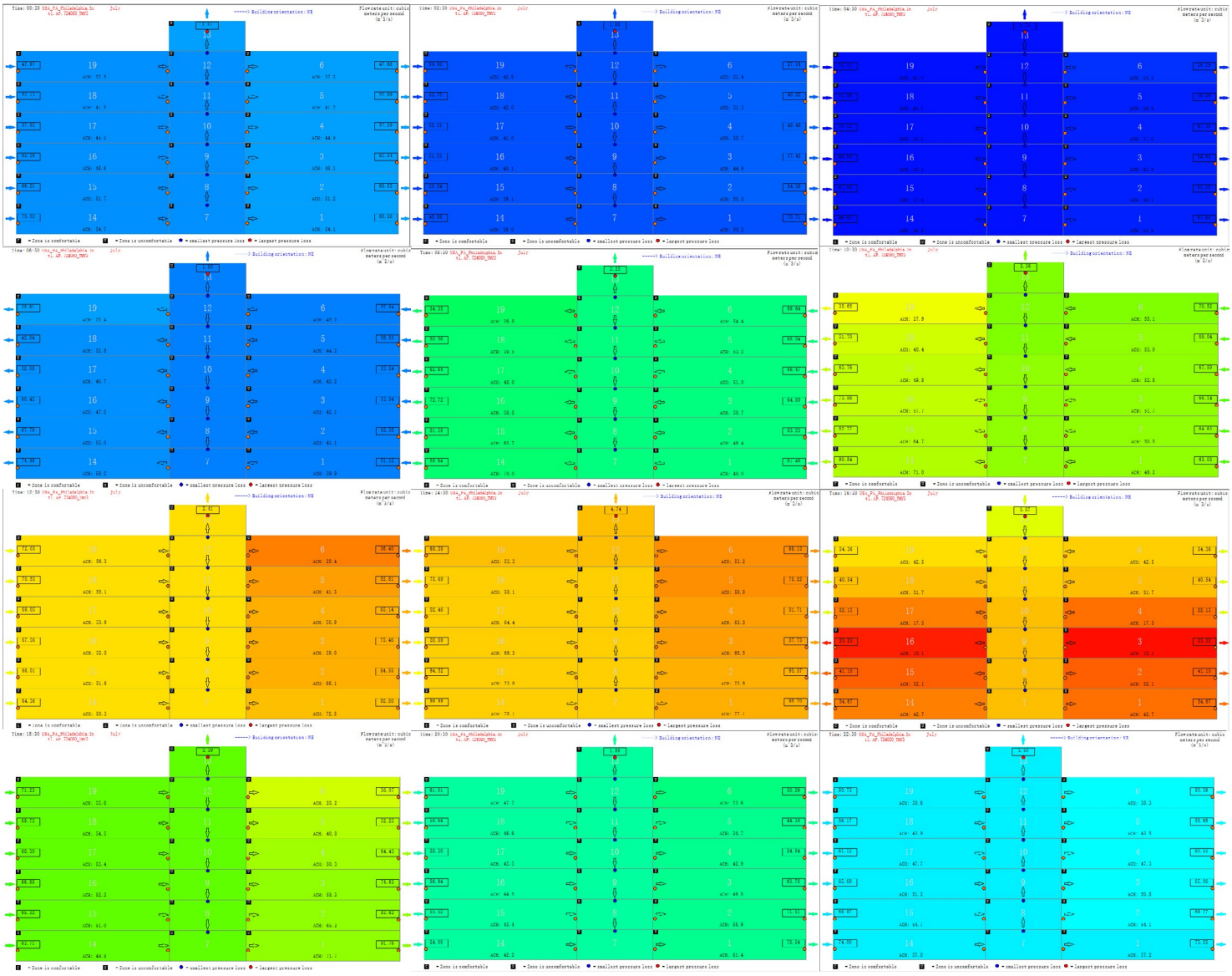
Natural Ventilation of Meyerson Hall

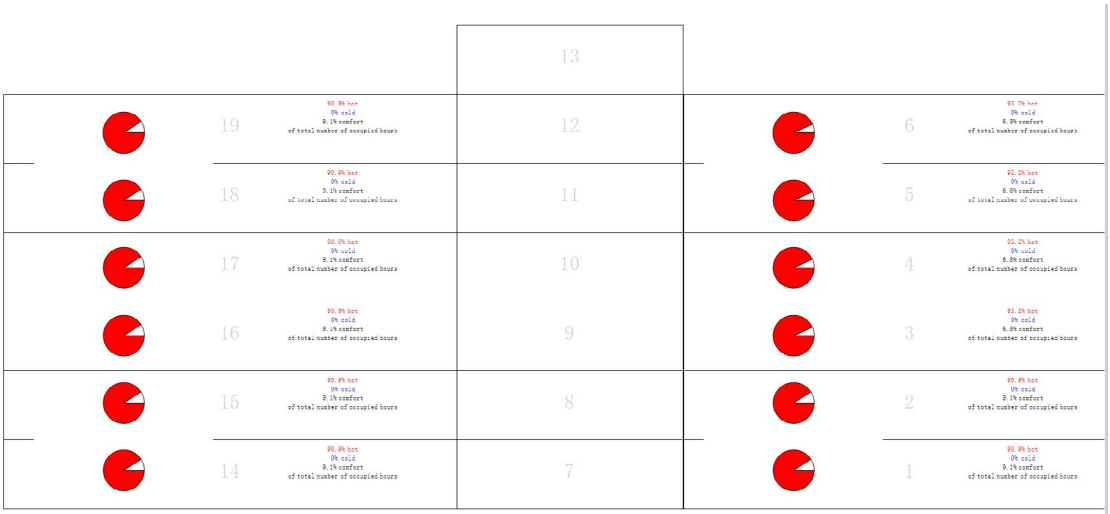
1. Natural ventilation

Meyerson Hall has six rooms on top of the building with windows on side. If open the windows, these six rooms could serve as six solar chimneys that provide natural ventilation through the building.

