

STERN0002
HVAC Load Analysis

for

Mike Sterner
815 8th Ave West
Washburn, WI 54891

Prepared By:

Monday, April 12, 2021



General Project Data Input

General Project Information

Project file name: STERN Load Calcs 1.1 ACH Zola.CH8
 Project title: STERN0002
 Project address: 28470 Rustic Road
 Project city, state, ZIP: Washburn, WI, 54891
 Designed by: Lucas Mason
 Project date: Wednesday, March 24, 2021
 Weather reference city: EAU CLAIRE, WISCONSIN, USA
 Client name: Mike Sterner
 Client address: 815 8th Ave West
 Client city: Washburn, WI 54891

Barometric pressure: 29.172 in.Hg.
 Altitude: 700 feet
 Latitude: 46 Degrees
 Mean daily temperature range: 20.6 Degrees
 Starting & ending time for HVAC load calculations: 1am - 12am
 Number of unique rooms in this project: 20

Building Default Values

Calculations performed: Both heating and cooling loads
 Lighting requirements: 1.00 Watts per square foot
 Equipment requirements: 0.00 Watts per square foot
 People sensible load multiplier: 200 Btuh per person
 People latent load multiplier: 180 Btuh per person
 Room sensible safety factor: 0 %
 Room latent safety factor: 0 %
 Room heating safety factor: 0 %
 People diversity factor: 100 %
 Lighting profile number: 2
 Equipment profile number: 3
 People profile number: 1
 Building default ceiling height: 9.00 feet
 Building default wall height: 10.58 feet

Internal Operating Load Profiles (C = 100)

	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr	hr
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
2	10	10	10	10	10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	10	10	
3	30	30	30	30	30	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	50	50	30	30
4	0	0	0	0	0	C	C	C	C	C	0	0	0	0	0	0	0	0	C	C	C	C	0	0	
5	0	0	0	0	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	0	0	
6	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
8	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C



General Project Data Input (cont'd)

Building-Level Design Conditions

Design Month	Outdoor Dry Bulb	Outdoor Wet Bulb	Indoor Rel.Hum	Indoor Dry Bulb	Grains Diff	In/Outdoor Correction
August	89	75	50%	72	51.87	0
Winter	-25			70		

Master Roofs

Roof No.	ASHRAE Roof#	Roof U-Fac	Dark Color	Susp. Ceil
1	13	0.018	Yes	No
Roof #1 Description: Attic Roof R55				
2	13	0.019	Yes	No
Roof #2 Description: Roof Sloped				
3	13	0.026	Yes	No
Roof #3 Description: Garage Roof				

Master Walls

Wall No.	ASHRAE Group	Wall U-Fac	Wall Color
1	B	0.040	L
Wall #1 Description: Basement Wall Below Grade R25			
2	G	0.027	M
Wall #2 Description: Frame Wall Above Grade R37			
3	B	0.040	M
Wall #3 Description: Basement Wall Above Grade R25			
4	G	0.026	M
Wall #4 Description: Rim Joist Level 1&2 R38			
5	G	0.053	M
Wall #5 Description: Attic Wall R19			
6	G	0.143	M
Wall #6 Description: Exterior Door			
7	G	0.100	M
Wall #7 Description: Garage door			
8	C	0.067	M
Wall #8 Description: Basement Floor			
9	G	0.048	M
Wall #9 Description: Garage Wall			

Master Partitions

Partition No.	Partition U-Factor	Cool T-D	Heat T-D
1	0.040	63	30
Partition #1 Description: Basement Wall Below Grade			
2	0.027	18	45
Partition #2 Description: House wall to garage			
3	0.026	18	45
Partition #3 Description: Rim Joist to Garage			
4	0.143	18	45
Partition #4 Description: Door to garage			
5	0.053	17	95
Partition #5 Description: Attic Wall			
6	0.026	17	95
Partition #6 Description: Rim Joist Second Flr to Attic			
7	0.067	63	30
Partition #7 Description: Basement Floor			



General Project Data Input (cont'd)

Master Partitions

Master Glass

Glass No.	Summer U-Factor	Winter U-Factor	Glass Shd.Coef.	Interior Shading	Interior Shd.Coef
1	0.160	0.160	0.460	4	0.000
Glass #1 Description: Zola Fixed					
2	0.160	0.160	0.402	4	0.000
Glass #2 Description: Zola Operable					
3	0.180	0.180	0.287	4	0.000
Glass #3 Description: Loewen Fixed					
4	0.180	0.180	0.253	4	0.000
Glass #4 Description: Loewen Operable					
5	0.143	0.143	0.575	4	0.000
Glass #5 Description: Glass door					
6	0.500	0.500	0.805	2	0.000

Master Shading Devices

Shade No.	Dist Horiz Overh Projects	Dist Beyond Right W.Edge	Dist Beyond Left W.Edge	Dist Overh Above Wind	Dist Right Fin Proj	Dist R-Fin Beyond W.Edge	Ht Of Right Fin	Dist Left Fin Proj	Dist L-Fin Beyond W.Edge	Ht Of Left Fin
1	1.75	7.50	1.50	1.70	0.00	0.00	0.00	0.00	0.00	0.00
2	1.75	19.00	4.20	2.73	0.00	0.00	0.00	0.00	0.00	0.00
3	1.75	4.44	20.00	2.73	0.00	0.00	0.00	0.00	0.00	0.00
4	1.75	18.80	3.62	1.70	0.00	0.00	0.00	0.00	0.00	0.00
5	1.75	12.60	12.60	1.70	0.00	0.00	0.00	0.00	0.00	0.00
6	1.75	3.66	18.80	1.70	0.00	0.00	0.00	0.00	0.00	0.00
7	4.41	6.40	1.52	1.30	4.41	6.40	8.00	4.41	1.52	8.00
8	1.60	6.68	2.92	1.57	25.00	7.50	8.90	7.00	2.90	8.90
9	1.60	18.80	3.70	3.31	0.00	0.00	0.00	13.50	3.70	8.80
10	1.60	4.70	17.80	1.45	0.00	0.00	0.00	13.50	17.80	8.90
11	1.60	14.28	1.66	1.45	0.00	0.00	0.00	13.50	14.33	8.90
13	1.60	1.00	2.00	2.48	42.00	0.80	9.00	0.00	0.00	0.00



Room Input

Room 1: Entry 100 (104.9 sq.ft) (Zone 1)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	104.90
Lighting Watts:	105	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	9.00	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	105	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	14.00	5.59	78.3	No
2	1	13	0.018	Yes	14.00	1.90	26.6	No

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
1	2	0.027	18.000	45.000	9.00	8.04	72.4
5	3	0.0263	18.000	45.000	1.13	8.04	9.1
6(D)	4	0.1429	18.000	45.000	7.00	3.00	21.0

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
2	2	G	0.027	M	9.00	14.00	126.0	E
3(D)	6	G	0.143	M	7.00	3.45	24.2	E
4	4	G	0.026	M	1.13	14.00	15.8	E

Room 2: Laundry 101 (54.7 sq.ft) (Zone 2)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	54.70
Lighting Watts:	55	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	9.00	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	55	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	6.50	9.75	63.4	No

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
1	2	0.027	18.000	45.000	9.00	6.50	58.5
3	3	0.0263	18.000	45.000	1.13	6.50	7.3



Room Input (cont'd)

Room 2: Laundry 101 (54.7 sq.ft) (Zone 2)

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
2	2	G	0.027	M	9.00	9.75	87.8	W
4	4	G	0.026	M	1.13	9.75	11.0	W

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	4.00	3.00	1	12.0	8	90	2

Room 3: Pantry 102 (26.9 sq.ft) (Zone 3)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	26.90
Lighting Watts:	27	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	9.00	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	27	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	4.30	6.50	28.0	No

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	9.00	4.30	38.7	W
2	4	G	0.026	M	1.13	4.30	4.9	W

Room 4: Hallway 103, Back Entry 104_2 Closets (100 sq.ft) (Zone 4)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	100.00
Lighting Watts:	100	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	9.00	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	100	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	1.00	40.00	40.0	No



Room Input (cont'd)

Room 4: Hallway 103, Back Entry 104_2 Closets (100 sq.ft) (Zone 4)

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	9.00	12.90	116.1	N
2	4	G	0.026	M	1.13	12.90	14.6	N

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	3.30	2.50	1	8.3	9	90	1
2	5	0.143	0.575	7.00	3.00	1	21.0	11	90	1

Room 5: Bath 105 (62.1 sq.ft) (Zone 5)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width: (feet):	62.10
Lighting Watts:	62	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	9.00	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	62	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	1.00	62.10	62.1	No

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	9.00	12.00	108.0	N
2	4	G	0.026	M	1.13	12.00	13.6	N
3	2	G	0.027	M	9.00	6.29	56.6	W
4	4	G	0.026	M	1.13	6.29	7.1	W

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	3.30	2.50	1	8.3	10	90	1
2	1	0.160	0.460	2.00	2.00	1	4.0	0	90	3

Room 6: M. Bed 106_Closet (181 sq.ft) (Zone 6)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width: (feet):	181.00
Lighting Watts:	181	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	4	Equipment profile number:	3
Ceiling height (feet):	9.00	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0



Room Input (cont'd)

Room 6: M. Bed 106_Closet (181 sq.ft) (Zone 6)

Ceil. exposed to plenum (sq.ft): 181 Exposed floor slab perimeter (ft): 0
 Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	1.00	181.00	181.0	No

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	9.00	11.25	101.3	W
2	4	G	0.026	M	1.13	11.25	12.7	W
3	2	G	0.027	M	9.00	18.00	162.0	S
4	4	G	0.026	M	1.13	18.00	20.3	S

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	4.50	3.00	1	13.5	0	90	1
2	2	0.160	0.402	5.00	8.85	1	44.3	1	90	3

Room 7: Living 107 (254.4 sq.ft) (Zone 7)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	15.90	Room width (feet):	16.00
Lighting Watts:	254	Equipment Watts:	0
Number of people in room:	2	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	9.00	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	254	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	9.00	10.00	90.0	W
2	4	G	0.026	M	1.13	10.00	11.3	W
3	2	G	0.027	M	9.00	16.00	144.0	S
4	4	G	0.026	M	1.13	16.00	18.1	S

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	6.00	3.36	1	20.2	0	90	1
2	1	0.160	0.460	5.90	10.31	1	60.8	2	90	3

Room 8: Dining 108 (186.66 sq.ft) (Zone 8)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	15.30	Room width (feet):	12.20
Lighting Watts:	187	Equipment Watts:	0
Number of people in room:	1	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	9.00	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000



Room Input (cont'd)

Room 8: Dining 108 (186.66 sq.ft) (Zone 8)

Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	187	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	9.00	15.30	137.7	S
2	4	G	0.026	M	1.13	15.30	17.3	S
3	2	G	0.027	M	9.00	12.20	109.8	E
4	4	G	0.026	M	1.13	12.20	13.8	E
5(D)	6	G	0.143	M	7.00	6.50	45.5	E

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	5.00	8.86	1	44.3	3	90	1

Room 9: Kitchen 110 (236.8 sq.ft) (Zone 9)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	236.80
Lighting Watts:	355	Equipment Watts:	700
Number of people in room:	1	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	9.00	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	200
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	237	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	9.00	14.80	133.2	E
2	4	G	0.026	M	1.13	14.80	16.7	E
3	2	G	0.027	M	9.00	10.20	91.8	N
4	4	G	0.026	M	1.13	10.20	11.5	N

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	4.00	8.89	1	35.6	12	90	1
2	2	0.160	0.402	4.00	3.00	1	12.0	13	90	3

Room 10: Garage 111 (734.41 sq.ft) (Zone 10)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	27.10	Room width (feet):	27.10
Lighting Watts:	734	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	11.75	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180



Room Input (cont'd)

Room 10: Garage 111 (734.41 sq.ft) (Zone 10)

Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	6.000
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	6.000
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	734	Exposed floor slab perimeter (ft):	98

Heating loads only are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	3	13	0.026	Yes	27.10	27.10	734.4	No

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	9	G	0.048	M	11.75	11.50	135.1	S
2	9	G	0.048	M	11.75	28.00	329.0	W
3	9	G	0.048	M	11.75	28.00	329.0	N
4	9	G	0.048	M	11.75	28.00	329.0	E
5(D)	6	G	0.143	M	7.00	3.25	22.8	W
6(D)	7	G	0.100	M	10.50	10.60	111.3	E
7(D)	7	G	0.100	M	8.50	10.60	90.1	E

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	4.00	3.00	1	12.0	0	90	2
2	2	0.160	0.402	4.00	3.00	3	36.0	0	90	3
3	1	0.160	0.460	1.50	10.50	1	15.8	0	90	4

Design Month	Outdoor Dry Bulb	Outdoor Wet Bulb	Indoor Rel.Hum	Indoor Dry Bulb	Grains Diff	In/Outdoor Correction
August	89	75	50%	72	51.87	0
Winter	-25			45		

Room 11: Mech 001 (215.5 sq.ft) (Zone 11)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	215.50
Lighting Watts:	216	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	8.40	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	0.200
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	0.200
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	216	Exposed floor slab perimeter (ft):	0

Heating loads only are calculated for this room.

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
1	1	0.04	63.000	30.000	8.40	9.90	83.2
2	1	0.04	63.000	30.000	8.40	13.70	115.1
3	7	0.0667	63.000	30.000	1.00	215.50	215.5



Room Input (cont'd)

Room 12: Bath 002 (56.7 sq.ft) (Zone 12)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	56.70
Lighting Watts:	57	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	8.40	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	0.200
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	0.200
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	57	Exposed floor slab perimeter (ft):	0

Heating loads only are calculated for this room.

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
1	1	0.04	63.000	30.000	8.40	7.50	63.0
2	7	0.0667	63.000	30.000	1.00	56.70	56.7

Room 13: Bed 003 (193.44 sq.ft) (Zone 13)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	12.40	Room width (feet):	15.60
Lighting Watts:	193	Equipment Watts:	300
Number of people in room:	1	People profile number:	1
Lighting profile number:	5	Equipment profile number:	3
Ceiling height (feet):	8.40	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	0.200
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	0.200
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	193	Exposed floor slab perimeter (ft):	0

Heating loads only are calculated for this room.

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
1	1	0.04	63.000	30.000	8.40	12.50	105.0
2	1	0.04	63.000	30.000	5.50	18.00	99.0
4	1	0.04	63.000	30.000	5.50	18.00	99.0
6	7	0.0667	63.000	30.000	13.00	12.40	161.2

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
3	3	B	0.040	M	2.90	18.00	52.2	W
5	3	B	0.040	M	2.90	18.00	52.2	S

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	5.00	3.00	1	15.0	0	90	3
2	2	0.160	0.402	5.00	3.00	1	15.0	0	90	5

Room 14: Basement 004 (545 sq.ft) (Zone 14)



Room Input (cont'd)

Room 14: Basement 004 (545 sq.ft) (Zone 14)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	545.00
Lighting Watts:	545	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	8.40	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	0.200
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	0.200
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	545	Exposed floor slab perimeter (ft):	0

Heating loads only are calculated for this room.

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
1	1	0.04	63.000	30.000	5.50	62.00	341.0
5	1	0.04	63.000	30.000	5.50	10.00	55.0
6	1	0.04	63.000	30.000	5.50	16.00	88.0
7	7	0.0667	63.000	30.000	1.00	545.00	545.0

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
2	3	B	0.040	M	2.90	36.40	105.6	S
3	3	B	0.040	M	2.90	10.00	29.0	W
4	3	B	0.040	M	2.90	16.00	46.4	E

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	2.00	6.50	1	13.0	0	90	2

Room 15: Hall 200 (81.9 sq.ft) (Zone 15)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	81.90
Lighting Watts:	82	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	8.10	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	82	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	1.00	81.90	81.9	No

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
1	5	0.0526	17.000	95.000	8.10	6.50	52.7
2	6	0.0263	17.000	95.000	1.40	6.50	9.1



Room Input (cont'd)

Room 15: Hall 200 (81.9 sq.ft) (Zone 15)

Room 16: Bath 201 (80.1 sq.ft) (Zone 16)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	80.10
Lighting Watts:	80	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	8.10	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	80	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	1.00	80.10	80.1	No

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	8.10	6.40	51.8	E
2	4	G	0.026	M	1.40	6.40	9.0	E

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	4.00	2.60	1	10.4	0	90	1

Room 17: Bed 202 (214.8 sq.ft) (Zone 17)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	214.80
Lighting Watts:	215	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	4	Equipment profile number:	3
Ceiling height (feet):	8.10	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	215	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	1.00	233.60	233.6	No

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	8.10	13.40	108.5	E
2	4	G	0.026	M	1.40	13.40	18.8	E
3	2	G	0.027	M	8.10	15.00	121.5	S



Room Input (cont'd)

Room 17: Bed 202 (214.8 sq.ft) (Zone 17)

4	4	G	0.026	M	1.40	15.00	21.0	S		
Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	4.00	2.60	1	10.4	0	90	1
2	2	0.160	0.402	4.00	5.30	1	21.2	6	90	3
3	2	0.160	0.402	4.00	2.60	1	10.4	5	90	3

Room 18: Bed 203 (190.5 sq.ft) (Zone 18)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width (feet):	190.50
Lighting Watts:	191	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	4	Equipment profile number:	3
Ceiling height (feet):	8.10	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	191	Exposed floor slab perimeter (ft):	0
Both heating and cooling loads are calculated for this room.			

