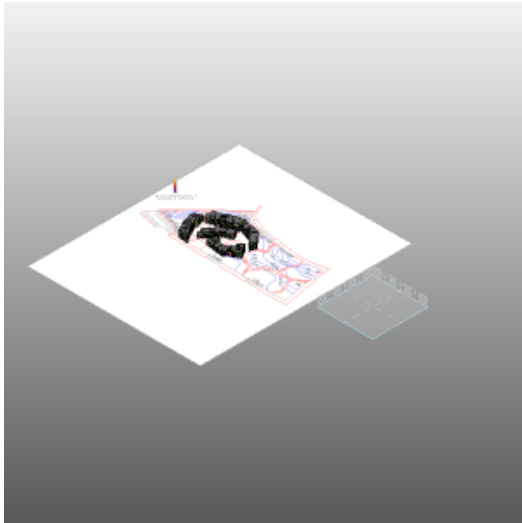


converso

## Esercitazione 3\_analisi

Analyzed at 9/20/2012 11:36:50 AM

## Mass



## Building Performance Factors

Location:	Via Giuseppe Belluzzo, 00149 Roma, Italia
Weather Station:	160000
Outdoor Temperature:	Max: 35°C/Min: -2°C
Floor Area:	4,690 m <sup>2</sup>
Exterior Wall Area:	5,715 m <sup>2</sup>
Average Lighting Power:	7.53 W / m <sup>2</sup>
People:	146 people
Exterior Window Ratio:	0.19
Electrical Cost:	\$0.28 / kWh
Fuel Cost:	\$1.41 / Therm

## Energy Use Intensity

Electricity EUI:	155 kWh / sm / yr
Fuel EUI:	465 MJ / sm / yr
Total EUI:	1,022 MJ / sm / yr

## Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	21,741,384 kWh
Life Cycle Fuel Use:	65,473,622 MJ
Life Cycle Energy Cost:	\$3,121,207

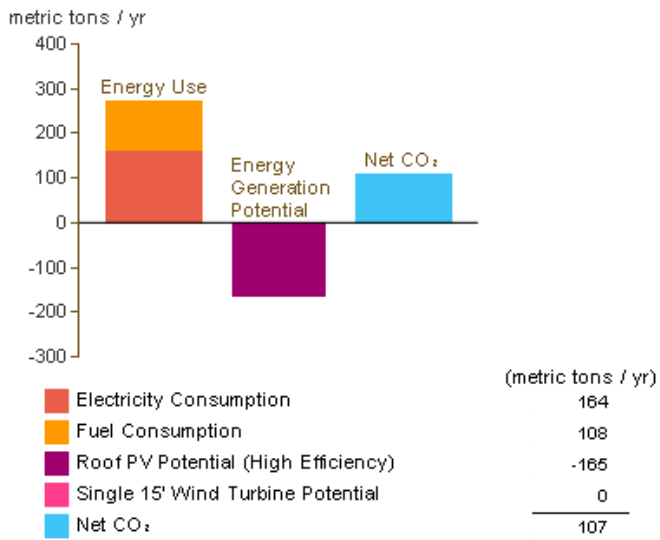
\*30-year life and 6.1% discount rate for costs

## Renewable Energy Potential

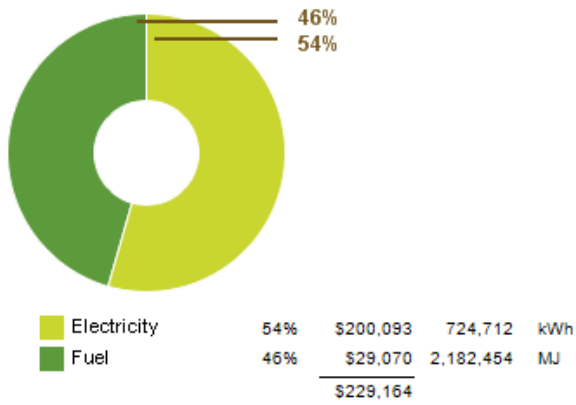
Roof Mounted PV System (Low efficiency):	242,669 kWh / yr
Roof Mounted PV System (Medium efficiency):	485,337 kWh / yr
Roof Mounted PV System (High efficiency):	728,006 kWh / yr
Single 15' Wind Turbine Potential:	1,054 kWh / yr

