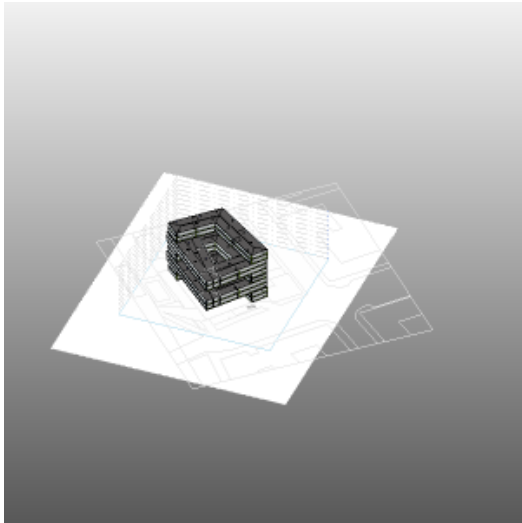


Project21

Analysis Final

Analyzed at 6/7/2012 5:30:32 PM

Mass



Building Performance Factors

Location:	Via Tuscolana, Roma, Italia
Weather Station:	160239
Outdoor Temperature:	Max: 36°C/Min: -2°C
Floor Area:	6,606 m ²
Exterior Wall Area:	9,029 m ²
Average Lighting Power:	10.87 W / m ²
People:	732 people
Exterior Window Ratio:	0.50
Electrical Cost:	\$0.28 / kWh
Fuel Cost:	\$1.41 / Therm

Energy Use Intensity

Electricity EUI:	219 kWh / sm / yr
Fuel EUI:	1,475 MJ / sm / yr
Total EUI:	2,263 MJ / sm / yr

Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	43,373,490 kWh
Life Cycle Fuel Use:	292,279,331 MJ
Life Cycle Energy Cost:	\$7,204,337

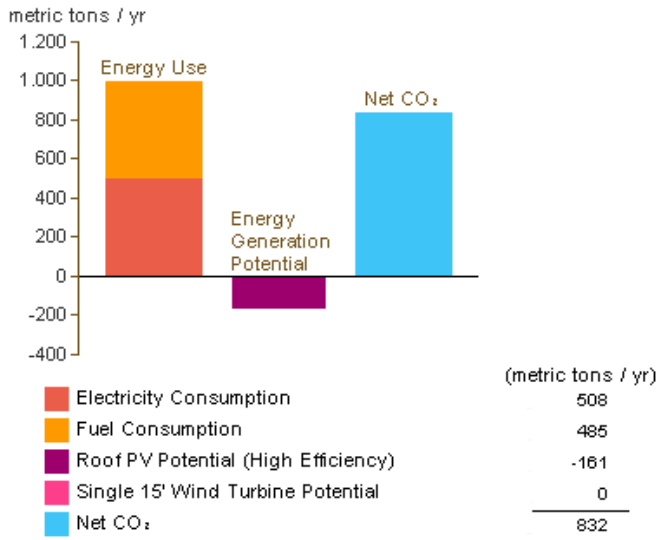
*30-year life and 6.1% discount rate for costs

Renewable Energy Potential

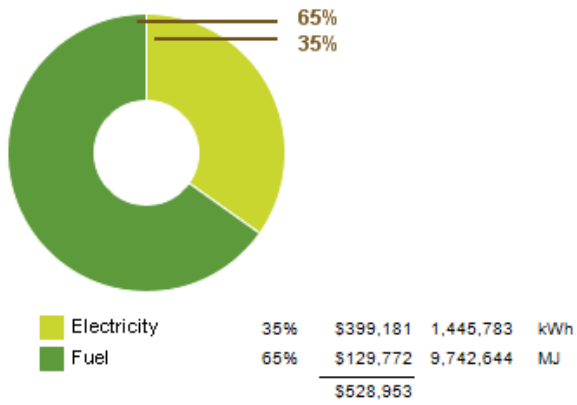
Roof Mounted PV System (Low efficiency):	153,344 kWh / yr
Roof Mounted PV System (Medium efficiency):	306,688 kWh / yr
Roof Mounted PV System (High efficiency):	460,032 kWh / yr
Single 15' Wind Turbine Potential:	933 kWh / yr

