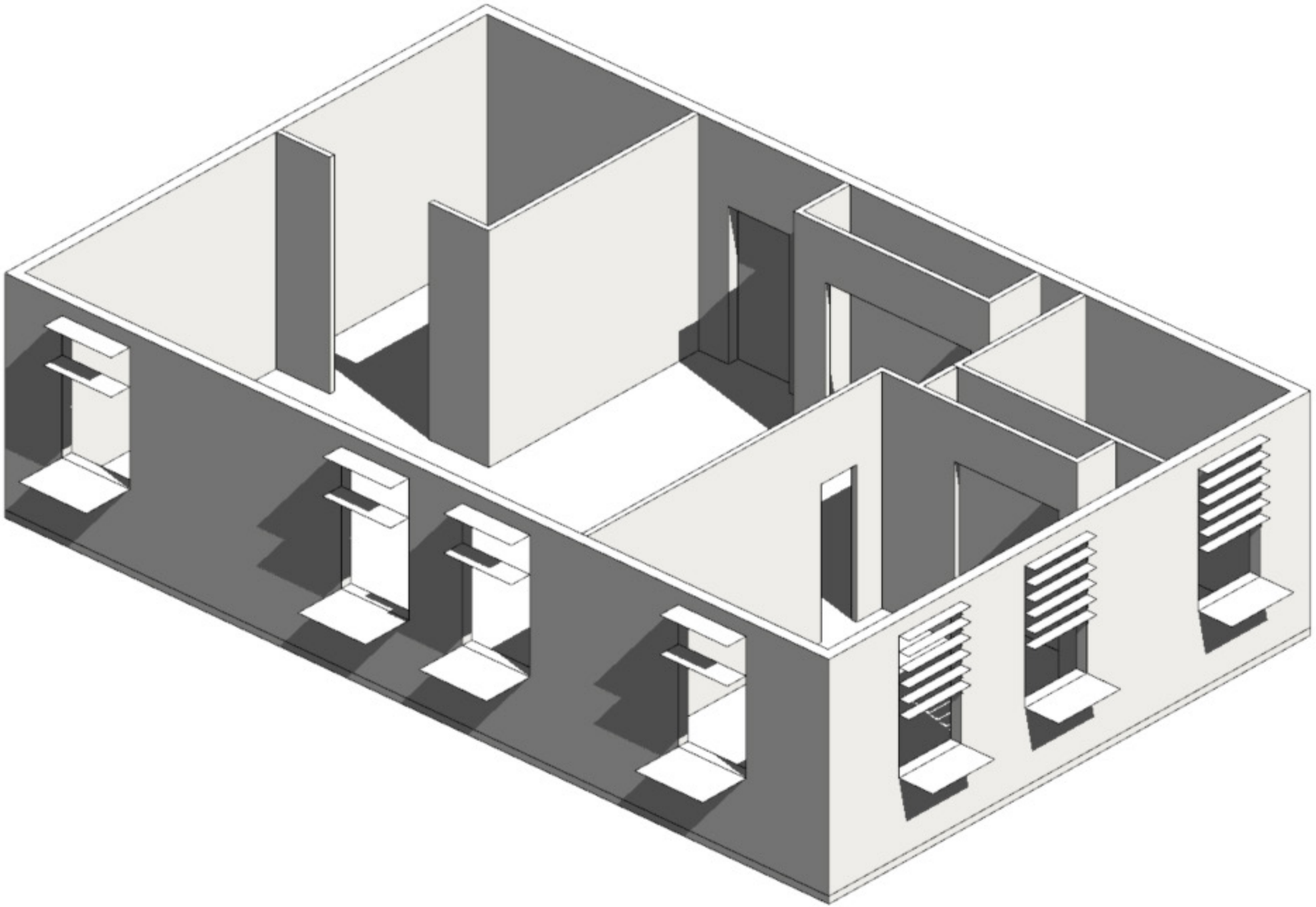
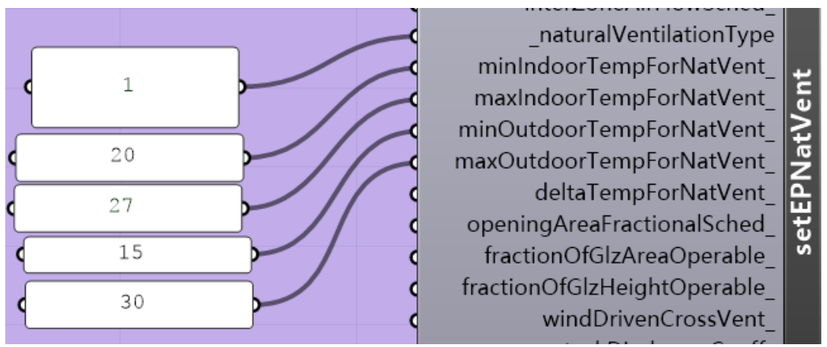