2. Design Alternatives Analysis

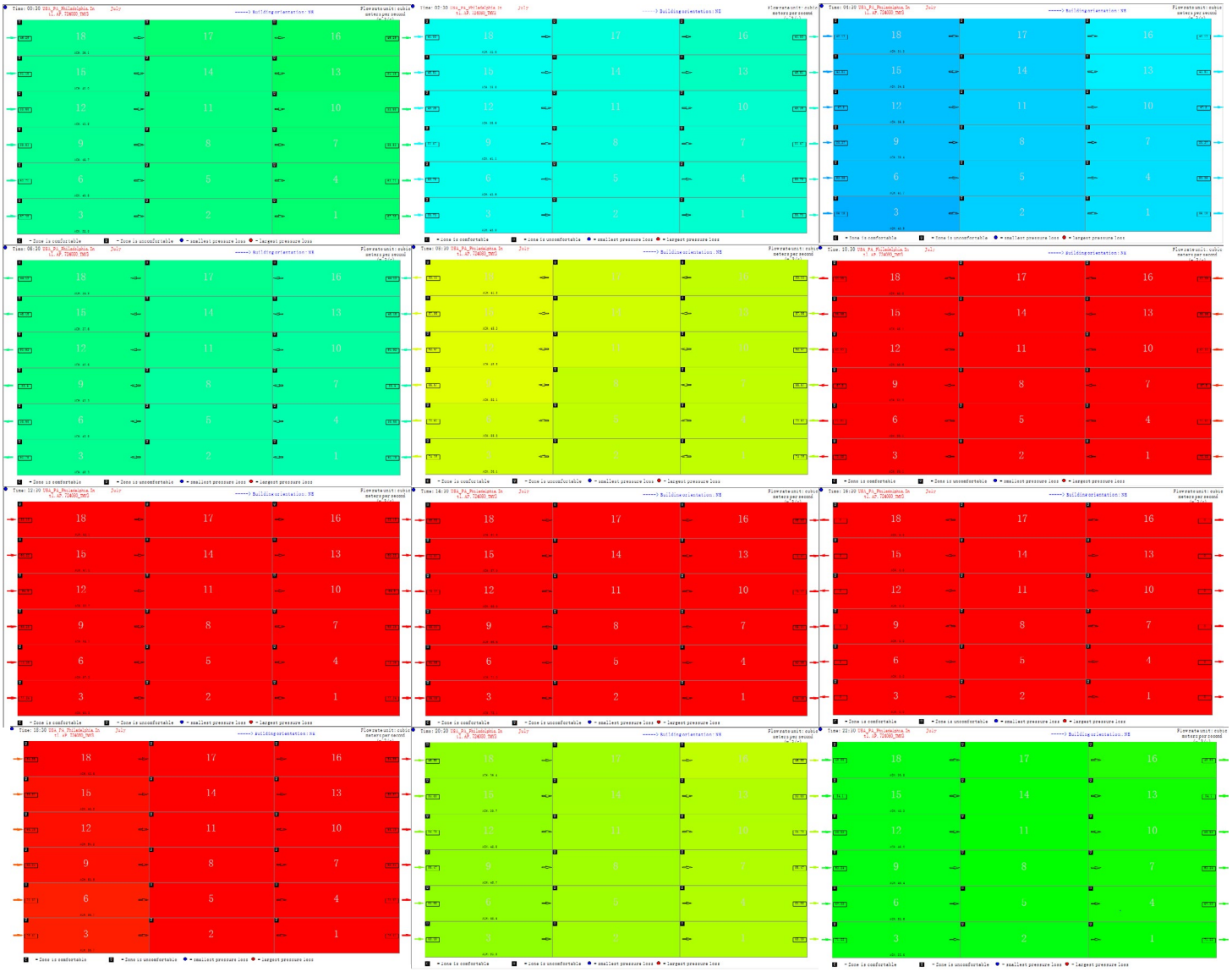
a. Center atrium

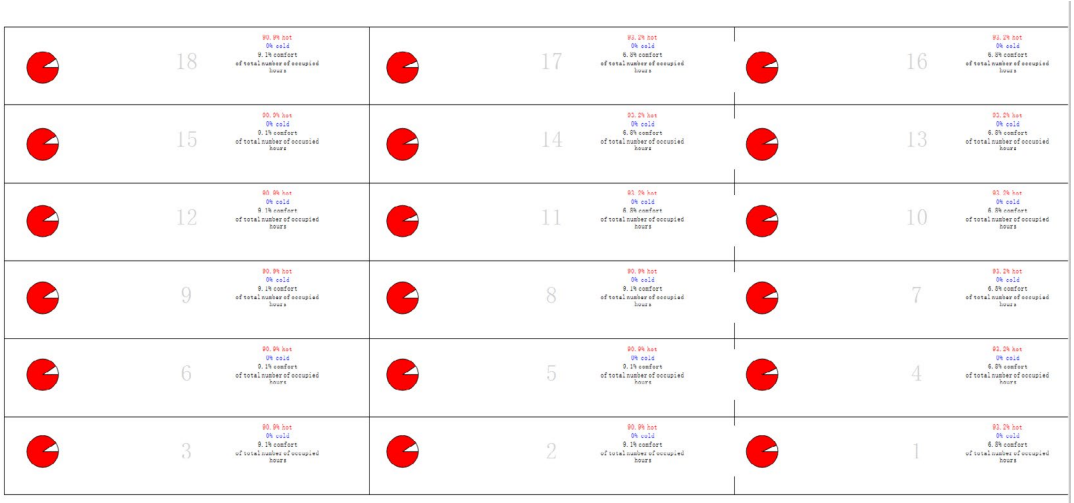




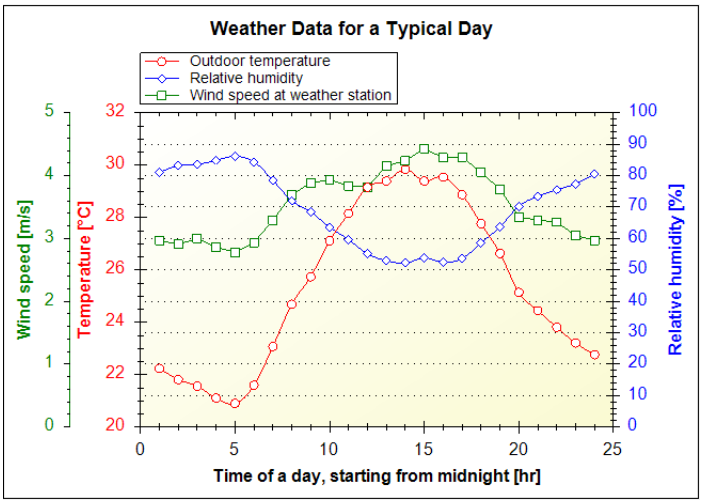
thermal comfort analysis

a. Cross Ventilation





thermal comfort analysis



Comparing the two ventilation results based on center artrium and cross ventilation, the tempreture is higher under cross ventilation, and the tempreture is distributed more evenly in different zones of the building. Both the two results are under the weather of July, therefore center artrium is a better design for the nature ventilation of Meyerson Hall.