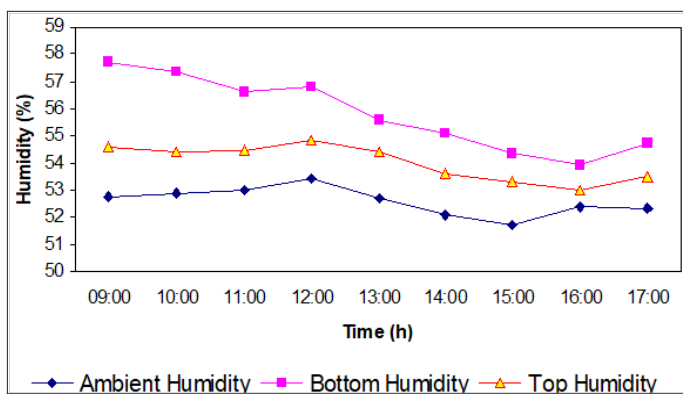
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.7: Temperature variation in May.



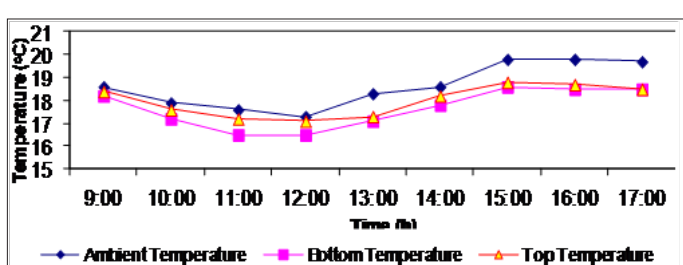
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.8: Average daily variation of humidity in May.



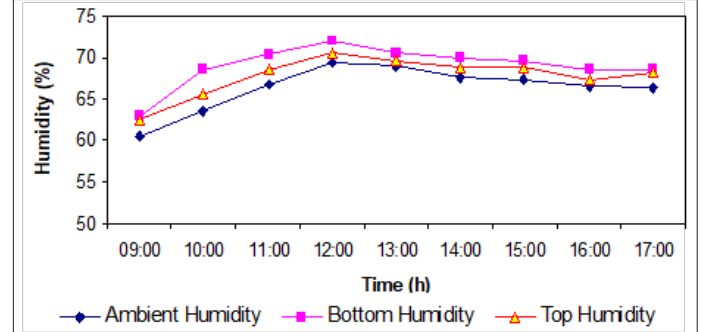
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.9: Temperature variation in June.



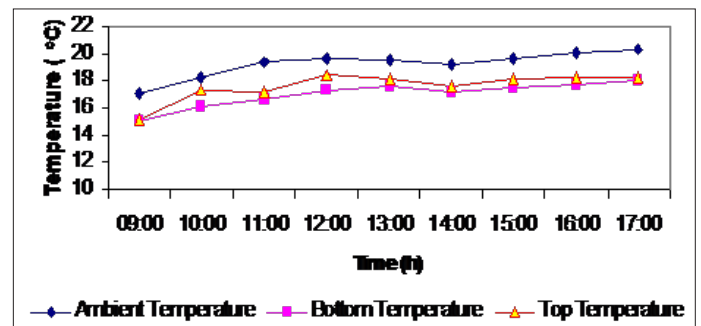
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.10: Average daily variation of humidity in June.



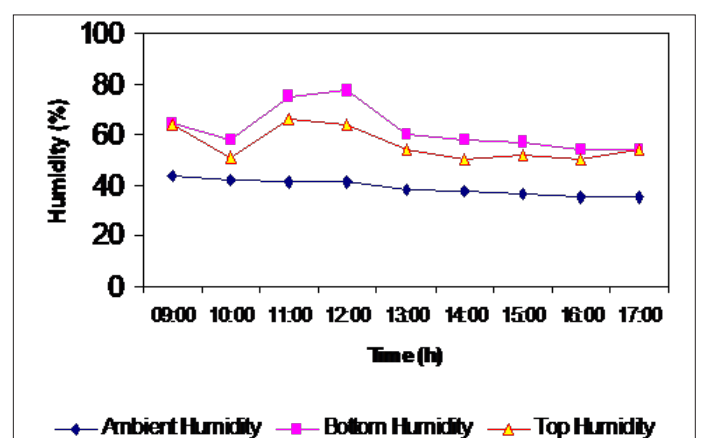
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.11: Temperature variation in July.



