

# DESIGN STRATERGY I - CENTRAL ATRIUM

Start HereMain InputsTransient InputsBuilding DimensionsWindows and OpeningsVentilation StrategiesThermal Comfort Models

Building dimensions

Number of floors:6

Floor length:100ft

Floor (bay) width:120ft

Floor-to-floor height:12ft

Floor-to-ceiling height:10ft

Shaft width:50ft

Shaft height:50ft

Scenario

Scenario name

Scenario summary

Simulation type: transient

Building type: central atrium

Building footprint:29000.0ft<sup>2</sup>

Occupied area per floor:24000.0ft<sup>2</sup>

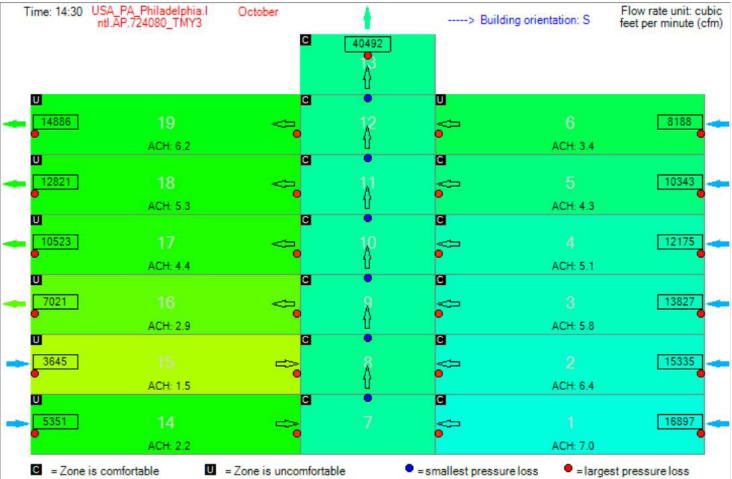
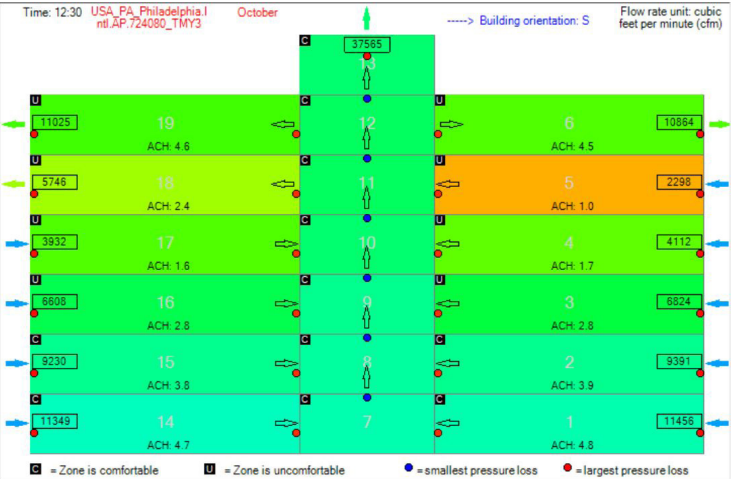
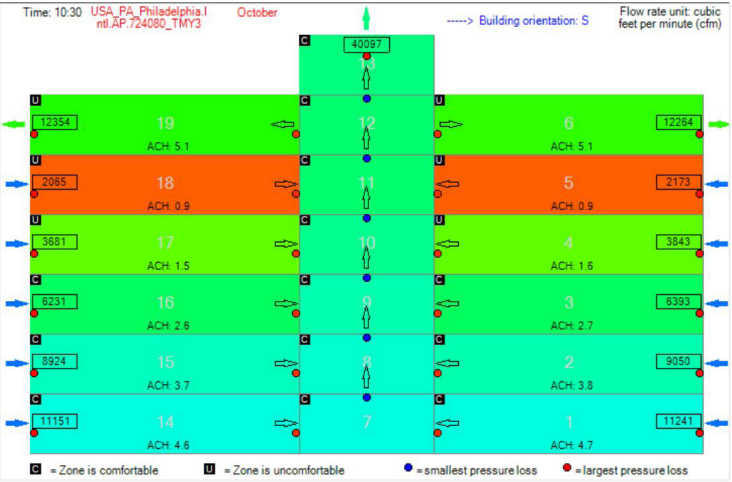
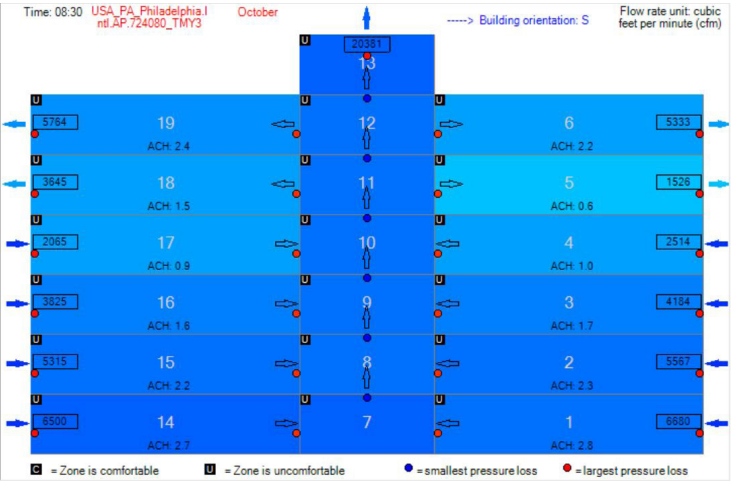
Glazing-to-wall ratio per floor:10.0%

