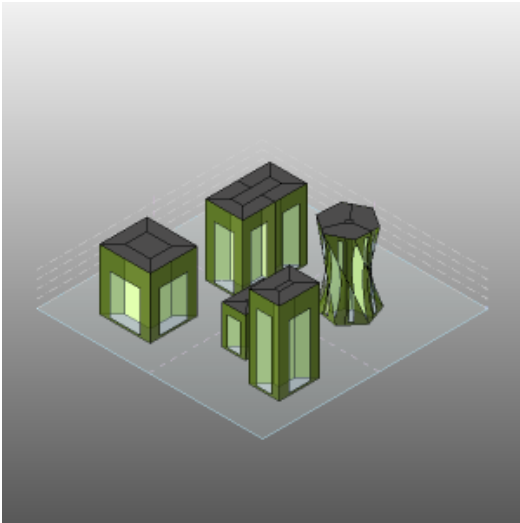


Project4

Project4 Analysis (1)

Analyzed at 11/29/2011 11:39:30 AM

Mass



Building Performance Factors

Location:	Belgrade, Serbia
Weather Station:	171981
Outdoor Temperature:	Max: 94°F/Min: 6°F
Floor Area:	11,806 sf
Exterior Wall Area:	72,986 sf
Average Lighting Power:	1.01 W / ft ²
People:	38 people
Exterior Window Ratio:	0.40
Electrical Cost:	\$0.09 / kWh
Fuel Cost:	\$0.78 / Therm

Energy Use Intensity

Electricity EUI:	47 kWh / sf / yr
Fuel EUI:	287 kBtu / sf / yr
Total EUI:	446 kBtu / sf / yr

Life Cycle Energy Use/Cost

Life Cycle Electricity Use:	16,590,762 kWh
Life Cycle Fuel Use:	1,014,833 Therms
Life Cycle Energy Cost:	\$1,068,352

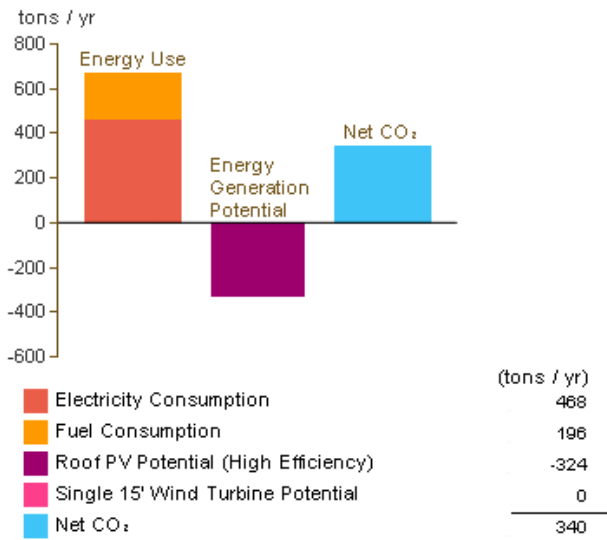
*30-year life and 6.1% discount rate for costs

Renewable Energy Potential

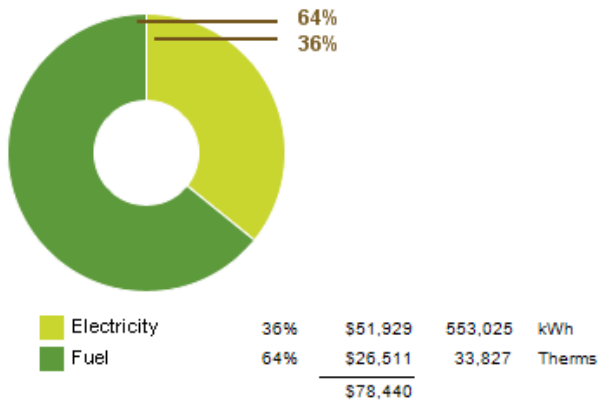
Roof Mounted PV System (Low efficiency):	127,836 kWh / yr
Roof Mounted PV System (Medium efficiency):	255,671 kWh / yr
Roof Mounted PV System (High efficiency):	383,507 kWh / yr
Single 15' Wind Turbine Potential:	670 kWh / yr