VENTILATION

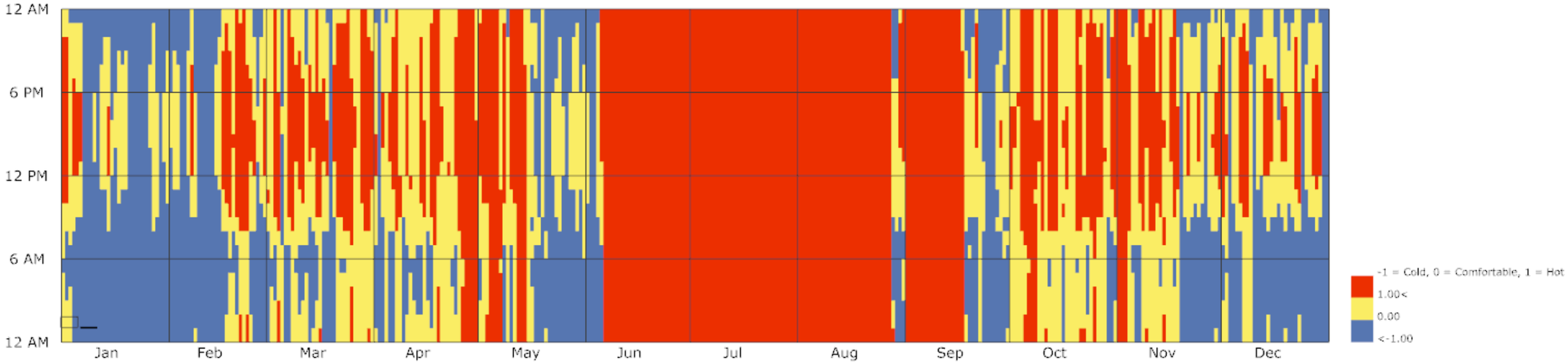


INFILTRATION

airflowrate = 1

CONDUCTION

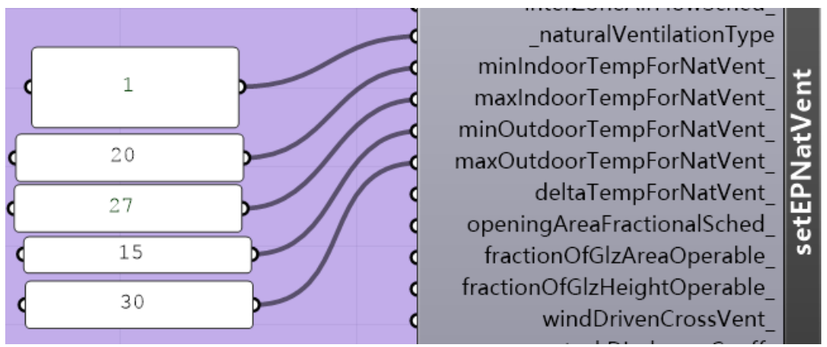
material : default



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

comfortable% :28.013699

VENTILATION

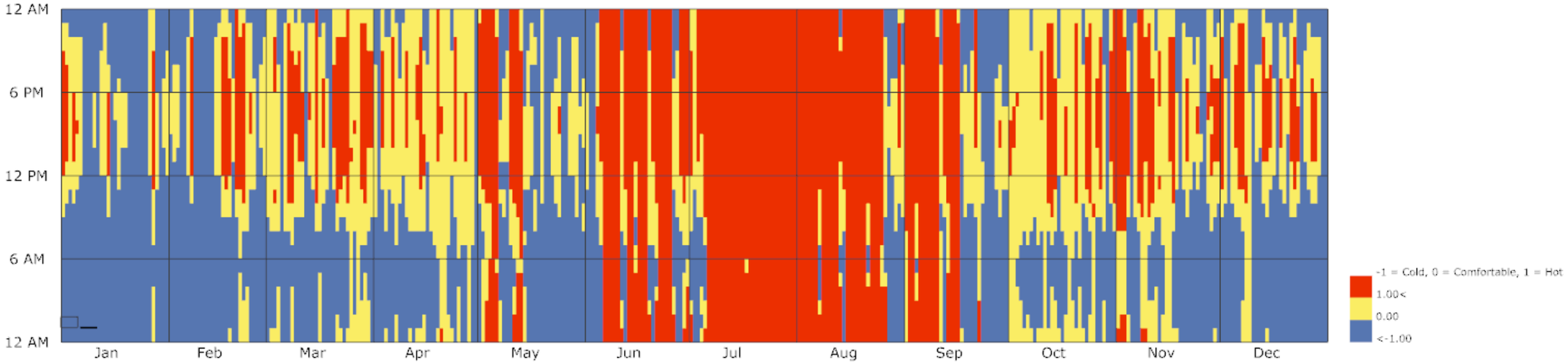


INFILTRATION

airflowrate = 1

CONDUCTION

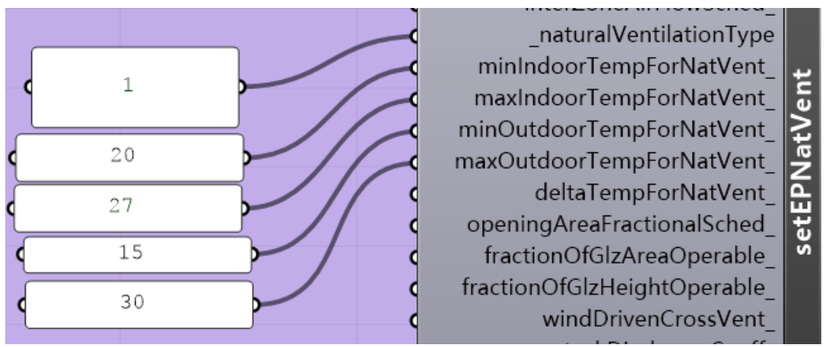
material : high R value



