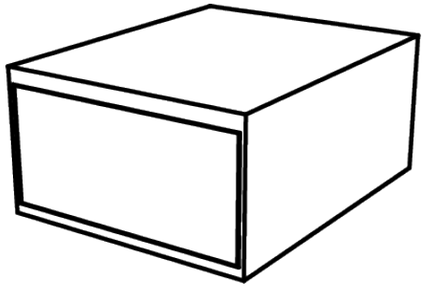
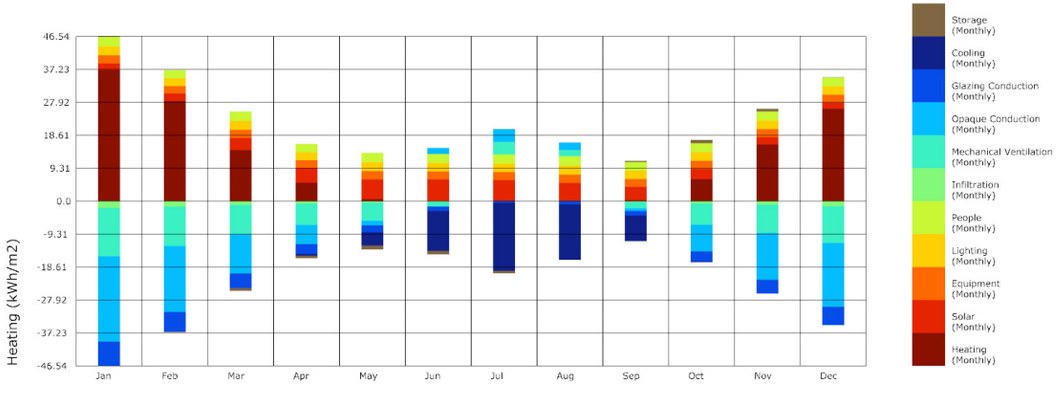
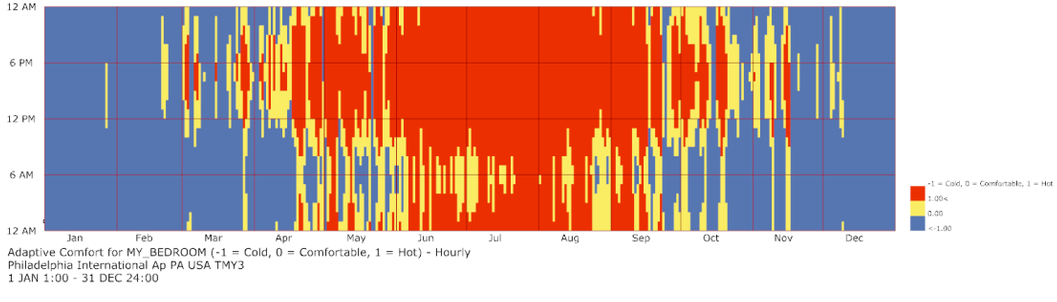
ENERGY MODEL MODEIFIED FOR THE BEDROOM

In this assignment, I modified the energy model. I checked different plans for the bedroom. Originally, my bedroom has a window facing north. and in order to get enough day lighting, I enlarged my window in the previous assigments. This time, I tried to adjust the size of shade and add window on the south wall. According to my analysis, I found it would be most efficient for the comfortable ratio when my bedroom only has window on the northwall. But when I have windows on the south wall and have some proper shading, the energy belance would be more efficient.