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

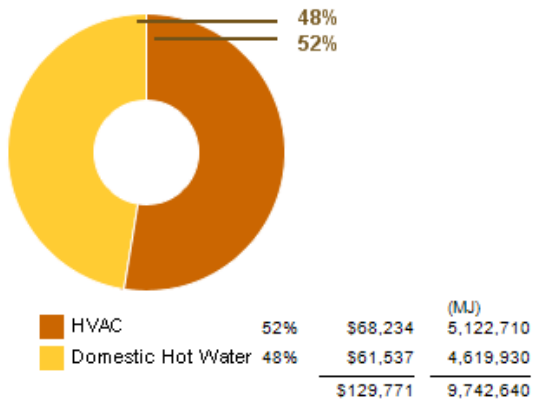
Annual Carbon Emissions



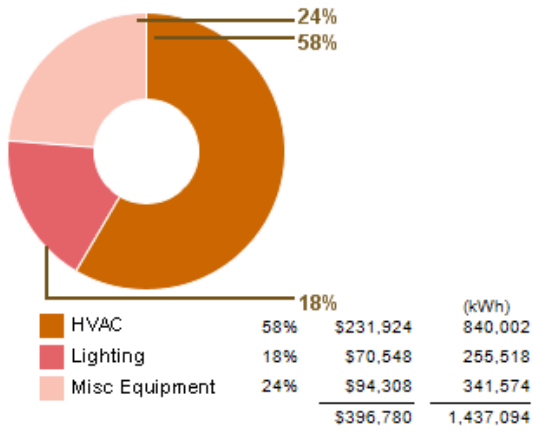