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

comfortable% :27.248858

VENTILATION

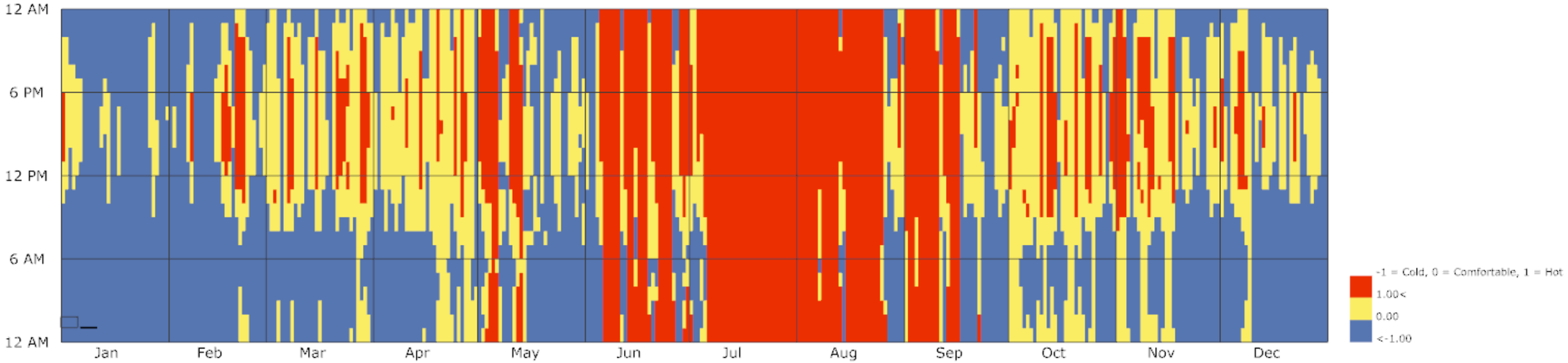


INFILTRATION

airflowrate = 1

CONDUCTION

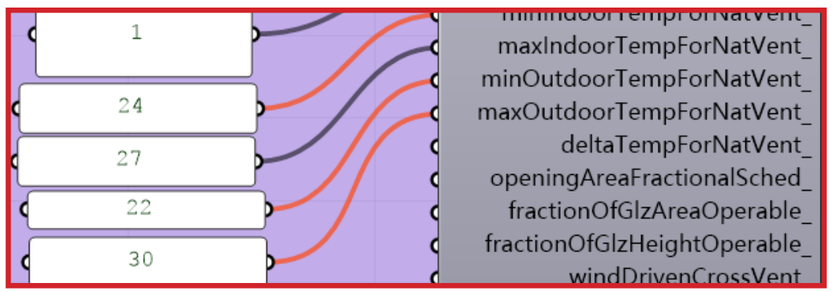
material : low R value



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

comfortable% :27.751142

VENTILATION

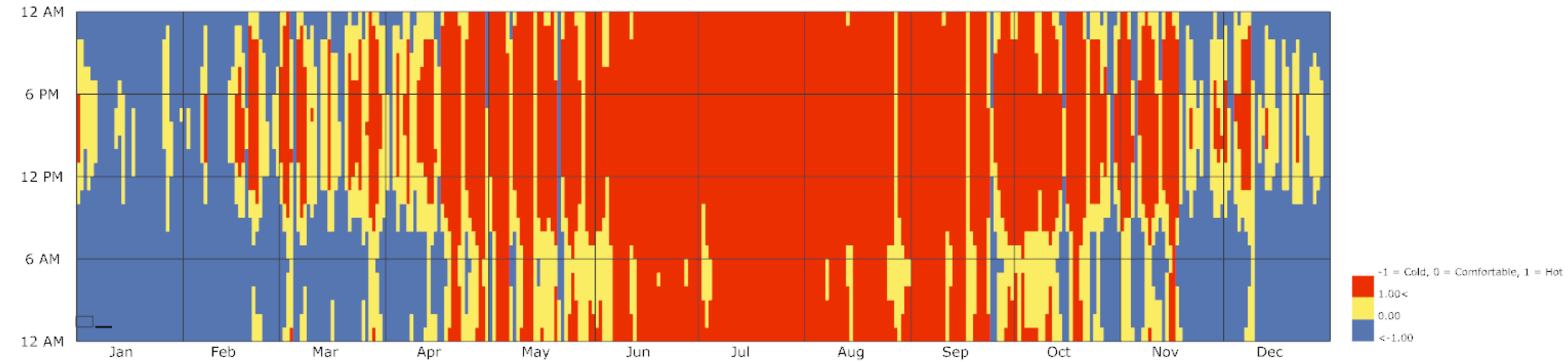


INFILTRATION