\*PV efficiencies are assumed to be 5%, 10% and 15% for low, medium and high efficiency systems

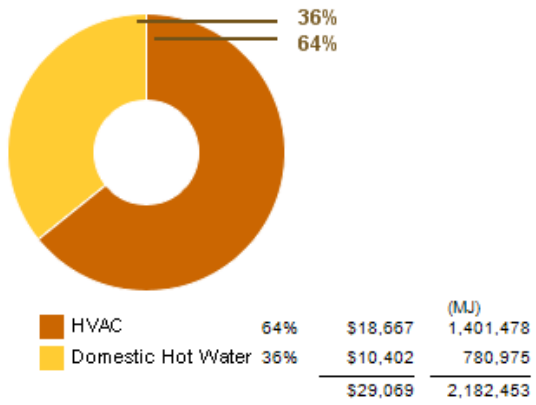
## Annual Carbon Emissions



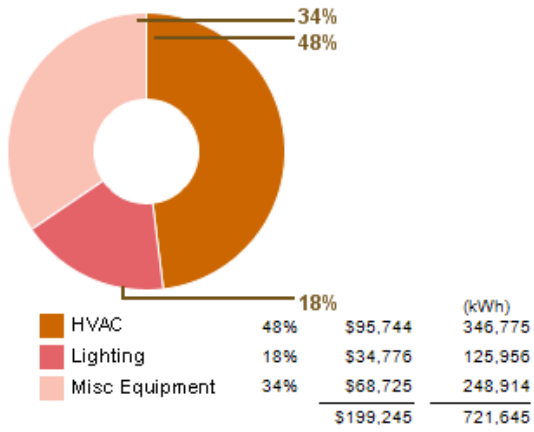
### Annual Energy Use/Cost



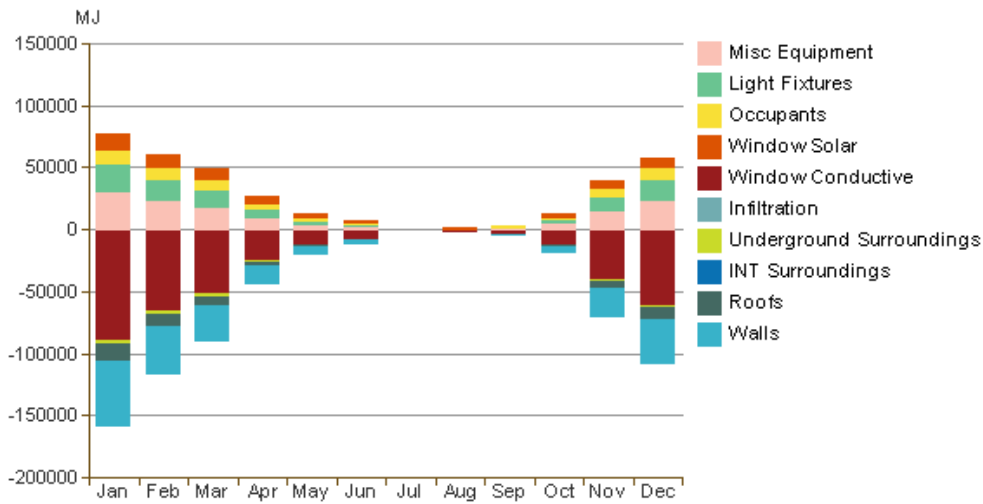
### Energy Use: Fuel



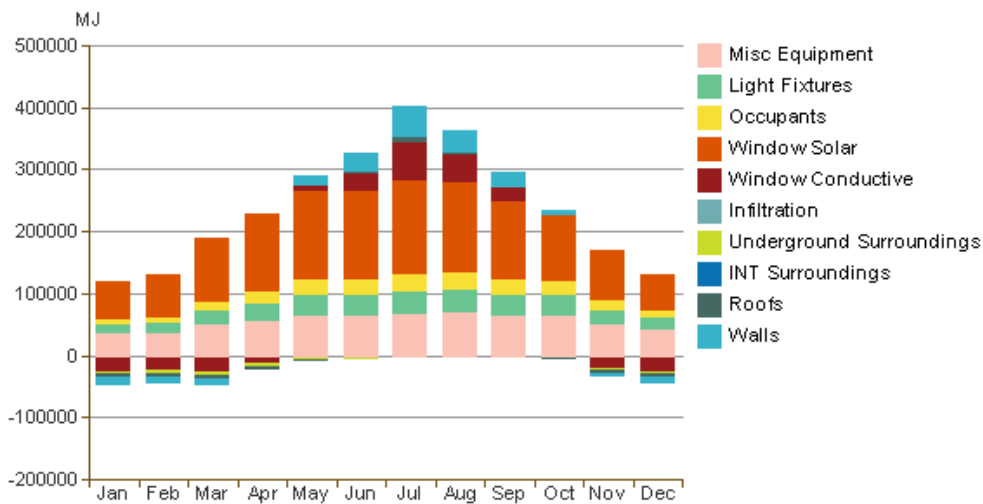
