Indoor Comfort level Simulation

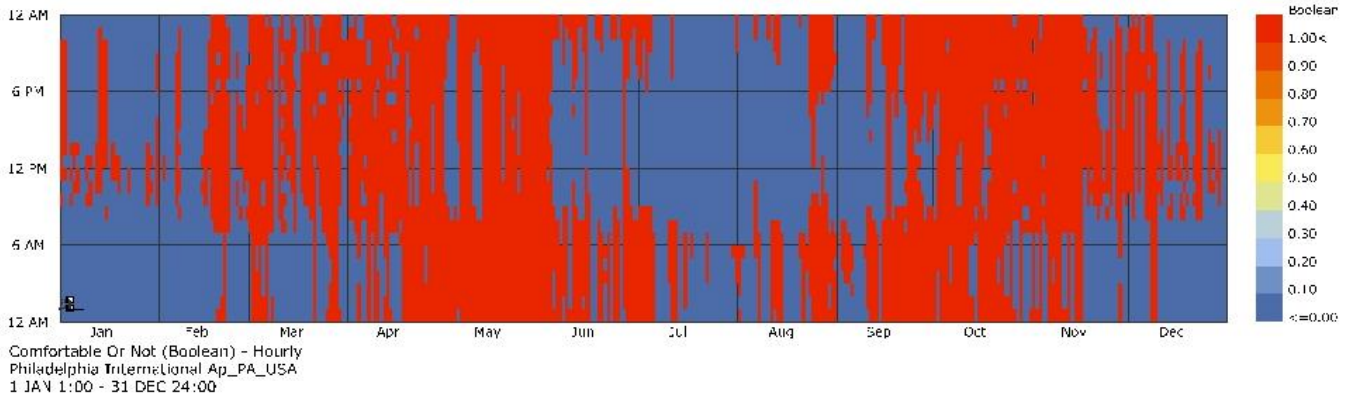
Pegah Mathur

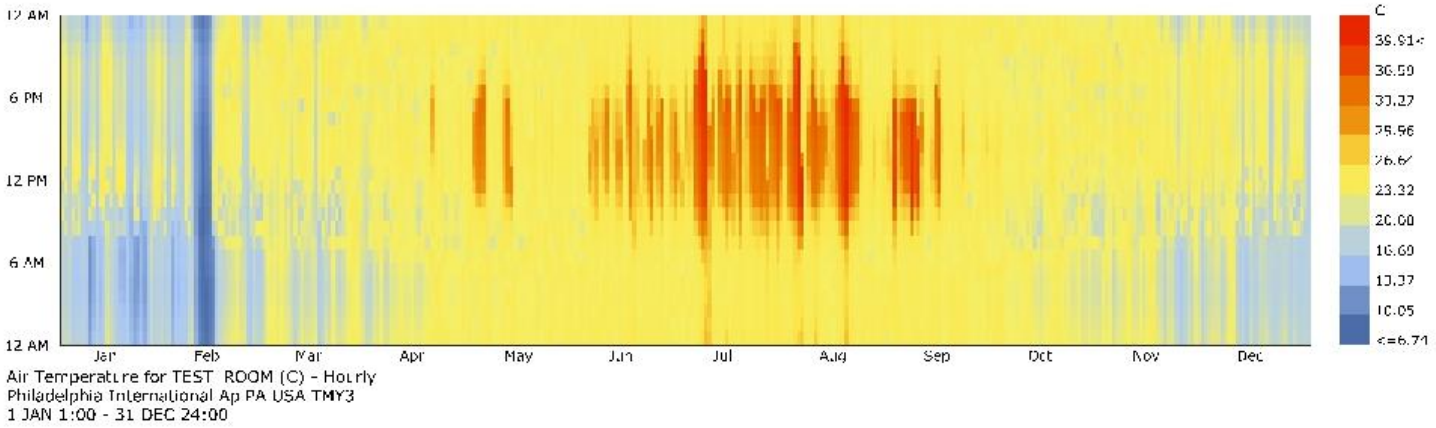
Arc-753-001-Building Performance Simulation

First scenario

- Without any shading when all the heating and cooling systems are off.