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	1.00	210.30	210.3	No

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
5	5	0.0526	17.000	95.000	1.00	14.00	14.0
6	6	0.0263	17.000	95.000	1.00	9.00	9.0

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	8.10	10.00	81.0	S
2	4	G	0.026	M	1.40	10.00	14.0	S
3	2	G	0.027	M	1.00	81.00	81.0	W
4	4	G	0.026	M	1.00	13.00	13.0	W

Glass	Type	S.U-F.	Shd C.	Height	Width	Occur.	Area	Shade	Tilt	Ref
1	2	0.160	0.402	2.60	2.60	1	6.8	0	90	3

Room 19: Crawl Space (194.6 sq.ft) (Zone 19)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	14.00	Room width (feet):	13.90
Lighting Watts:	195	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	5.50	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	0.000
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	0.000



Room Input (cont'd)

Room 19: Crawl Space (194.6 sq.ft) (Zone 19)

Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	195	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
1	1	0.04	63.000	30.000	5.50	41.50	228.3

Room 20: Storage Attic 204 (202.4 sq.ft) (Zone 20)

Air Handler number:	1	Room occurrences:	1
Room length: (feet)	1.00	Room width: (feet):	202.40
Lighting Watts:	202	Equipment Watts:	0
Number of people in room:	0	People profile number:	1
Lighting profile number:	2	Equipment profile number:	3
Ceiling height (feet):	4.30	Heating safety factor (%):	0
Sensible safety factor (%):	0	Latent safety factor (%):	0
Sensible heat per person (Btuh):	200	Latent heat per person (Btuh):	180
Cooling ventilation method:	CFM/Pr	Cooling ventilation value:	0.000
Cooling infiltration method:	AC/Hr	Cooling infiltration value:	1.100
Heating ventilation method:	CFM/Pr	Heating ventilation value:	0.000
Heating infiltration method:	AC/Hr	Heating infiltration value:	1.100
Winter exhaust air CFM:	0	Summer exhaust air CFM:	0
Minimum supply CFM:	0	Latent Btuh equipment load:	0
Ceil. exposed to plenum (sq.ft):	202	Exposed floor slab perimeter (ft):	0

Both heating and cooling loads are calculated for this room.

Roof	Type	ASHRAE#	U-Factor	Dark	Length	Width	Area	Susp.Ceil
1	1	13	0.018	Yes	1.00	356.50	356.5	No

Part	Type	U-Factor	Cool TD	Heat TD	Height	Width	Area
3	5	0.0526	17.000	95.000	1.00	31.00	31.0
4	6	0.0263	17.000	95.000	1.00	11.00	11.0

Wall	Type	ASHRAE#	U-Factor	Color	Height	Width	Area	Direction
1	2	G	0.027	M	4.30	6.80	29.2	E
2	2	G	0.027	M	1.00	6.00	6.0	W



Building Envelope Report

Envelope Report Using Summer U-Factors

Material Types		Gross Area	Glass Area	Net Area	-U-Factor	Area x U-Factor	Average U-Factor
Roof	1	1,441.7	0.0	1,441.7	0.018	26.239	0.018
Roof	3	734.4	0.0	734.4	0.026	19.315	0.026
Tot.Roof		2,176.1	0.0	2,176.1	N/A	45.554	0.021
Wall	2	1,982.0	412.9	1,569.1	0.027	42.366	0.027
Wall	3	285.4	43.0	242.4	0.040	9.694	0.040
Wall	4	264.4	0.0	264.4	0.026	6.875	0.026
Wall	6	92.4	0.0	92.4	0.143	13.204	0.143
Wall	7	201.4	0.0	201.4	0.100	20.140	0.100
Wall	9	1,122.1	287.9	834.2	0.048	39.709	0.048
Tot.Wall		3,947.7	743.8	3,203.9	N/A	131.989	0.041
Glass	1	80.6	N/A	80.6	0.160	12.893	0.160
Glass	2	348.4	N/A	348.4	0.160	55.749	0.160
Glass	5	21.0	N/A	21.0	0.143	3.001	0.143
Tot.Glass		450.0	N/A	450.0	N/A	71.642	0.159
Totals				5,830.0		249.185	0.043

Wall Direction	Wall Area	Glass Area	Wall Net Area	Wall Avg U-Factor	Glass Avg U-Factor	Glass Avg Shd.Coef
N	684.6	85.5	599.1	0.037	0.156	0.444
NE	0.0	0.0	0.0	0.000	0.000	0.000
E	1,279.1	72.1	1,207.0	0.054	0.160	0.415
SE	0.0	0.0	0.0	0.000	0.000	0.000
S	1,029.8	209.0	820.8	0.032	0.160	0.419
SW	0.0	0.0	0.0	0.000	0.000	0.000
W	954.3	83.4	870.8	0.038	0.160	0.405
NW	0.0	0.0	0.0	0.000	0.000	0.000
Totals	3,947.7	450.0	3,497.7	0.041	0.159	0.420



Building Summary Loads

Building peaks in August at 2pm.

Bldg Load Descriptions	Area Quan	Sen Loss	%Tot Loss	Lat Gain	Sen Gain	Net Gain	%Net Gain
Roof	2,176	3,845	3.00	0	425	425	1.02
Wall	3,204	10,961	8.55	0	1,776	1,776	4.25
Glass	450	6,551	5.11	0	12,991	12,991	31.07
Floor Slab	98	6,174	4.81	0	0	0	0.00
Skin Loads		27,531	21.47	0	15,192	15,192	36.33
Lighting	2,290	0	0.00	0	5,813	5,813	13.90
Equipment	700	0	0.00	0	2,388	2,388	5.71
Pool Latent	0	0	0.00	0	0	0	0.00
People	5	0	0.00	740	800	1,540	3.68
Partition	2,529	4,338	3.38	0	791	791	1.89
Cool. Pret.	0	0	0.00	0	0	0	0.00
Heat. Pret.	0	0	0.00	0	0	0	0.00
Cool. Vent.	0	0	0.00	0	0	0	0.00
Heat. Vent.	0	0	0.00	0	0	0	0.00
Cool. Infil.	299	0	0.00	10,497	5,261	15,758	37.68
Heat. Infil.	1,191	96,388	75.15	0	0	0	0.00
Draw-Thru Fan	0	0	0.00	0	333	333	0.80
Blow-Thru Fan	0	0	0.00	0	0	0	0.00
Reserve Cap.	0	0	0.00	0	0	0	0.00
Reheat Cap.	0	0	0.00	0	0	0	0.00
Supply Duct	0	0	0.00	0	0	0	0.00
Return Duct	0	0	0.00	0	0	0	0.00
Misc. Supply	0	0	0.00	0	0	0	0.00
Misc. Return	0	0	0.00	0	0	0	0.00
Building Totals		128,257	100.00	11,237	30,578	41,815	100.00

Building Summary	Sen Loss	%Tot Loss	Lat Gain	Sen Gain	Net Gain	%Net Gain
Ventilation	0	0.00	0	0	0	0.00
Infiltration	96,388	75.15	10,497	5,261	15,758	37.68
Pretreated Air	0	0.00	0	0	0	0.00
Room Loads	31,869	24.85	740	24,984	25,724	61.52
Plenum Loads	0	0.00	0	0	0	0.00
Fan/Duct/Misc Loads	0	0.00	0	333	333	0.80
Building Totals	128,257	100.00	11,237	30,578	41,815	100.00

Check Figures

Total Building Supply Air (based on a 20° TD):	1,426	CFM
Total Building Vent. Air (0.00% of Supply):	0	CFM
Total Conditioned Air Space:	3,917	Sq.ft
Supply Air Per Unit Area:	0.3640	CFM/Sq.ft
Area Per Cooling Capacity:	1,124.0	Sq.ft/Ton
Cooling Capacity Per Area:	0.0009	Tons/Sq.ft
Heating Capacity Per Area:	32.75	Btuh/Sq.ft
Total Heating Required With Outside Air:	128,257	Btuh
Total Cooling Required With Outside Air:	3.48	Tons



Room Detailed Loads (At Room Peak Times)

Load Description	Unit Quan	-SC- CFAC	CLTD SHGF	U.Fac -CLF-	Sen. Gain	Lat. Gain	Htg. Mult.	Htg. Loss
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Room 1-Entry 100 peaks (sensible) in August at 3pm, Air Handler 1, Zone 1, 1.0 x 104.9, Construction Type: 10 (Medium)

Roof-1-13-No.Clg-D	78	1.00	19.2	0.018	27		1.729	135
Roof-2-13-No.Clg-D	27	1.00	19.2	0.018	9		1.729	46
Wall-2-E-G-M	102	0.83	24.0	0.027	66		2.565	261
Door-3-E-G-M	24	0.83	24.0	0.143	83		13.576	328
Wall-4-E-G-M	16	0.83	24.0	0.026	10		2.470	39
Partition-1-2	51.36		18/45	0.027	25		1.215	62
Partition-5-3	9.0852		18/45	0.026	4		1.184	11
Partition door-6-4	21		18/45	0.143	54		6.431	135
Lights-Prof=2	105	1.000			358			
Cool. Infil.AC/hr	17				316	595		
Heat. Infil.AC/hr	17						100.031	1,731
Sub-total					952	595		2,749
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					952	595		2,749

Room 2-Laundry 101 peaks (sensible) in August at 5pm, Air Handler 1, Zone 2, Floor Number 1, 1.0 x 54.7, Construction Type: 10 (Medium)

Roof-1-13-No.Clg-D	63	1.00	27.2	0.018	31		1.729	110
Wall-2-W-G-M	76	0.83	58.8	0.027	120		2.565	194
Wall-4-W-G-M	11	0.83	58.8	0.026	17		2.470	27
Partition-1-2	58.5		18/45	0.027	28		1.215	71
Partition-3-3	7.345		18/45	0.026	3		1.184	9
Gls-W-2-90-Tran	12.0	1.000	13	0.160	24		15.200	182
0%S-8-UNS-Solar	12.0	0.402	212	0.710	726			
Lights-Prof=2	55	1.000			187			
Cool. Infil.AC/hr	9				145	331		
Heat. Infil.AC/hr	9						100.031	903
Sub-total					1,282	331		1,496
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					1,282	331		1,496

Room 3-Pantry 102 peaks (sensible) in August at 5pm, Air Handler 1, Zone 3, Floor Number 1, 1.0 x 26.9, Construction Type: 10 (Medium)

Roof-1-13-No.Clg-D	28	1.00	27.2	0.018	14		1.729	48
Wall-1-W-G-M	39	0.83	58.8	0.027	61		2.565	99
Wall-2-W-G-M	5	0.83	58.8	0.026	7		2.470	12
Lights-Prof=2	27	1.000			92			
Cool. Infil.AC/hr	4				71	163		
Heat. Infil.AC/hr	4						100.031	444
Sub-total					246	163		604
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					246	163		604



Room Detailed Loads (At Room Peak Times) (cont'd)

Load Description	Unit Quan	-SC- CFAC	CLTD SHGF	U.Fac -CLF-	Sen. Gain	Lat. Gain	Htg. Mult.	Htg. Loss
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Room 4-Hallway 103, Back Entry 104_2 Closets peaks (sensible) in August at 3pm, Air Handler 1, Zone 4, Floor Number 1, 1.0 x 100.0, Construction Type: 10 (Medium)

Roof-1-13-No.Clg-D	40	1.00	19.2	0.018	14		1.729	69
Wall-1-N-G-M	87	0.83	17.3	0.027	41		2.565	223
Wall-2-N-G-M	15	0.83	17.3	0.026	7		2.470	36
Gls-N-2-90-Tran	8.3	1.000	14	0.160	18		15.200	125
0%S-9-UNS-Solar	8.3	0.402	34	0.850	96			
Gls-N-5-90-Tran	21.0	1.000	14	0.143	41		13.576	285
0%S-11-UNS-Solar	21.0	0.575	34	0.850	349			
Lights-Prof=2	100	1.000			341			
Cool. Infil.AC/hr	17				301	567		
Heat. Infil.AC/hr	17						100.031	1,651
Sub-total					1,207	567		2,389
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					1,207	567		2,389

Room 5-Bath 105 peaks (sensible) in August at 5pm, Air Handler 1, Zone 5, Floor Number 1, 1.0 x 62.1, Construction Type: 10 (Medium)

Roof-1-13-No.Clg-D	62	1.00	27.2	0.018	31		1.729	107
Wall-1-N-G-M	100	0.83	18.2	0.027	49		2.565	256
Wall-2-N-G-M	14	0.83	18.2	0.026	6		2.470	33
Wall-3-W-G-M	53	0.83	58.8	0.027	84		2.565	135
Wall-4-W-G-M	7	0.83	58.8	0.026	11		2.470	18
Gls-N-2-90-Tran	8.3	1.000	13	0.160	17		15.200	125
0%S-10-UNS-Solar	8.3	0.402	34	0.800	90			
Gls-W-1-90-Tran	4.0	1.000	13	0.160	8		15.200	61
0%S-0-UNS-Solar	4.0	0.460	212	0.710	277			
Lights-Prof=2	62	1.000			212			
Cool. Infil.AC/hr	10				164	375		
Heat. Infil.AC/hr	10						100.031	1,025
Sub-total					949	375		1,760
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					949	375		1,760

Room 6-M. Bed 106_Closet peaks (sensible) in August at 2pm, Air Handler 1, Zone 6, Floor Number 1, 1.0 x 181.0, Construction Type: 11 (Medium)

Roof-1-13-No.Clg-D	181	1.00	16.2	0.018	53		1.729	313
Wall-1-W-G-M	88	0.83	33.1	0.027	78		2.565	225
Wall-2-W-G-M	13	0.83	33.1	0.026	11		2.470	31
Wall-3-S-G-M	118	0.83	43.1	0.027	137		2.565	302
Wall-4-S-G-M	20	0.83	43.1	0.026	23		2.470	50
Gls-W-2-90-Tran	13.5	1.000	13	0.160	27		15.200	205
0%S-0-UNS-Solar	13.5	0.402	212	0.350	403			
Gls-S-2-90-Tran	33.6	1.000	13	0.160	68		15.200	511
24%S-1-UNS-Solar	33.6	0.402	173	0.710	1,661			
SGls-S-2-90-Tran	10.6	1.000	13	0.160	22		15.200	161
24%S-1-UNS-Solar	10.6	0.402	34	0.860	125			
Cool. Infil.AC/hr	30				525	1,047		



Room Detailed Loads (At Room Peak Times) (cont'd)

Load Description	Unit Quan	-SC- CFAC	CLTD SHGF	U.Fac -CLF-	Sen. Gain	Lat. Gain	Htg. Mult.	Htg. Loss
Heat. Infil.AC/hr	30						100.031	2,987
Sub-total					3,133	1,047		4,787
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					3,133	1,047		4,787

Room 7-Living 107 peaks (sensible) in August at 2pm, Air Handler 1, Zone 7, Floor Number 1, 15.9 x 16.0, Construction Type: 11 (Medium)

Wall-1-W-G-M	70	0.83	33.1	0.027	62		2.565	179
Wall-2-W-G-M	11	0.83	33.1	0.026	10		2.470	28
Wall-3-S-G-M	83	0.83	43.1	0.027	97		2.565	213
Wall-4-S-G-M	18	0.83	43.1	0.026	20		2.470	45
Gls-W-2-90-Tran	20.2	1.000	13	0.160	41		15.200	306
0%S-0-UNS-Solar	20.2	0.402	212	0.350	601			
Gls-S-1-90-Tran	59.0	1.000	13	0.160	120		15.200	897
3%S-2-UNS-Solar	59.0	0.460	173	0.710	3,334			
SGls-S-1-90-Tran	1.8	1.000	13	0.160	4		15.200	28
3%S-2-UNS-Solar	1.8	0.460	34	0.860	25			
Lights-Prof=2	254	1.000			868			
People-Prof=1	2.0	1.000			400	360		
Cool. Infil.AC/hr	42				737	1,472		
Heat. Infil.AC/hr	42						100.031	4,199
Sub-total					6,319	1,832		5,895
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					6,319	1,832		5,895

Room 8-Dining 108 peaks (sensible) in August at 1pm, Air Handler 1, Zone 8, Floor Number 8, 15.3 x 12.2, Construction Type: 11 (Medium)