### Energy Use: Electricity



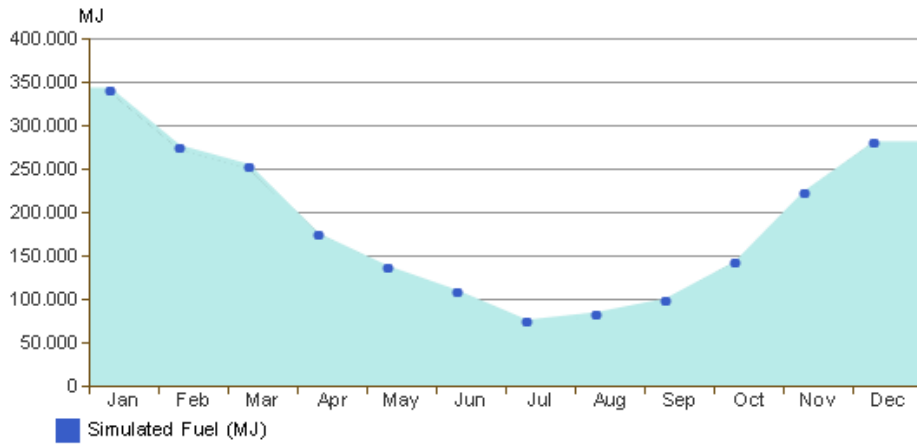
### Monthly Heating Load



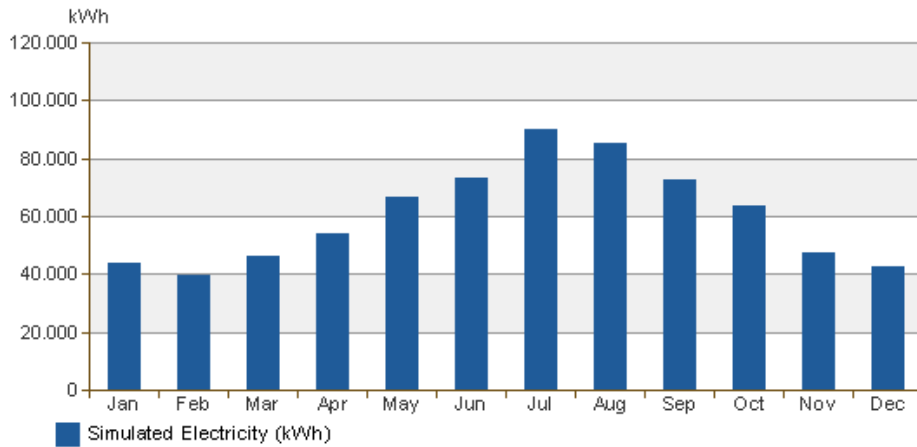
### Monthly Cooling Load



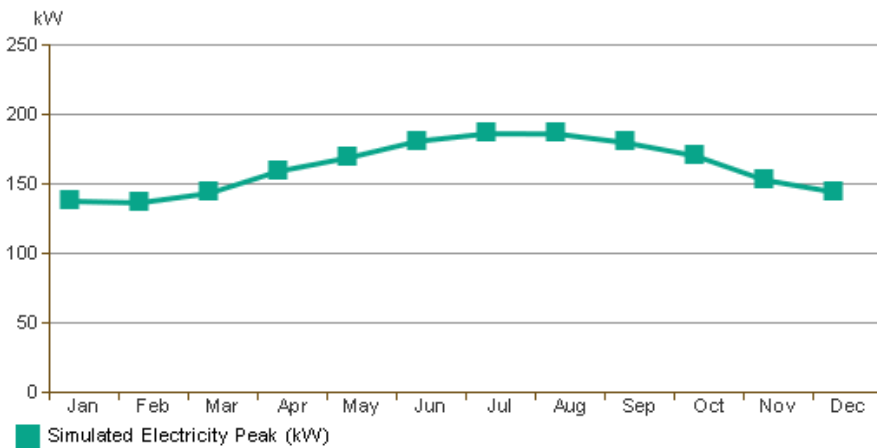
