

Design Indoor Cooling Temp. : 75 °F  
 Design Outdoor Cooling Temp. : 88 °F  
 Temp. Difference Cooling : 13°F  
 Indoor Humidity: 50 Grains difference: 24

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**250 High Range Road**  
 Area: Manchester Grenier Air Force Base, NH  
 Front Door Orientation West

Design Indoor Heating Temp. : 65 °F  
 Design Outdoor Heating Temp. : -3 °F  
 Temp. Difference Heating : 68° F

## Whole House Load Calculator

TD:Cool:13°F Heat:68°F	Sq. ft. - types 1 and 2		shading	Sq. ft. - types 1 and 2		shading	Sq. ft. - types 1 and 2		Sq. ft.
Outside Wall: North	1: 176	2:	Windows x	1: 9	2:	Glass Doors x	1:	2:	Doors
Outside Wall: South	1: 176	2:	Windows U	1: 18	2:	Glass Doors U	1:	2:	Doors
Outside Wall: E & W	1: 832	2:	Windows U	1: 113	2:	Glass Doors U	1: 84	2:	Doors
Outside Wall: NE& NW	1:	2:	Windows x	1:	2:	Glass Doors x	1:	2:	Doors
Outside Wall: SE& SW	1:	2:	Windows U	1:	2:	Glass Doors U	1:	2:	Doors
Sky Lights	N:	S:	E-W:	NE-NW:	SE-SW:				
Floor - (linear ft. if slab)	1: 1100	2:	<b>Basement</b>	Walls-above grade: 888	below grade: 296	sq. ft.			
Ceiling	1: 1100	2:	<b>Basement</b>	Floor -- 1100	width 23ft. or	feet below grade: 2 ft.			
Number of: Appliances	4	Fireplaces 0							
Number of People	3	Fresh air	recommended: 70cfm →	CFM					
Conditioned - Sq. ft.:	2200	Cubic. Ft.:	17600	Construction:	good	Duct system:			
<b>Calculate Load</b>		Total Btu's Cooling <b>23862</b>		Sensible Load <b>22735</b>		Latent Load <b>1127</b>		Total Btu's Heating <b>30380</b>	

### Btu breakdown

	Sensible	Latent	Heating
walls	1878		5940
windows	8659		5426
ceilings	990		1346
doors	0		0
floors	0		0
appliances	4800		
people	690	600	
glass doors	4116		3427
skylights	0		0
basement walls	1140		7991
basement floor	0		1421
infiltration	461	527	4827
fresh air	0	0	0
duct load	0	0	0
<b>Totals</b>	<b>22735</b>	<b>1127</b>	<b>30380</b>

### Structure types

Outside Walls 1: Siding or Stucco R13 insulation  
 Outside Walls 2:  
 Windows 1: double pane no internal shade  
 Windows 2:  
 Glass Doors 1: double pane french door  
 Glass Doors 2:  
 Floors 1:  
 Floor 2:  
 Ceiling 1: Ceiling under attic space R-56  
 Ceiling 2:  
 Doors:  
 Skylights:  
 Basement Walls: block brick or concrete - R13 insulation  
 Basement Floor: R3 or higher insulation  
 Win ht.: 3' 6" Overhang: 1' Top to overhang: 1'