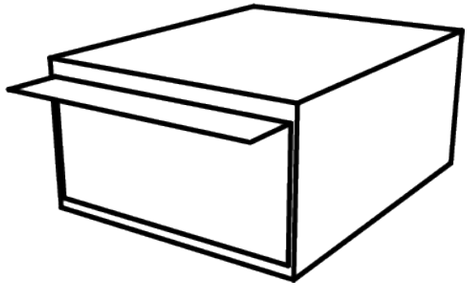
Window: North
Shading: No shading
Comfortable Ratio: 16.8%

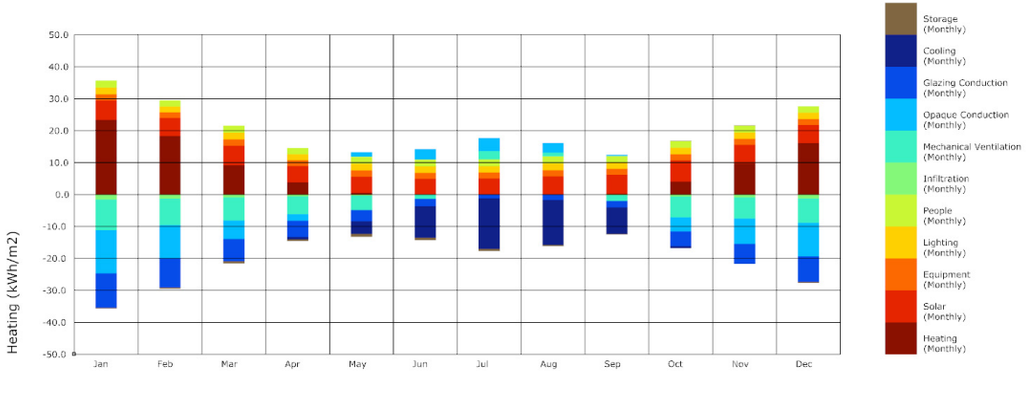


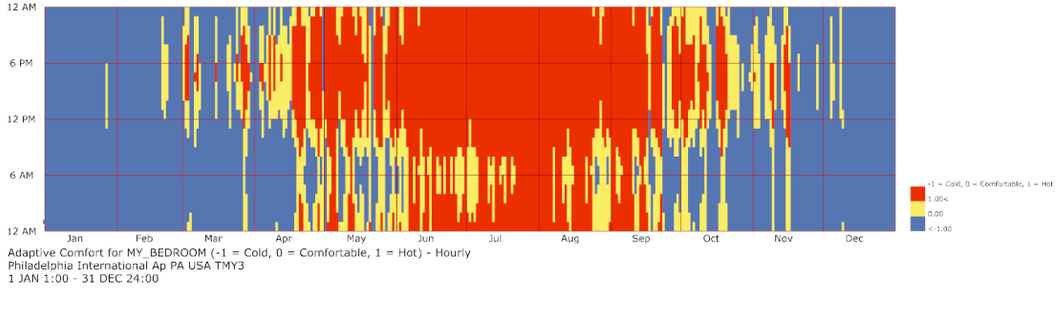




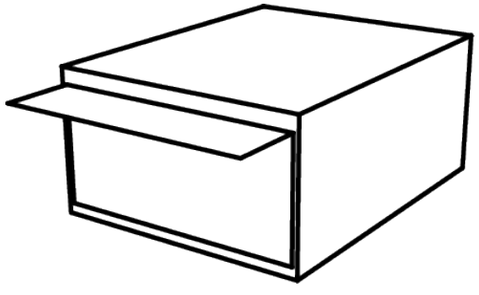
Window: North
Shading: 0.6m
Comfortable Ratio: 17.1%