### Monthly Fuel Consumption



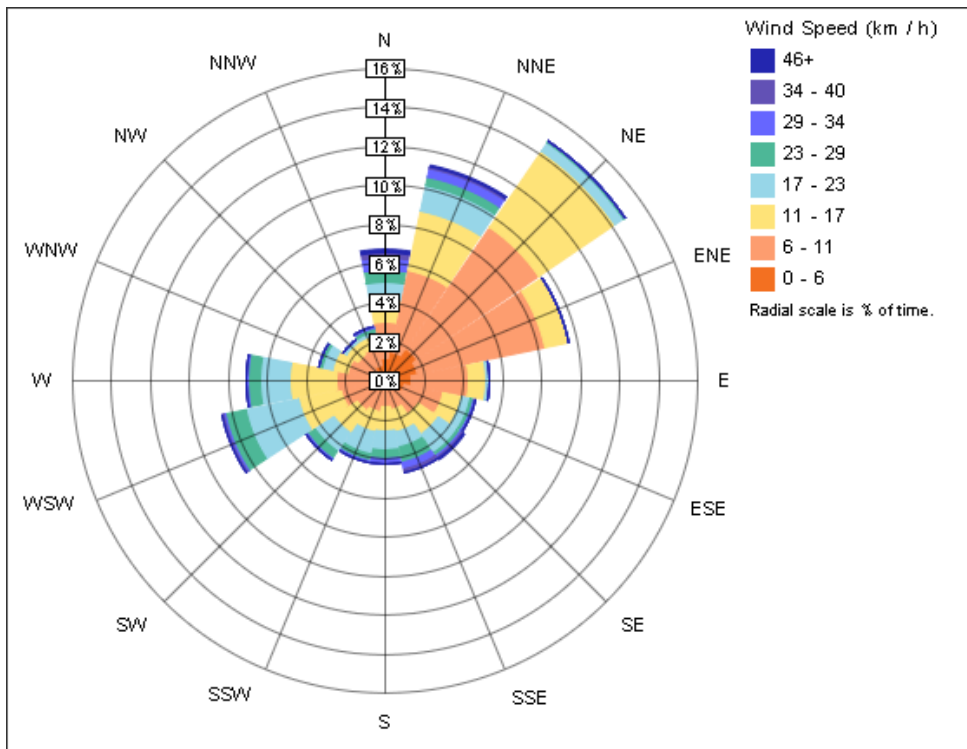
### Monthly Electricity Consumption



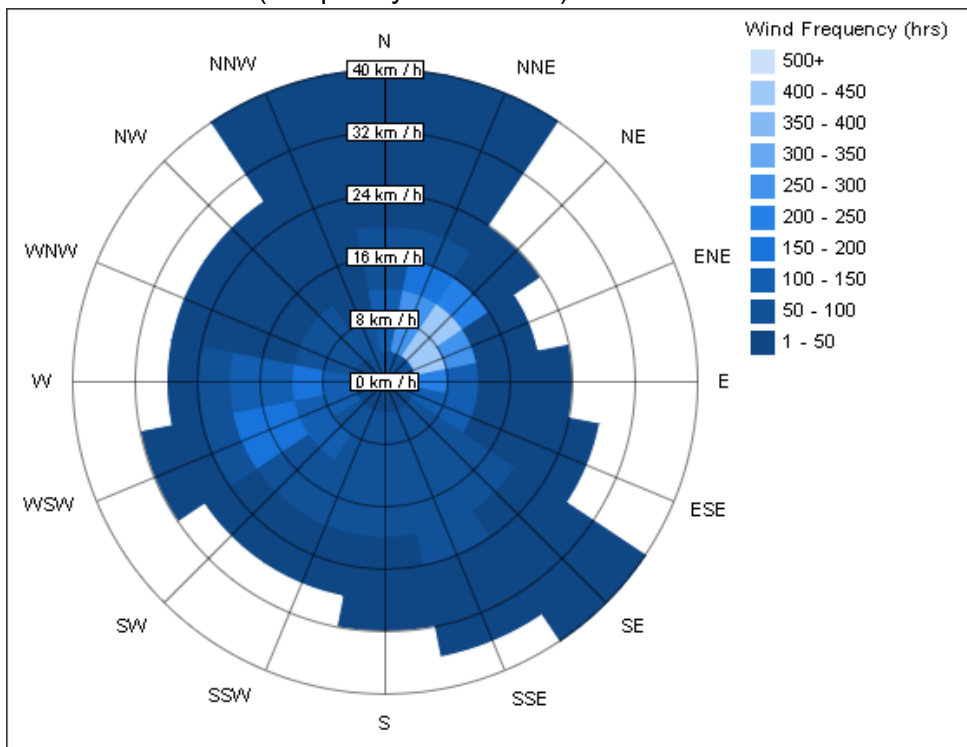