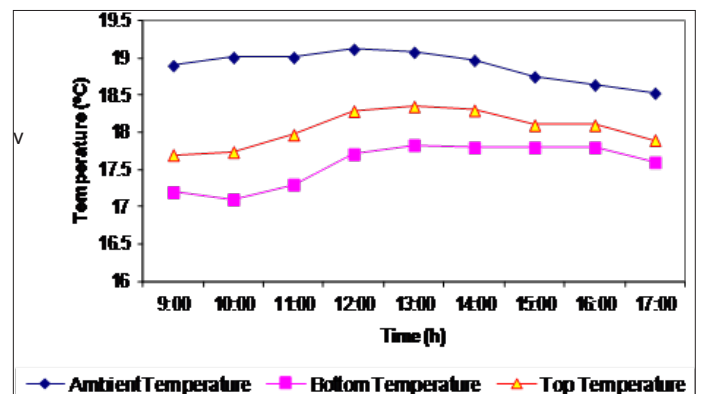
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.12: Average daily variation of humidity in July.



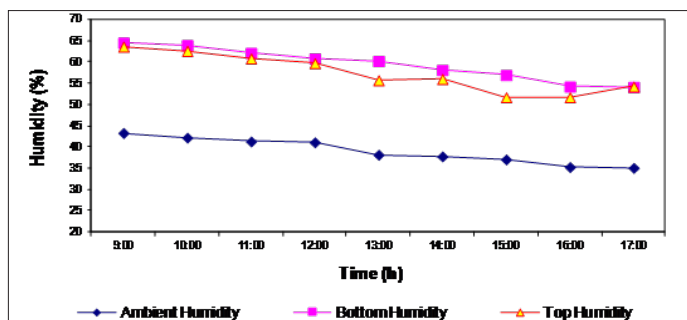
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.13: Temperature variation in August.



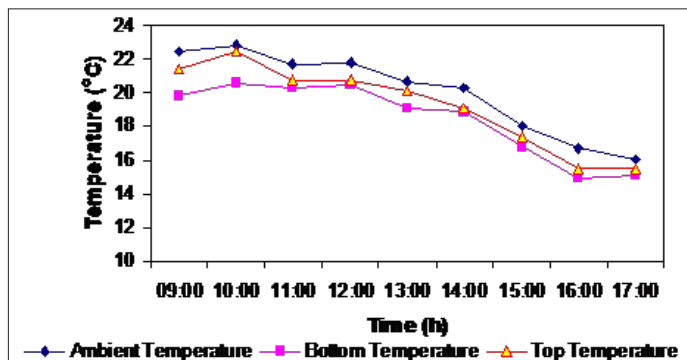
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.14: Average daily variation of humidity in August.



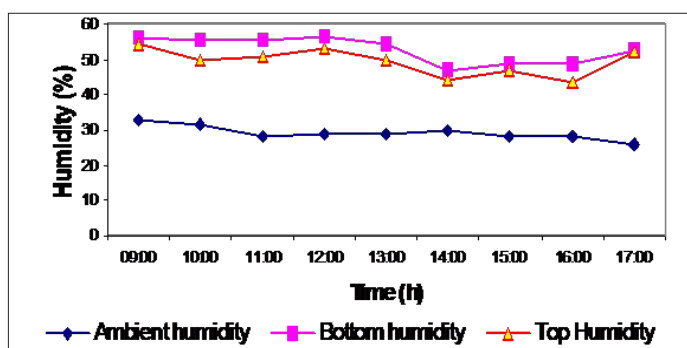
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.15: Temperature variation in September.



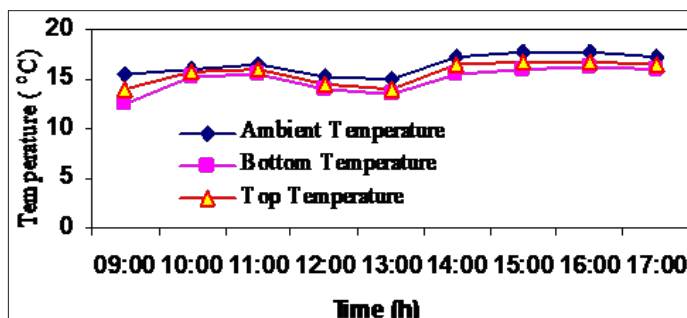
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.16: Average daily variation of humidity in September.