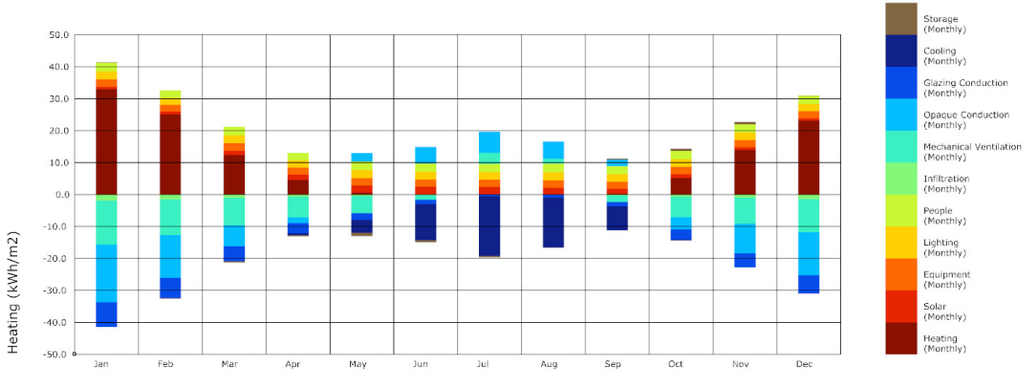


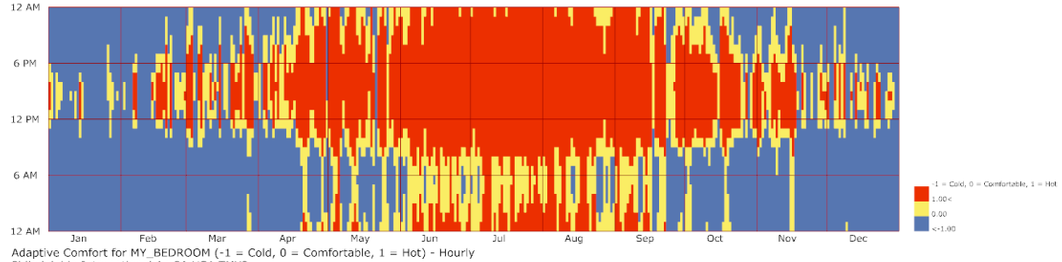




Window: North
Shading: 1.6m
Comfortable Ratio: 17.2%

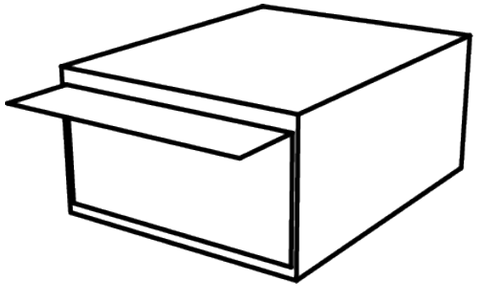


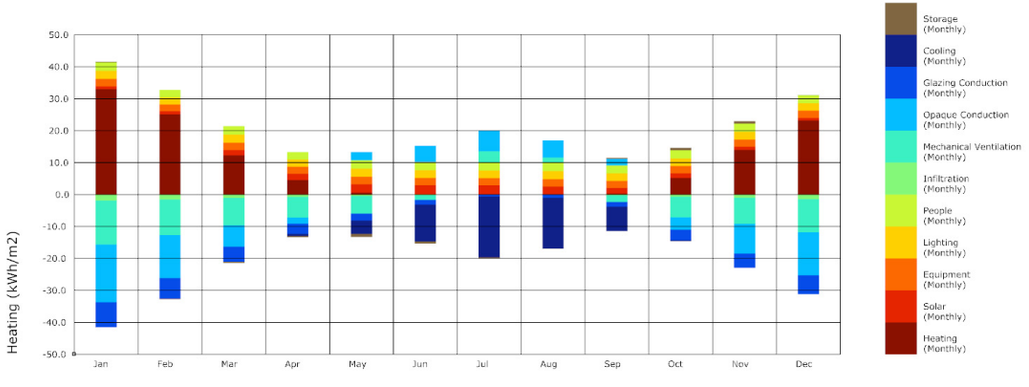


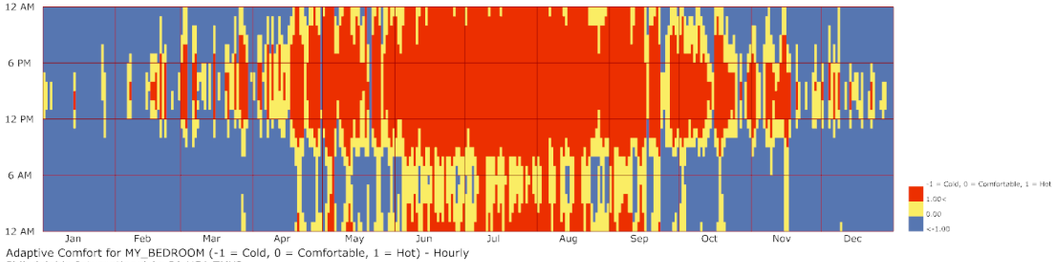


Adaptive Comfort for MY_BEDROOM (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