Wall-1-S-G-M	93	0.83	42.2	0.027	107		2.565	240
Wall-2-S-G-M	17	0.83	42.2	0.026	19		2.470	43
Wall-3-E-G-M	64	0.83	26.5	0.027	46		2.565	165
Wall-4-E-G-M	14	0.83	26.5	0.026	9		2.470	34
Door-5-E-G-M	46	0.83	26.5	0.143	172		13.576	618
Gls-S-2-90-Tran	44.3	1.000	12	0.160	83		15.200	673
0%S-3-UNS-Solar	44.3	0.402	173	0.720	2,218			
Lights-Prof=2	187	1.000			637			
People-Prof=1	1.0	1.000			200	180		
Cool. Infil.AC/hr	31				487	1,135		
Heat. Infil.AC/hr	31						100.031	3,081
Sub-total					3,978	1,315		4,853
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					3,978	1,315		4,853

Room 9-Kitchen 110 peaks (sensible) in August at 10am, Air Handler 1, Zone 9, Floor Number 1, 1.0 x 236.8, Construction Type: 11 (Medium)

Wall-1-E-G-M	98	0.83	44.7	0.027	118		2.565	250
Wall-2-E-G-M	17	0.83	44.7	0.026	19		2.470	41

**Room Detailed Loads (At Room Peak Times) (cont'd)**

Load Description	Unit Quan	-SC- CFAC	CLTD SHGF	U.Fac -CLF-	Sen. Gain	Lat. Gain	Htg. Mult.	Htg. Loss
Wall-3-N-G-M	80	0.83	7.4	0.027	16		2.565	205
Wall-4-N-G-M	12	0.83	7.4	0.026	2		2.470	28
Gls-E-2-90-Tran	35.6	1.000	4	0.160	21		15.200	541
0%S-12-UNS-Solar	35.6	0.402	212	0.640	1,940			
Gls-N-2-90-Tran	12.0	1.000	4	0.160	7		15.200	182
0%S-13-UNS-Solar	12.0	0.402	34	0.690	113			
Lights-Prof=2	355	1.000			1,211			
Equipment-Prof=3	700	1.000			2,388	0		
People-Prof=1	1.0	1.000			200	200		
Cool. Infil.AC/hr	39				229	1,412		
Heat. Infil.AC/hr	39						100.031	3,908
Sub-total					6,265	1,612		5,156
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					6,265	1,612		5,156

Room 10-Garage 111, Air Handler 1, Zone 10, Floor Number 1, 27.1 x 27.1, Construction Type: 10 (Medium), WIDB: 45°F

Roof-1-13-No.Clg-D	734	1.00	35.2	0.026	0		1.841	1,352
Wall-1-S-G-M	135	0.83	9.0	0.048	0		3.332	450
Wall-2-W-G-M	294	0.83	5.7	0.048	0		3.332	980
Wall-3-N-G-M	293	0.83	1.6	0.048	0		3.332	976
Wall-4-E-G-M	112	0.83	4.1	0.048	0		3.332	373
Door-5-W-G-M	23	0.83	5.7	0.143	0		10.003	228
Door-6-E-G-M	111	0.83	4.1	0.100	0		7.000	779
Door-7-E-G-M	90	0.83	4.1	0.100	0		7.000	631
Gls-W-2-90-Tran	12.0	1.000	2	0.160	0		11.200	134
0%S-0-UNS-Solar	12.0	0.402	212	0.110	0			
Gls-N-2-90-Tran	36.0	1.000	2	0.160	0		11.200	403
0%S-0-UNS-Solar	36.0	0.402	34	0.150	0			
Gls-E-1-90-Tran	15.8	1.000	2	0.160	0		11.200	176
0%S-0-UNS-Solar	15.8	0.460	212	0.040	0			
Floor slab	98						63.000	6,174
Cool. Infil.AC/hr	0				0	0		
Heat. Infil.AC/hr	863						73.707	63,604
Sub-total					0	0		76,261
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					0	0		76,261

Room 11-Mech 001, Air Handler 1, Zone 11, 1.0 x 215.5, Construction Type: 16 (Heavy)

Partition-1-1	83.16		63/30	0.040	0		1.200	100
Partition-2-1	115.08		63/30	0.040	0		1.200	138
Partition-3-7	215.5		63/30	0.067	0		2.001	431
Cool. Infil.AC/hr	0				0	0		
Heat. Infil.AC/hr	6						100.031	604
Sub-total					0	0		1,273
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					0	0		1,273



Room Detailed Loads (At Room Peak Times) (cont'd)

Load Description	Unit Quan	-SC- CFAC	CLTD SHGF	U.Fac -CLF-	Sen. Gain	Lat. Gain	Htg. Mult.	Htg. Loss
Room 12-Bath 002, Air Handler 1, Zone 12, 1.0 x 56.7, Construction Type: 16 (Heavy)								
Partition-1-1	63		63/30	0.040	0		1.200	76
Partition-2-7	56.7		63/30	0.067	0		2.001	113
Cool. Infil.AC/hr	0				0	0		
Heat. Infil.AC/hr	2						100.031	159
Sub-total					0	0		348
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					0	0		348
Room 13-Bed 003, Air Handler 1, Zone 13, 12.4 x 15.6, Construction Type: 16 (Heavy)								
Wall-3-W-B-M	37	0.83	24.0	0.040	0		3.800	141
Wall-5-S-B-M	37	0.83	22.3	0.040	0		3.800	141
Partition-1-1	105		63/30	0.040	0		1.200	126
Partition-2-1	99		63/30	0.040	0		1.200	119
Partition-4-1	99		63/30	0.040	0		1.200	119
Partition-6-7	161.2		63/30	0.067	0		2.001	323
Gls-W-2-90-Tran	15.0	1.000	2	0.160	0		15.200	228
0%S-0-UNS-Solar	15.0	0.402	212	0.160	0			
Gls-S-2-90-Tran	15.0	1.000	2	0.160	0		15.200	228
0%S-0-UNS-Solar	15.0	0.402	173	0.140	0			
Cool. Infil.AC/hr	0				0	0		
Heat. Infil.AC/hr	5						100.031	542
Sub-total					0	0		1,967
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					0	0		1,967
Room 14-Basement 004, Air Handler 1, Zone 14, 1.0 x 545.0, Construction Type: 16 (Heavy)								
Wall-2-S-B-M	93	0.83	22.3	0.040	0		3.800	352
Wall-3-W-B-M	29	0.83	24.0	0.040	0		3.800	110
Wall-4-E-B-M	46	0.83	19.0	0.040	0		3.800	176
Partition-1-1	341		63/30	0.040	0		1.200	409
Partition-5-1	55		63/30	0.040	0		1.200	66
Partition-6-1	88		63/30	0.040	0		1.200	106
Partition-7-7	545		63/30	0.067	0		2.001	1,091
Gls-S-2-90-Tran	13.0	1.000	2	0.160	0		15.200	198
0%S-0-UNS-Solar	13.0	0.402	173	0.140	0			
Cool. Infil.AC/hr	0				0	0		
Heat. Infil.AC/hr	15						100.031	1,526
Sub-total					0	0		4,034
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					0	0		4,034
Room 15-Hall 200 peaks (sensible) in August at 3pm, Air Handler 1, Zone 15, Floor Number 2, 1.0 x 81.9, Construction Type: 20 (Light)								
Roof-1-13-No.Clg-D	82	1.00	19.2	0.018	29		1.729	142



Room Detailed Loads (At Room Peak Times) (cont'd)

Load Description	Unit Quan	-SC- CFAC	CLTD SHGF	U.Fac -CLF-	Sen. Gain	Lat. Gain	Htg. Mult.	Htg. Loss
Partition-1-5	52.65		17/95	0.053	47		4.997	263
Partition-2-6	9.099999		17/95	0.026	4		2.499	23
Lights-Prof=2	82	1.000			279			
Cool. Infil.AC/hr	12				222	418		
Heat. Infil.AC/hr	12						100.031	1,217
Sub-total					581	418		1,644
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					581	418		1,644

Room 16-Bath 201 peaks (sensible) in August at 10am, Air Handler 1, Zone 16, Floor Number 2, 1.0 x 80.1, Construction Type: 11 (Medium)

Roof-1-13-No.Clg-D	80	1.00	12.2	0.018	18		1.729	138
Wall-1-E-G-M	41	0.83	44.7	0.027	50		2.565	106
Wall-2-E-G-M	9	0.83	44.7	0.026	10		2.470	22
Gls-E-2-90-Tran	10.4	1.000	4	0.160	6		15.200	158
0%S-0-UNS-Solar	10.4	0.402	212	0.640	567			
Lights-Prof=2	80	1.000			273			
Cool. Infil.AC/hr	12				70	430		
Heat. Infil.AC/hr	12						100.031	1,190
Sub-total					995	430		1,615
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					995	430		1,615

Room 17-Bed 202 peaks (sensible) in August at 10am, Air Handler 1, Zone 17, Floor Number 2, 1.0 x 214.8, Construction Type: 11 (Medium)

Roof-1-13-No.Clg-D	234	1.00	12.2	0.018	52		1.729	404
Wall-1-E-G-M	98	0.83	44.7	0.027	119		2.565	252
Wall-2-E-G-M	19	0.83	44.7	0.026	22		2.470	46
Wall-3-S-G-M	90	0.83	23.1	0.027	56		2.565	231
Wall-4-S-G-M	21	0.83	23.1	0.026	13		2.470	52
Gls-E-2-90-Tran	10.4	1.000	4	0.160	6		15.200	158
0%S-0-UNS-Solar	10.4	0.402	212	0.640	567			
Gls-S-2-90-Tran	14.8	1.000	4	0.160	9		15.200	226
30%S-6-UNS-Solar	14.8	0.402	173	0.380	392			
SGls-S-2-90-Tran	6.4	1.000	4	0.160	4		15.200	97
30%S-6-UNS-Solar	6.4	0.402	34	0.690	60			
Gls-S-2-90-Tran	7.3	1.000	4	0.160	4		15.200	111
30%S-5-UNS-Solar	7.3	0.402	173	0.380	192			
SGls-S-2-90-Tran	3.1	1.000	4	0.160	2		15.200	47
30%S-5-UNS-Solar	3.1	0.402	34	0.690	29			
Lights-Prof=4	215	1.000			733			
Cool. Infil.AC/hr	32				187	1,152		
Heat. Infil.AC/hr	32						100.031	3,191
Sub-total					2,447	1,152		4,814
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					2,447	1,152		4,814



Room Detailed Loads (At Room Peak Times) (cont'd)

Load Description	Unit Quan	-SC- CFAC	CLTD SHGF	U.Fac -CLF-	Sen. Gain	Lat. Gain	Htg. Mult.	Htg. Loss
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Room 18-Bed 203 peaks (sensible) in August at 7pm, Air Handler 1, Zone 18, Floor Number 2, 1.0 x 190.5, Construction Type: 11 (Medium)

Roof-1-13-No.Clg-D	210	1.00	34.2	0.018	131		1.729	364
Wall-1-S-G-M	81	0.83	21.5	0.027	47		2.565	208
Wall-2-S-G-M	14	0.83	21.5	0.026	8		2.470	35
Wall-3-W-G-M	74	0.83	38.9	0.027	78		2.565	190
Wall-4-W-G-M	13	0.83	38.9	0.026	13		2.470	32
Partition-5-5	14		17/95	0.053	13		4.997	70
Partition-6-6	9		17/95	0.026	4		2.499	22
Gls-W-2-90-Tran	6.8	1.000	10	0.160	10		15.200	103
0%S-0-UNS-Solar	6.8	0.402	212	0.460	265			
Lights-Prof=4	191	1.000			650			
Cool. Infil.AC/hr	28				303	1,021		
Heat. Infil.AC/hr	28						100.031	2,830
Sub-total					1,522	1,021		3,853
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					1,522	1,021		3,853

Room 19-Crawl Space peaks (sensible) in August at 10pm, Air Handler 1, Zone 19, 14.0 x 13.9, Construction Type: 16 (Heavy)

Partition-1-1	228.25		63/30	0.040	575		1.200	274
Lights-Prof=2	195	1.000			664			
Sub-total					1,239	0		274
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					1,239	0		274

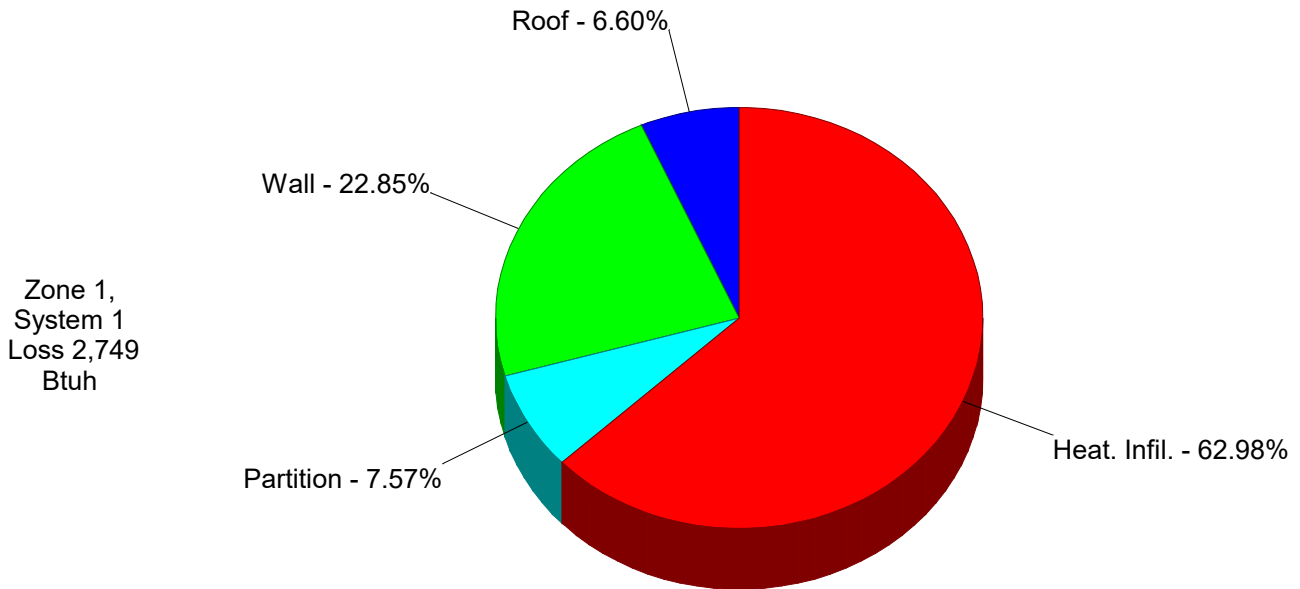
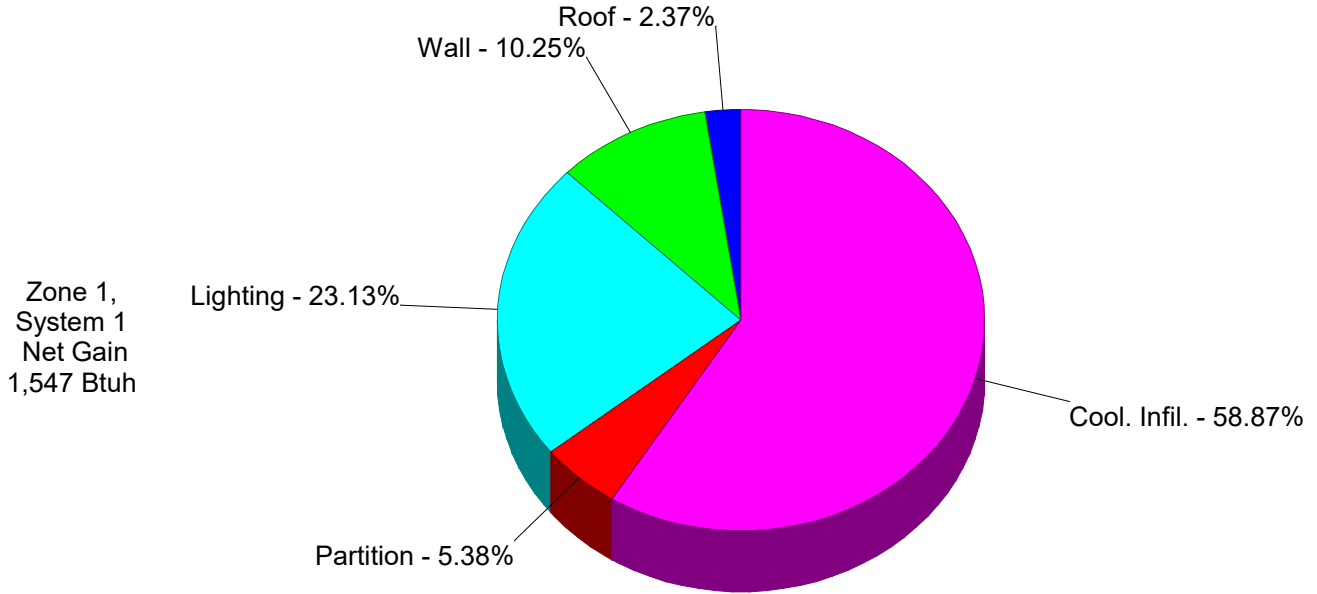
Room 20-Storage Attic 204 peaks (sensible) in August at 5pm, Air Handler 1, Zone 20, Floor Number 2, 1.0 x 202.4, Construction Type: 1 (Light)