airflowrate = 1

CONDUCTION

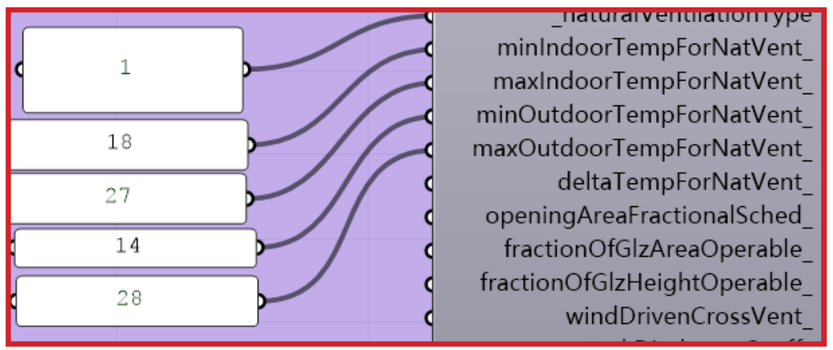
material : low R value



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

comfortable% :20.878995

VENTILATION

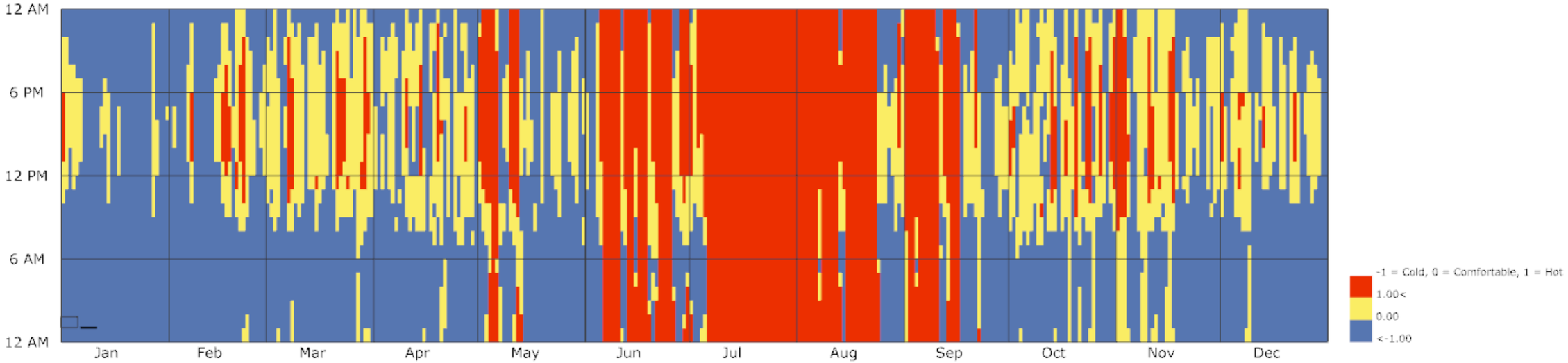


INFILTRATION

airflowrate = 1

CONDUCTION

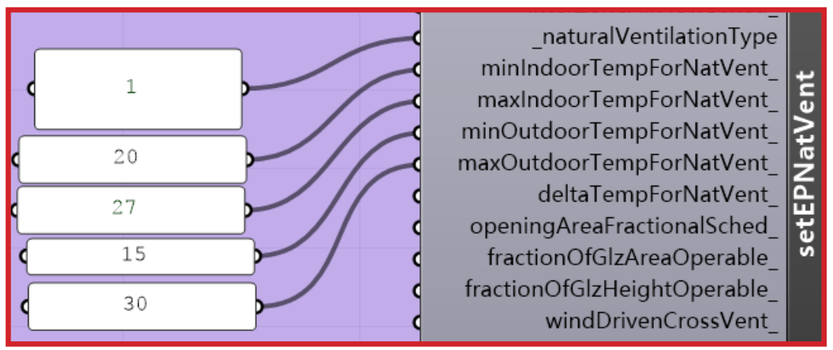
material : low R value



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