Opening-to-wall ratio per floor:3.3%

Ratio of roof opening to roof area:1.0%

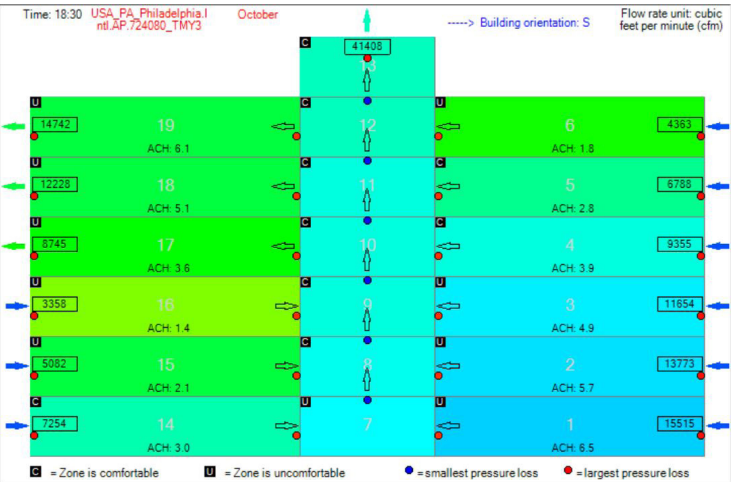
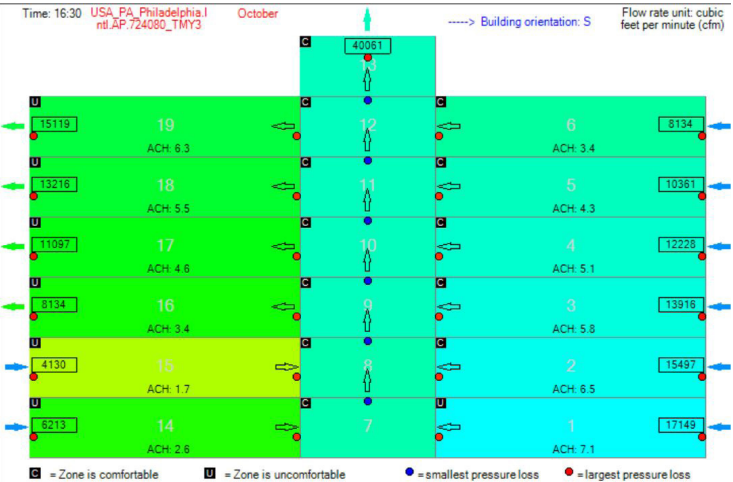
Calculate inputs / Save scenario

Visualize results



## Summary:

With a central Atrium added to Meryson Hall, The CoolVent Calculation shows that from the noon to late evening, the comfortable zoon in the building is significantly increased, but the morning still feels uncomfortable at the most of the time.



