Natural Ventilation of Meyerson Hall

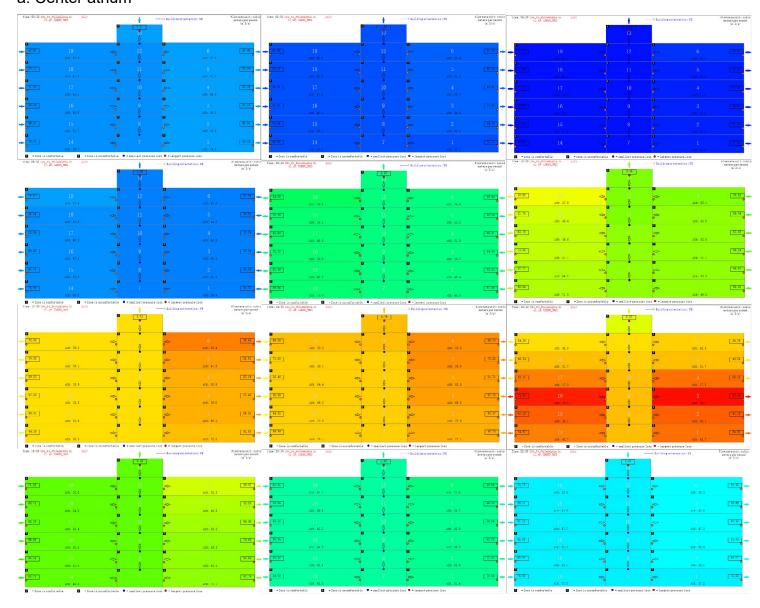
1. Natural ventilation



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

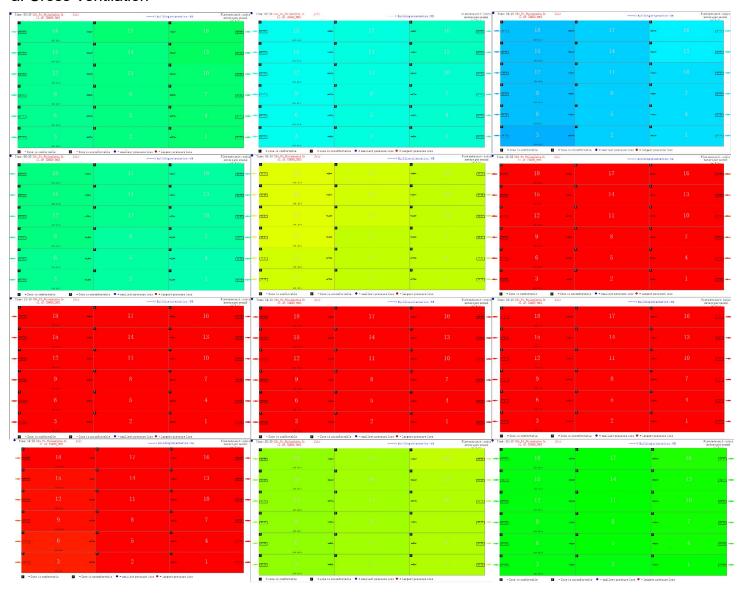
a. Center atrium



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•	10. PP bot Ve cold 15 of total number of occupied bours	8	•	2	90.9% bot UN cold 9.1% confort of total number of occupied hours
	90,9% hot 00 cold 0 cold 14 of something of	7		1	90, 9% hot 0% cold 9, 1% confort of total number of occupied hours

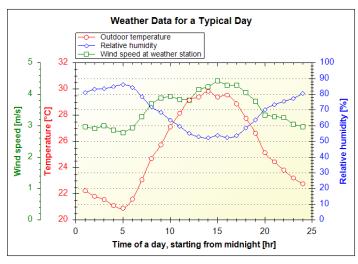
thermal comfort analysis

a. Cross Ventilation



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6 15	5	90.9% has 0% cold 0.1% confort of total number of occursed hears	•	14	93.2% has 9% cold 6.8% confort of total number of occupied hours	•	13	00.2% how 00 cold 6.8% comfort of total number of occupied hours
C 12	2	60 94 hos O's cald 9. 14 confort of total master of coupsed hours	•	11	02.20 hot Oh cold 6.30 confort of total number of occupied hours	•	10	93.2% hot O't cold 6.30 comfort of total number of occupied hours
9		80.9% hot O'e cold 9.1% confort of total member of compiled hours	•	8	90.9% hot 90 cold 9.19 confort of total number of occupied hours	•	7	93.2% hot Ok cold 6.5% confort of total number of socupied hours
6		90.9% has O'M cold O'M cold O'S confer of total number of counsied hours	•	5	90.9% her 90 cold 9.1% confort of total number of occupied hours	•	4	02.2% hot Of cold 6.0% comfort of total number of occusied hours
3		90.9% hos 9% cold 9% cold 19 confort of total number of occupied hours	•	2	90.99 bot 99 void 9.19 confort of total masks of occupied hours	•	1	93.2% hot Oh cold 6.8% confort of total number of occupied hours

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.