comfortable% :23.344749

VENTILATION

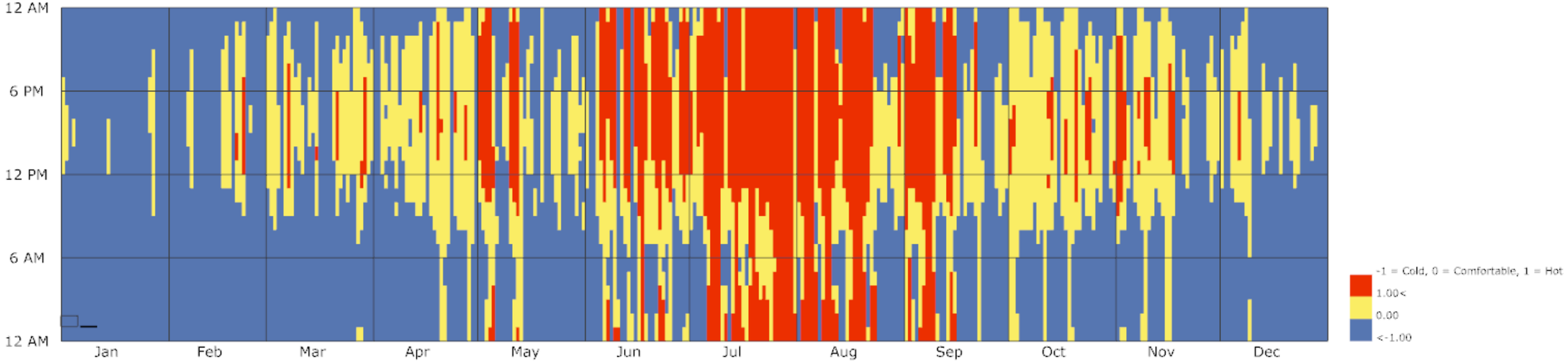


INFILTRATION

airflowrate = 2

CONDUCTION

material : low R value

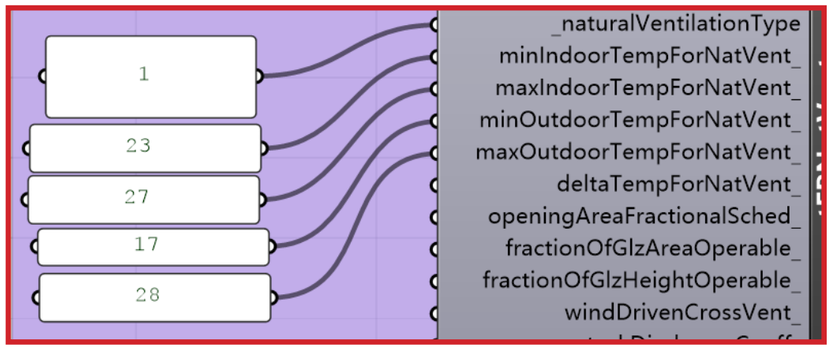


Adaptive Comfort for HOME (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

comfortable% :26.461187

FINAL DECISION

VENTILATION

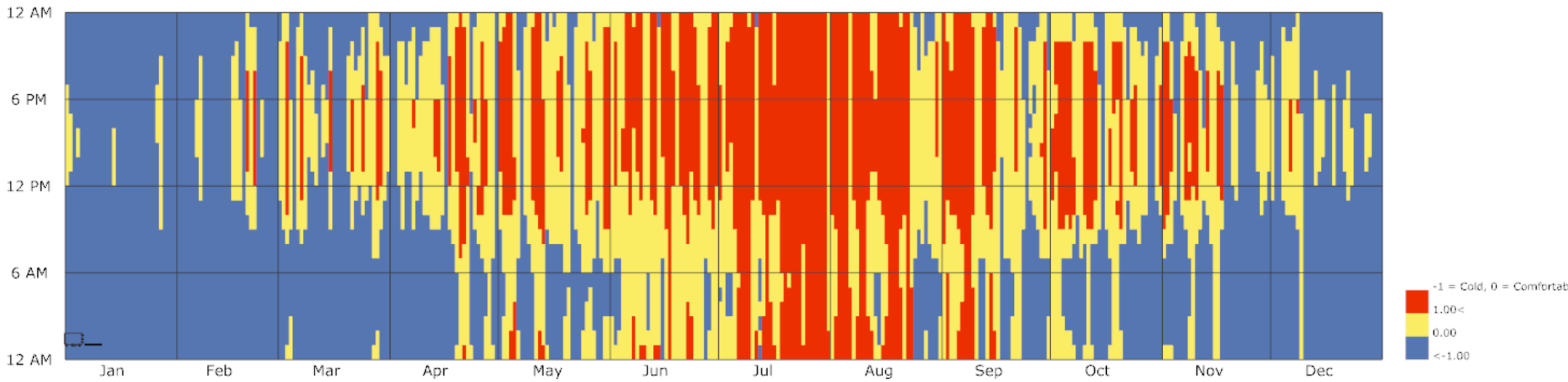


INFILTRATION

airflowrate = 2