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

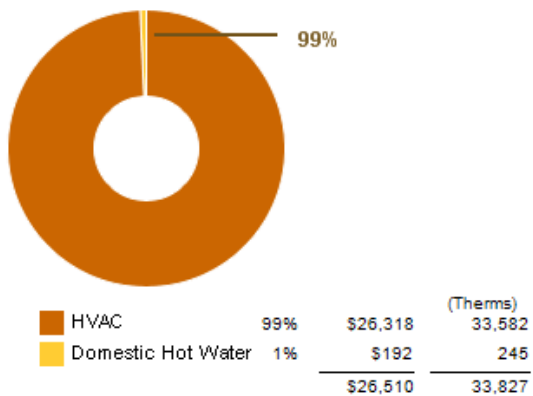
Annual Carbon Emissions



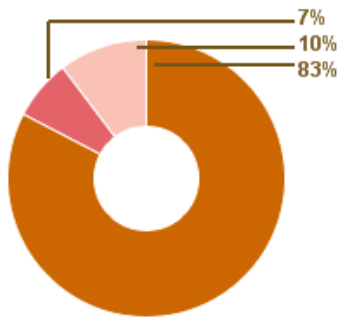
Annual Energy Use/Cost



Energy Use: Fuel

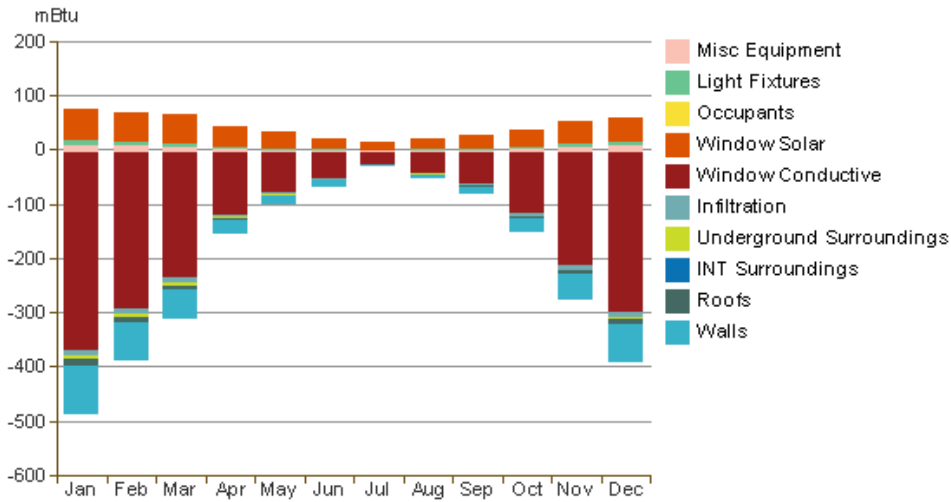


Energy Use: Electricity

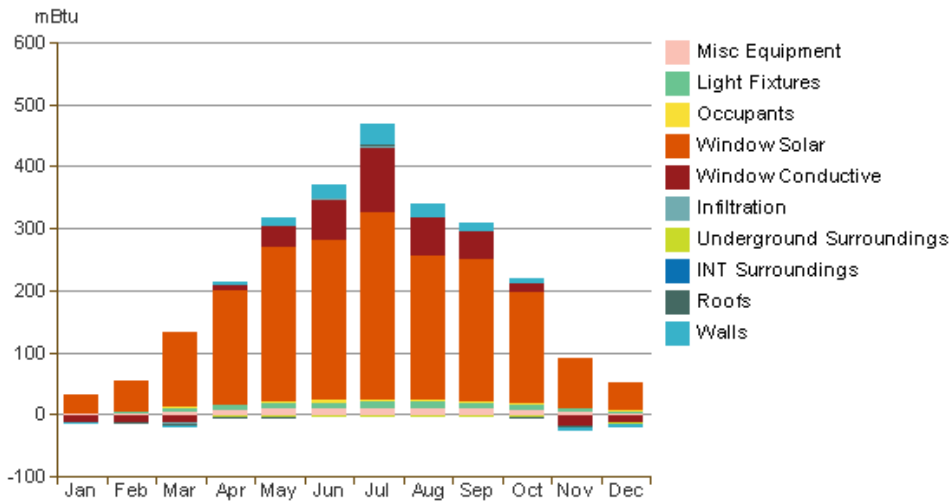


			(kWh)
HVAC	83%	\$42,917	457,052
Lighting	7%	\$3,656	38,943
Misc Equipment	10%	\$5,355	57,031
		\$51,928	553,026