Roof-1-13-No.Clg-D	357	1.00	27.2	0.018	176		1.729	616
Wall-1-E-G-M	29	0.83	21.5	0.027	17		2.565	75
Wall-2-W-G-M	6	0.83	58.8	0.027	10		2.565	15
Partition-3-5	31		17/95	0.053	28		4.997	155
Partition-4-6	11		17/95	0.026	5		2.499	27
Lights-Prof=2	202	1.000			691			
Cool. Infil.AC/hr	16				256	584		
Heat. Infil.AC/hr	16						100.031	1,596
Sub-total					1,182	584		2,485
Safety factors:					+0%	+0%		+0%
Total w/ safety factors:					1,182	584		2,485



Zone 1, System 1 Pie Charts

Zone 1, System 1 peaks in August at 3pm

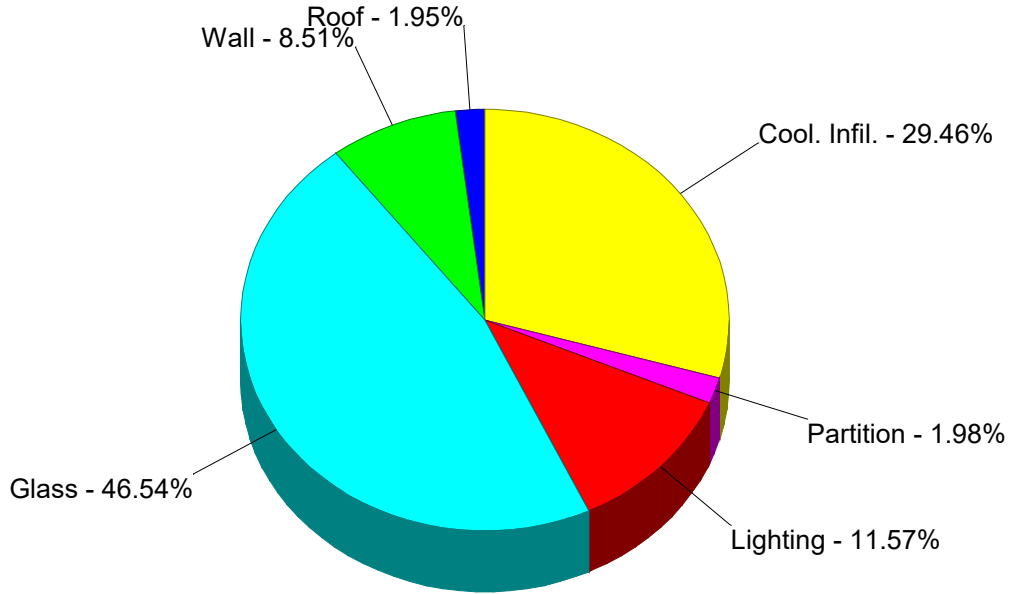




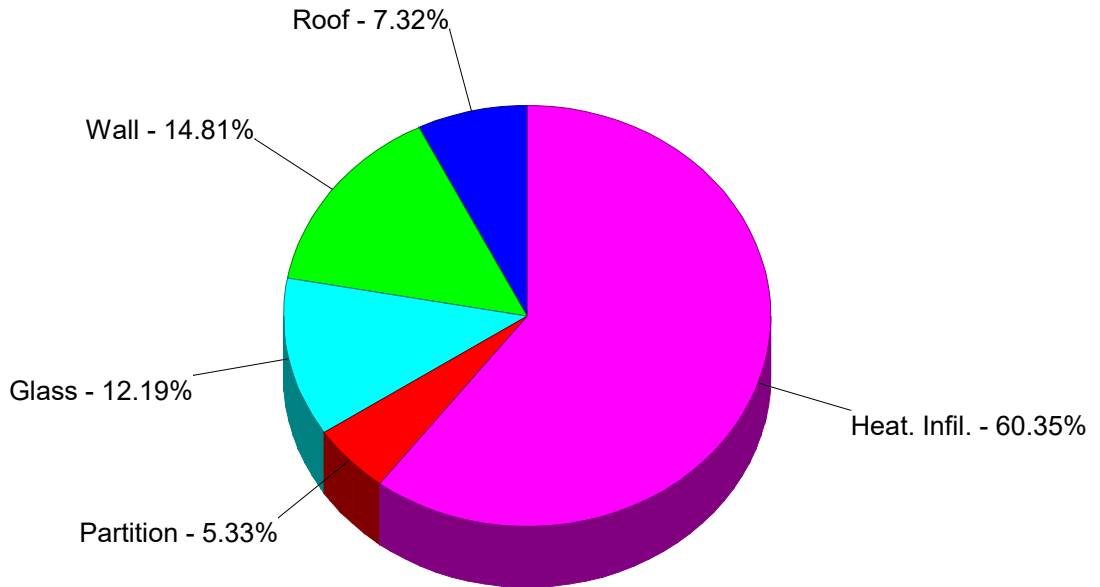
Zone 2, System 1 Pie Charts

Zone 2, System 1 peaks in August at 5pm

Zone 2,
System 1
Net Gain
1,613 Btuh



Zone 2,
System 1
Loss 1,496
Btuh

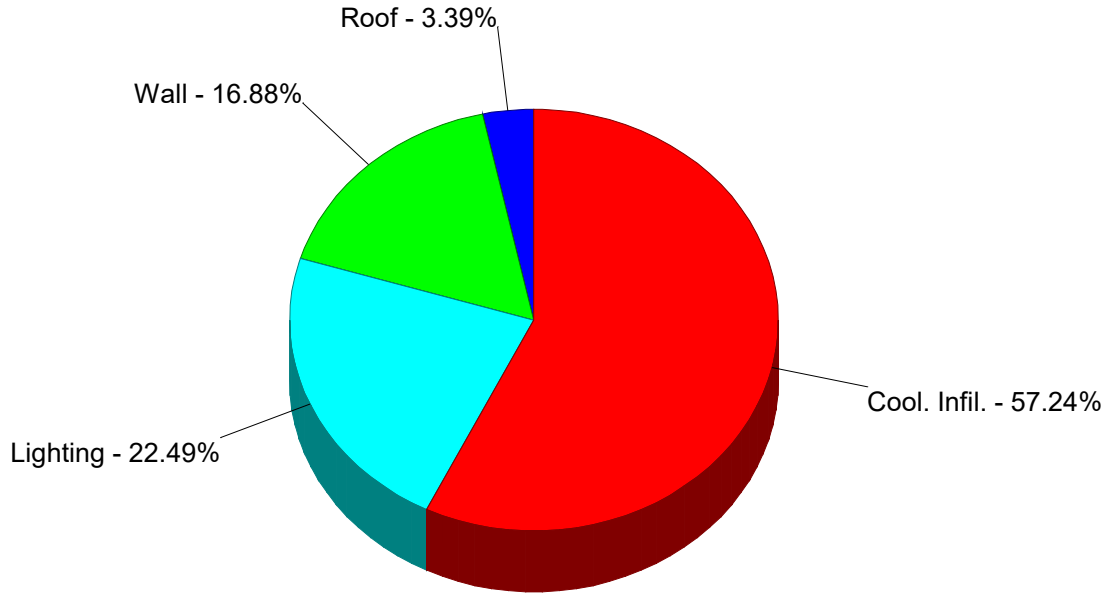




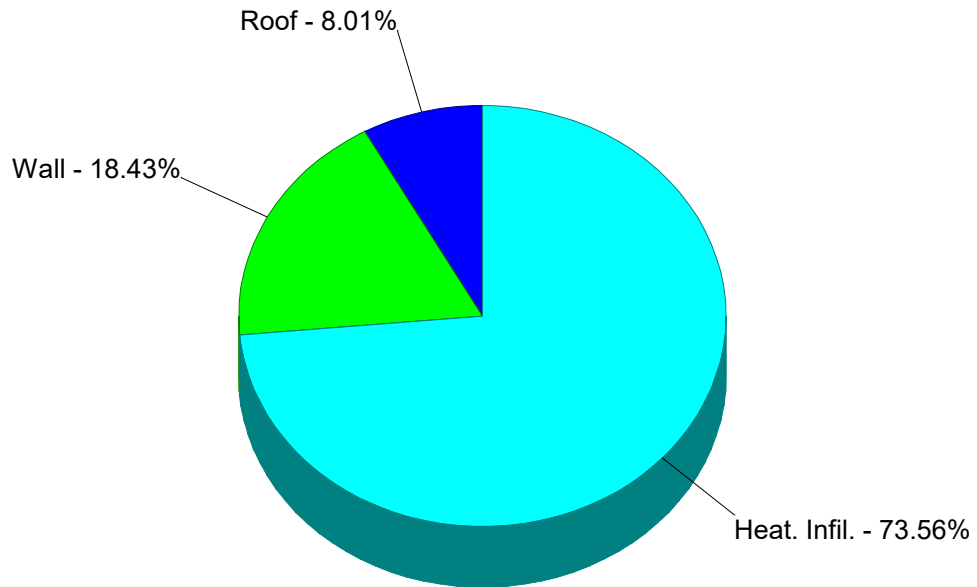
Zone 3, System 1 Pie Charts

Zone 3, System 1 peaks in August at 5pm

Zone 3,
System 1
Net Gain
408 Btuh



Zone 3,
System 1
Loss 604