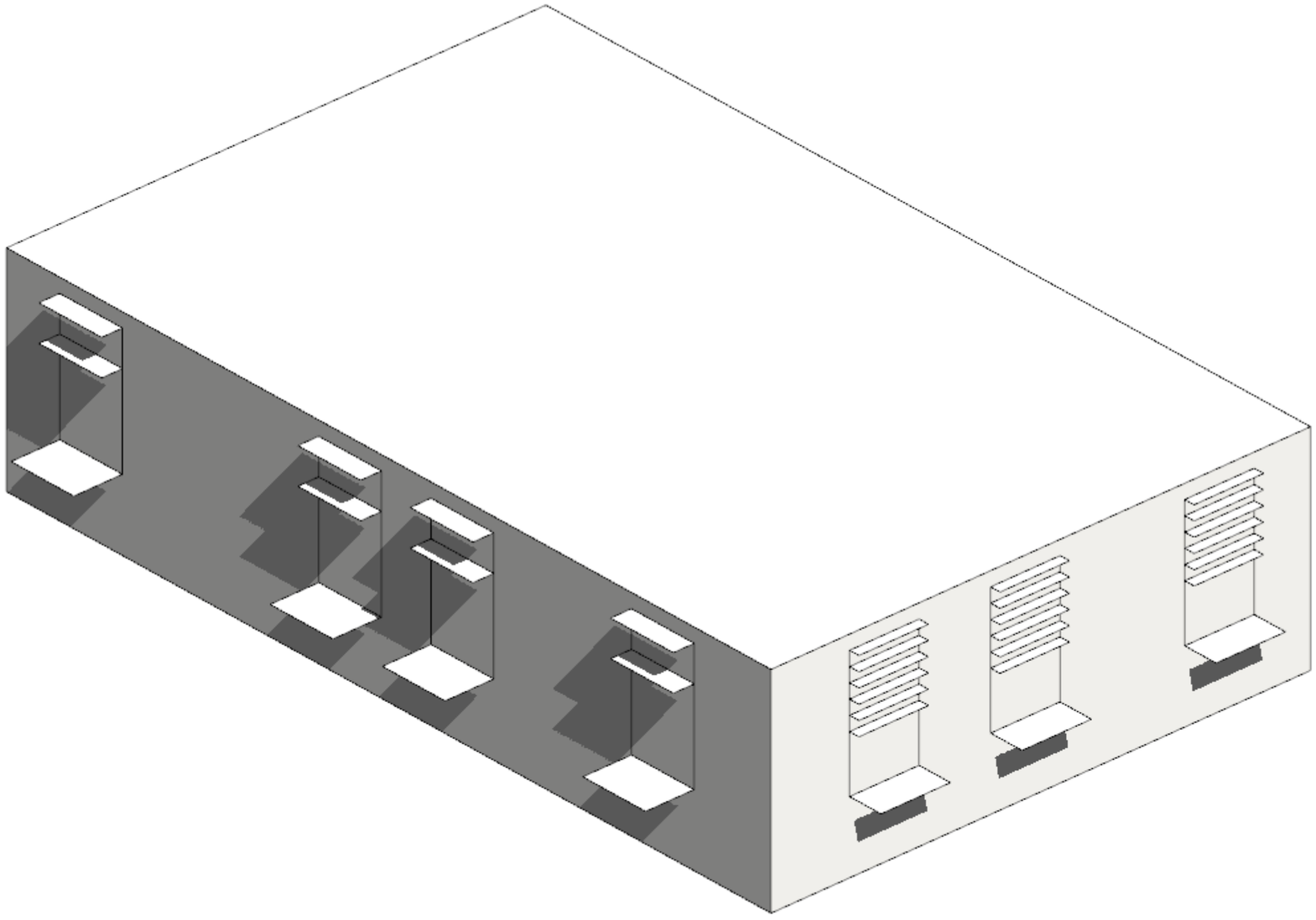
CONDUCTION

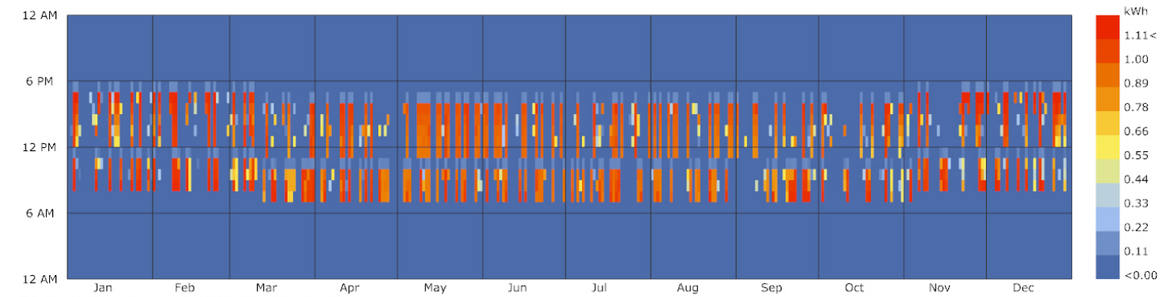
material : low R value



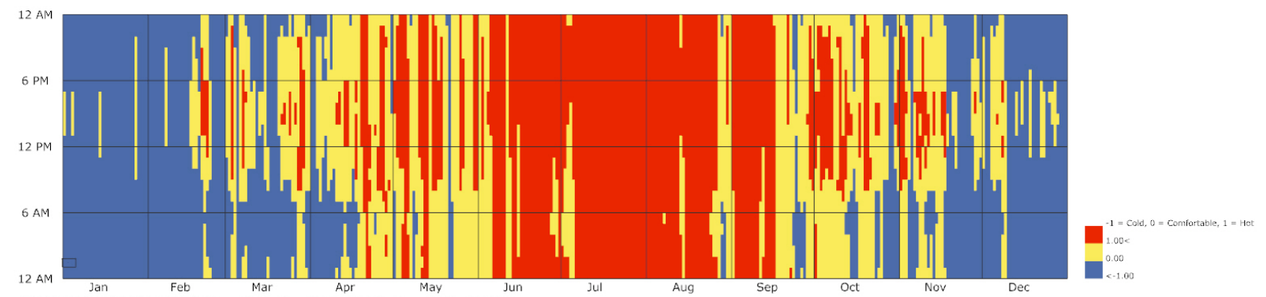
Adaptive Comfort for HOME (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

comfortable% :31.96347



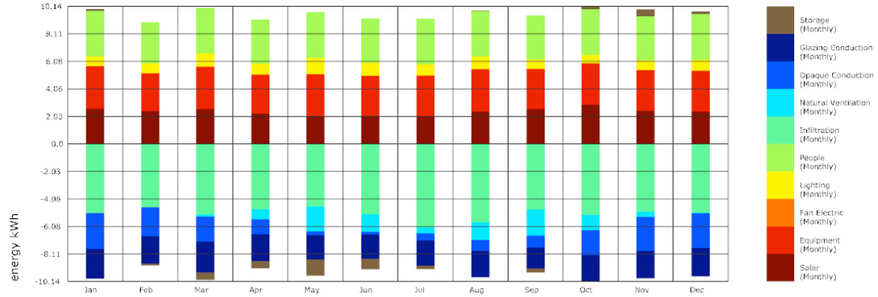


Electric Lighting Energy for HOME (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