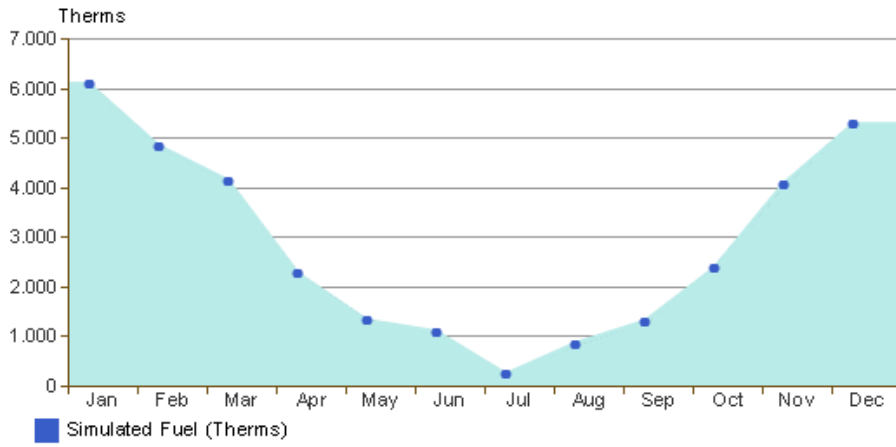
Monthly Heating Load



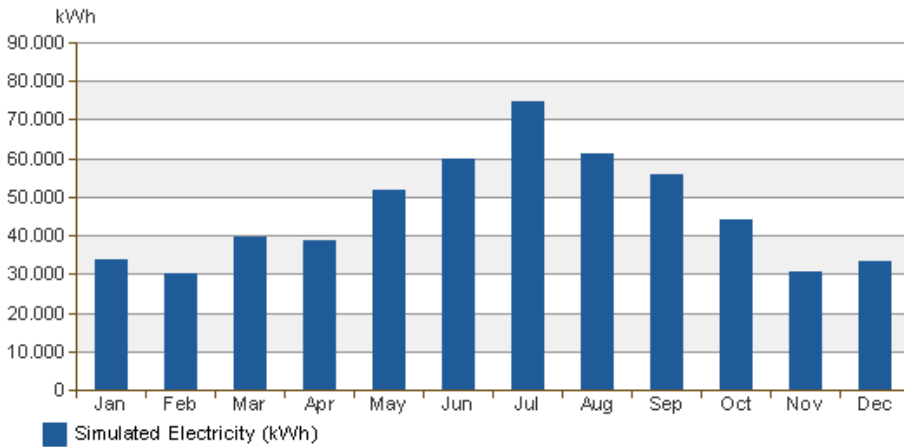
Monthly Cooling Load



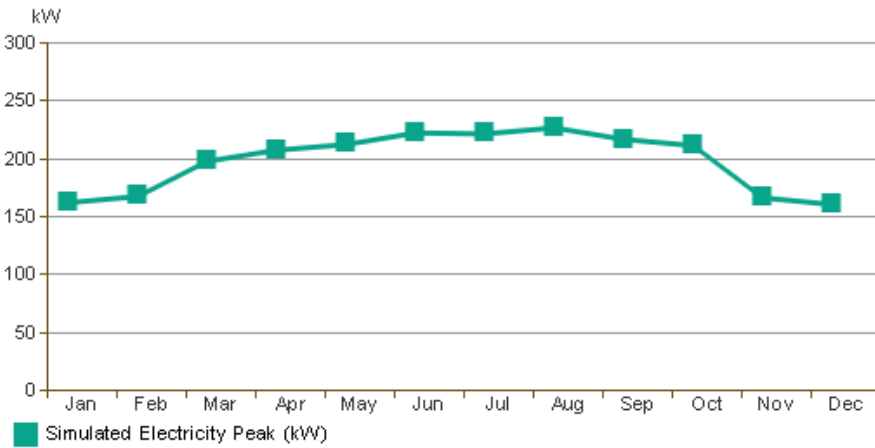
