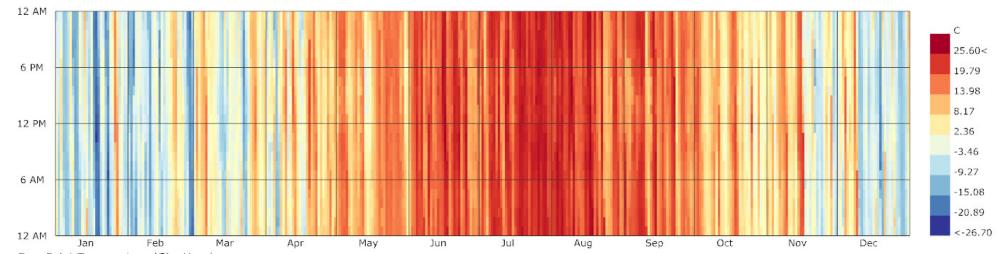Dry Bulb Temperature (C) - Hourly
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00
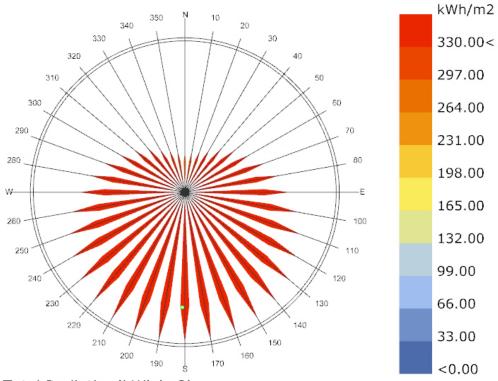
Logan Weaver | Environmental Systems I | Penndesign | Fall 2017

Dew Point Temperature (C) - Hourly
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00

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Relative Humidity (%) - Hourly
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00

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Solar-Adjusted Mean Radiant Temperature (C) - Hourly
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00

C
85.66<
73.74
61.83
49.91
37.99
26.07
14.16
2.24
-9.68
<-21.60

Total Radiation(kWh/m2)
Philadelphia_International_Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00

kWh/m2

330.00<
297.00
264.00
231.00
198.00
165.00
132.00
99.00
66.00
33.00
<0.00

Wind-Rose
Philadelphia International Ap_PA_USA
1 JAN 1:00 - 31 DEC 24:00
Hourly Data: Wind Speed (m/s)
Calm for 2.81% of the time = 246 hours.
Each closed polyline shows frequency of 1.0%. = 90 hours.

RESOURCES USED: EPWvis | LadyBug | HoneyBee

MOST IMPORTANT PASSIVE DESIGN STRAEGIES:
1: Minimize solar exposure during periods of heat
2: Maximize solar exposure during cold periods
3: Design barriers to limit wind exposure for cold and increase for heat