# DESIGN STRATERGY II - CHIMNEY

Start HereMain InputsTransient InputsBuilding DimensionsWindows and OpeningsVentilation StrategiesThermal Comfort Models

Building dimensions

Number of floors:6

Floor length:100ft

Floor (bay) width:120ft

Floor-to-floor height:12ft

Floor-to-ceiling height:10ft

Shaft width:50ft

Shaft height:50ft

Help:?

Scenario

Scenario name

Scenario summary

Simulation type: transient

Building type: chimney

Building footprint:17000.0ft<sup>2</sup>

Occupied area per floor:12000.0ft<sup>2</sup>

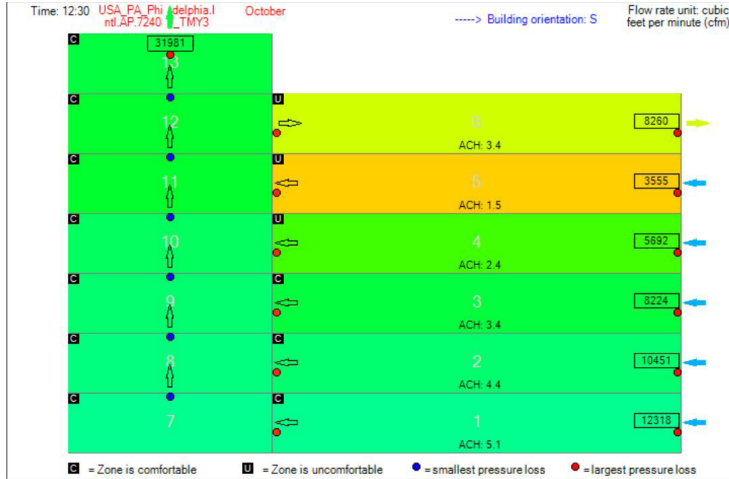
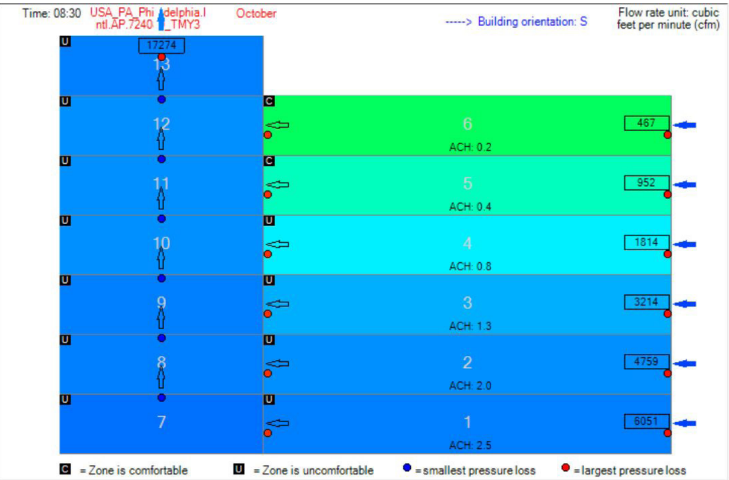
Glazing-to-wall ratio per floor:10.0%

Opening-to-wall ratio per floor:3.3%

Ratio of roof opening to roof area:1.0%

Calculate inputs / Save scenario

Visualize results



## Summary:

With a Chimney added to Meryson Hall, The CoolVent Calculation shows that from the noon to late evening, the building becomes very comfortable. Same to the central atrium design above, the earlier morning time is uncomfortable.