Monthly Fuel Consumption



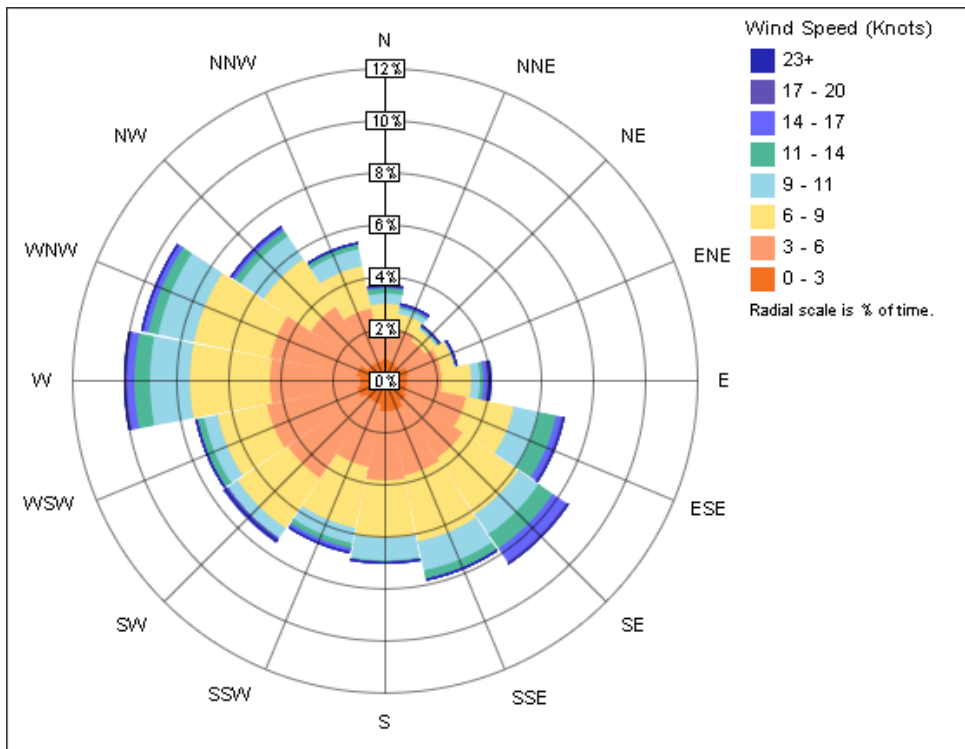
Monthly Electricity Consumption



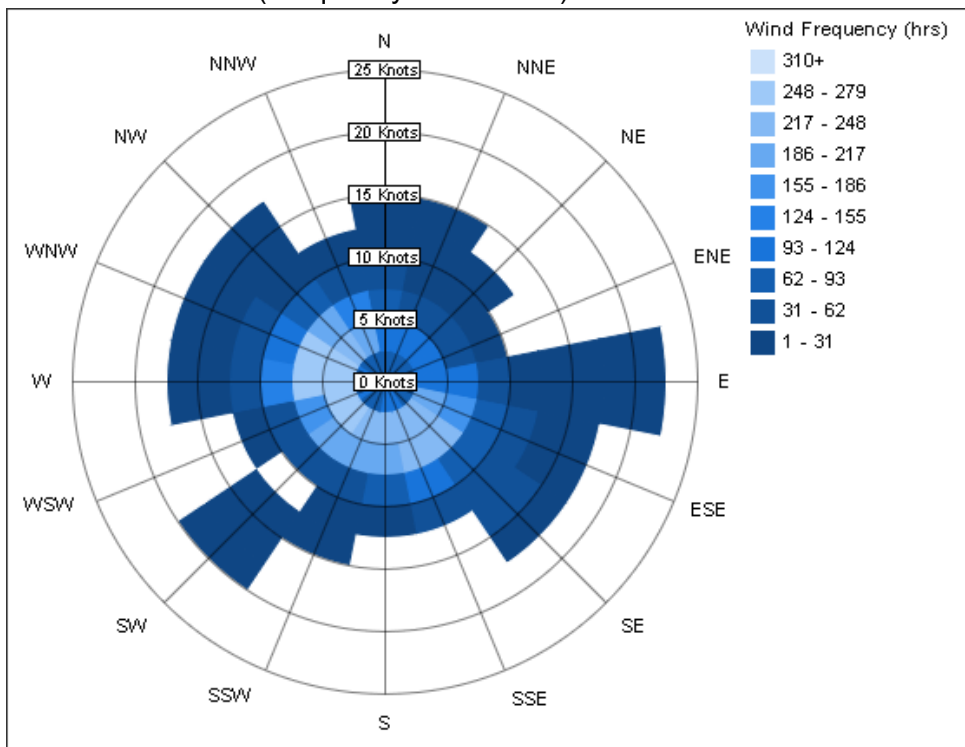
Monthly Peak Demand