Annual Energy Use/Cost



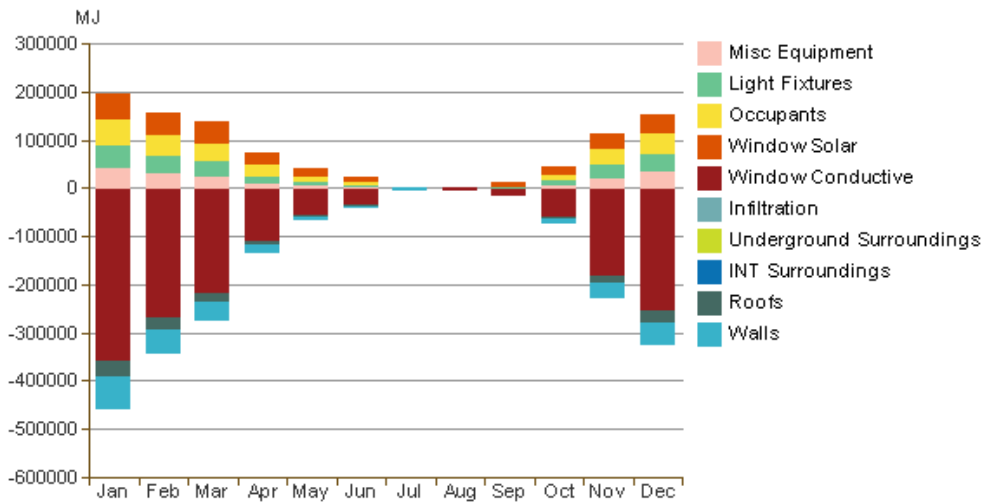
Energy Use: Fuel



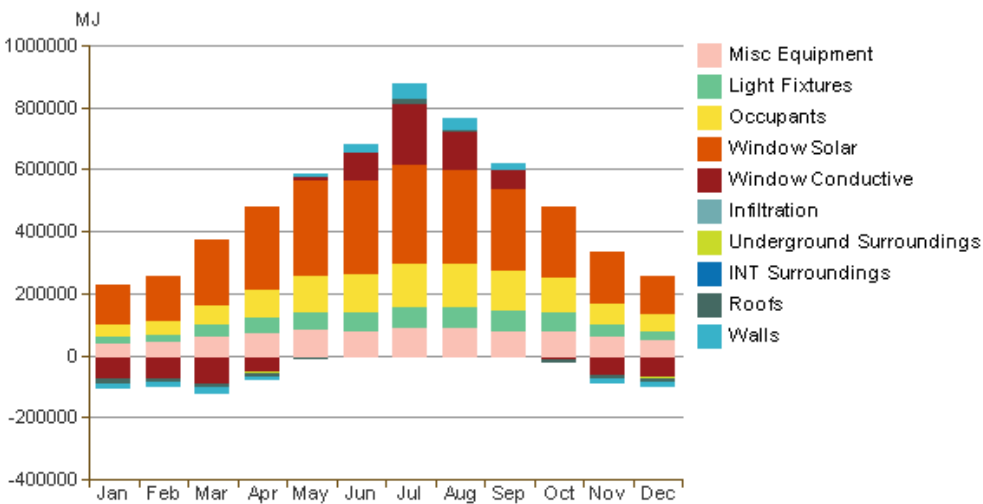
Energy Use: Electricity