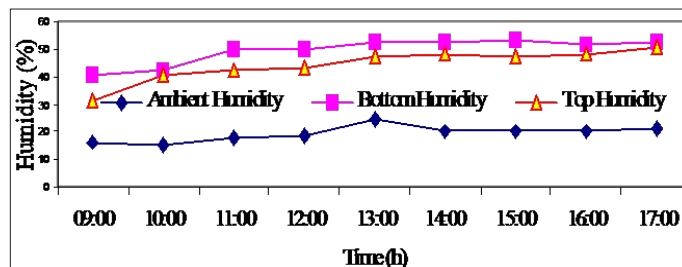
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.17: Temperature variation in October.



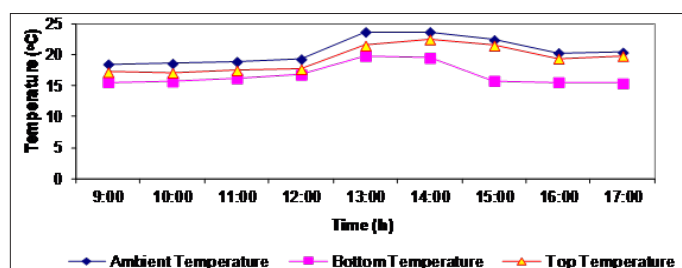
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.18: Average daily variation of humidity in October.



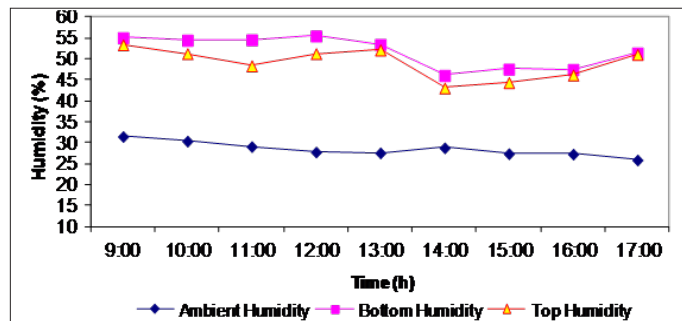
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.19: Temperature variation in November.



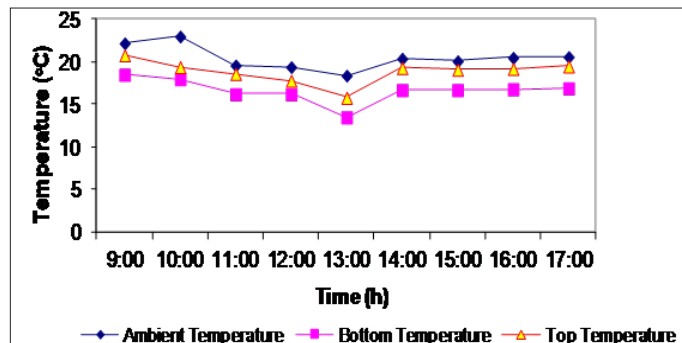
(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.20: Average daily variation of humidity in November.



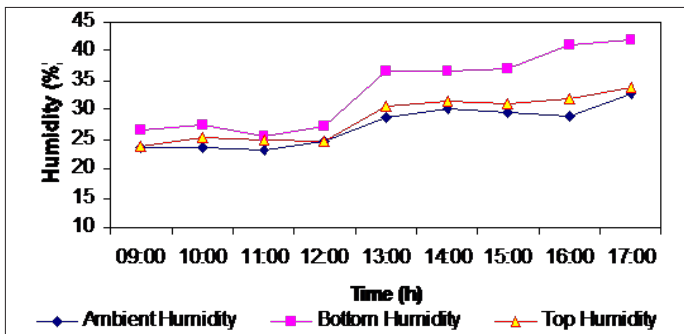
(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)

Appendix 2.21: Temperature variation in December.



(T_{indoor}) (T_{bottom} at 50cm) (T_{top} at 150cm)

Appendix 2.22: Average daily variation of humidity in December.



(H_{indoor}) (H_{bottom} at 50cm) (H_{top} at 150cm)