

Garden vs. Exposed Roof Assemblies

Rooftop Microclimate - Preliminary Study

* *Thermal Performance and Energy Efficiency*, Institute for Research in Construction, Karen Liu, National Research Council of Canada (NRC) 2001

- Solar reflectance of the grass on the Rooftop Garden was similar to that of the grey surface of the Reference Roof.
- The air temperature (with solar radiation) decreased with increasing distance from the roof surface.
- The rooftop garden lowered the temperature of the surface air 100mm above the roof surface by as much as 6 °C.

	Mod. Bit Roof	Garden Roof
600 mm (24")	25 C	25 C
300 mm (12")	26 C	23 C
200 mm (8")	28 C	25 C
100 mm (4")	32 C	28 C
50 mm (2")	37 C	27 C