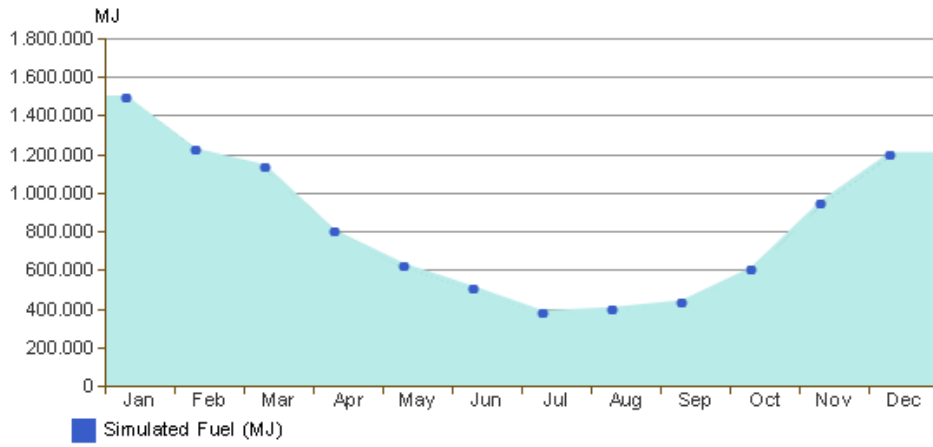
Monthly Heating Load



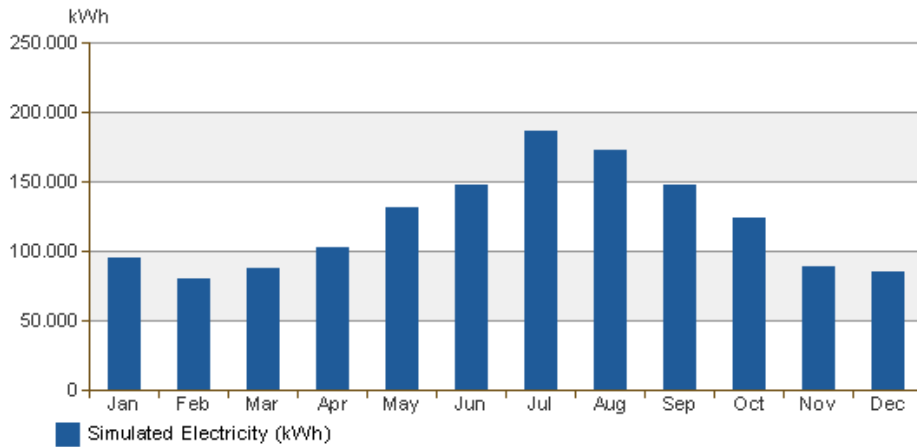
Monthly Cooling Load



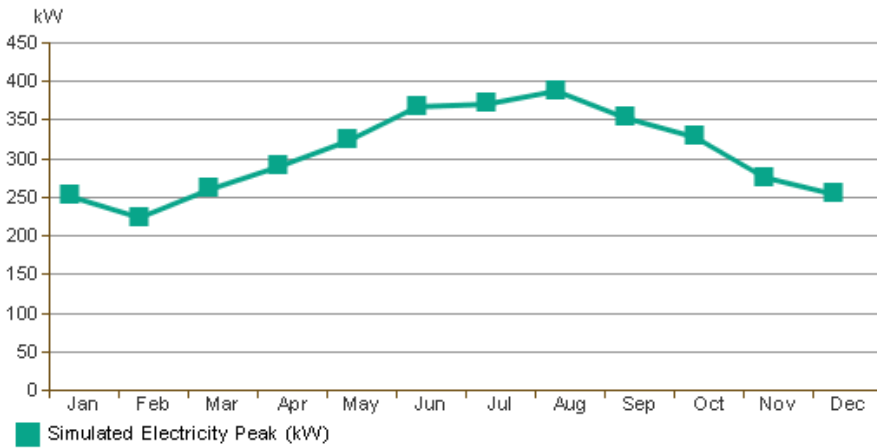