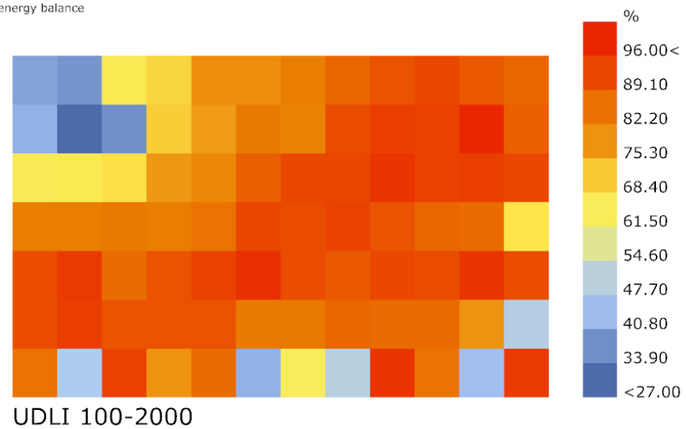


Adaptive Comfort for HOME (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

comfortable% :31.050228

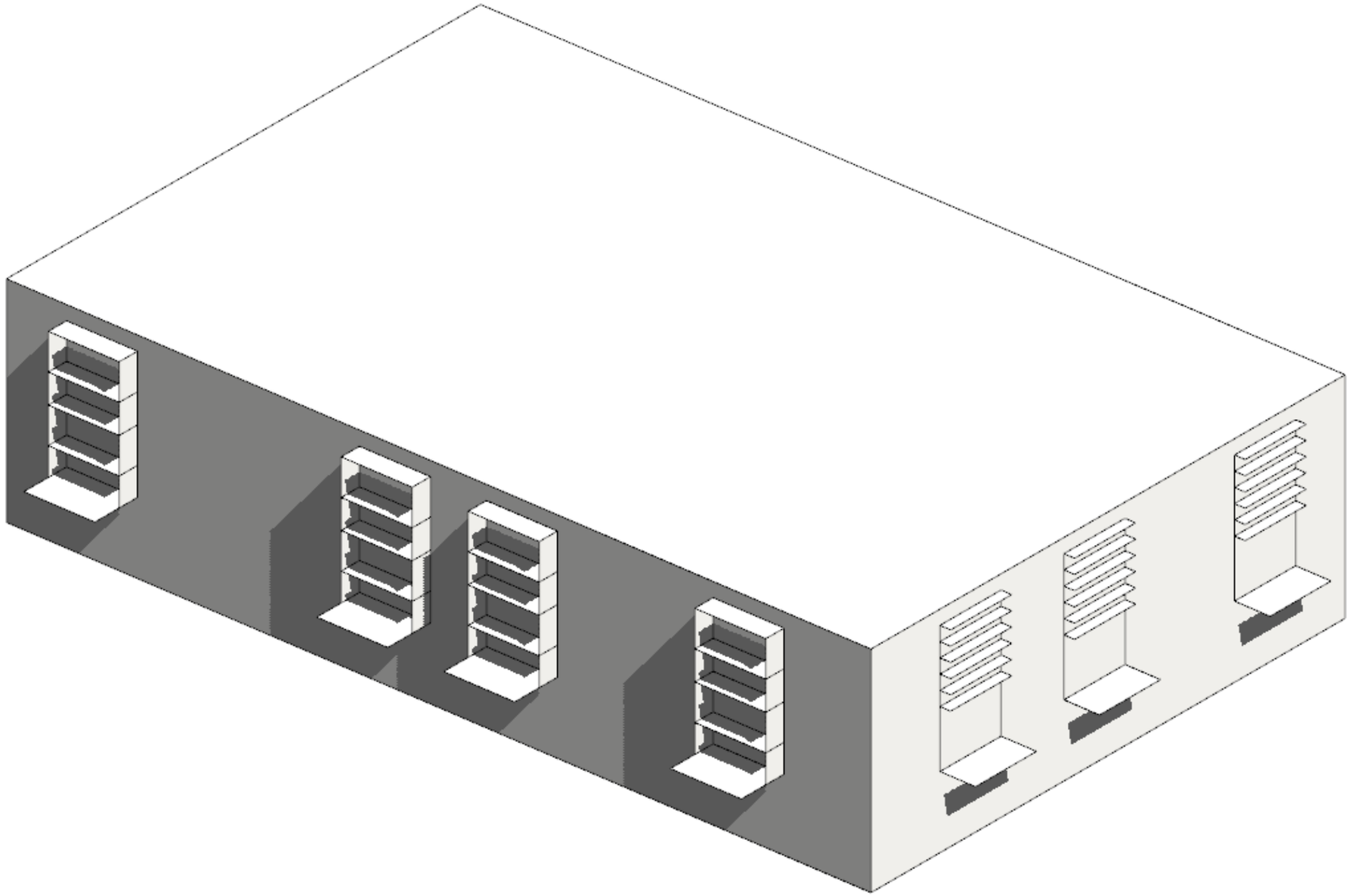


house energy balance

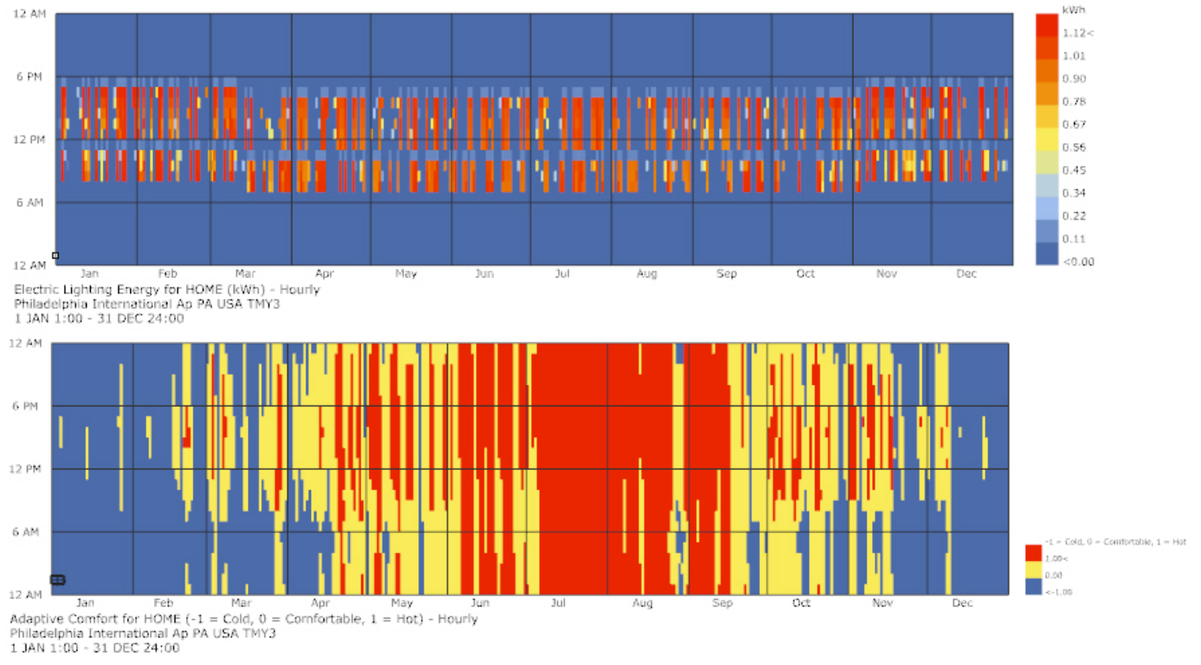


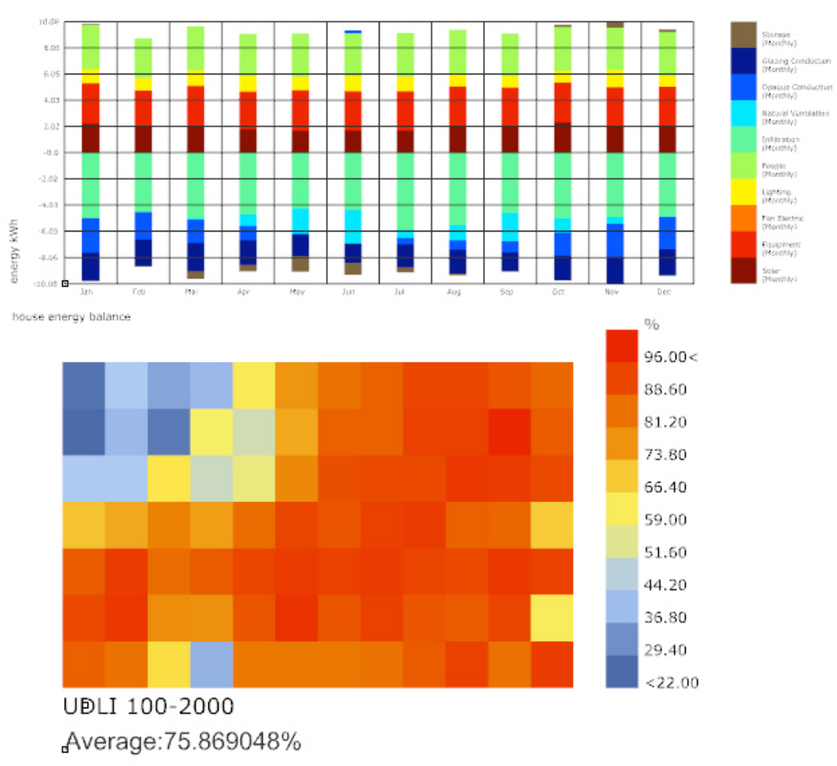
UDLI 100-2000
Average:77.857143%

According to the energy balance, the solar input is quite constant. But in summer and winter, the house has different needs of sunshine. So I change the shade of shading to make it block more sun in the summer.

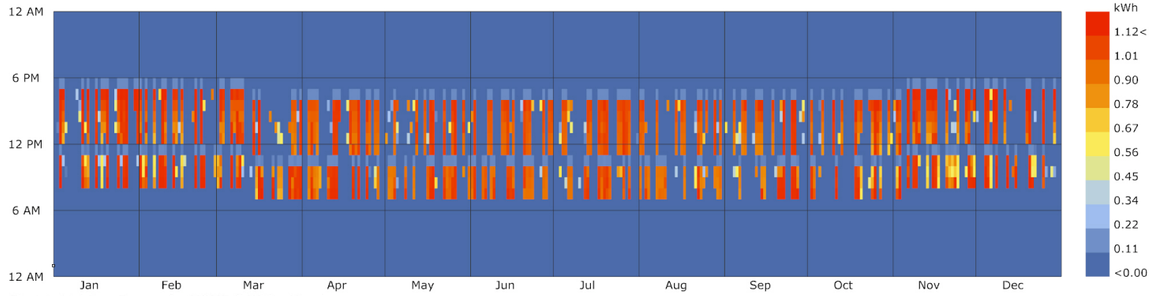


Changing the shape of shading

