



Project Name: A nice old house in the hot Florida sun

Address: 3902 Palazzo Street, Sebring, FL

OUTDOOR DESIGN CONDITIONS

Weather station: Lakeland CO

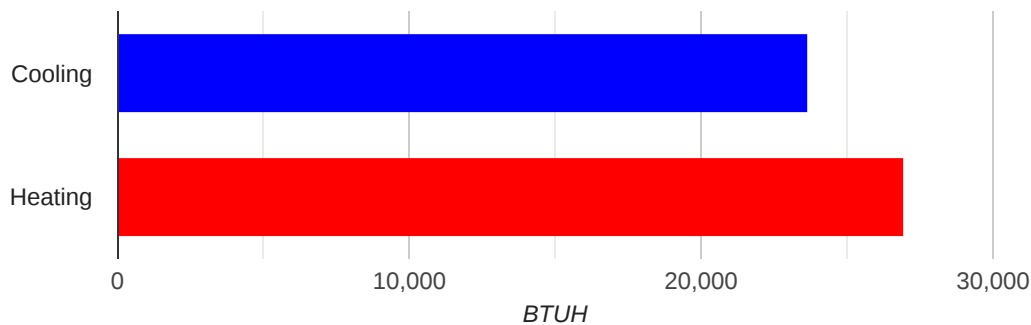
Summer Outdoor F:	91	Summer Indoor F:	75	Design Grains:	47	Daily Range:	Medium
Winter Outdoor F:	41	Winter Indoor F:	70	Cooling RH:	50	Elevation (Ft):	214

LOAD CALCULATION TOTALS

HVAC System: A sweet system

Heated square footage:	1,685	Heating BTUH:	26,922
Cooled square footage:	1,685	Cooling BTUH:	23,598
Heated volume (above grade CF):	16,633	CFM:	1,034
Cooled volume (above grade CF):	16,633	Sensible cooling:	20,481
Exposed wall area (SF):	1,470	Latent cooling:	3,116
		SHR:	0.868

Load Calculation



Approved ACCA MJ8 Calculations

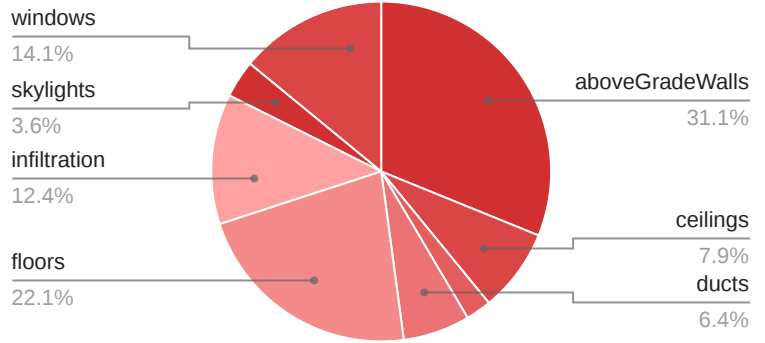
Calculations are based on the ACCA Manual J 8th Edition and are approved by ACCA. All computed calculations are estimates on building use, weather data, and inputted values such as R-Values, window types, duct loss, etc. Equipment selections should meet both the latent and sensible gain as well as building heat loss.



HEATING AND COOLING LOADS

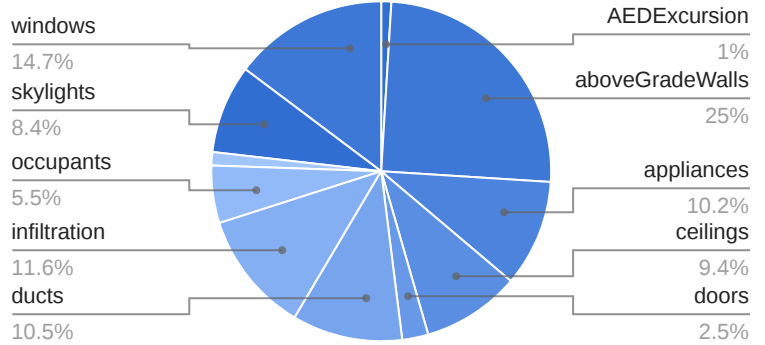
HEATING LOADS		
SECTION	AREA	HEAT LOSS
aboveGradeWalls	1,579.8	8,384
ceilings	1,673.4	2,135
doors	48	654
ducts	0	1,714
floors	1,685.4	5,955
infiltration	0	3,338
skylights	12	957
windows	150	3,785
Totals		26,922