### Monthly Peak Demand



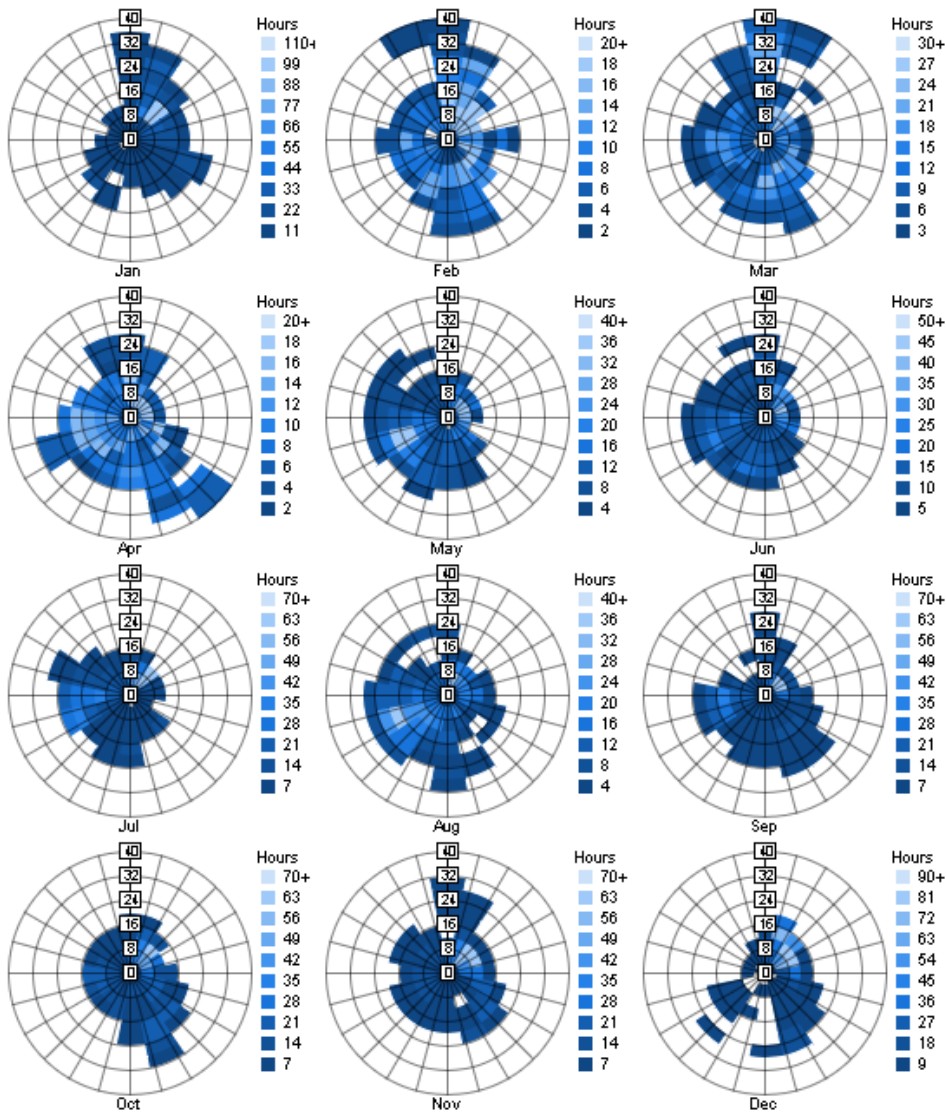
### Annual Wind Rose (Speed Distribution)



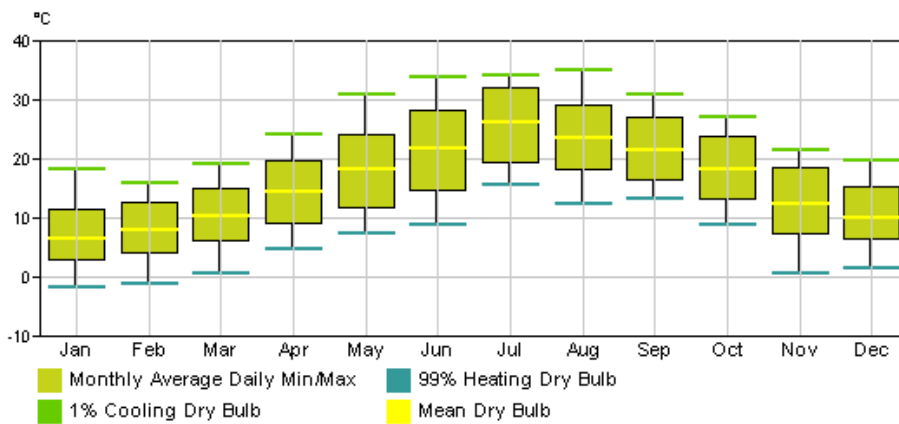
Annual Wind Rose (Frequency Distribution)