Comfort or not comfort

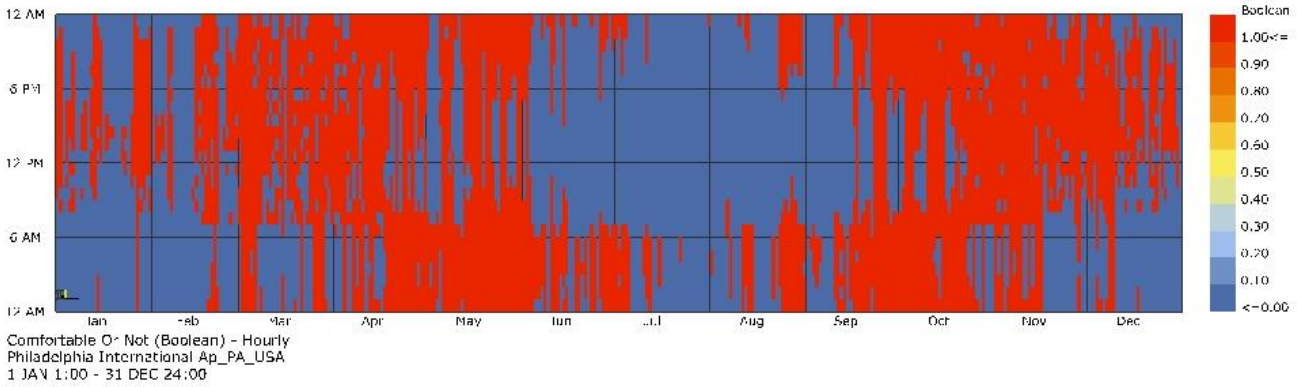




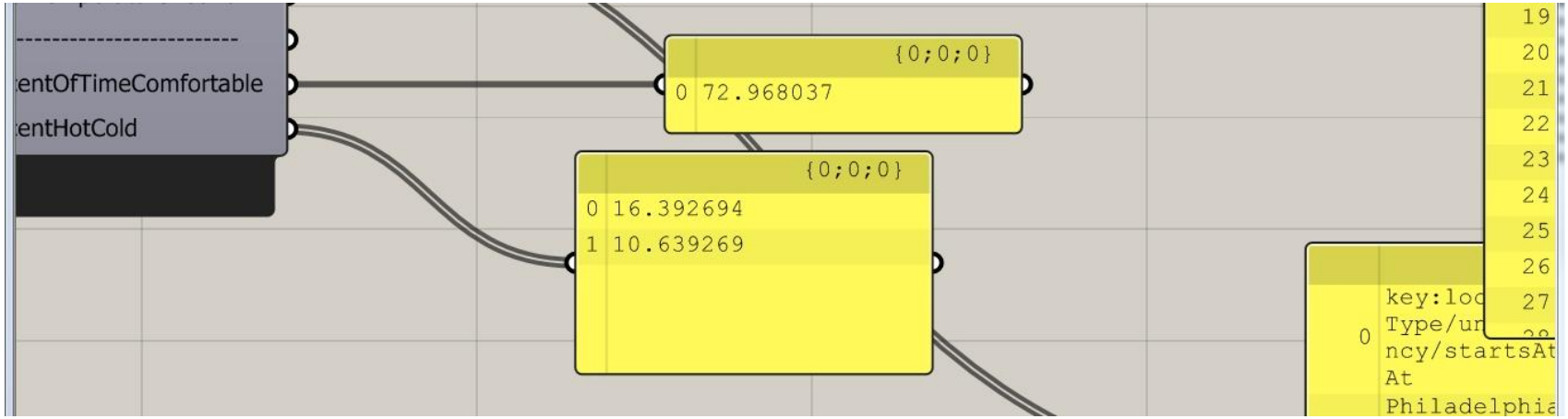
Trial and Error Design Process

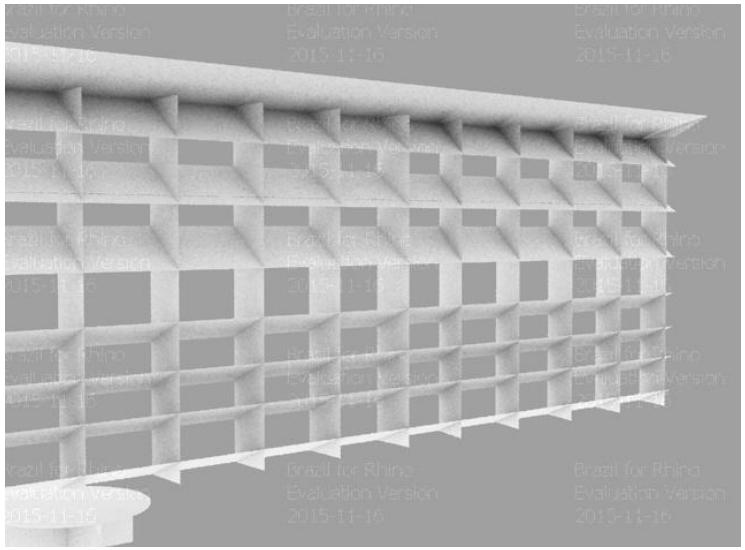
- Again the shading is transforming based on problematic points of supath which are assumed June July and August .

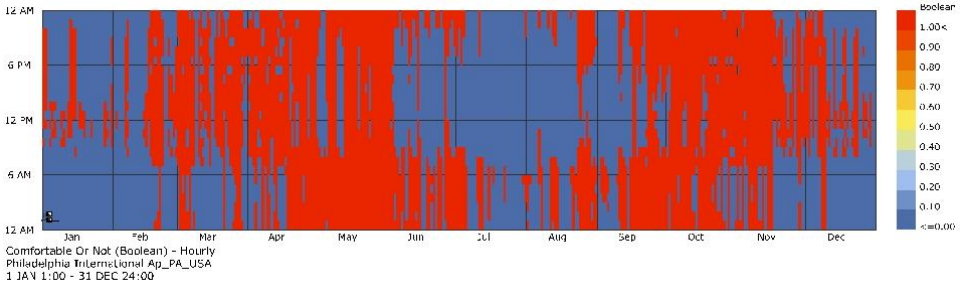
The comfort or not option shows that based on this result there are more days that occupants feel cold rather than those days that occupants feel comfortable.
Based on this result in further attempts, the shading depth was revised and decreased.



Best result







The initial design of shading which was designed based on the VSA in summer (June, July and Aug) and in winter in February can provide 72% of the comfort level based on adaptive comfort.