Heating Loads



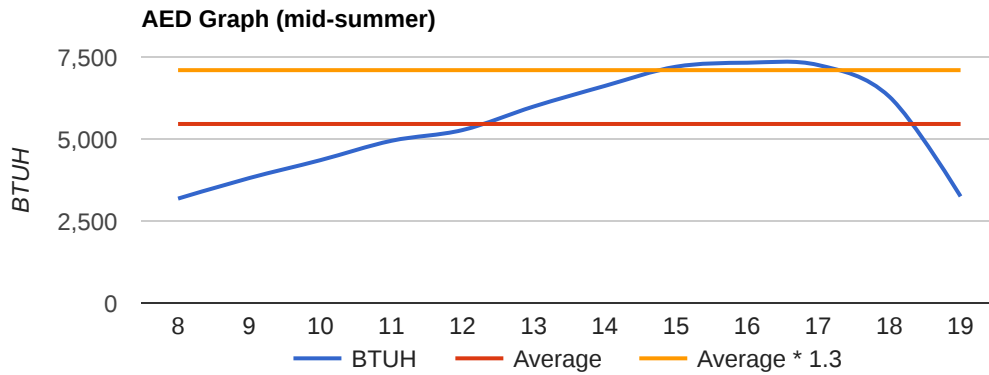
COOLING LOADS			
SECTION	AREA	SENSIBLE	LATENT
AEDExcursion	0	227	0
aboveGradeWalls	1,579.8	5,910	0
appliances	0	2,400	0
ceilings	1,673.4	2,209	0
doors	48	587	0
ducts	0	2,018	456
floors	1,685.4	0	0
infiltration	0	969	1,760
occupants	0	690	600
plants	0	0	300
skylights	12	1,993	0
windows	150	3,479	0
Totals		20,481	3,116

Cooling Loads

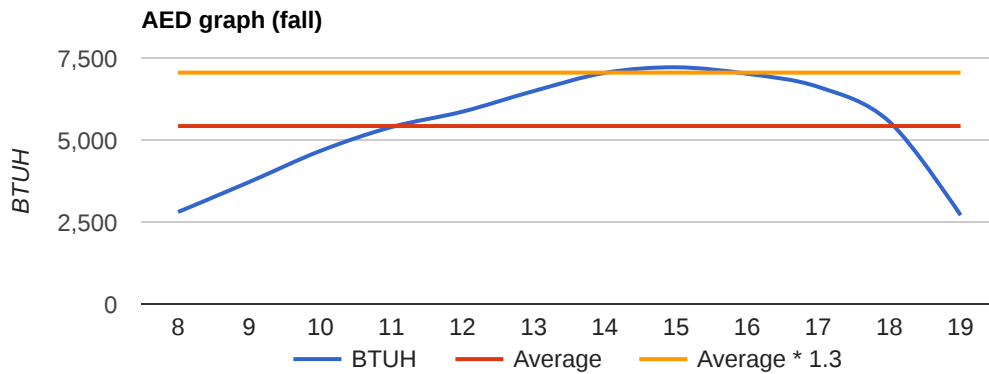


FENESTRATION LOADS

Warning (0): This application has glass areas that produced relatively large cooling loads for part of the day. Zoning may be required to overcome spikes in solar load for one or more rooms. A zoned system may be required, or some rooms may require zone control (provided by individual, motorized, thermostatically controlled dampers).



This graph represents hourly aggregate fenestration loads in mid-summer.



This graph represents hourly aggregate fenestration loads in October.

