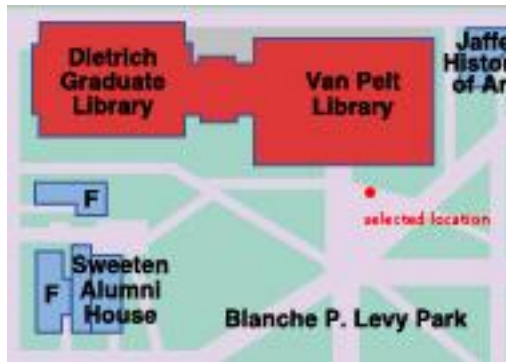
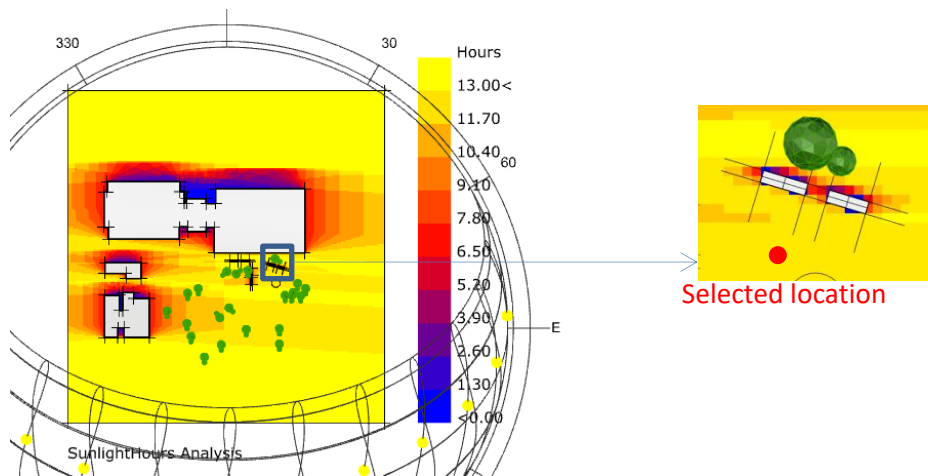


1. Location:

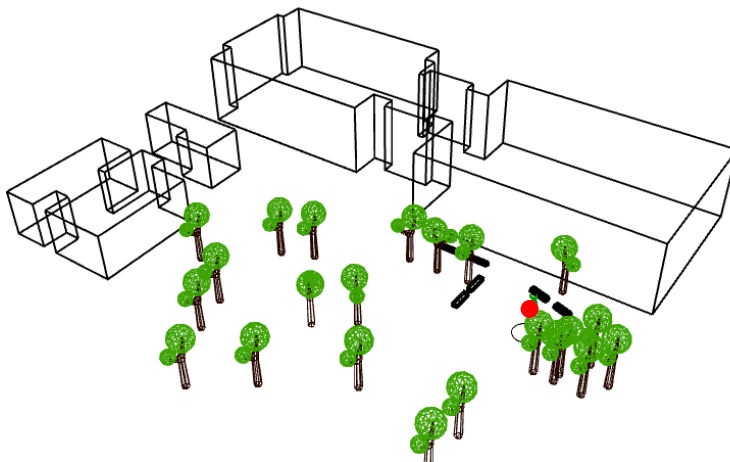
1.1 In front of Van Pelt library (marked in red point in the map)



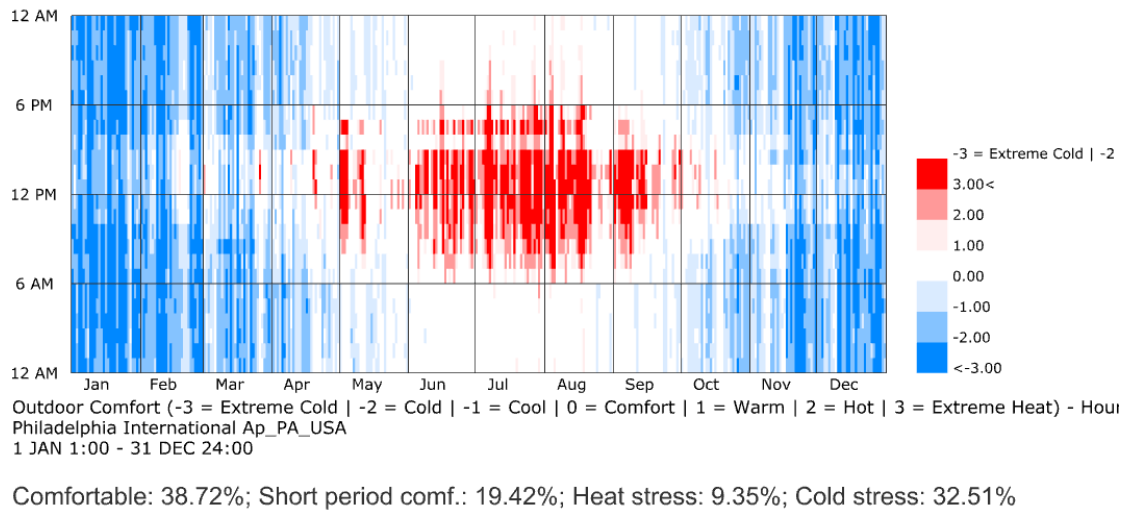
1.2 the sunlight hour of the selected location:



2 Percentage of comfortable hours during the year

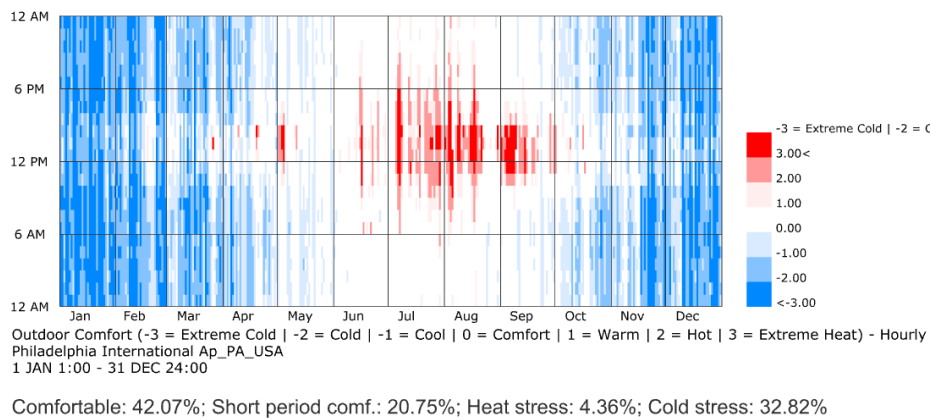
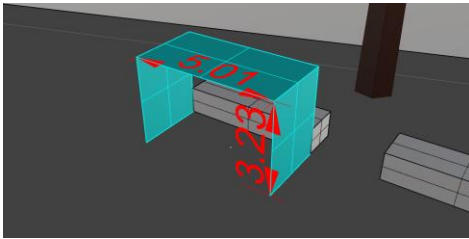


Input the geometries of context and the point and the 3D chart shows as following. And from the data, it reads that the **percentage of comfortable hours** during the year is **38.72%**

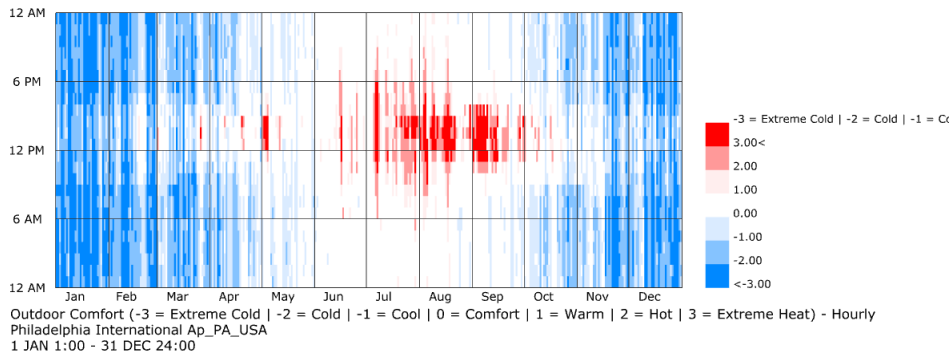
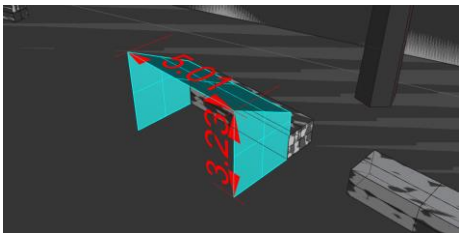


3 Three different design ideas

- DESIGN 1: percentage of comfortable hours is 42.07%

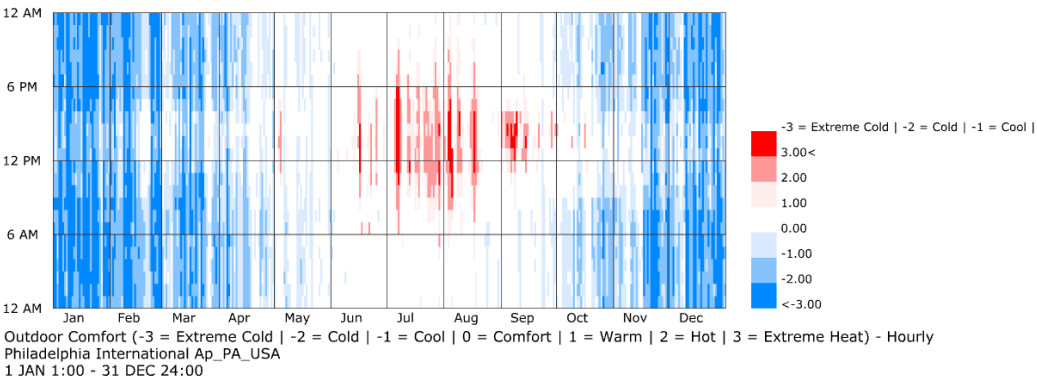
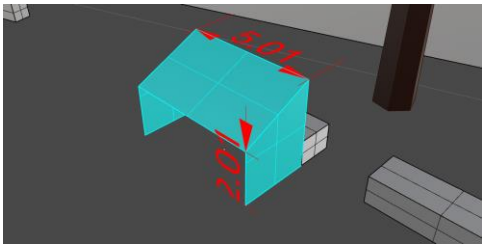


- DESIGN 2:percentage of comfortable hours is 42.39%



Comfortable: 42.39%; Short period comf.: 20.27%; Heat stress: 4.74%; Cold stress: 32.6%

- DESIGN 3:percentage of comfortable hours is 42. 9%



Comfortable: 42.9%; Short period comf.: 20.82%; Heat stress: 3.23%; Cold stress: 33.05%

- maximize the annually outdoor comfort

I tried with the canopy with different angles and the percentage of comfortable hours is not significantly changed. And the maximum value is 42.9% which occurs when the slope of the canopy is lower in the south and higher in the north.

4. Can you achieve comfort for %100 of the time? If not what is the highest possible percentage of comfortable hours that you can achieve with passive design strategies?

I cannot achieve comfort for 100% of the time. And the highest possible percentage of comfortable hours that I can achieve with passive design strategies is 42.9%.