Window: North & South
Shading: South1.6m & North No shading
Comfortable Ratio: 19.3%

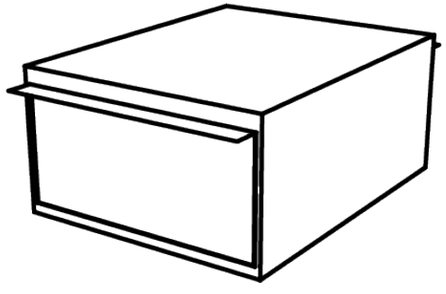


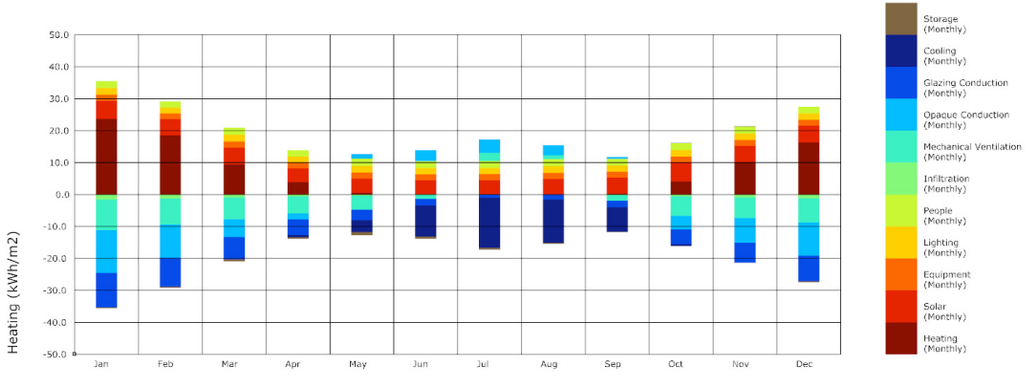


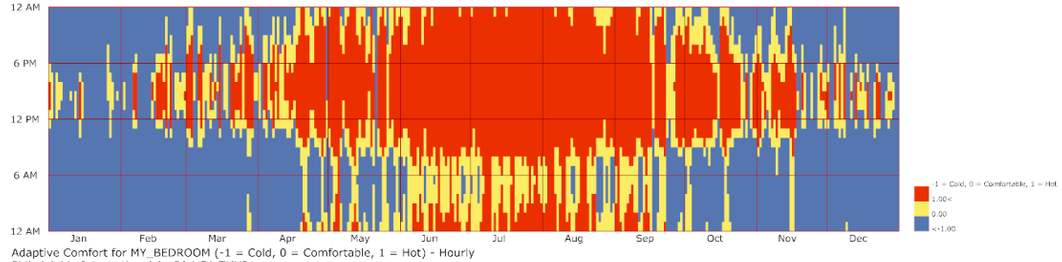


Adaptive Comfort for MY_BEDROOM (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