Monthly Fuel Consumption



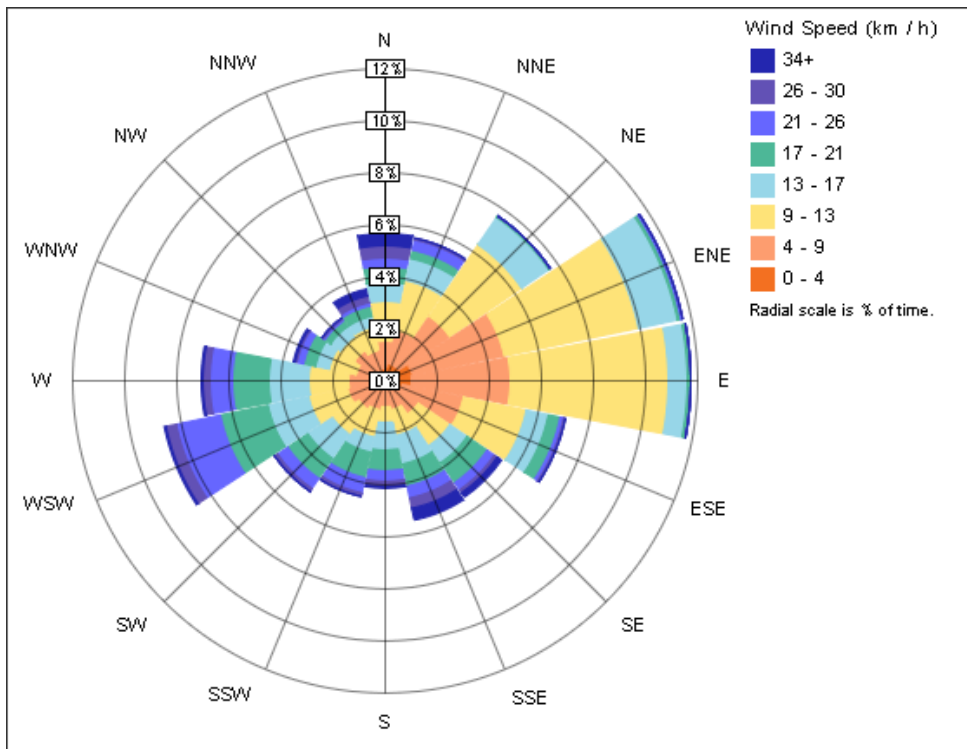
Monthly Electricity Consumption



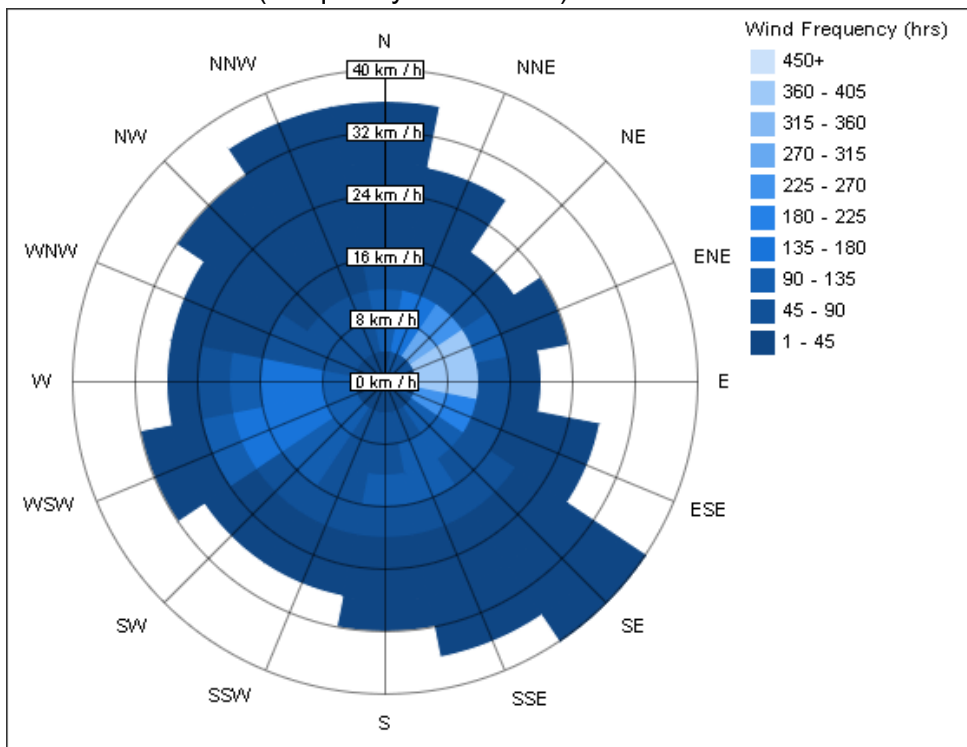
Monthly Peak Demand



