



Select a state	Arizona 
Select a city	Phoenix 
Click to see <a href="#">Data for All 235 Locations</a>	
R-Value of coated roof [h·ft <sup>2</sup> ·°F/Btu]	18.5
Solar reflectance [%]	80
Infrared emittance [%]	95
Average summertime cost of electricity [\$/KWh]	.081
Air conditioner COP [fraction >1]	3.5
Energy source for heating	<input checked="" type="radio"/> Electricity <input type="radio"/> Fuel
.....Average wintertime cost of electricity [\$/KWh]	.081
OR Fuel cost [\$/Therm]	
Heating system efficiency [fraction]	3.5

**Do Calculation for Coated Roof**

Heating degree days for city chosen	1153.5
Cooling degree days for city chosen	3814.5
Average solar load for city chosen [Btu/ft <sup>2</sup> per day]	1838.6
Cooling load for uncoated roof [Btu/ft <sup>2</sup> per yr]	9716
Heating load for uncoated roof [Btu/ft <sup>2</sup> per yr]	2434
Cooling load for coated roof [Btu/ft <sup>2</sup> per yr]	2483
Heating load for coated roof [Btu/ft <sup>2</sup> per yr]	2874
Cooling savings for coated roof [\$/ft <sup>2</sup> per yr]	0.0491
Heating savings for coated roof [\$/ft <sup>2</sup> per yr]	-0.003
Net savings for coated roof [\$/ft <sup>2</sup> per yr]	0.0461
Assumes R-value of uncoated roof [h·ft <sup>2</sup> ·°F/Btu]	18.5

Alternately, for same net savings with conventional insulation

**Do Calculation for More Insulation in Uncoated Roof**

R-value of uncoated roof [h·ft <sup>2</sup> ·°F/Btu] for same net savings	34.5
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