COMPONENT LOADS

ABOVE GRADE WALLS					
Map trace wall Block Wall, None framing, None cavity insulation, Stucco or Siding.	Construction nr: U Value:	13AB-0fc s 0.183	Exposure: Area:	N 85.5	Heating BTUH: 454 Cooling BTUH: 272
Map trace wall Block Wall, None framing, None cavity insulation, Stucco or Siding.	Construction nr: U Value:	13AB-0fc s 0.183	Exposure: Area:	E 88.9	Heating BTUH: 472 Cooling BTUH: 283
Map trace wall Block Wall, None framing, None cavity insulation, Stucco or Siding.	Construction nr: U Value:	13AB-0fc s 0.183	Exposure: Area:	W 89.6	Heating BTUH: 476 Cooling BTUH: 285
Map trace wall Block Wall, None framing, None cavity insulation, Stucco or Siding.	Construction nr: U Value:	13AB-0fc s 0.183	Exposure: Area:	N 145	Heating BTUH: 770 Cooling BTUH: 462
Map trace wall Block Wall, None framing, None cavity insulation, Stucco or Siding.	Construction nr: U Value:	13AB-0fc s 0.183	Exposure: Area:	N 143.8	Heating BTUH: 763 Cooling BTUH: 458
Map trace wall Block Wall, None framing, None cavity insulation, Stucco or Siding.	Construction nr: U Value:	13AB-0fc s 0.183	Exposure: Area:	E 283	Heating BTUH: 1,502 Cooling BTUH: 901
Map trace wall Block Wall, None framing, None cavity insulation, Stucco or Siding.	Construction nr: U Value:	13AB-0fc s 0.183	Exposure: Area:	S 308	Heating BTUH: 1,635 Cooling BTUH: 1,860
Map trace wall Block Wall, None framing, None cavity insulation, Stucco or Siding.	Construction nr: U Value:	13AB-0fc s 0.183	Exposure: Area:	S 148	Heating BTUH: 785 Cooling BTUH: 471
Map trace wall Block Wall, None framing, None cavity insulation, Stucco or Siding.	Construction nr: U Value:	13AB-0fc s 0.183	Exposure: Area:	W 288	Heating BTUH: 1,528 Cooling BTUH: 917

BELOW GRADE WALLS

There are no components for this section.

WINDOWS

Default medium windows for wall id 75836 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 48 N	U Value: SHGC:	0.87 0.67	Heating BTUH: 1,211 Cooling BTUH: 970
Default small windows for wall id 75836 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 18 N	U Value: SHGC:	0.87 0.67	Heating BTUH: 454 Cooling BTUH: 364
Default medium windows for wall id 75837 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 12 E	U Value: SHGC:	0.87 0.67	Heating BTUH: 303 Cooling BTUH: 441

WINDOWS

Default medium windows for wall id 75835 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 12 W	U Value: SHGC:	0.87 0.67	Heating BTUH: Cooling BTUH:	303 497
Default medium windows for wall id 75834 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 24 N	U Value: SHGC:	0.87 0.67	Heating BTUH: Cooling BTUH:	606 485
Default medium windows for wall id 75832 Window, NFRC rated, Clear glass.	Construction nr: Area: Exposure:	1G 36 S	U Value: SHGC:	0.87 0.67	Heating BTUH: Cooling BTUH:	908 722

Window cooling BTUHs shown here are daily average values. See AED graphs for details of fenestration loads during the day.

CEILINGS

Map trace generated ceiling Ceiling under attic or attic knee wall, Asphalt shingles, Light, R-21.	Construction nr: U Value:	16DR-21 al 0.044	Area:	220.8	Heating BTUH: Cooling BTUH:	282 291
Map trace generated ceiling Ceiling under attic or attic knee wall, Asphalt shingles, Light, R-21.	Construction nr: U Value:	16DR-21 al 0.044	Area:	1,452.6	Heating BTUH: Cooling BTUH:	1,854 1,917

SKYLIGHTS

Default skylight(s) for ceiling id 23438. Flat, Clear glass, Double pane.	Construction nr:	8Bc-5"	Exposure: Area:	W 12	Heating BTUH: Cooling BTUH:	957 1,993
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Skylight cooling BTUHs shown here are daily average values. See AED graphs for details of fenestration loads during the day.

