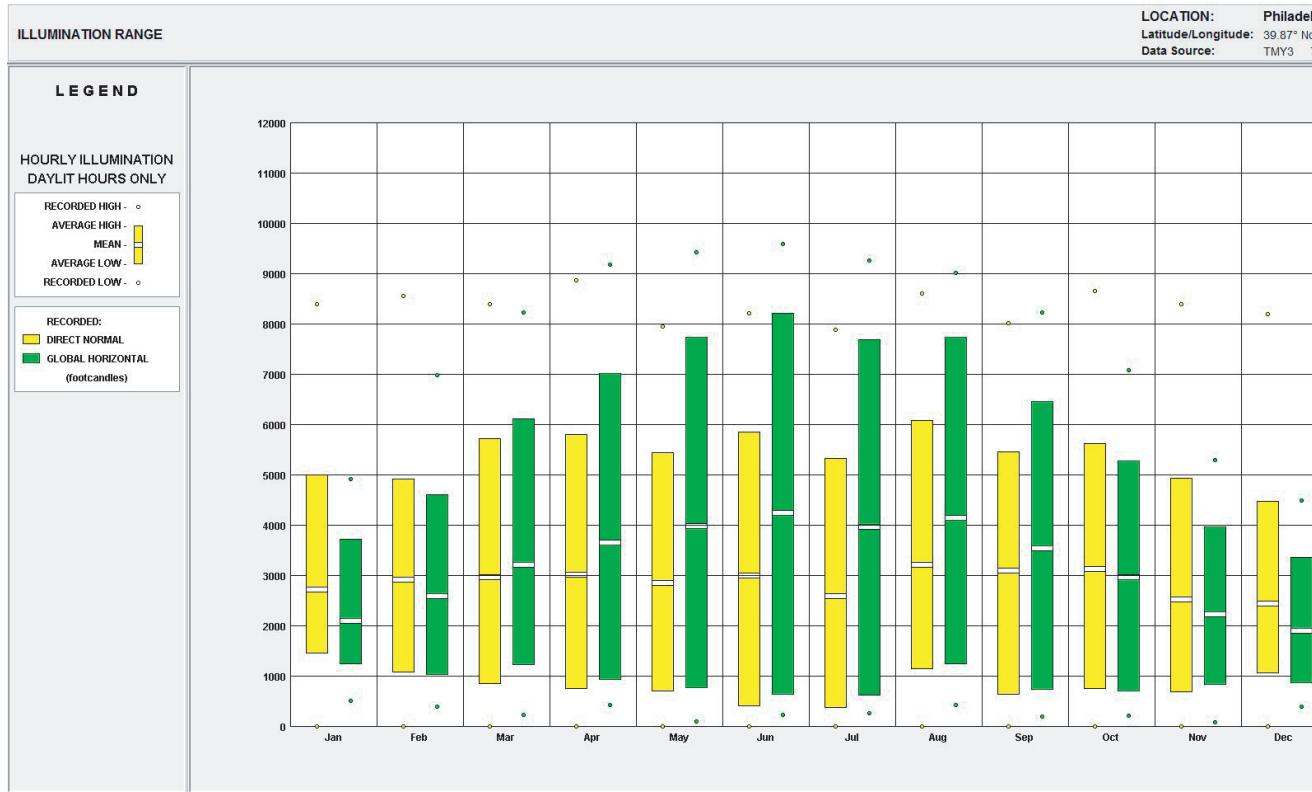
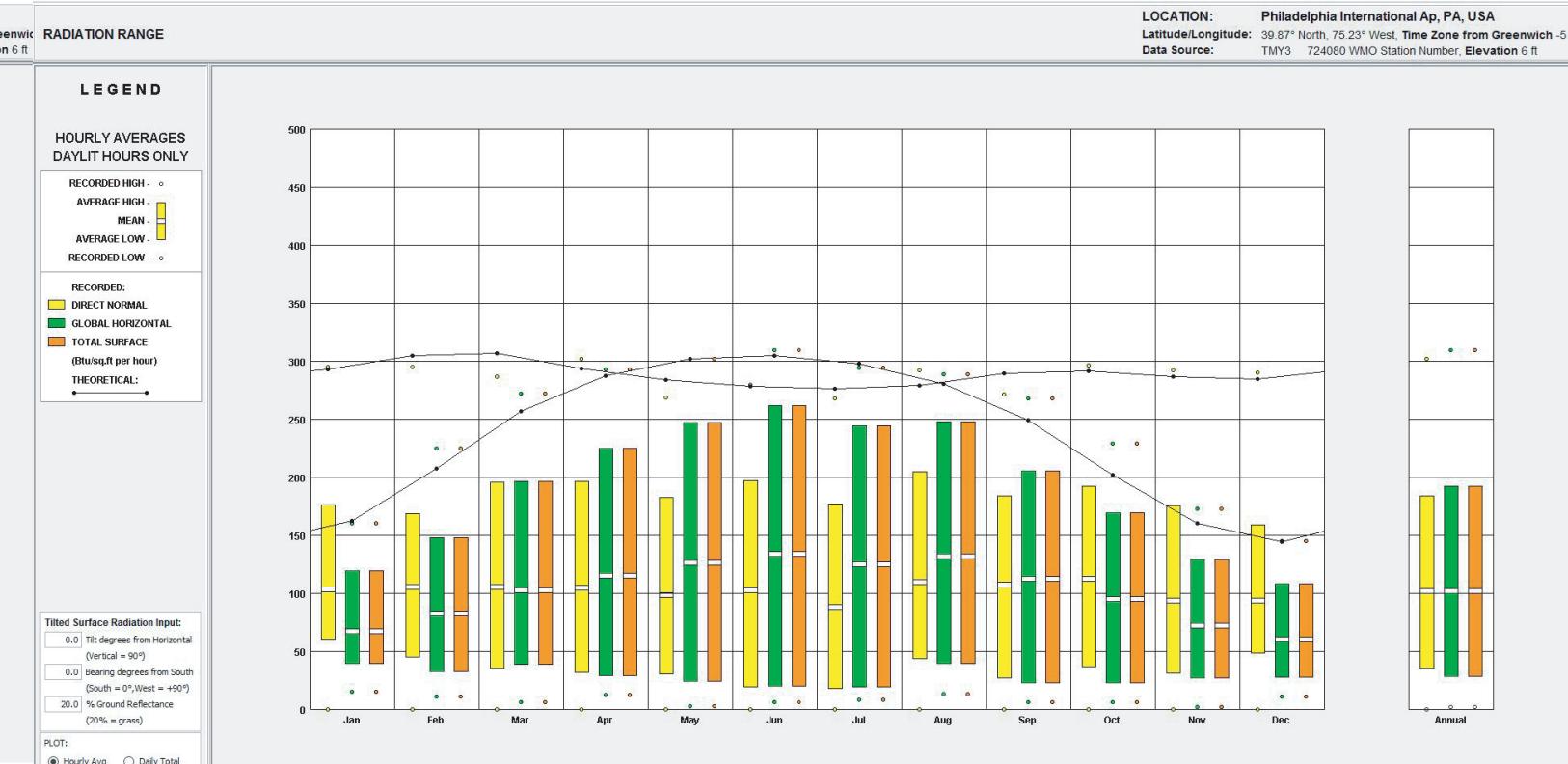


Philadelphia Weather Report

Illumination Range



Radiation Range



Temperature Range



Passive Design Strategy (Revised):

- 1) Put water fountains near the house or in the courtyard to cool down the outdoor temperature during summer time. The evaporation of water needs to consume heat so it can cool down the environment. Once the outdoor temperature near the house is cooled down, there is a temperature difference between indoor and outdoor, therefore there will be a wind flow. In this way, water fountain also increases the ventilation of the space.
- 2) Enhance the insulation of walls by adding additional layers so that in winter time, the insulation can prevent heat loss from the house and in summer time, it can prevent the heat gain from outside where temperature is high. The adequate wall insulation keeps the interior temperature stable and less likely to be affected by the outdoor temperature change.
- 3) Use different sun shade device based on different orientation of the house. For example, use vertical louvre sun shading for east or west oriented houses and use horizontal louvre sun shading for north or south oriented houses. The use of louvre sun shading device blocks the direct sunlight but preserve space for the wind to pass through which keeps natural ventilation but controls the amount of the sunlight the enters the house.

Software Being Used:
 Climate Consultant