ENERGY BALANCE STUDY

The best combination of values to achieve a total load of 249.01 kWh/m2 are as follows:

WALL TO WINDOW: North = 0.2 CONSTRUCTION: Exterior Wall [R 14.8]

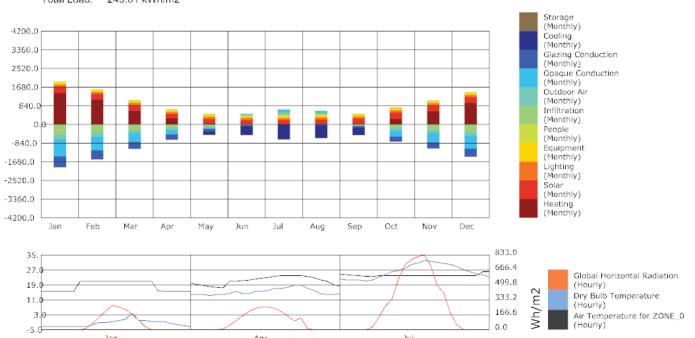
West = 0 Exterior Window [R 1.9, SHGC 0.39]

South = 0.3 Exterior Roof [R 14.8] East = 0 airChangeHour = 1.80

BLINDS: True THERMAL MASS: Existing Slab Construction

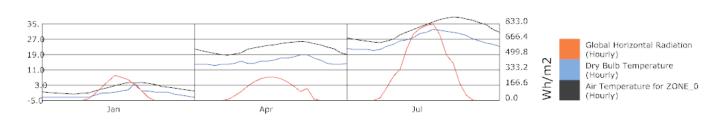
shading depth = 0.2 number of blinds = 2

Cooling Load: 71.64 kWh/m2 Heating Load: 177.37 kWh/m2 Total Load: 249.01 kWh/m2



The most effective parameters appeared to be the Construction values and the Wall to Window ratios. Increasing the WTW ratio added to loads, and decreasing the R values of walls, windows and the roof also increased loads. Increasing the air change rate also greatly added to loads. Blinds had a minimal effect on loads, having too many actually increased heating loads in the winter. Thermal mass had no marked effect on the loads.

With no systems, the temperature inside the container ranged from 0 deg C in the winter to 37 deg C in the summer.



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