Btuh

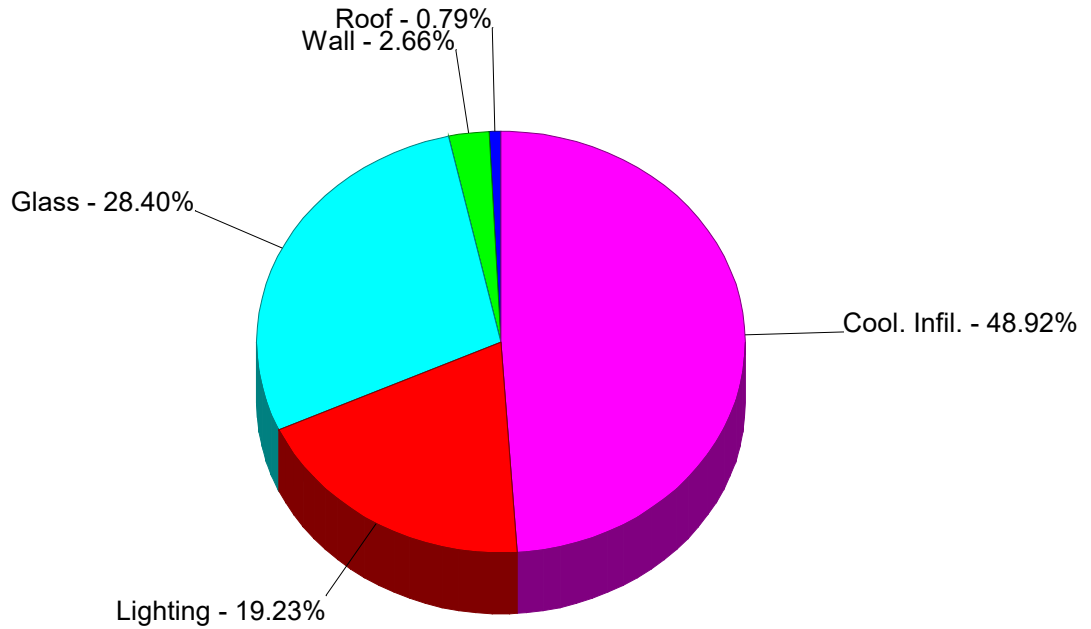




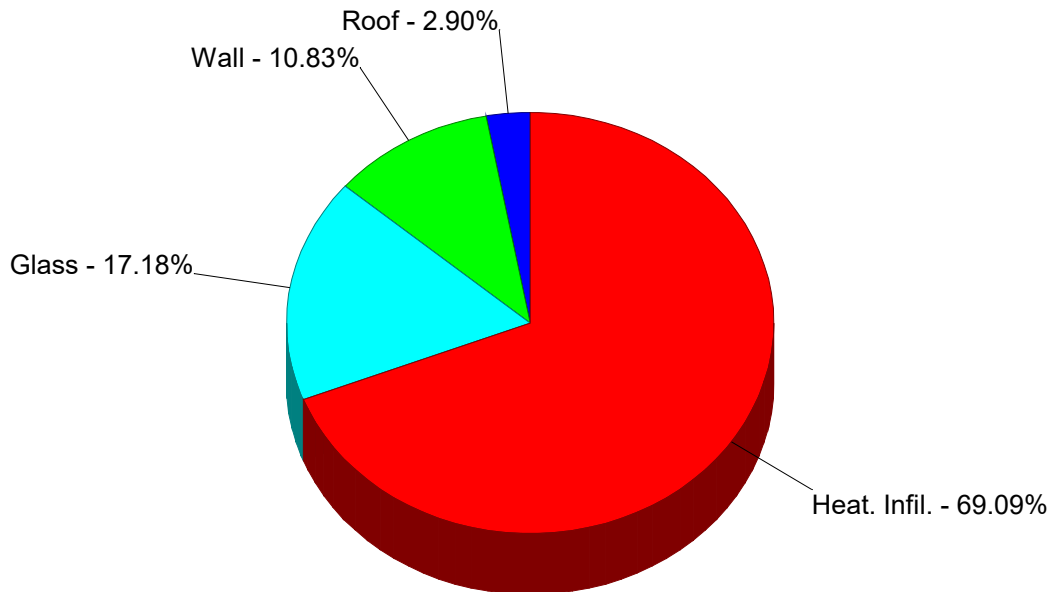
Zone 4, System 1 Pie Charts

Zone 4, System 1 peaks in August at 3pm

Zone 4,
System 1
Net Gain
1,775 Btuh



Zone 4,
System 1
Loss 2,389
Btuh

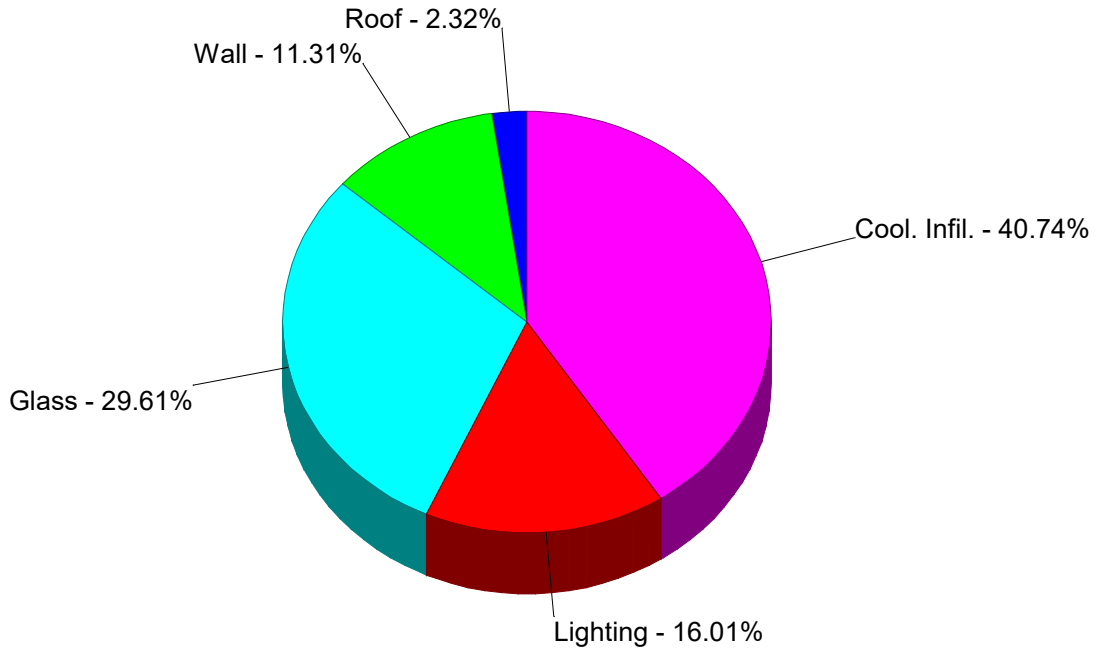




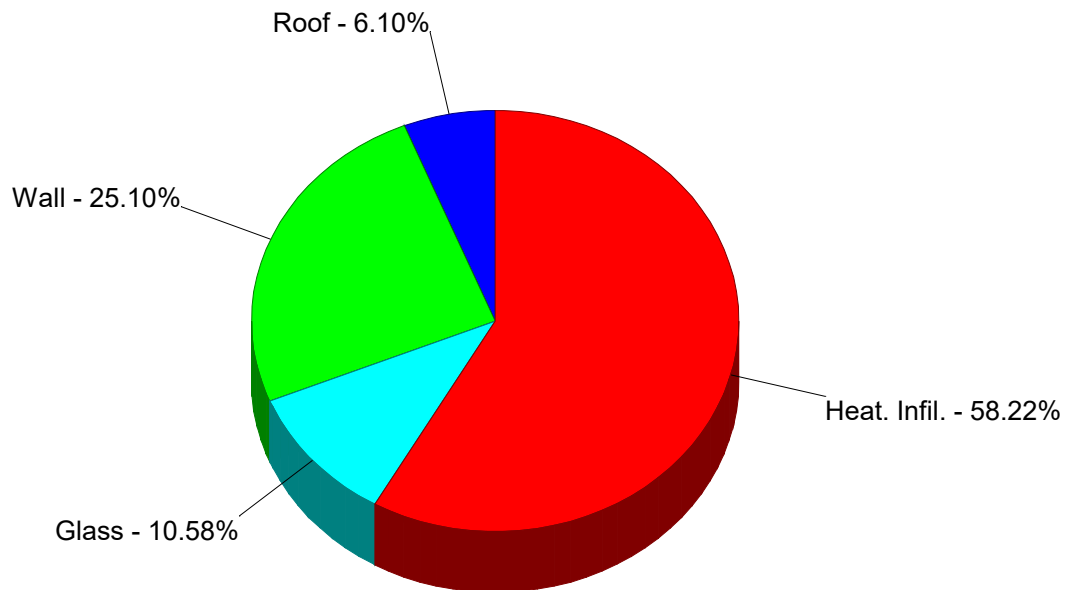
Zone 5, System 1 Pie Charts

Zone 5, System 1 peaks in August at 5pm

Zone 5,
System 1
Net Gain
1,324 Btuh



Zone 5,
System 1
Loss 1,760
Btuh

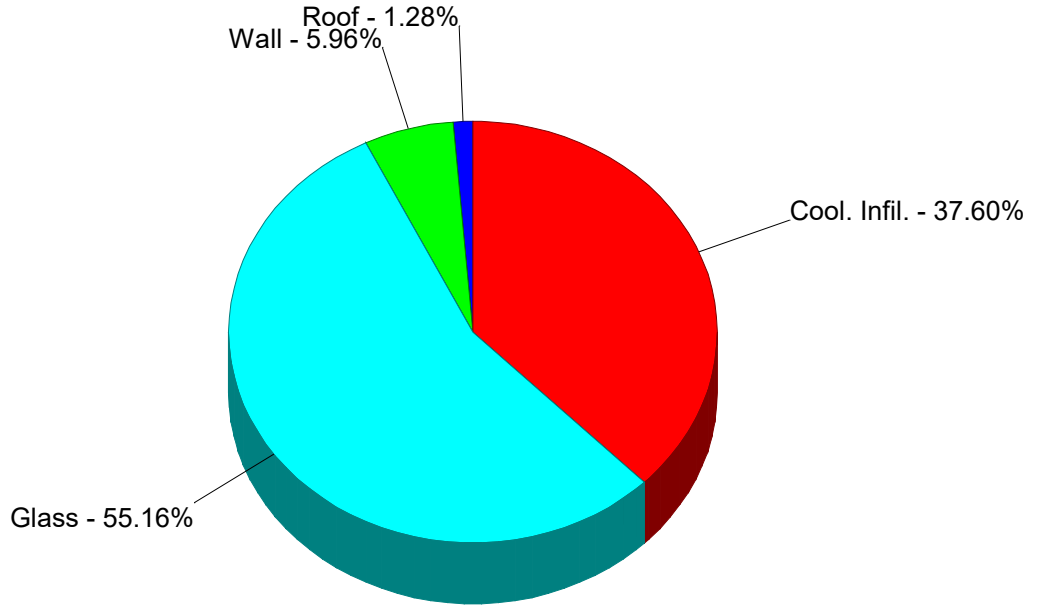




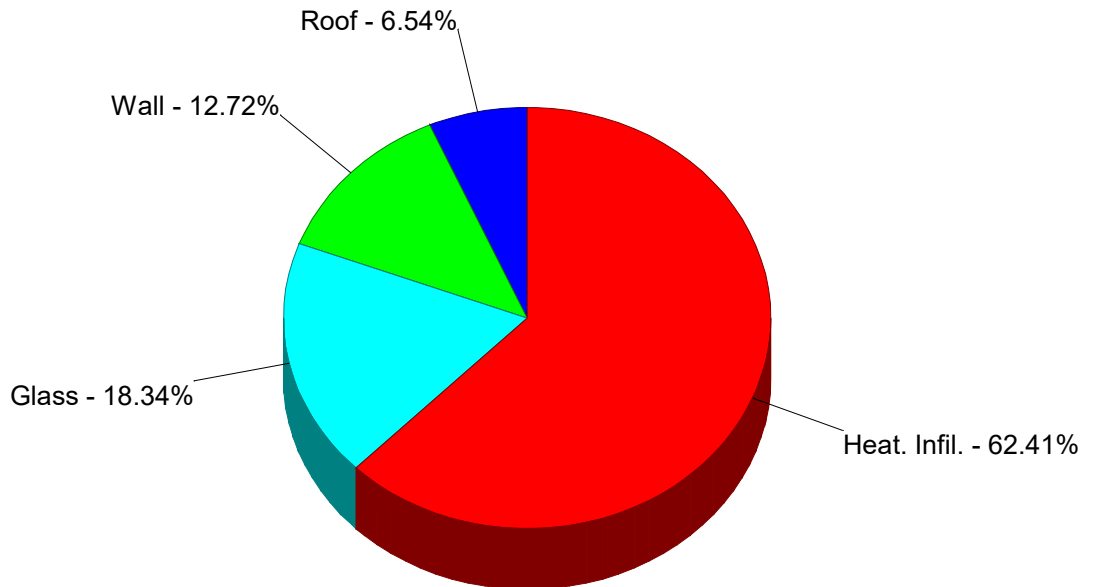
Zone 6, System 1 Pie Charts

Zone 6, System 1 peaks in August at 2pm

Zone 6,
System 1
Net Gain
4,180 Btuh



Zone 6,
System 1
Loss 4,787
Btuh

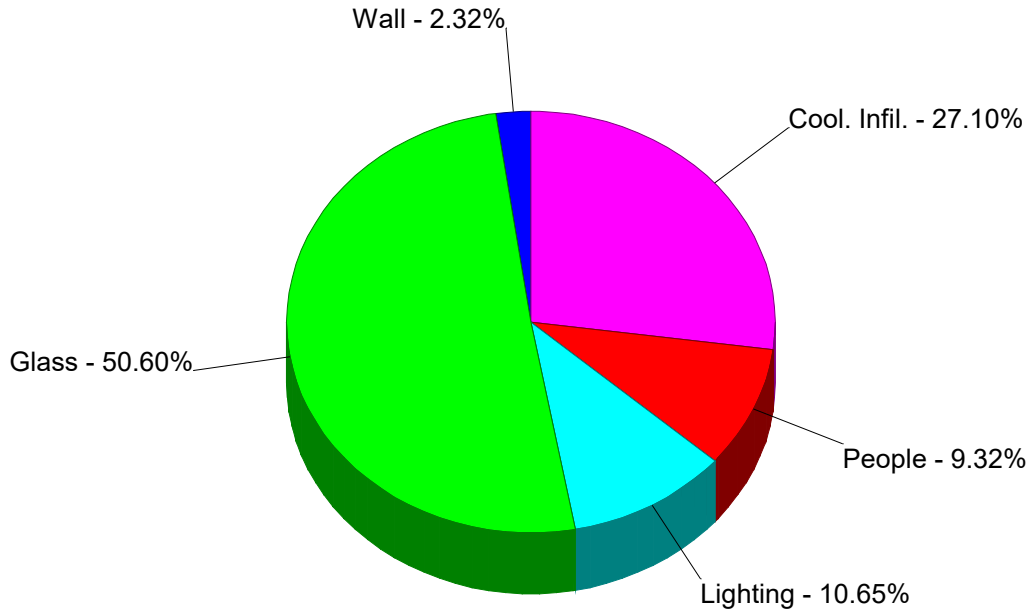




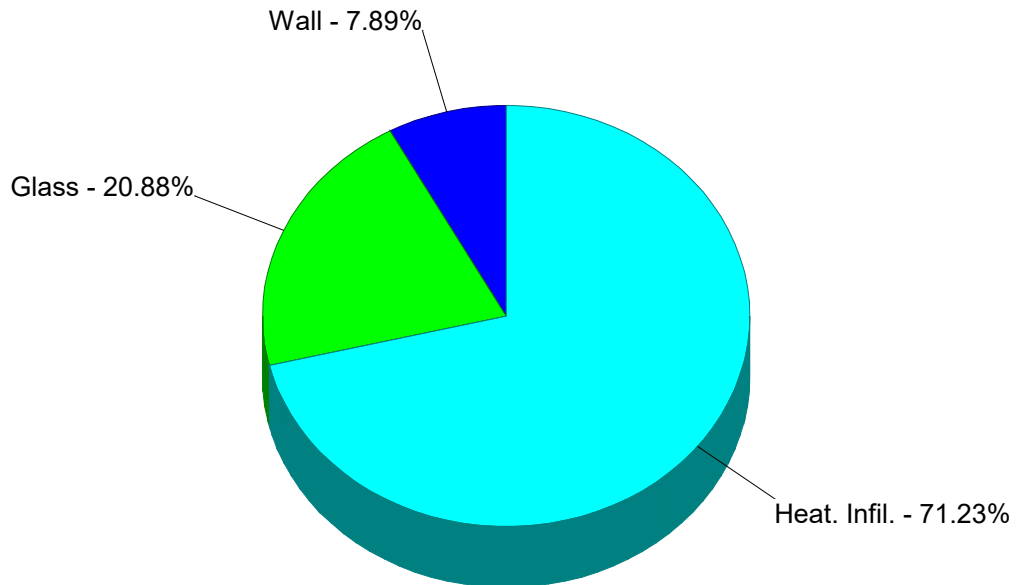
Zone 7, System 1 Pie Charts

Zone 7, System 1 peaks in August at 2pm

Zone 7,
System 1
Net Gain
8,150 Btuh



Zone 7,
System 1
Loss 5,895
Btuh

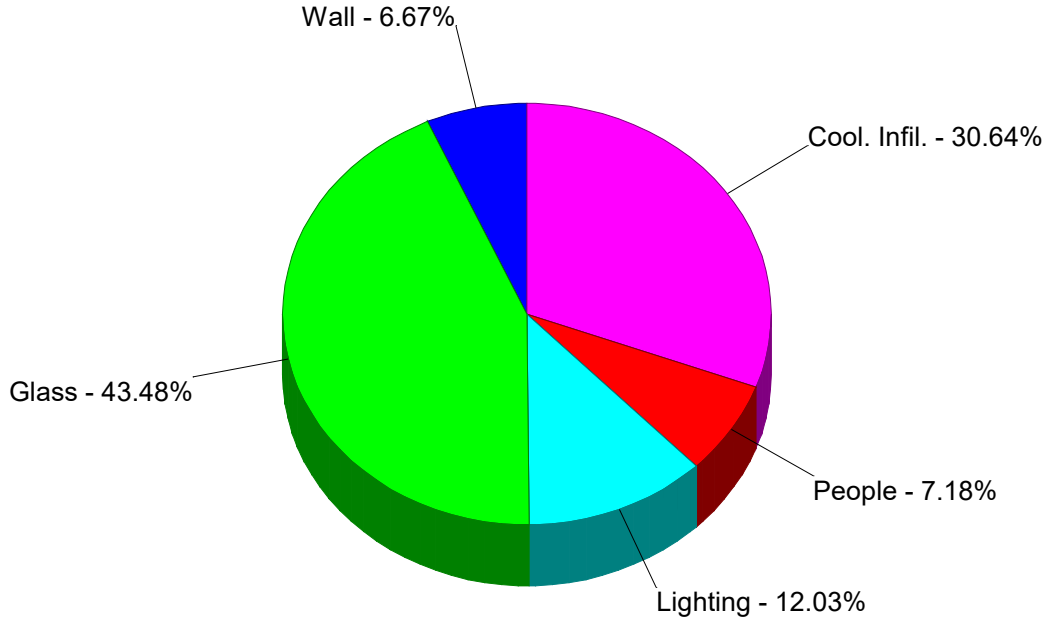