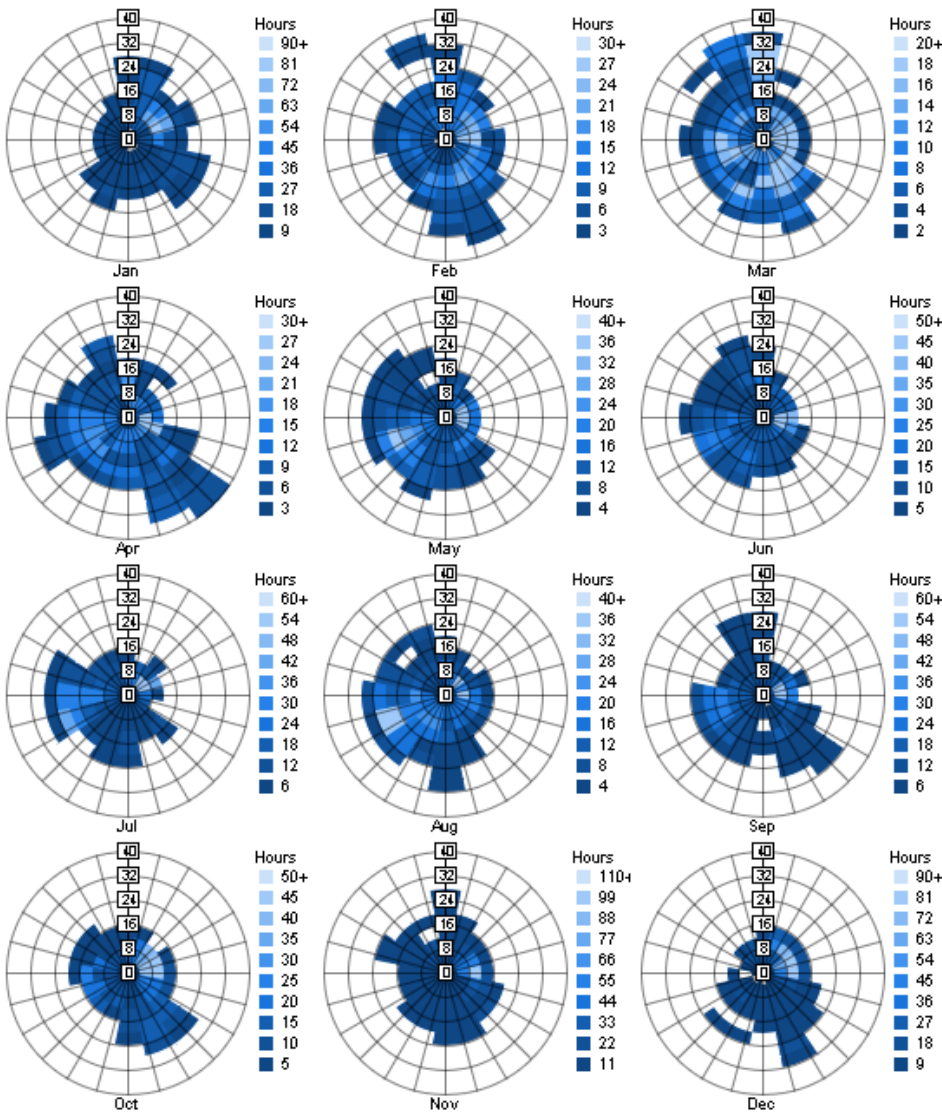
Annual Wind Rose (Speed Distribution)



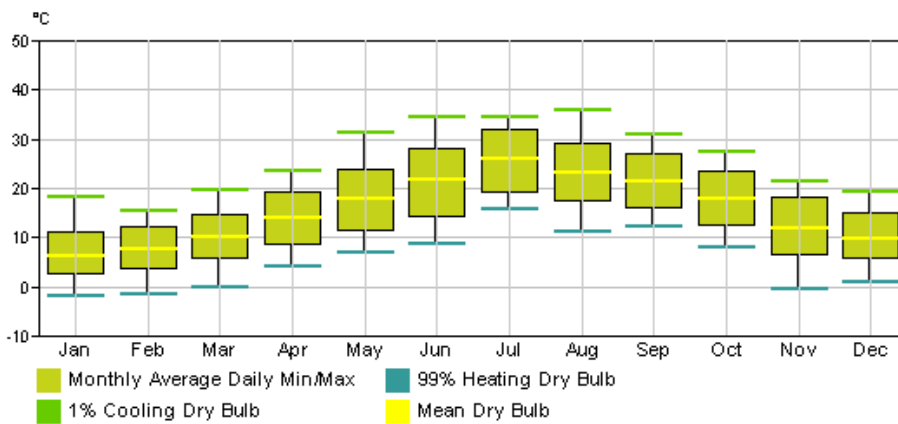
Annual Wind Rose (Frequency Distribution)



