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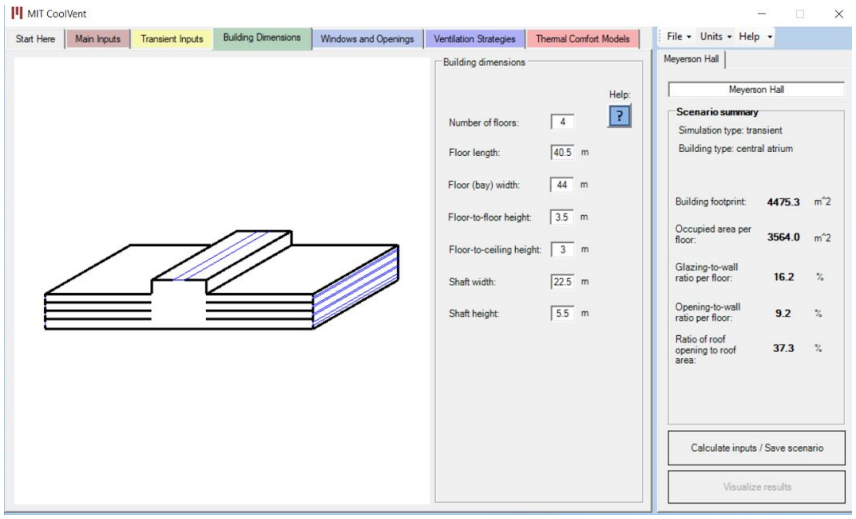
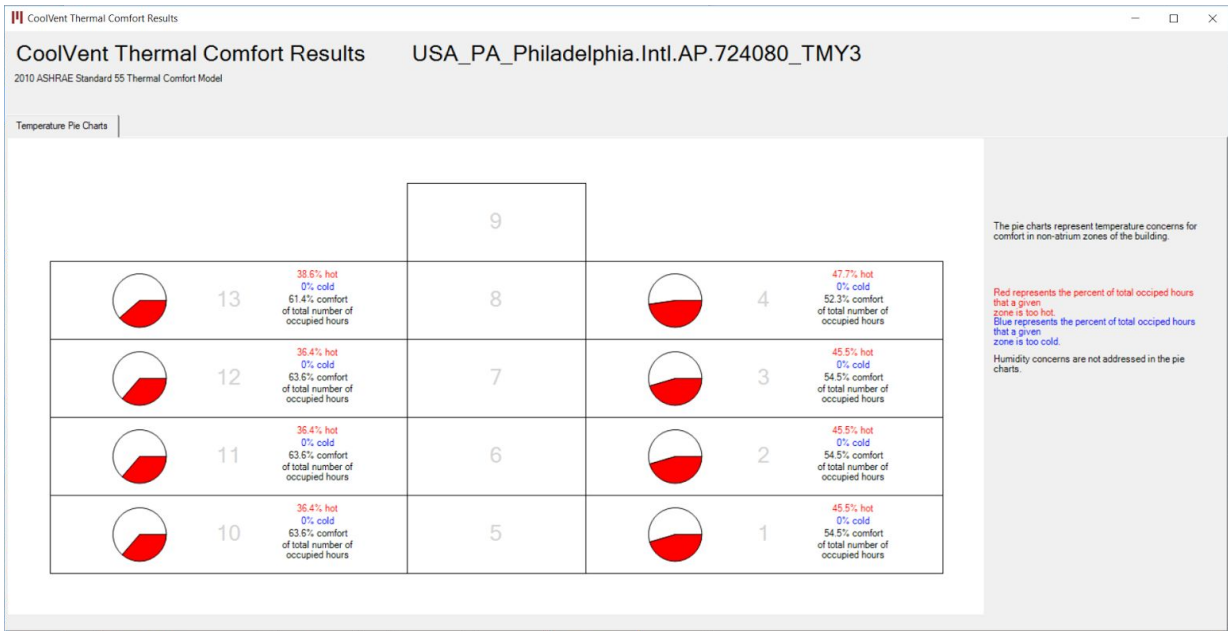
In testing ventilation methods for Meyerson Hall, I found that the relationship of placement of the roof opening is very important to the even distribute of comfort across zones. For instance, the Chimney which is located along one exposed side of the building yields the most even distribution of comfort across zones compared to the Central Atrium design which experiences more range in discomfort across more zones. However, the highest overall comfort average was achieved with the Central Atrium design. My speculation is that although it resulted in a wider range of values, this design was able to achieve a higher average because it also divides the space into a larger amount of zones (8 zones vs. 4 zones).