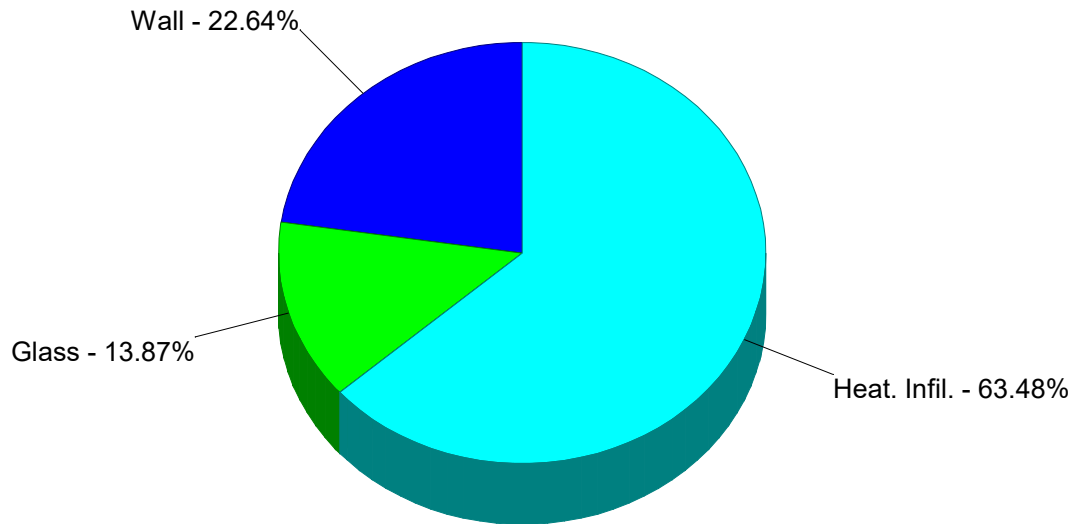
Zone 8, System 1 Pie Charts

Zone 8, System 1 peaks in August at 1pm

Zone 8,
System 1
Net Gain
5,292 Btuh



Zone 8,
System 1
Loss 4,853
Btuh

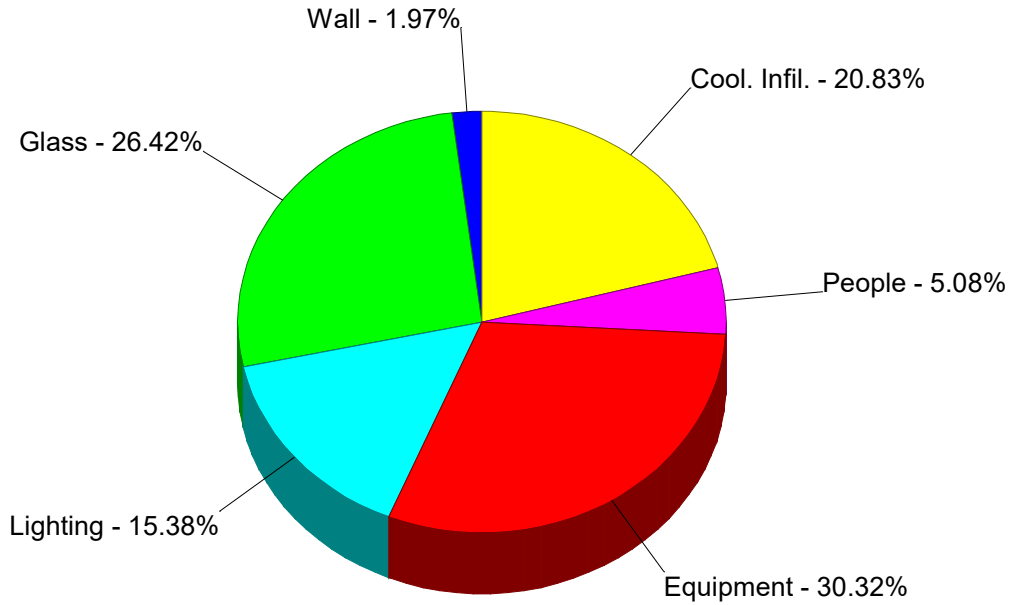




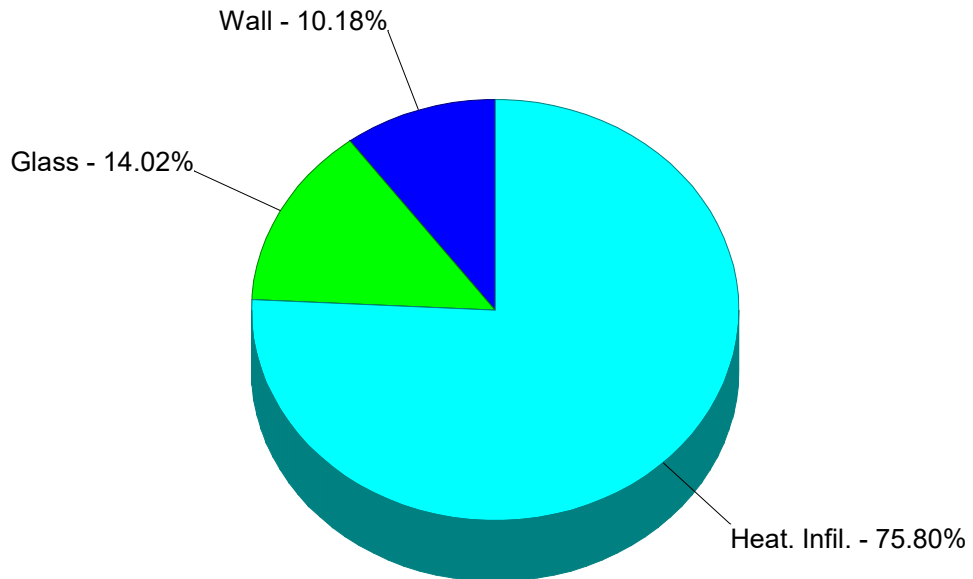
Zone 9, System 1 Pie Charts

Zone 9, System 1 peaks in August at 10am

Zone 9,
System 1
Net Gain
7,877 Btuh



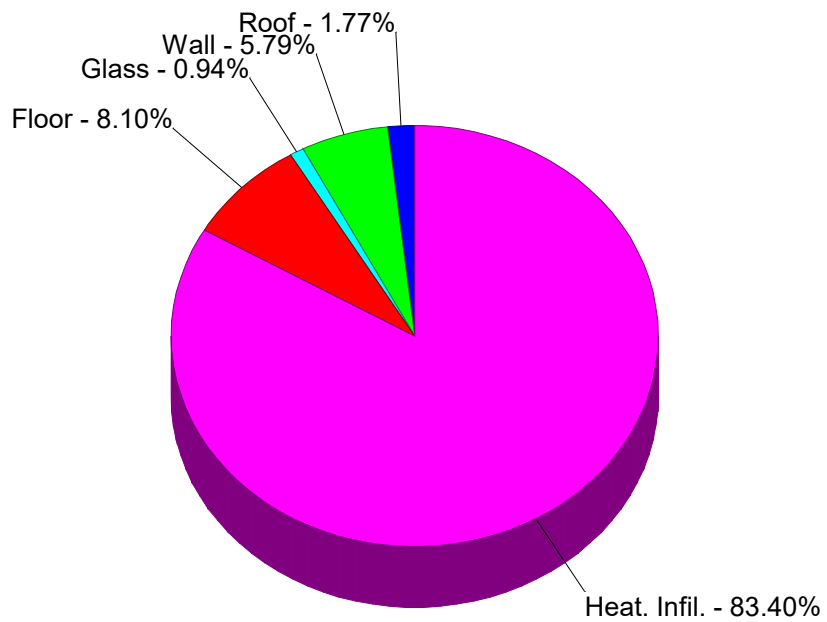
Zone 9,
System 1
Loss 5,156
Btuh





Zone 10, System 1 Pie Charts

Zone 10, System 1 peaks in (None) at 12am

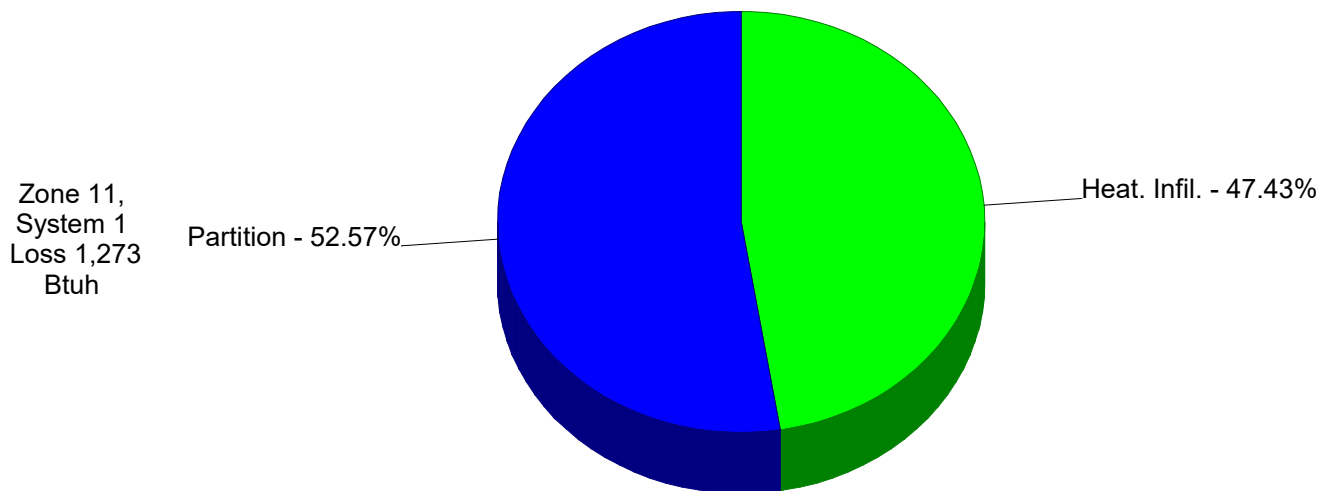


Zone 10,
System 1
Loss
76,261
Btuh



Zone 11, System 1 Pie Charts

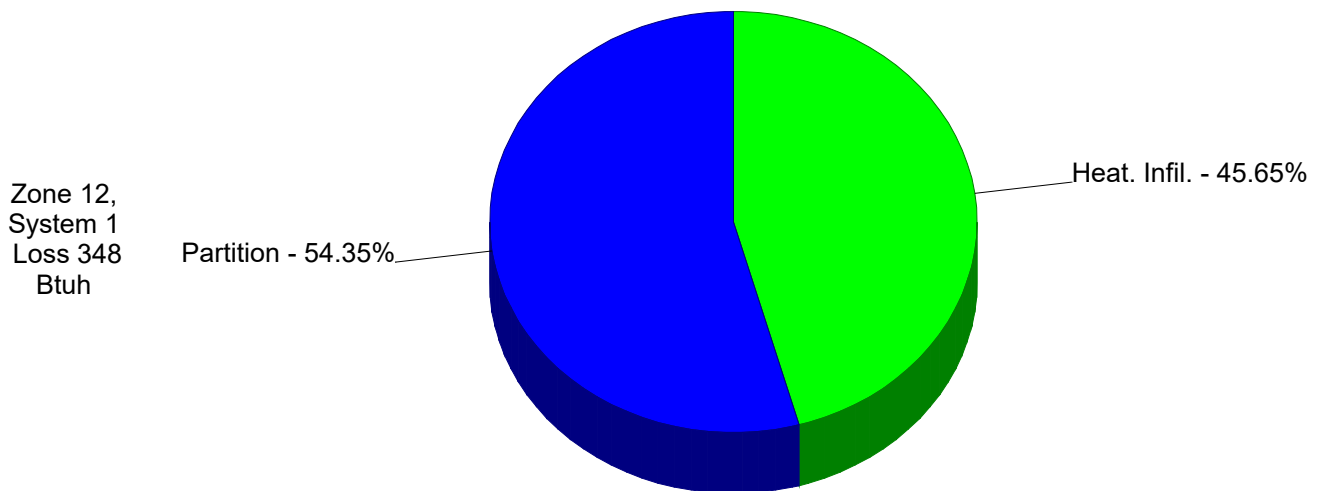
Zone 11, System 1 peaks in (None) at 12am





Zone 12, System 1 Pie Charts

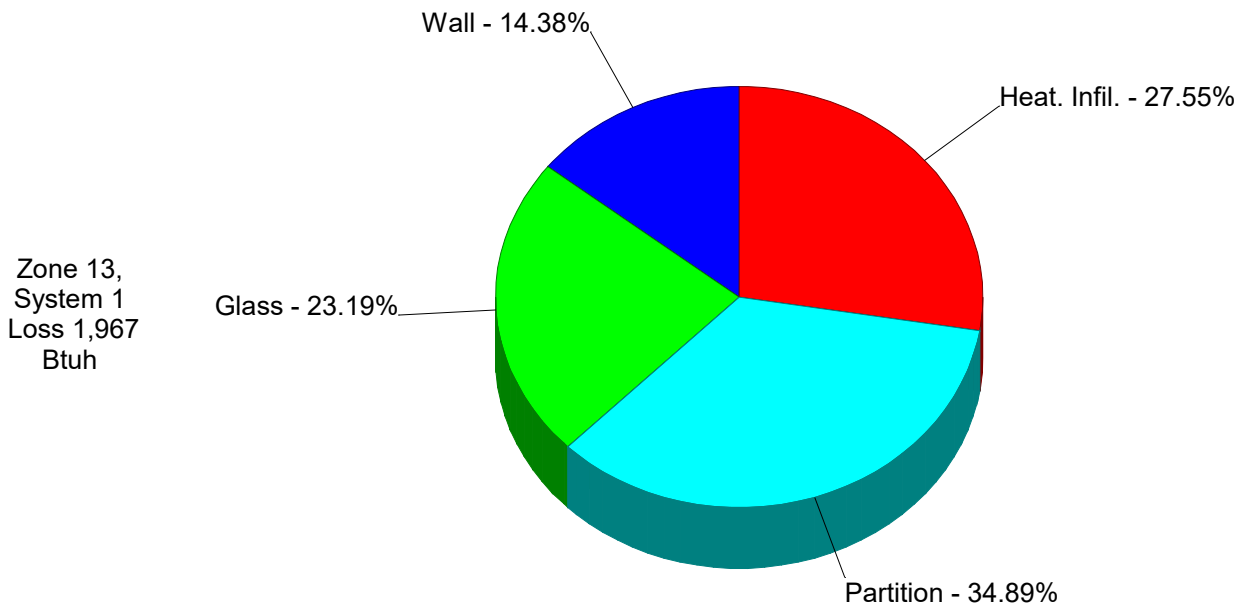
Zone 12, System 1 peaks in (None) at 12am





Zone 13, System 1 Pie Charts

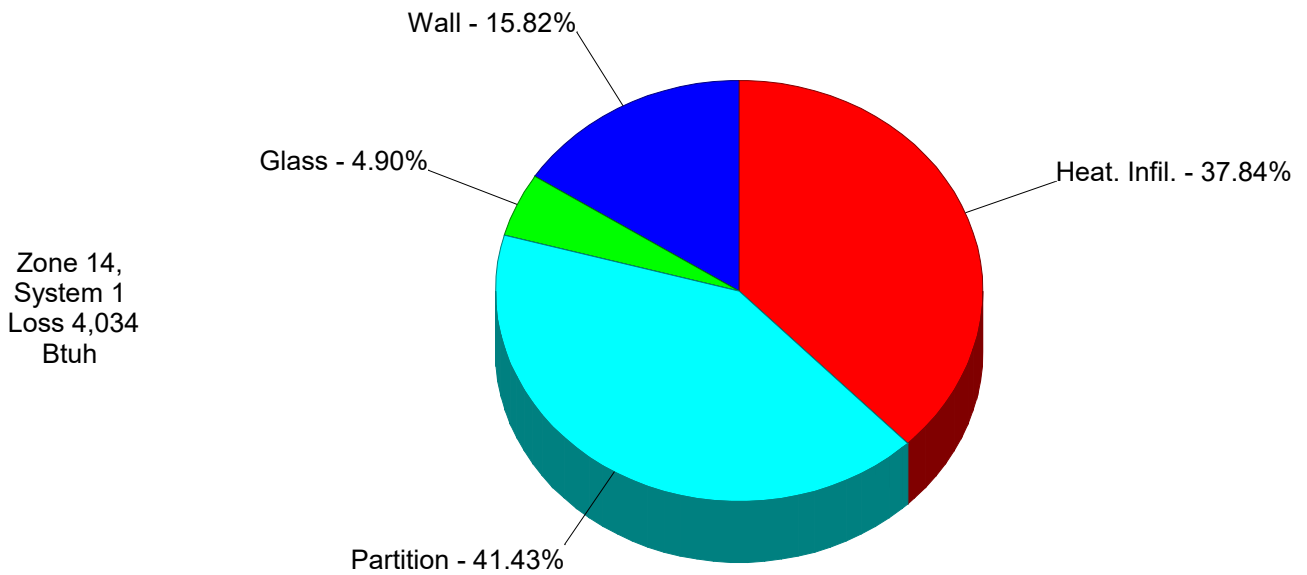
Zone 13, System 1 peaks in (None) at 12am





