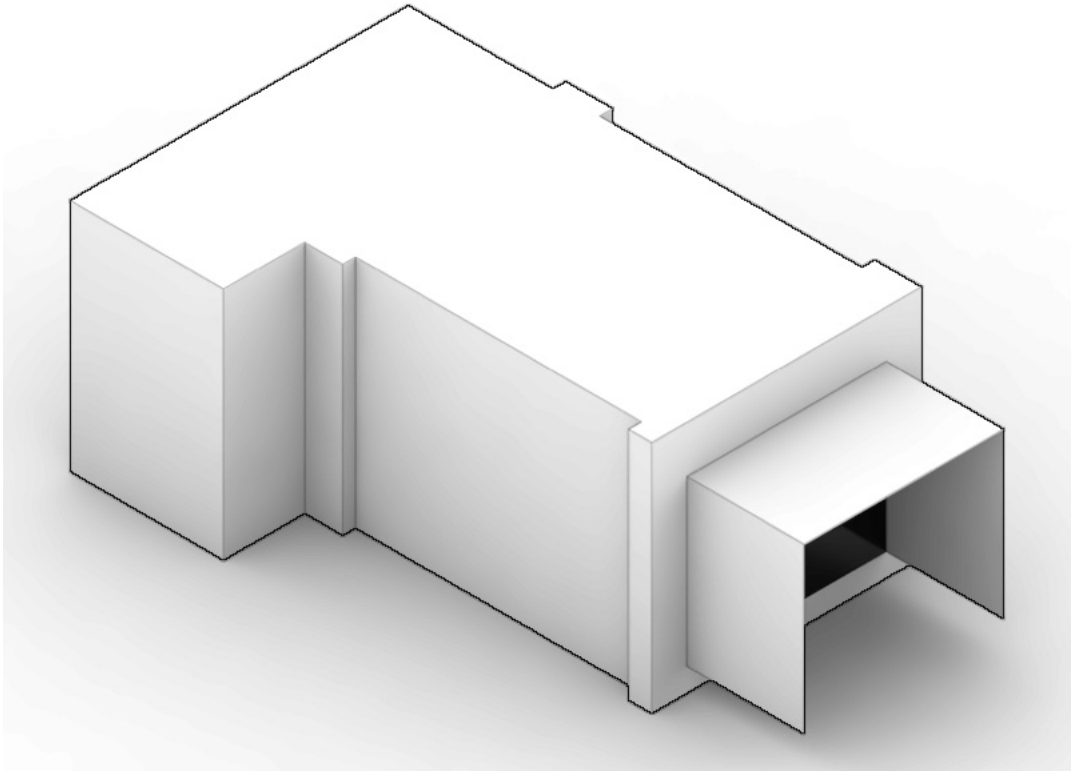
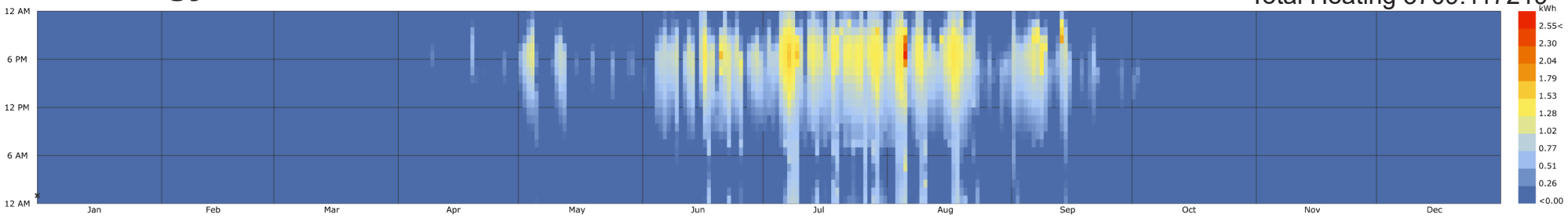