Window: North & South
Shading: North 0.6m & South 0.6m
Comfortable Ratio: 19.0%

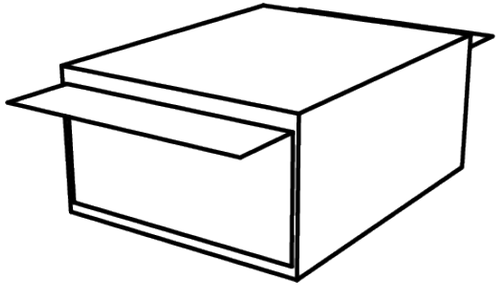


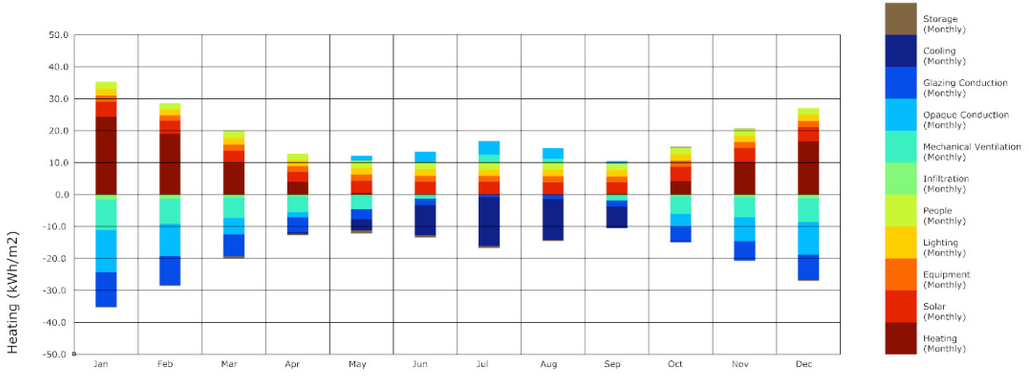


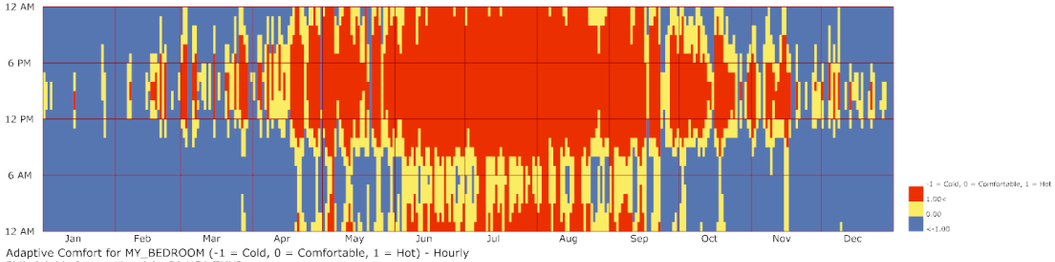


Adaptive Comfort for MY_BEDROOM (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

Window: North & South
Shading: North North 1.6m & South 1.6m
Comfortable Ratio: 19.4%