Zone 14, System 1 Pie Charts

Zone 14, System 1 peaks in (None) at 12am

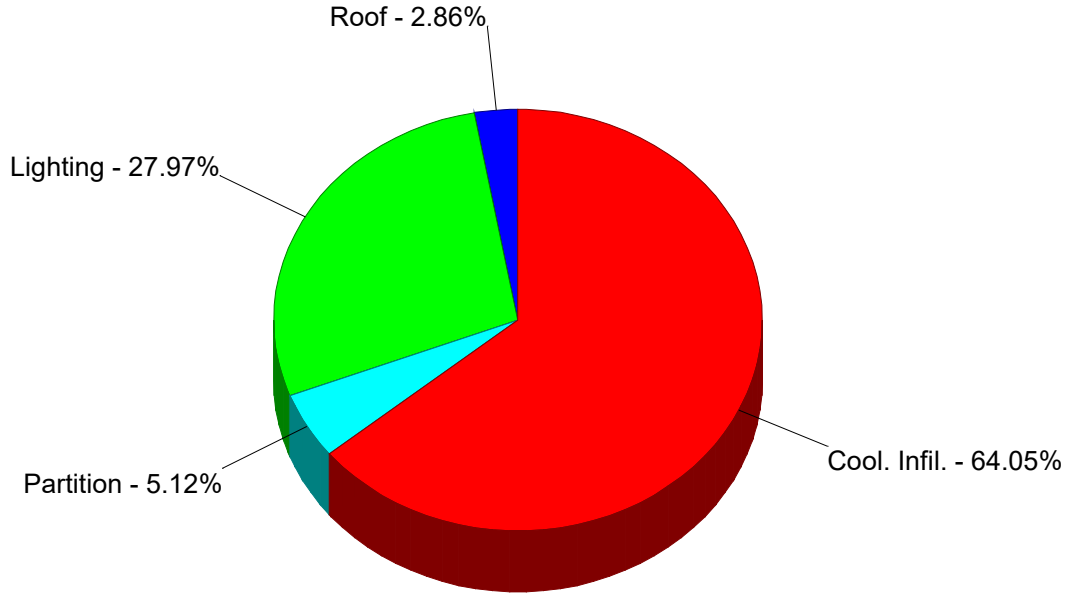




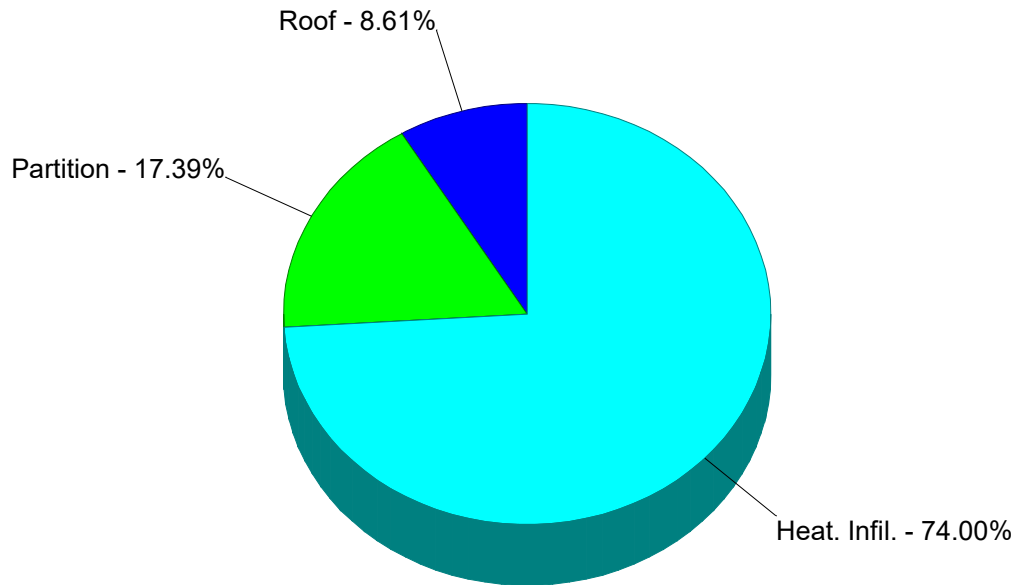
Zone 15, System 1 Pie Charts

Zone 15, System 1 peaks in August at 3pm

Zone 15,
System 1
Net Gain
999 Btuh



Zone 15,
System 1
Loss 1,644
Btuh

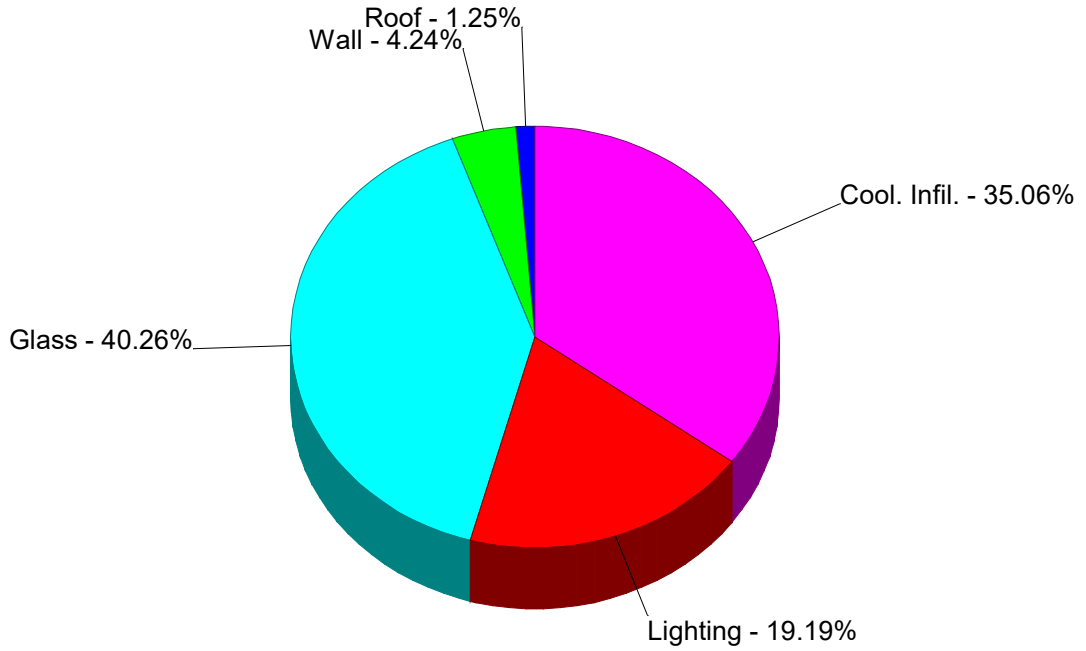




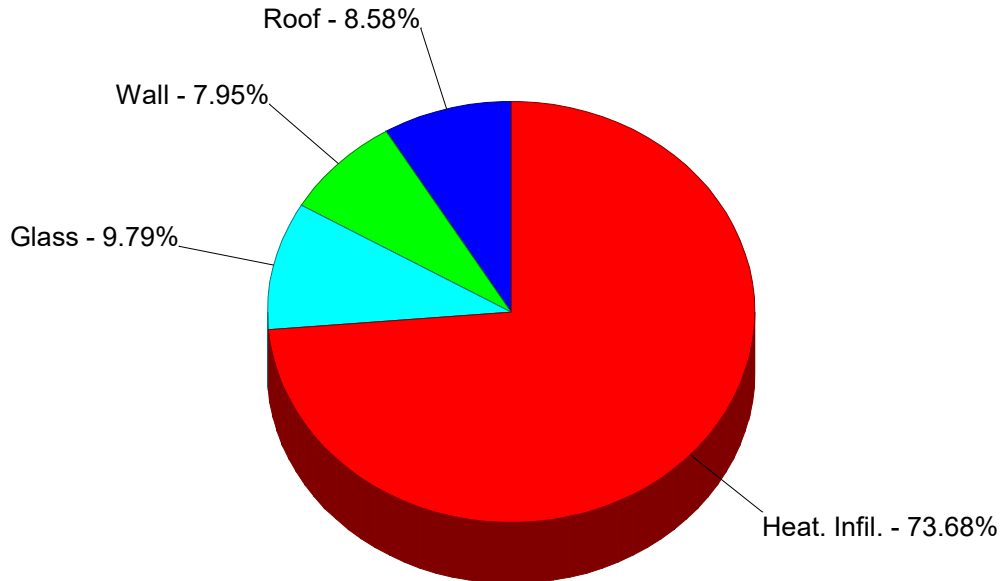
Zone 16, System 1 Pie Charts

Zone 16, System 1 peaks in August at 10am

Zone 16,
System 1
Net Gain
1,424 Btuh



Zone 16,
System 1
Loss 1,615
Btuh

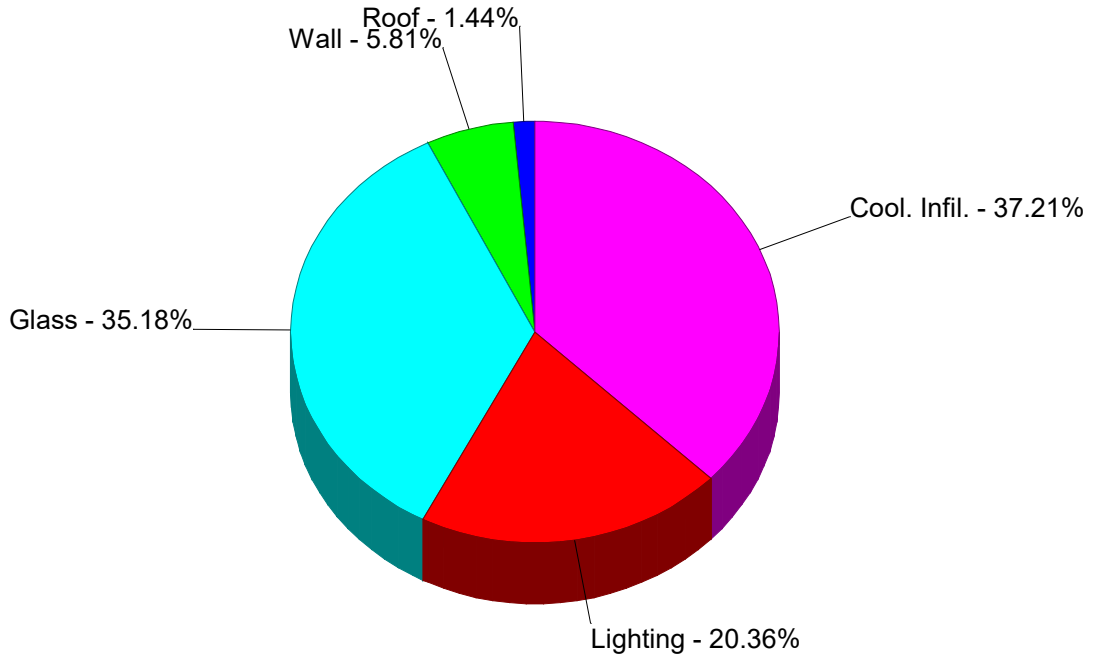




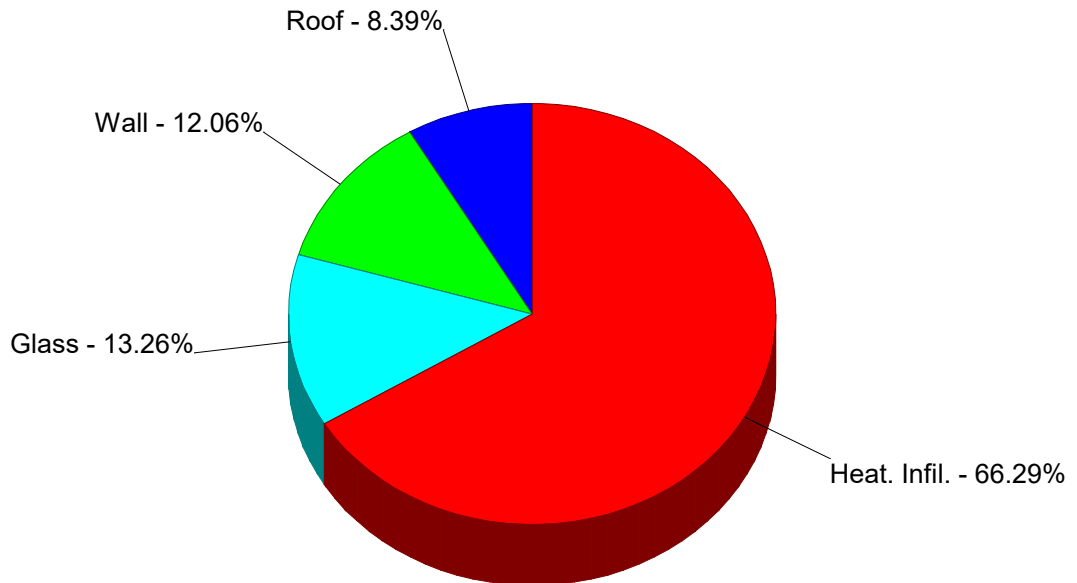
Zone 17, System 1 Pie Charts

Zone 17, System 1 peaks in August at 10am

Zone 17,
System 1
Net Gain
3,599 Btuh



Zone 17,
System 1
Loss 4,814
Btuh

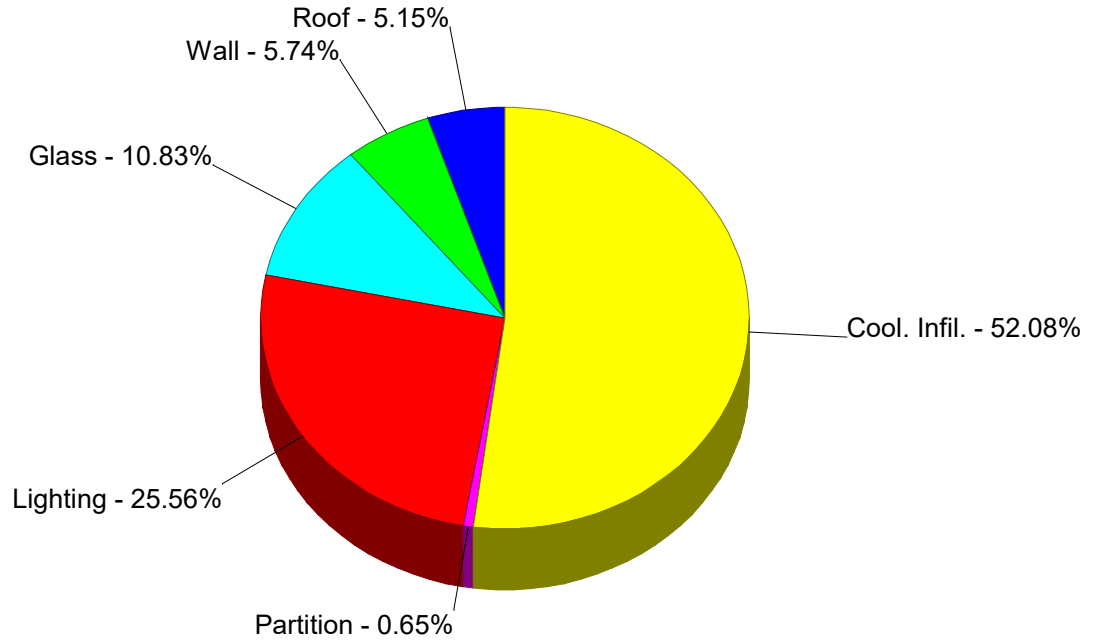




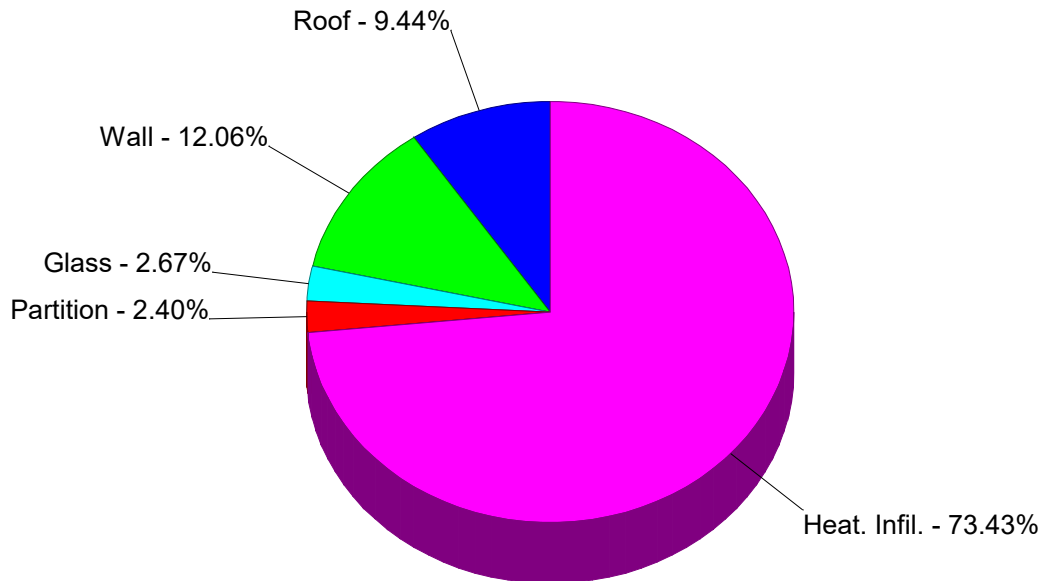
Zone 18, System 1 Pie Charts

Zone 18, System 1 peaks in August at 7pm

Zone 18,
System 1
Net Gain
2,544 Btuh



Zone 18,
System 1
Loss 3,853
Btuh