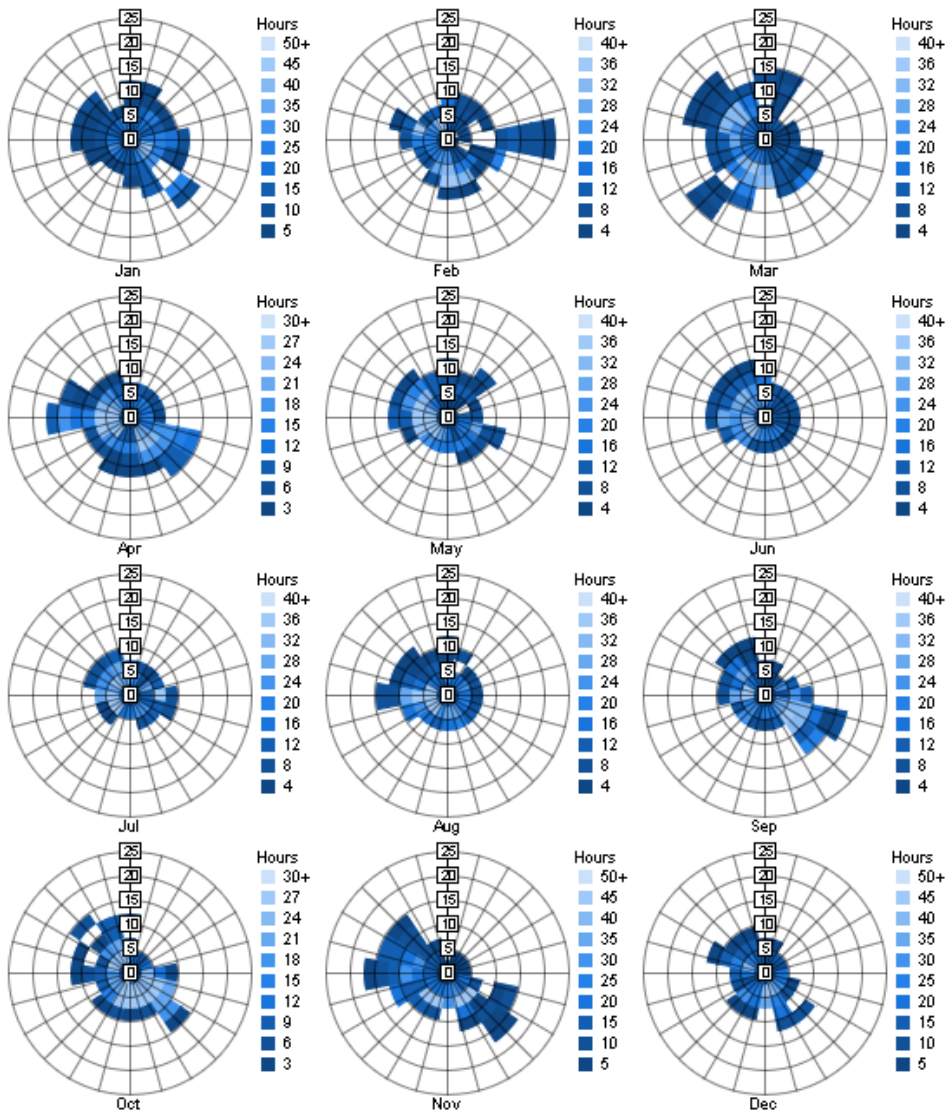
Annual Wind Rose (Speed Distribution)



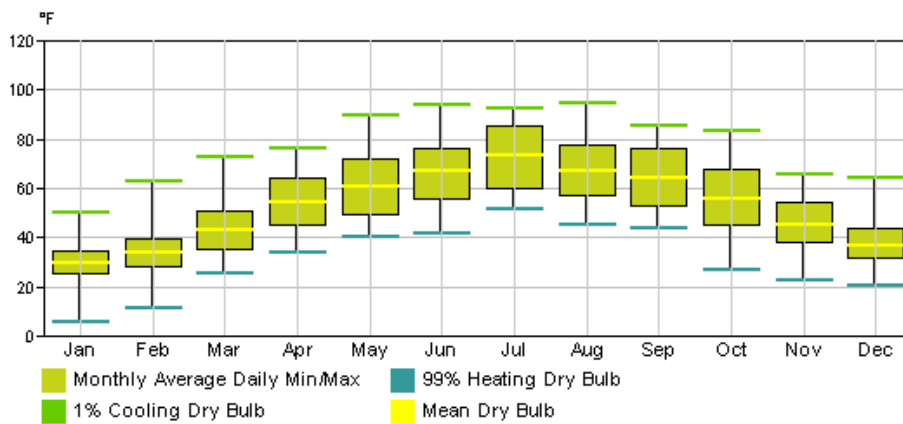
Annual Wind Rose (Frequency Distribution)