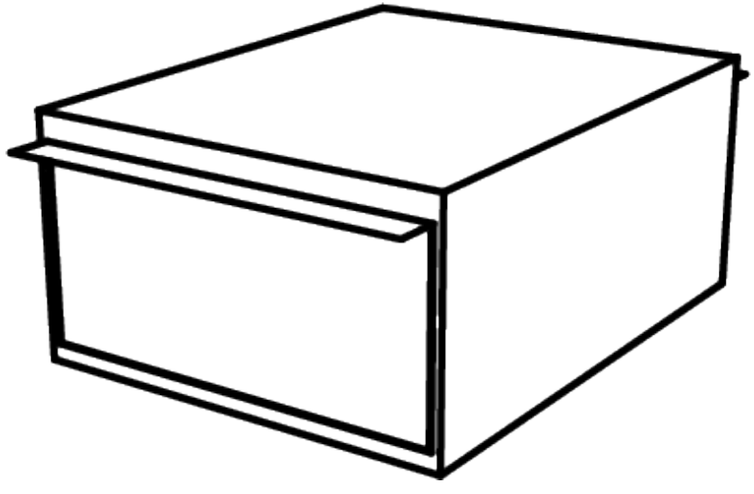


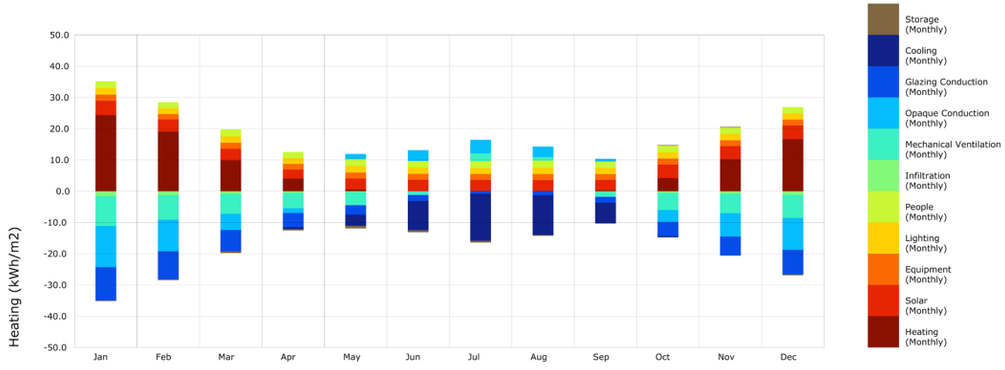


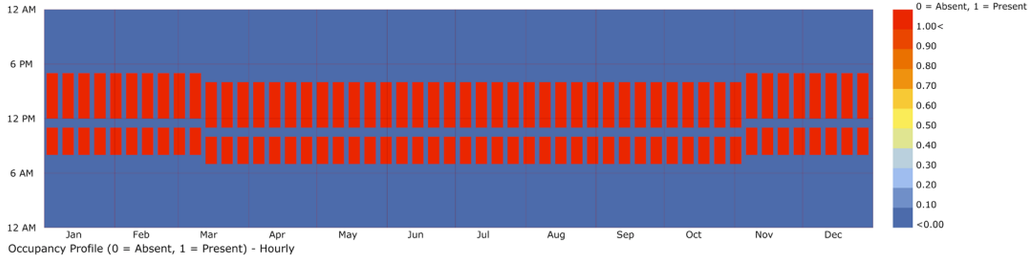


Adaptive Comfort for MY_BEDROOM (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

Window: North & South
Shading: North 0.6m & South 0.6m
Comfortable Ratio: 19.0%

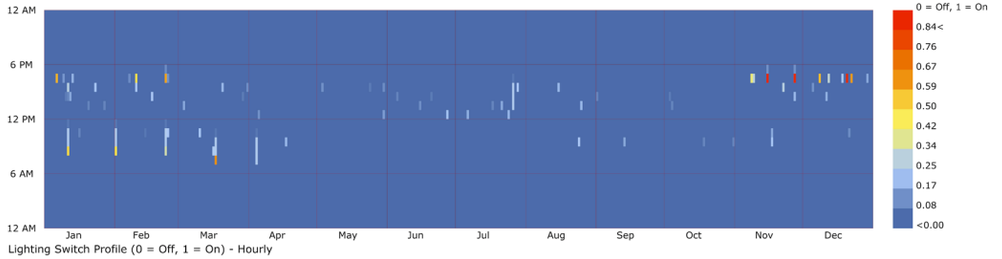






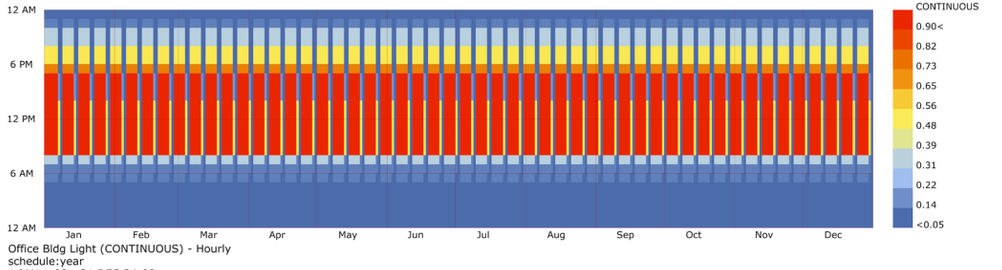
Occupancy Profile (0 = Absent, 1 = Present) - Hourly

1 JAN 1:00 - 31 DEC 24:00



Lighting Switch Profile (0 = Off, 1 = On) - Hourly

1 JAN 1:00 - 31 DEC 24:00



Office Bldg Light (CONTINUOUS) - Hourly
schedule:year
1 JAN 1:00 - 31 DEC 24:00