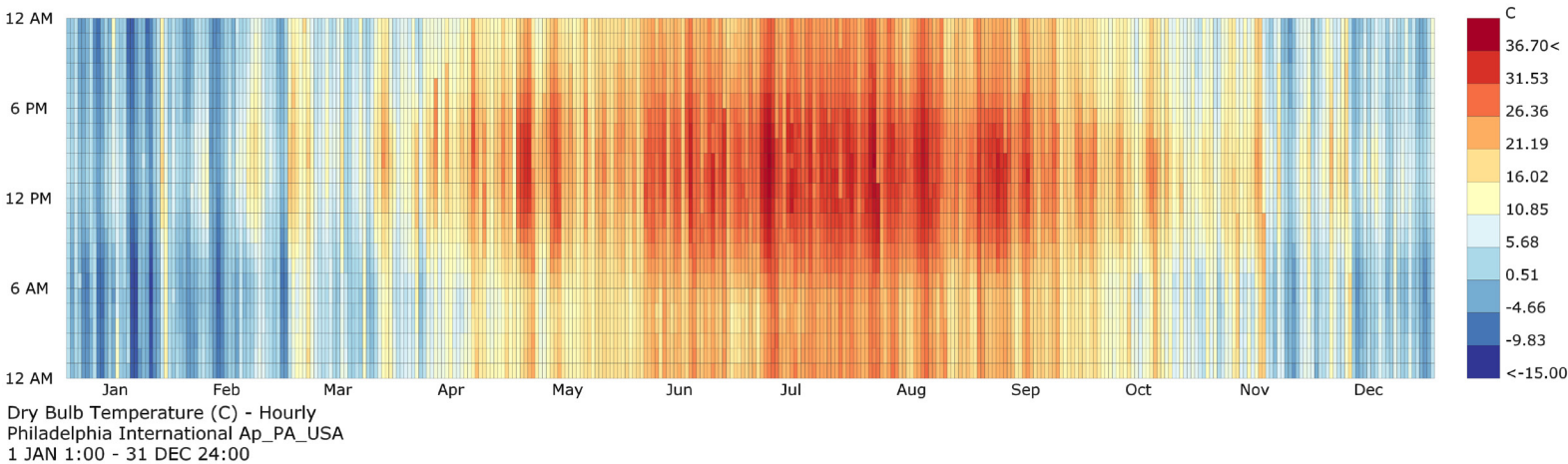


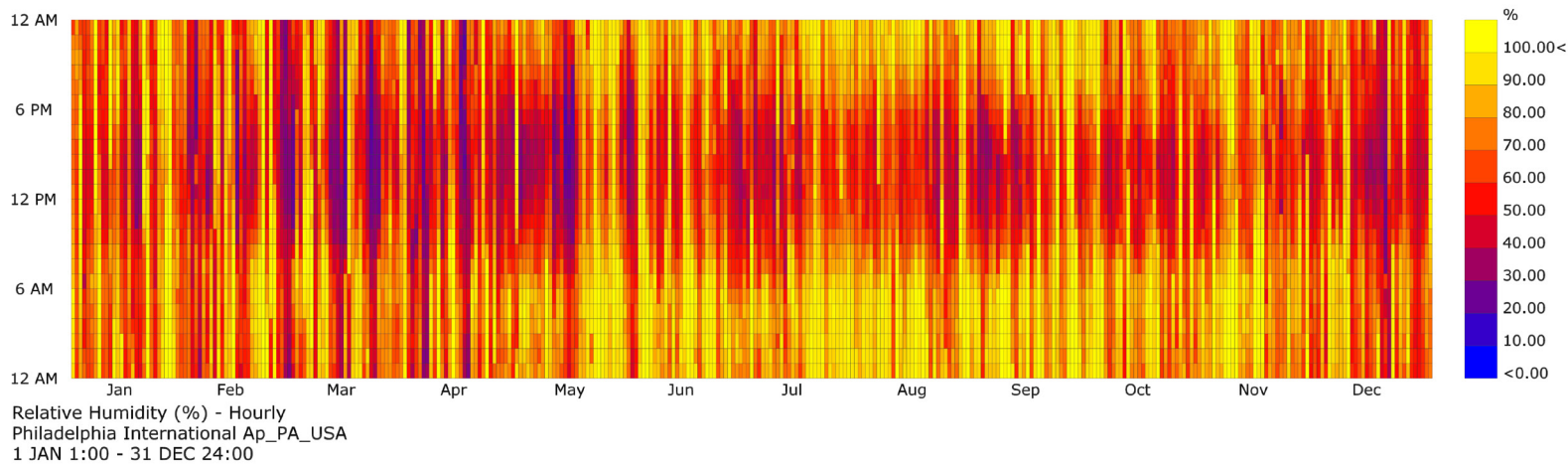
Weather Report of Philadelphia

Made with Ladybug

- Temperature



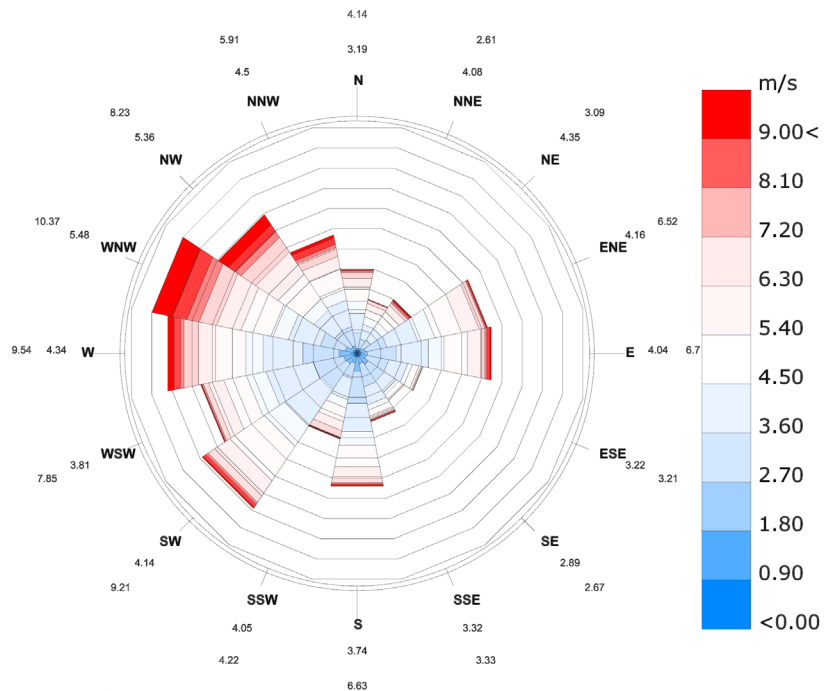
- Humidity



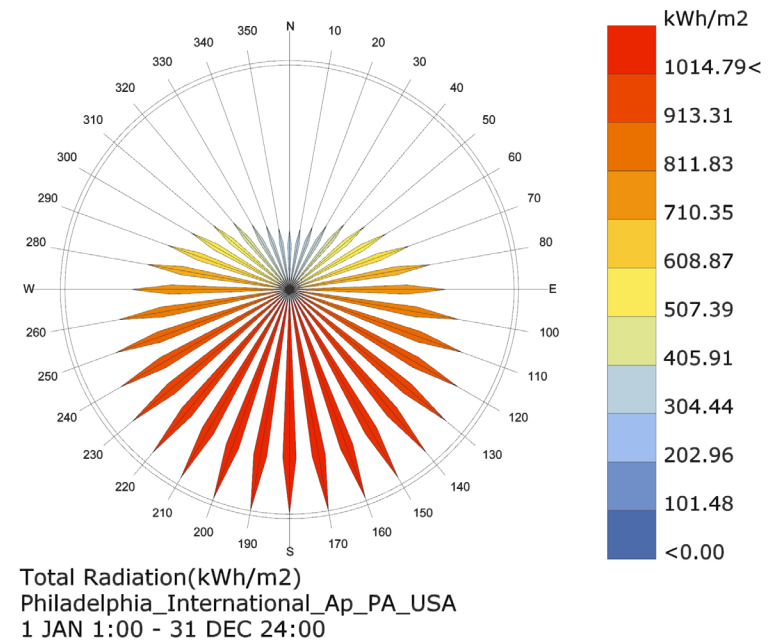
Weather Report of Philadelphia

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- Wind Speed/Direction



- Radiation



Passive Design Strategies

1.

According to the chart of temperature in Philadelphia area, there tend to be a big temperature difference between summer and winter, as well as between daytime and night time. Therefore, building material used in architecture should have high resistance to change in outdoor temperature.

2.

According to the radiation diagram, the south side receives most sunlight through out the year. Therefore, rooms require ample daylighting like offices and classroom should have openings towards south side. However, shading also needs to be applied to avoid direct sunlight.

3.

According to the wind rose diagram, for the most time of the year wind comes from southeast. By placing openings on southeast and northwest side of the building, the natural ventilation could be used to cool down the interior and provide air circulation.