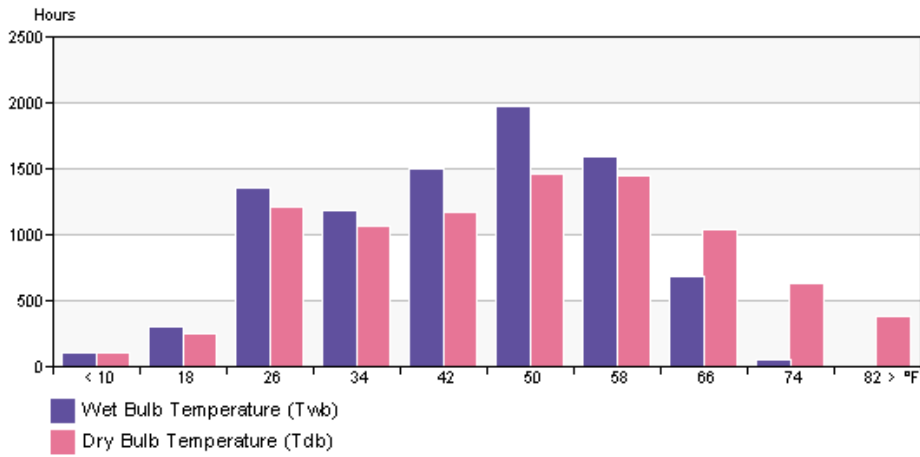
Monthly Wind Roses



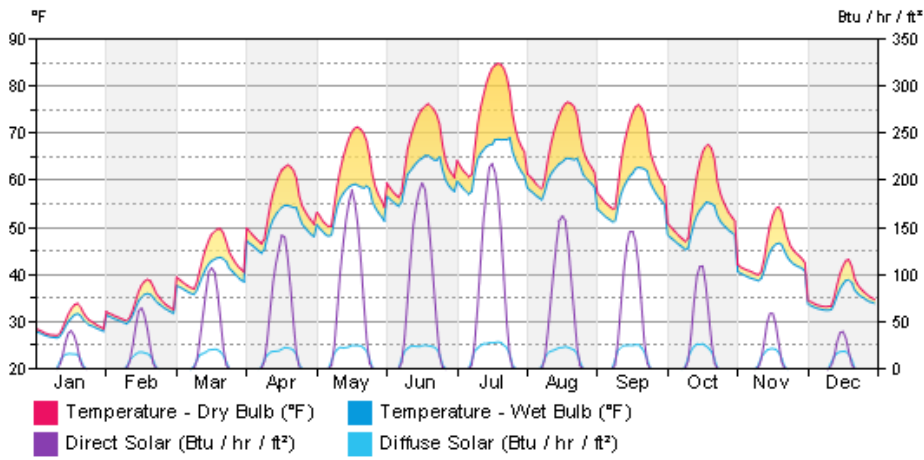
Monthly Design Data



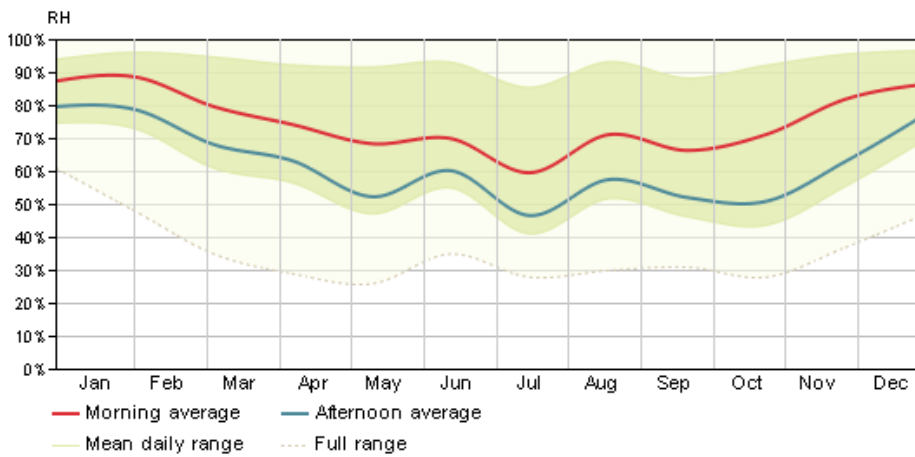
Annual Temperature Bins



Diurnal Weather Averages



Humidity



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