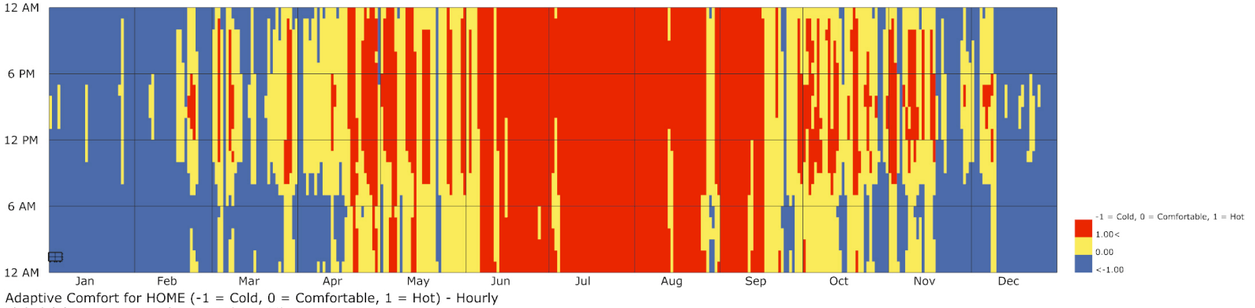




After changing the shading, the thermal comfort gets better.
The windows always give energy out, so I increase the R value of windows.

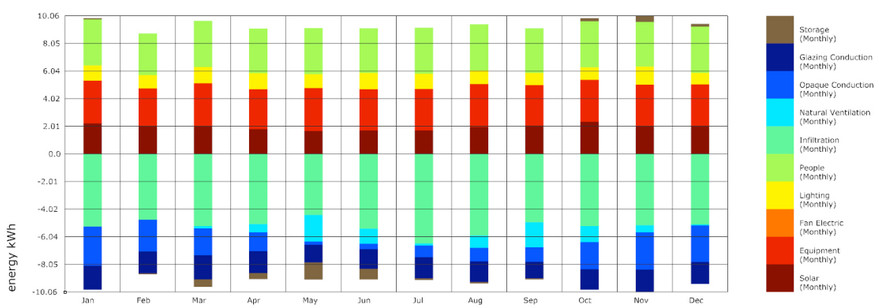


Electric Lighting Energy for HOME (kWh) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

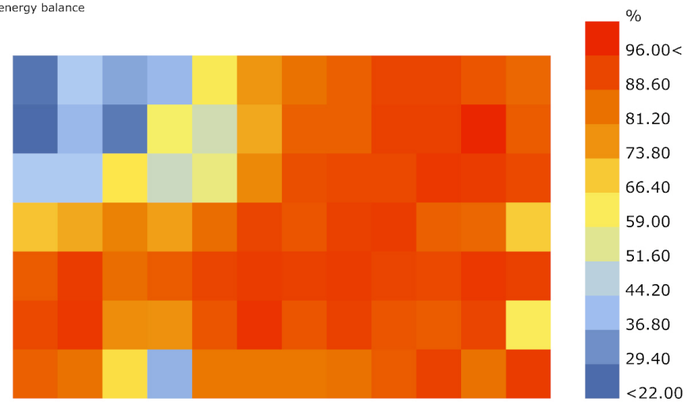


Adaptive Comfort for HOME (-1 = Cold, 0 = Comfortable, 1 = Hot) - Hourly
Philadelphia International Ap PA USA TMY3
1 JAN 1:00 - 31 DEC 24:00

comfortable% :30.547945



house energy balance



UDLI 100-2000
Average:75.869048%

Well, it performs worse, both in winter and summer.