DOORS

Default doors for wall id 75836 Wood Door, Hollow Core.	Construction nr: U Value:	11 0.47	Area: Exposure:	24 N	Heating BTUH: Cooling BTUH:	327 293
Default doors for wall id 75832 Wood Door, Hollow Core.	Construction nr: U Value:	11 0.47	Area: Exposure:	24 S	Heating BTUH: Cooling BTUH:	327 293

FLOORS

Map trace generated floor Concrete slab on grade floor.	Construction nr: Area:	22A-ph 220.8	Heating U Value: Cooling U Value:	0 0	Heating BTUH: Cooling BTUH: F Value:	1,654 0 1.358
Map trace generated floor Concrete slab on grade floor.	Construction nr: Area:	22A-ph 1,464.6	Heating U Value: Cooling U Value:	0 0	Heating BTUH: Cooling BTUH: F Value:	4,301 0 1.358

VENTILATION

There are no components for this section.

HOT WATER PIPING

There are no components for this section.

DUCTS

System generated ducts (above conditioned space) Attic - Radial	EHLF: ESGF: ELG:	0.068 0.111 456	Heating BTUH: Sensible BTUH: Latent BTUH:	1,714 2,018 456
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INFILTRATION

Leakage Category:	Average	NCFM Heating:	105	Heating BTUH:	3,338
		NCFM Cooling:	55	Sensible BTUH:	969
				Latent BTUH:	1,760

BLOWER MOTOR

There are no components for this section.

WINTER HUMIDIFICATION

There are no components for this section.

OCCUPANTS

Nr. Occupants:	3	Sensible BTUH:	690	Latent BTUH:	600
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APPLIANCES

Standard kitchen and utility room, lighting: 2,400 BTUH	Quantity:	Sensible BTUH:	2,400
		Latent BTUH:	

PLANTS

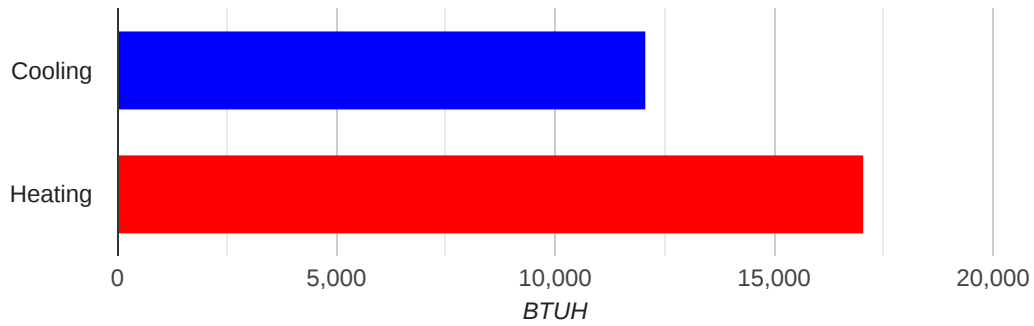
Plant Size:	small	Quantity:	5	Latent BTUH:	50
Plant Size:	medium	Quantity:	5	Latent BTUH:	100
Plant Size:	large	Quantity:	5	Latent BTUH:	150

ROOM DETAIL

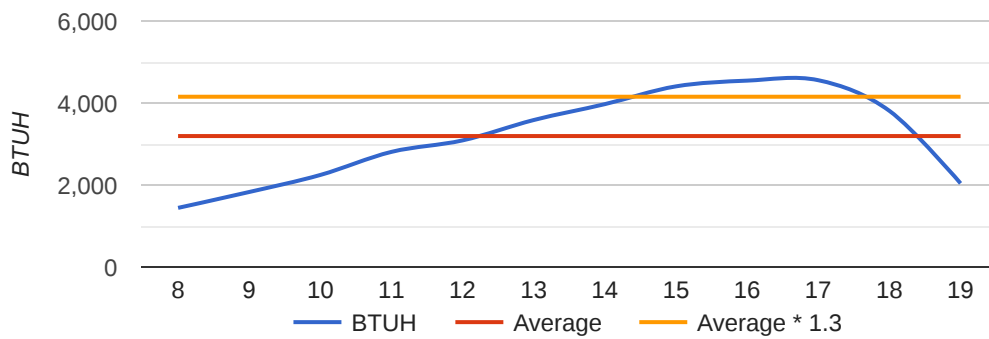
Room name: A room with a Sony TV

Heated square footage:	1,465	Total Cooling BTUH:	12,041
Cooled square footage:	1,465	Total Heating BTUH:	17,018
Heated volume (above grade CF):	14,646	CFM:	608
Cooled volume (above grade CF):	14,646		
Exposed wall area (SF):	1,092		