These are the dimensions set as a constant for the experiment:



The results for a Central Atrium condition in September:



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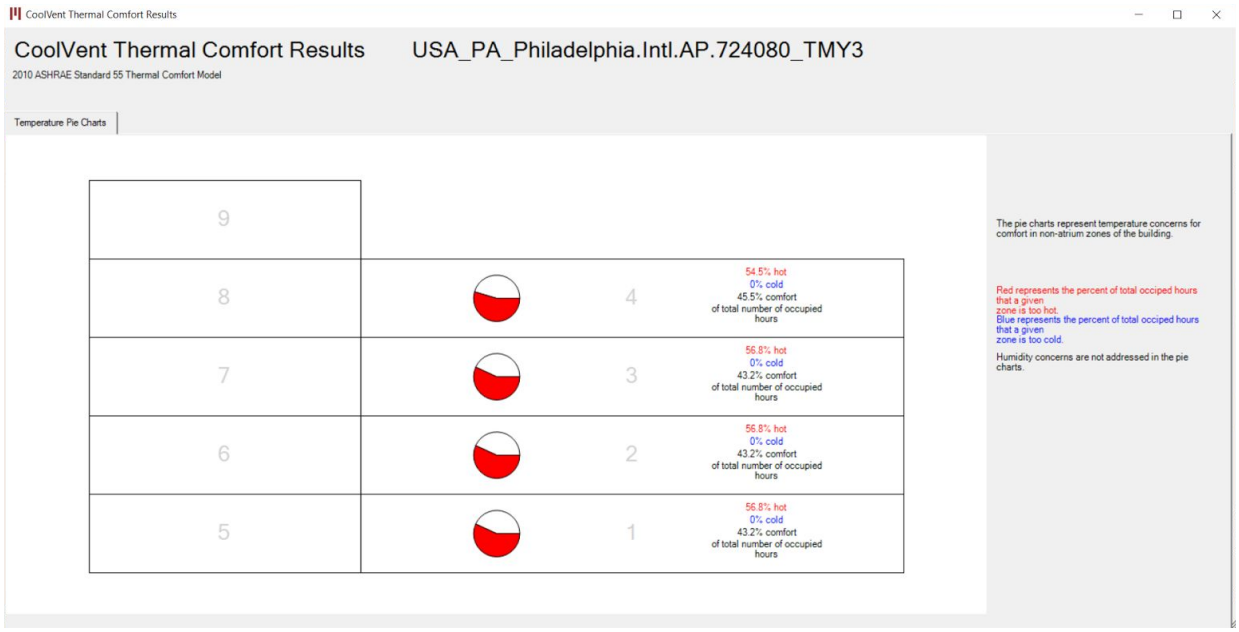
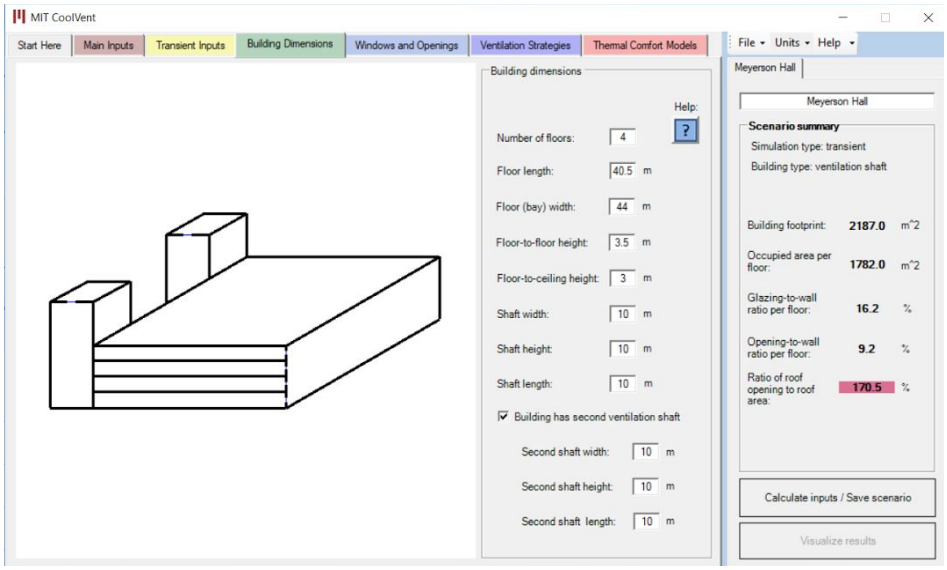
The results for a Chimney condition in September:



This condition attempts to incorporate 2 ventilation shafts which account for 170.5% of the roof area:



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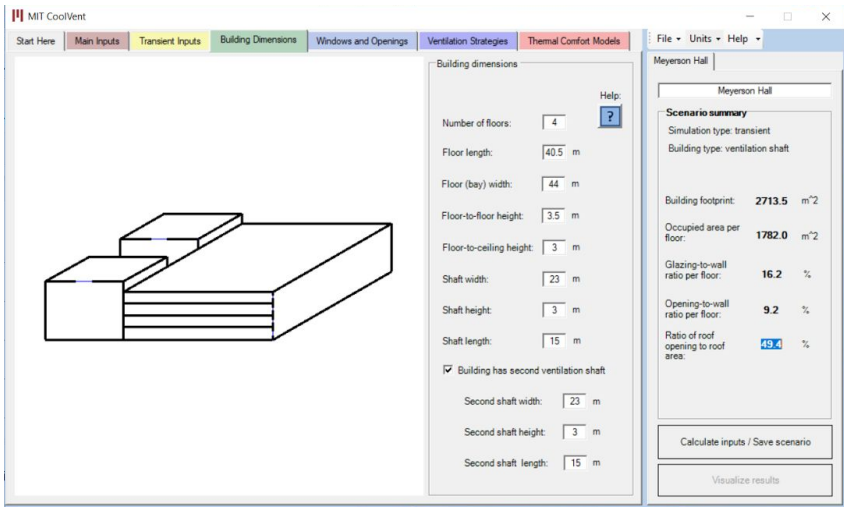
Perhaps that ratio of opening to roof area is too high?
The next test will try for a lower percentage:



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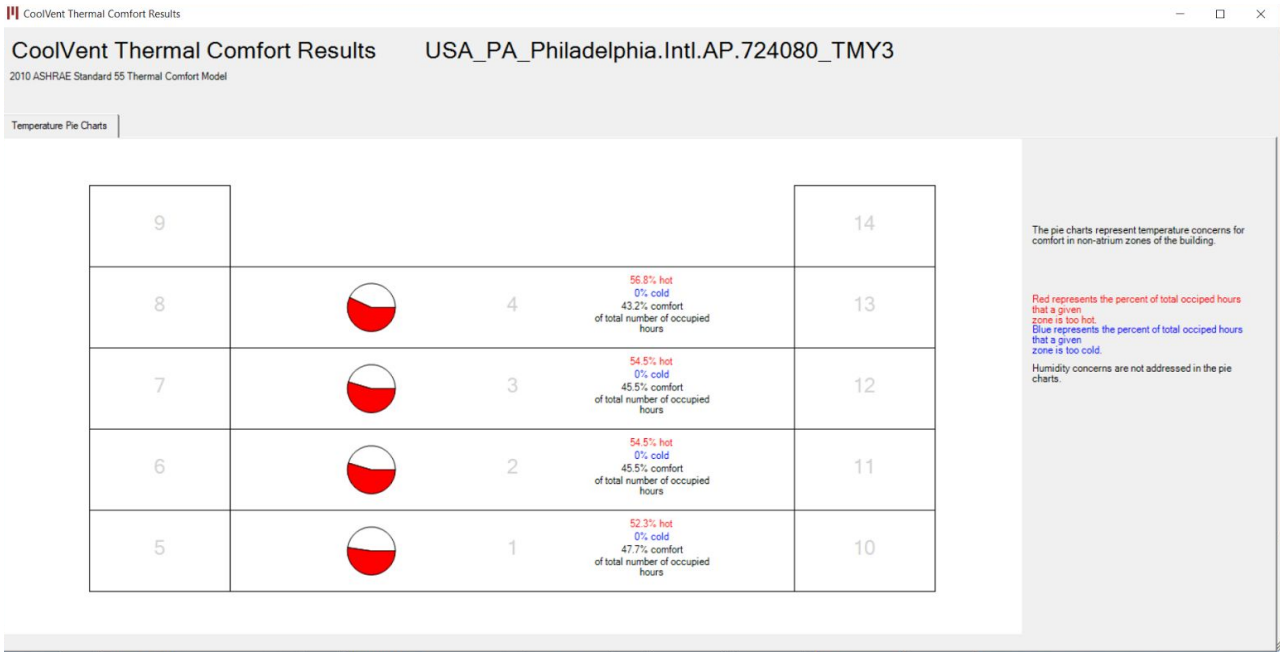

Conclusion: Comparative Chart

Strategy	**Ratio of Opening to Roof Area**	**Comfort per Zone (%)**	**Overall Comfort Average (%)**	**Conclusion**
Central Atrium	37.3%	54.5, 54.5, 54.5, 52.3, 63.6, 63.6, 63.6, 61.4	58.5	Highest variation in zones difference: 11.3
Chimney	37.3%	43.2, 43.2, 43.2, 45.5	43.8	Most even distribution of comfort across zones: 2.3
2 Vent Shafts	170.5%	50, 47.7, 45.5, 45.5	47.2	4.5
2 Vent Shafts	49.4%	47.4, 45.5, 45.5, 43.2	45.4	Reduction in opening ratio leads to minimal change in comfort level: 4.2