Energy Model and Analysis

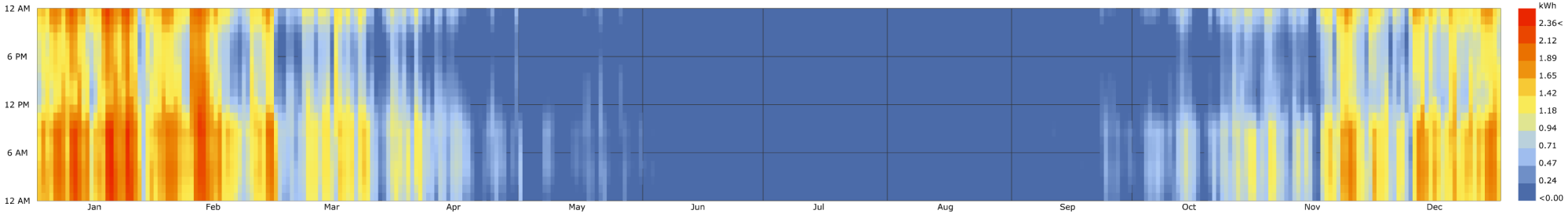
Yunzhongda Peng | MSD 2017 Candidate
Arch 753 Building Performance Simulation
Instructor: Mostapha S. Roudsari
University of Pennsylvania
School of Design

Zone Energy Use

Independant no shading(kWh) Total Cooling 1258.763108
Total Heating 3709.117219

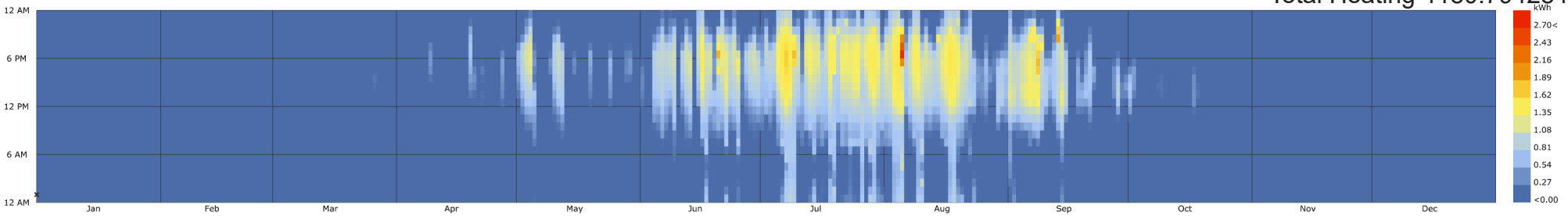


Cooling Load for TEST_ROOM (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

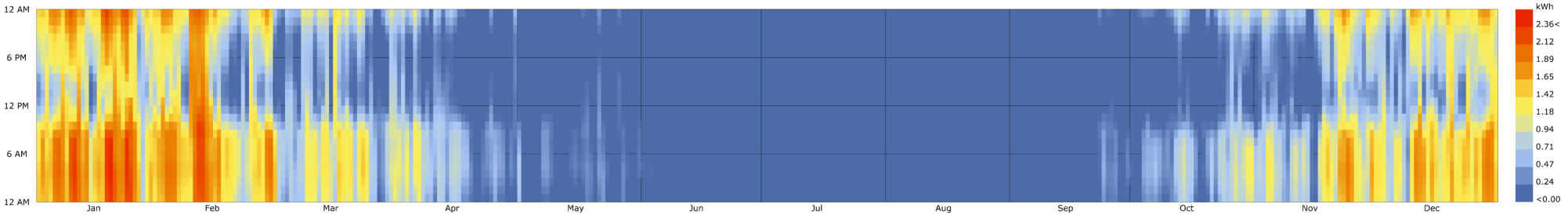


Heating Load for TEST_ROOM (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

Independant with shading(kWh) Total Cooling 1055.159148
Total Heating 4180.794284



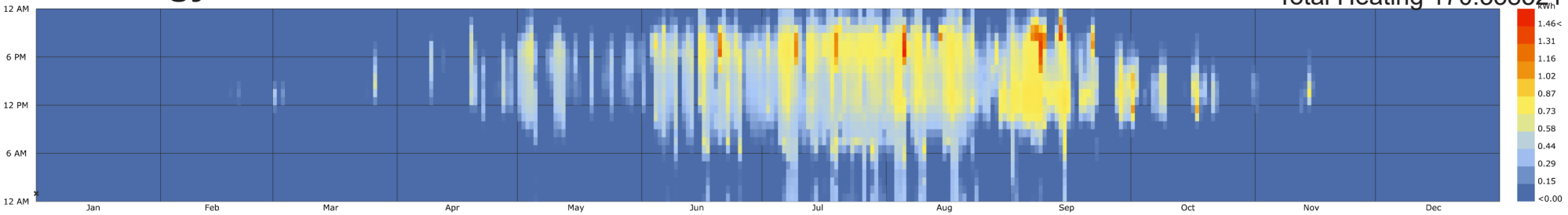
Cooling Load for TEST_ROOM (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00