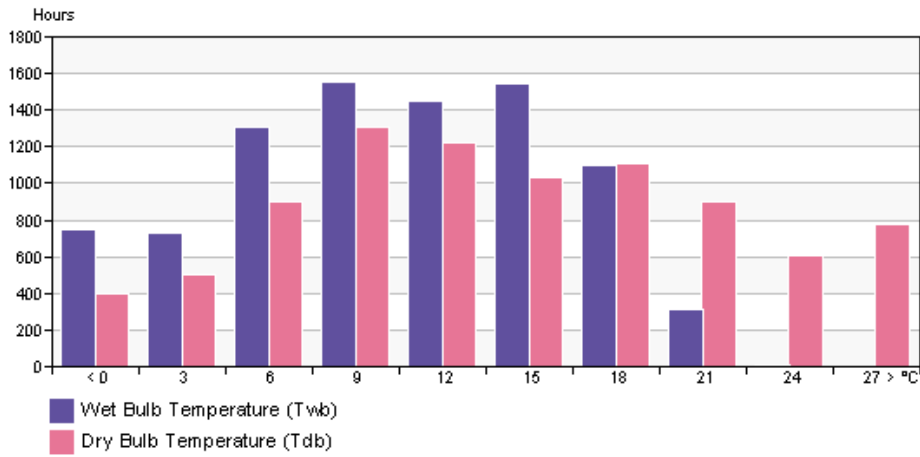
Monthly Wind Roses



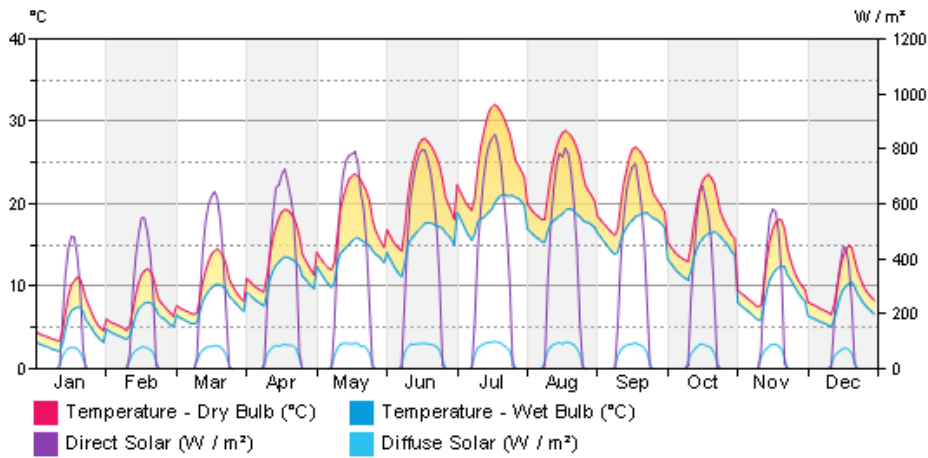
Monthly Design Data



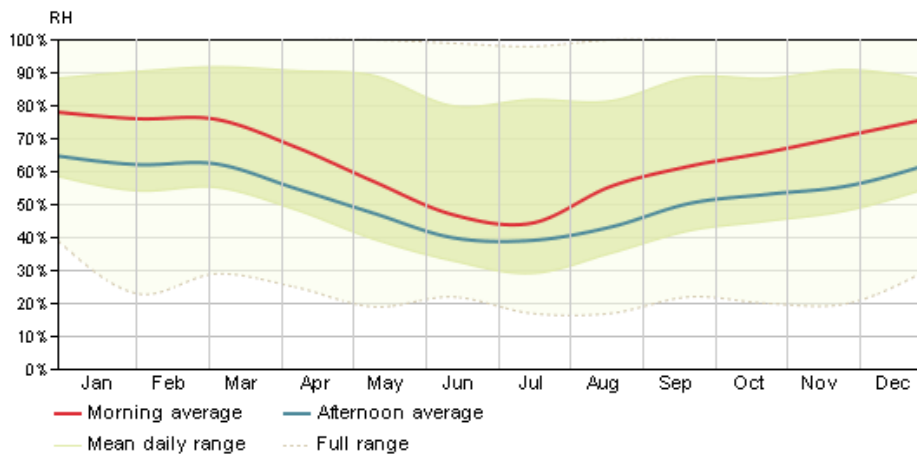
Annual Temperature Bins



Diurnal Weather Averages



Humidity



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