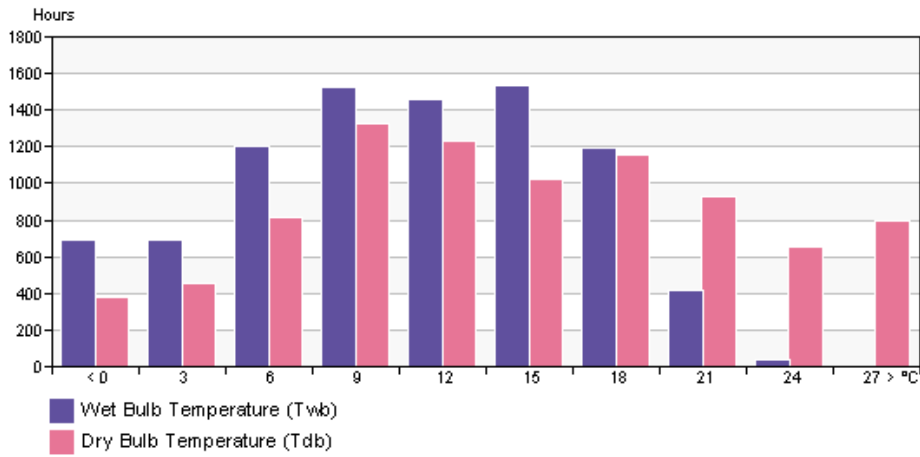
Monthly Wind Roses



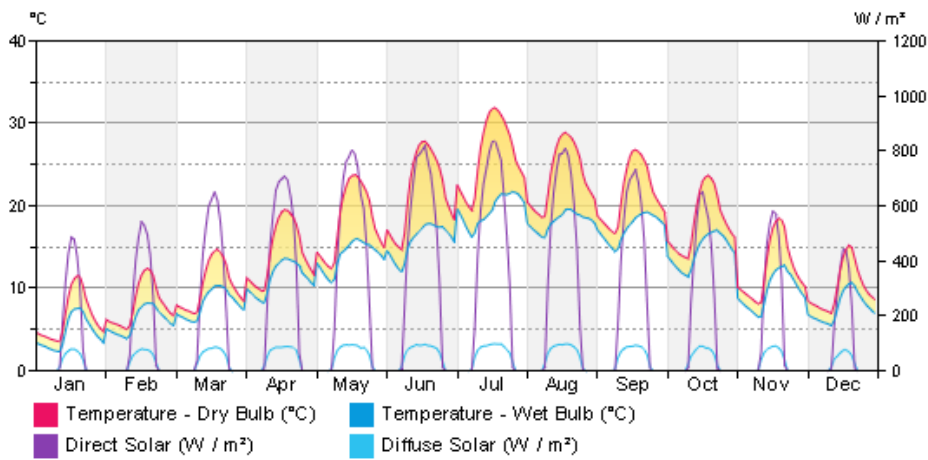
Monthly Design Data



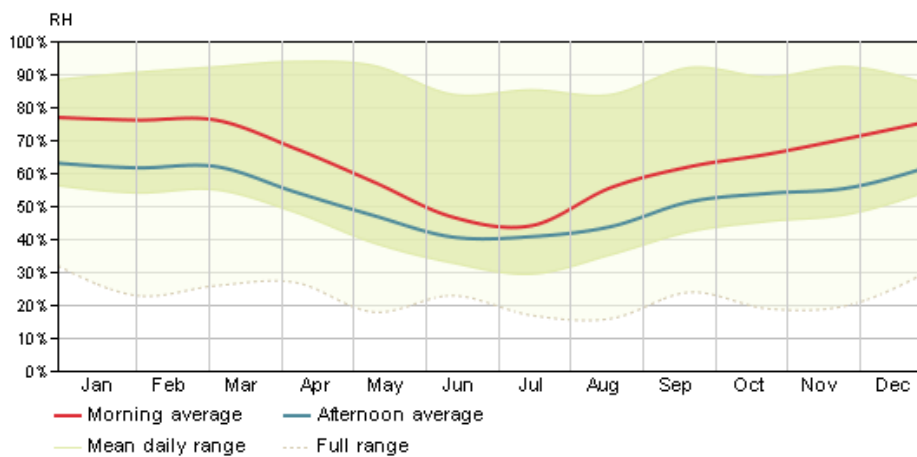
Annual Temperature Bins



### Diurnal Weather Averages



### Humidity



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