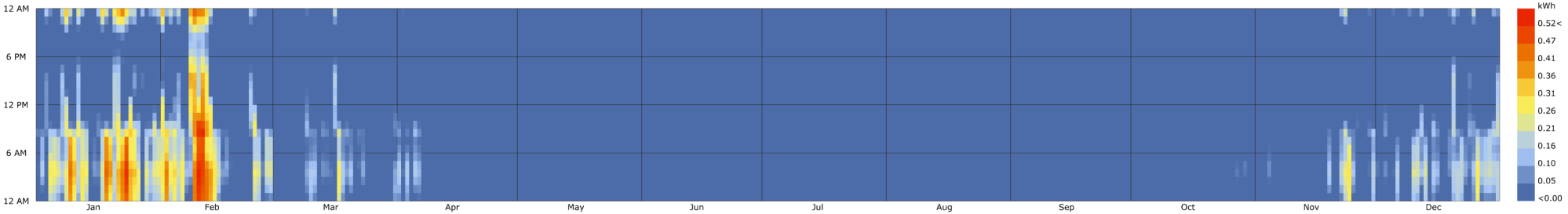
Heating Load for TEST_ROOM (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

Zone Energy Use

Adiabatic no shading(kWh) Total Cooling 973.261514
Total Heating 170.338521

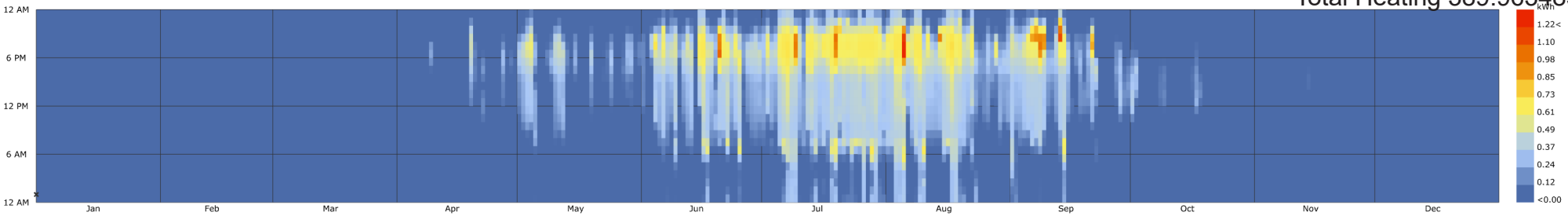


Cooling Load for TEST_ROOM (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

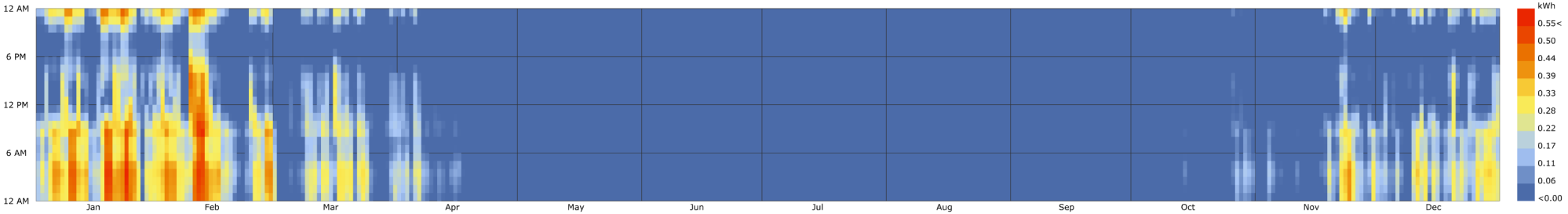


Heating Load for TEST_ROOM (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

