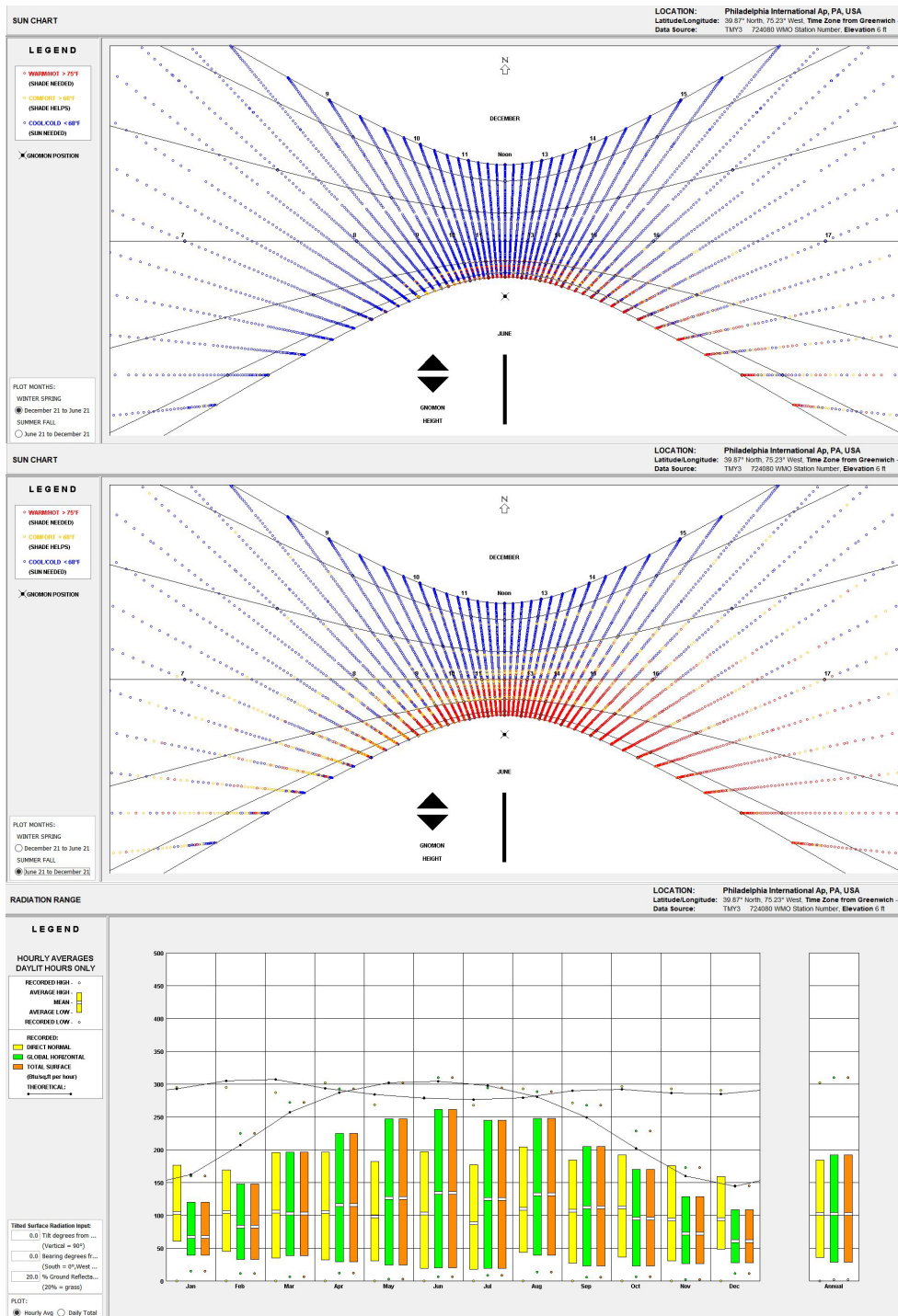


## Assignment 1

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Sun Chart:

The sun chart shows the shadow cast by the gnomon in Philadelphia, PA taken at an elevation of 6 feet. The two charts are showing different time durations for the sun path with optimal conditions signifying in the form of yellow dots. The charts show red dots when the temperature is above Comfort High which are seen mostly in June through August. This chart could be used for window size and positioning.

Radiation Range:

Radiation Range also shows highs between May and August, with the highest global horizontal light on Jun. Lower direct radiation occurs in July during the summer months and higher in August. The amounts of radiation can guide in kind of glass used to reduce the amounts of radiation or allow for more light.

## Passive Design Strategies:

Daylighting - Window Positioning/Glazing Type

Natural Ventilation - Window Positioning/Size/Stacking

Passive Heating & Cooling through solar geometry/positioning