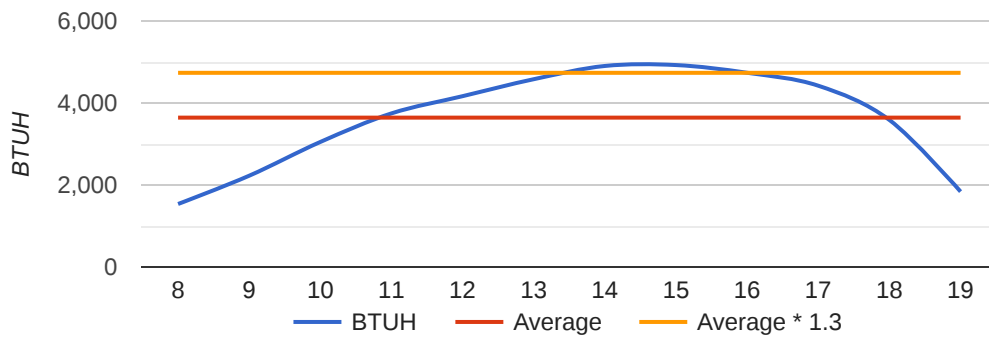
Load Calculation



AED Graph (mid-summer)



AED graph (fall)

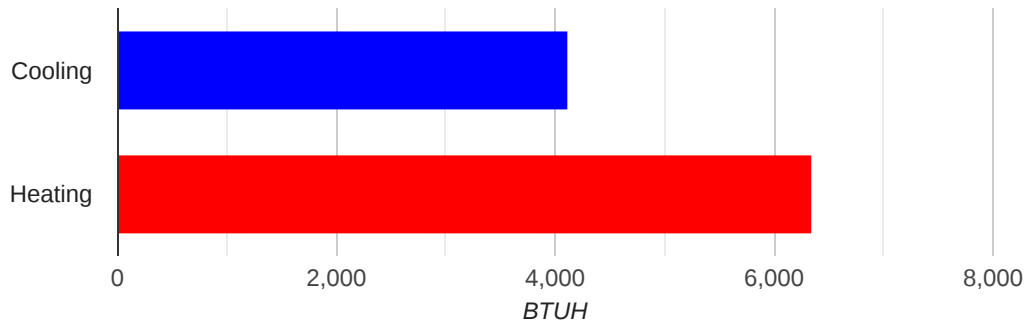


ROOM DETAIL

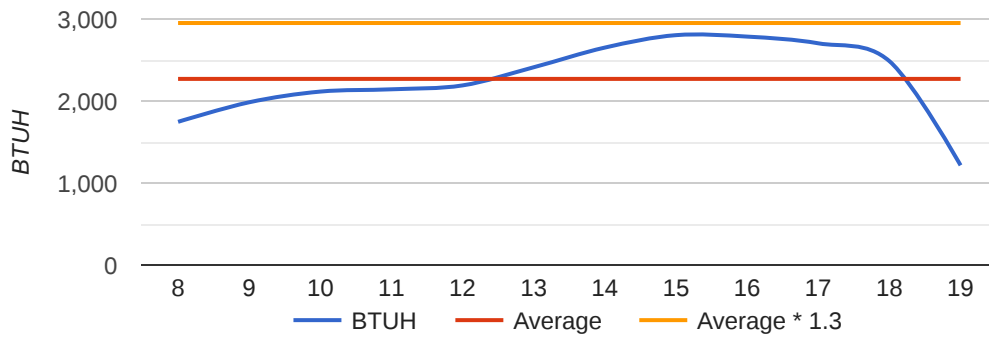
Room name: Anny's room

Heated square footage:	221	Total Cooling BTUH:	4,107
Cooled square footage:	221	Total Heating BTUH:	6,338
Heated volume (above grade CF):	1,987	CFM:	207
Cooled volume (above grade CF):	1,987		
Exposed wall area (SF):	378		

Load Calculation



AED Graph (mid-summer)



AED graph (fall)