Adiabatic with shading(kWh) Total Cooling 637.846273
Total Heating 389.963485

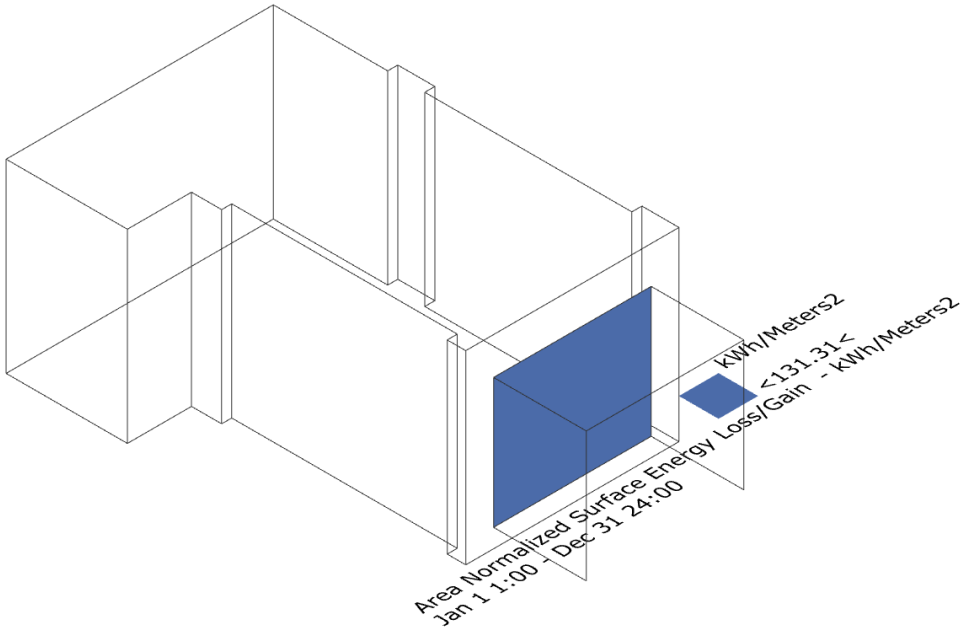


Cooling Load for TEST_ROOM (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

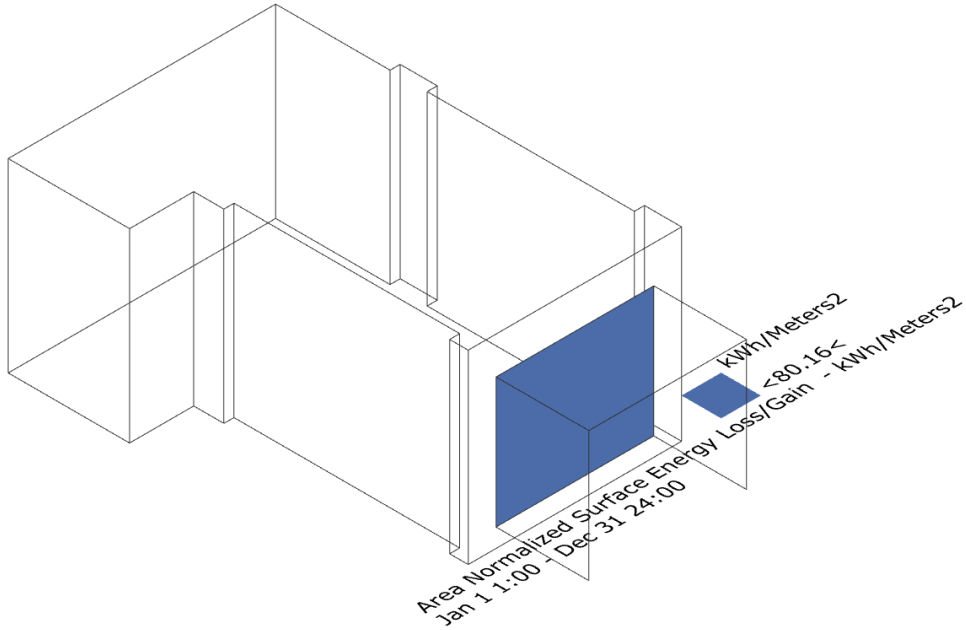


Heating Load for TEST_ROOM (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

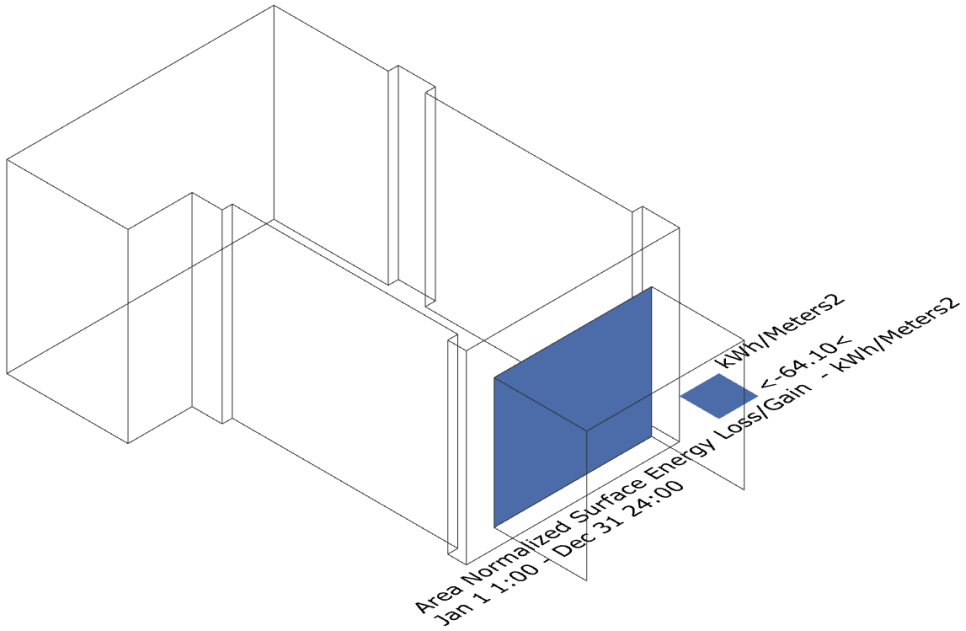
Surface Energy Analysis



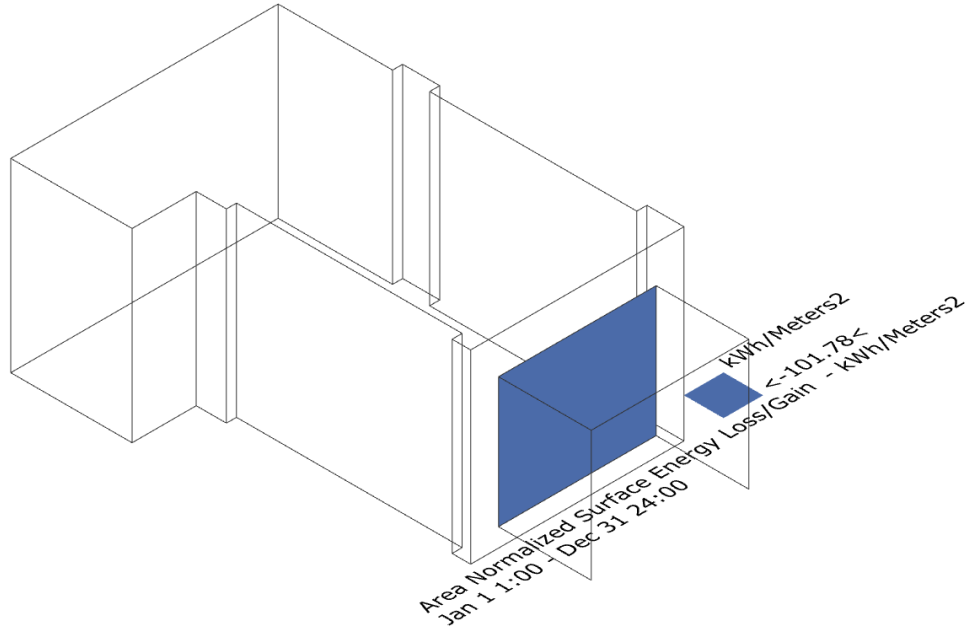
Independant no shading(kWh)



Adiabatic no shading(kWh)



Independant with shading(kWh)



Adiabatic with shading(kWh)