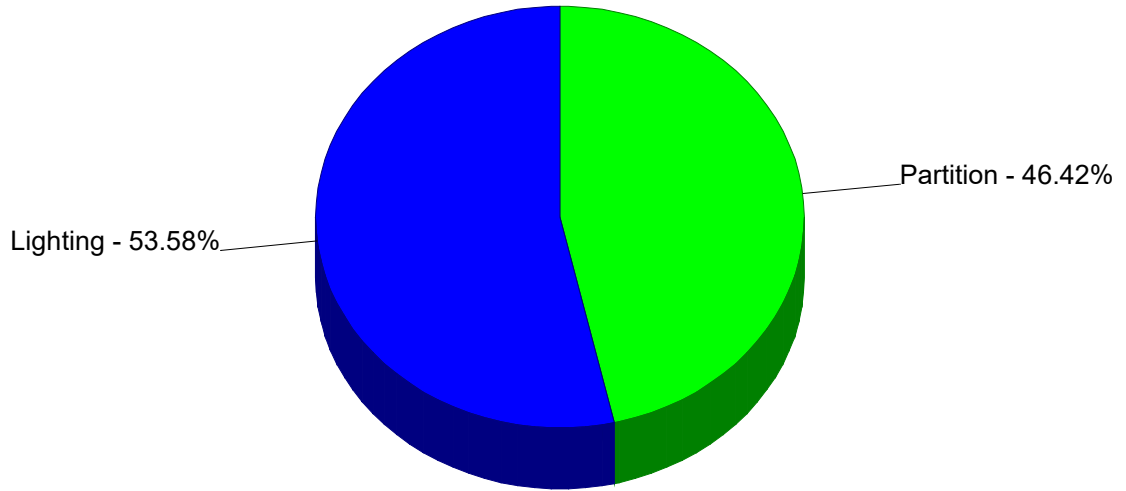




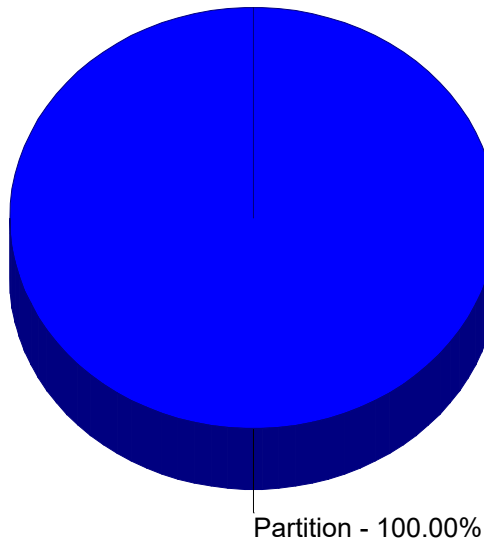
Zone 19, System 1 Pie Charts

Zone 19, System 1 peaks in August at 10pm

Zone 19,
System 1
Net Gain
1,239 Btuh



Zone 19,
System 1
Loss 274
Btuh

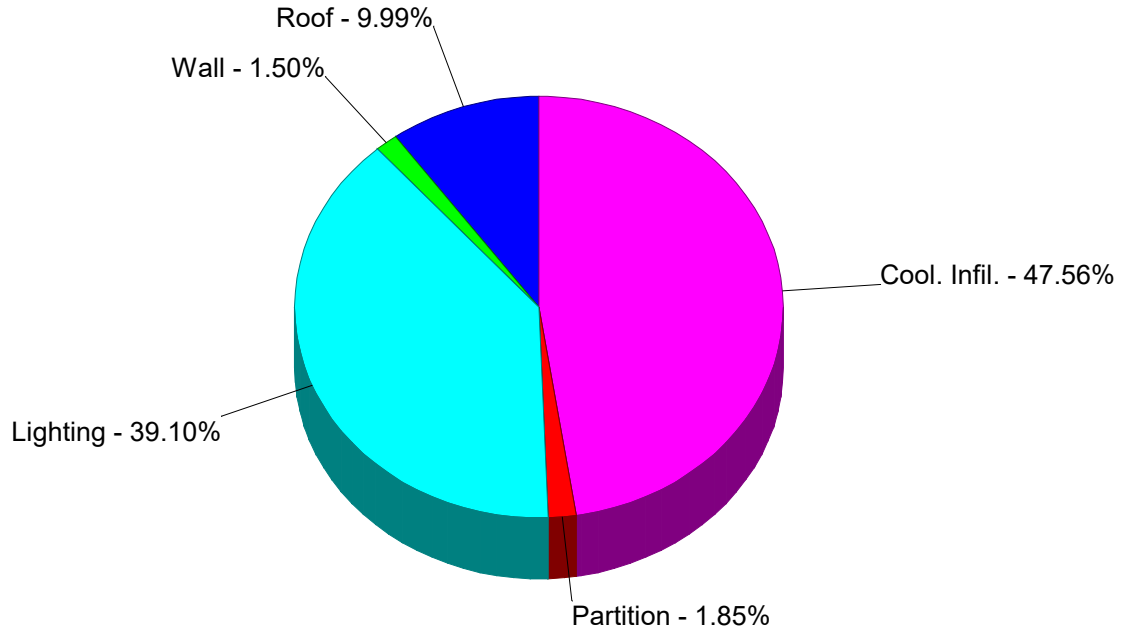




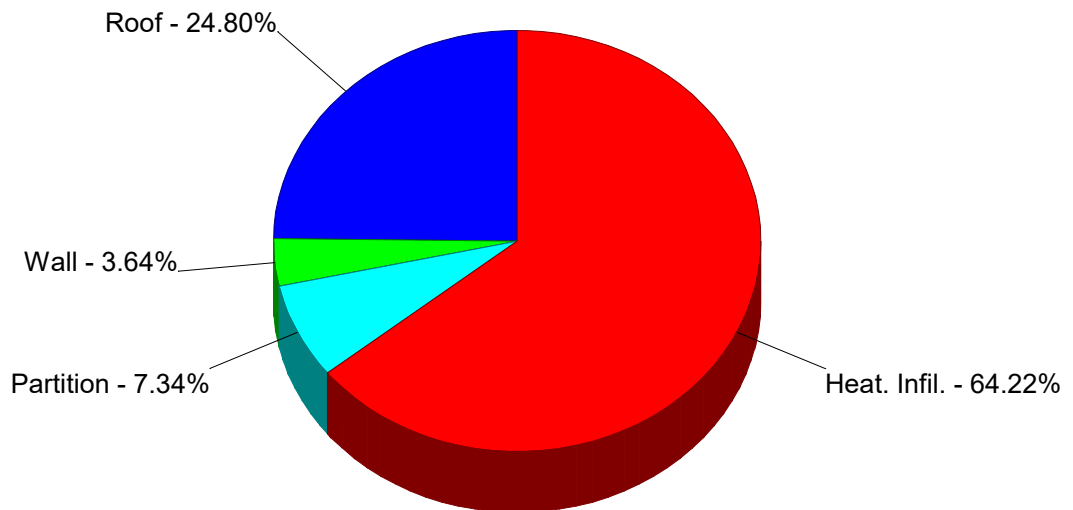
Zone 20, System 1 Pie Charts

Zone 20, System 1 peaks in August at 5pm

Zone 20,
System 1
Net Gain
1,766 Btuh



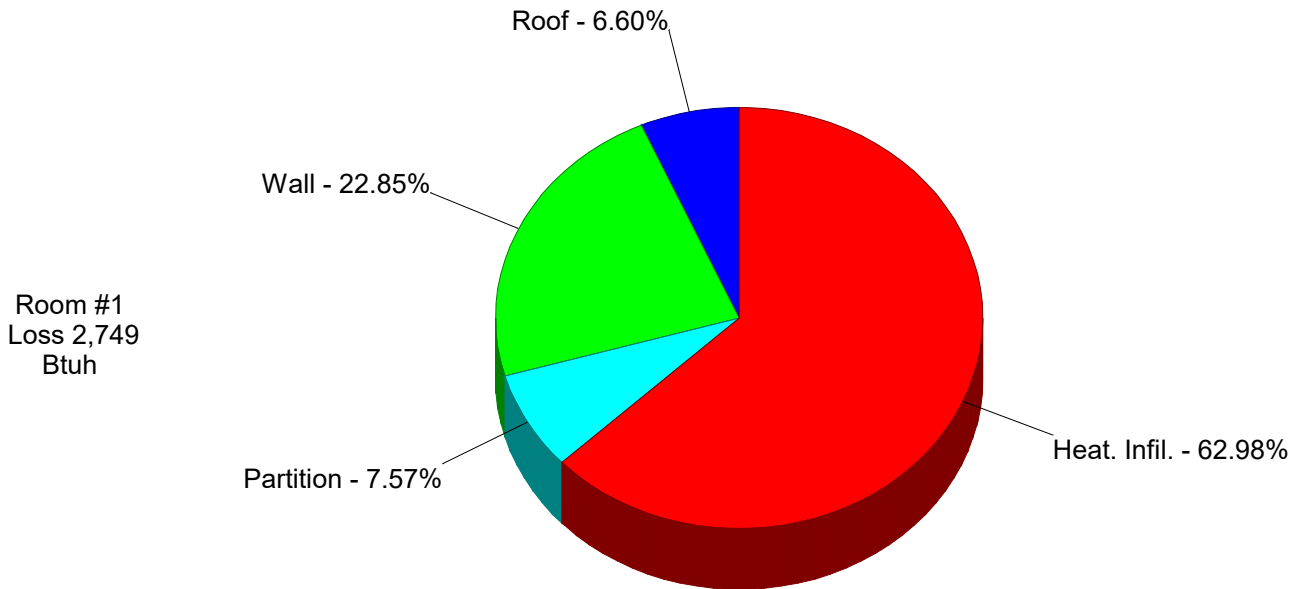
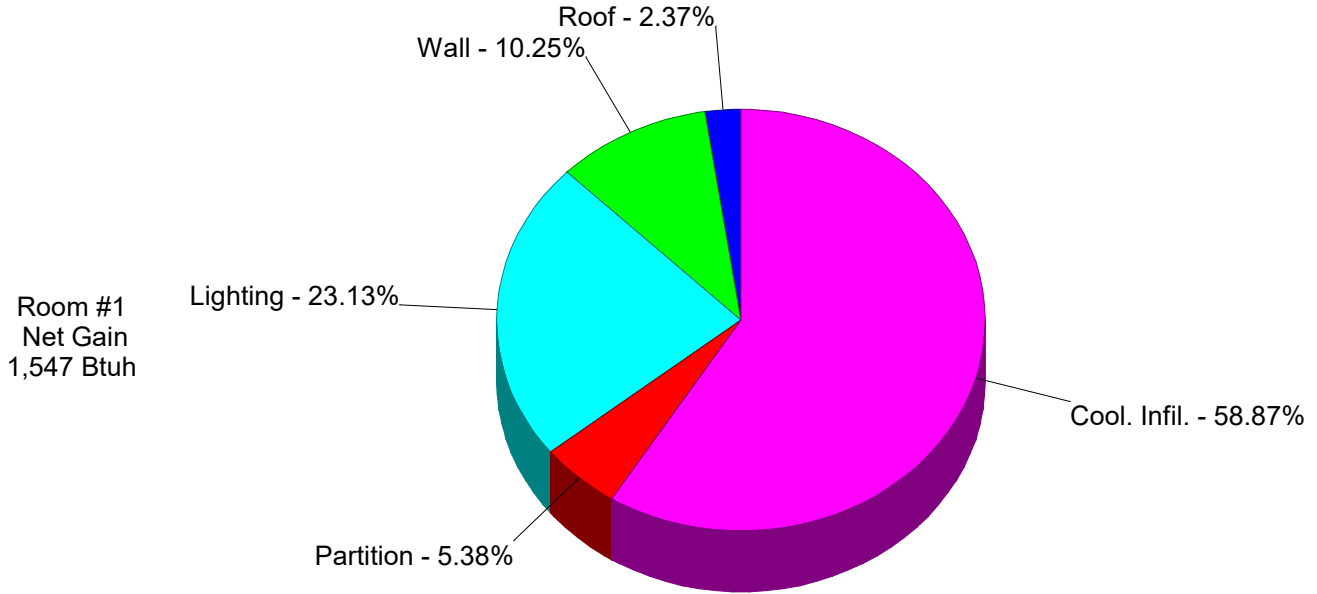
Zone 20,
System 1
Loss 2,485
Btuh





Room #1 - Entry 100 - Pie Charts

Room #1 peaks in August at 3pm

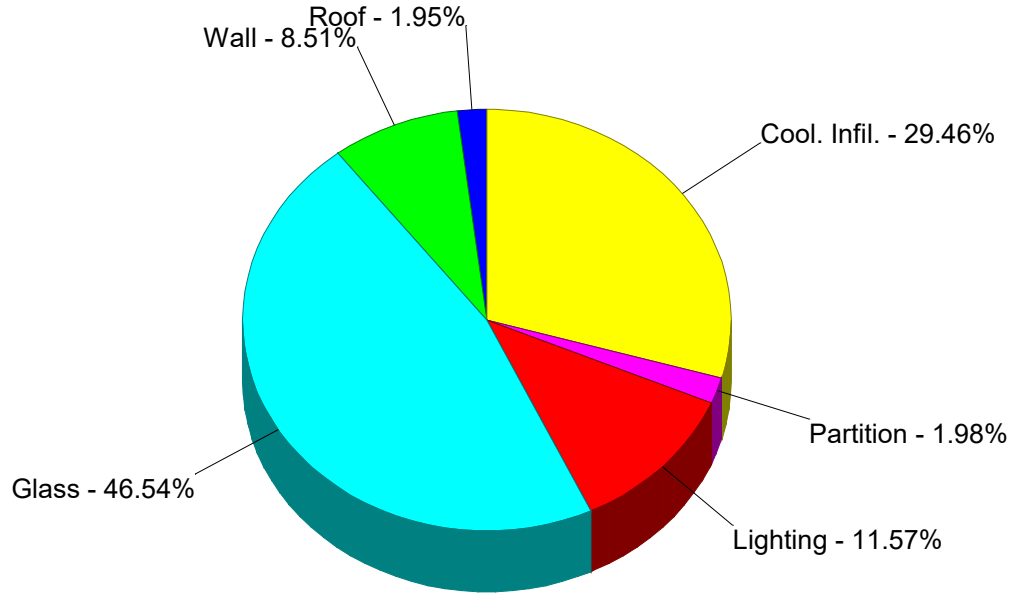




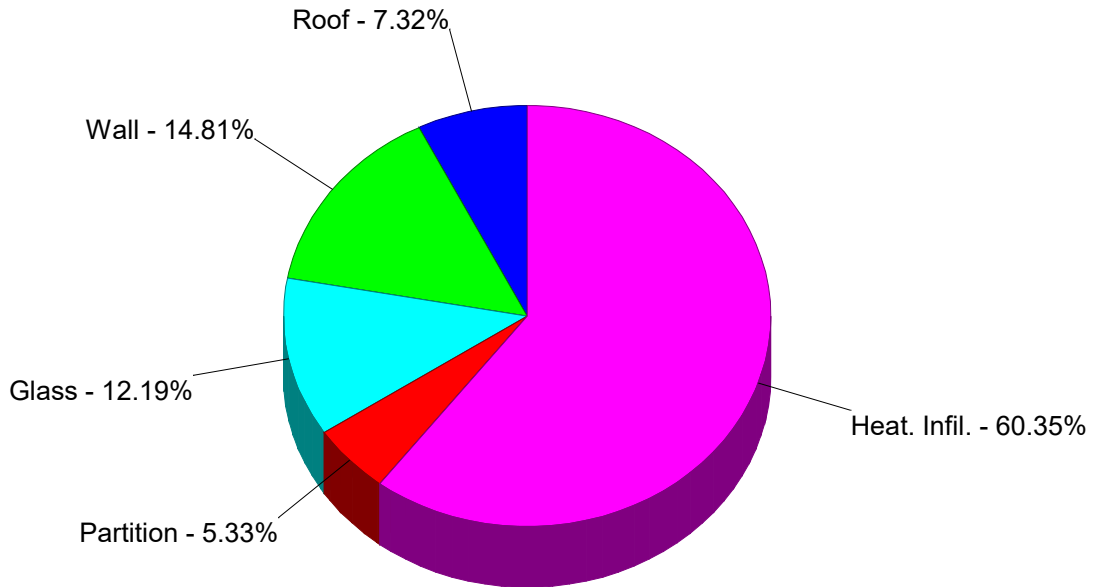
Room #2 - Laundry 101 - Pie Charts

Room #2 peaks in August at 5pm

Room #2
Net Gain
1,613 Btuh



Room #2
Loss 1,496
Btuh

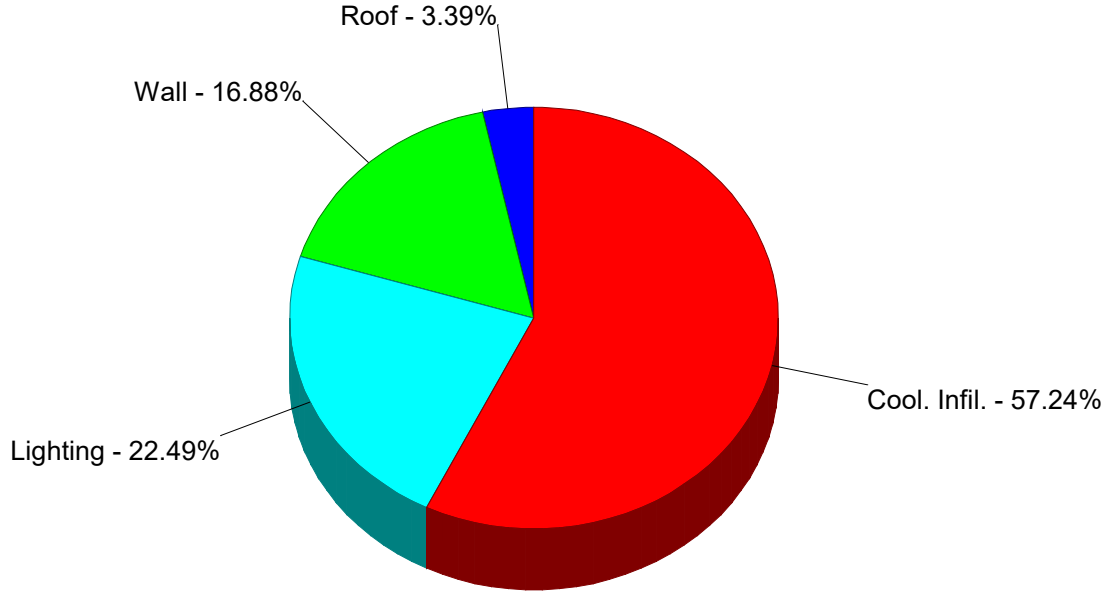




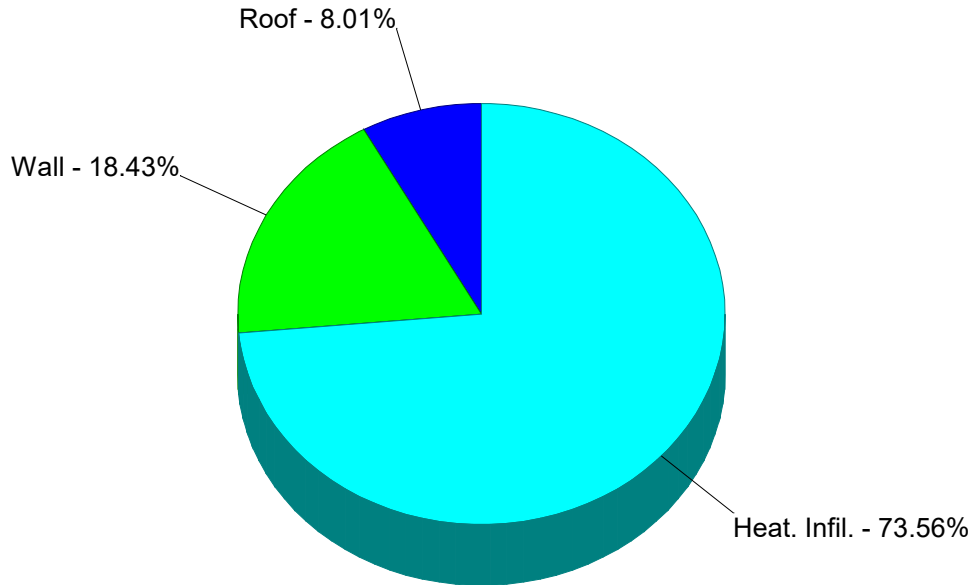
Room #3 - Pantry 102 - Pie Charts

Room #3 peaks in August at 5pm

Room #3
Net Gain
408 Btuh



Room #3
Loss 604
Btuh

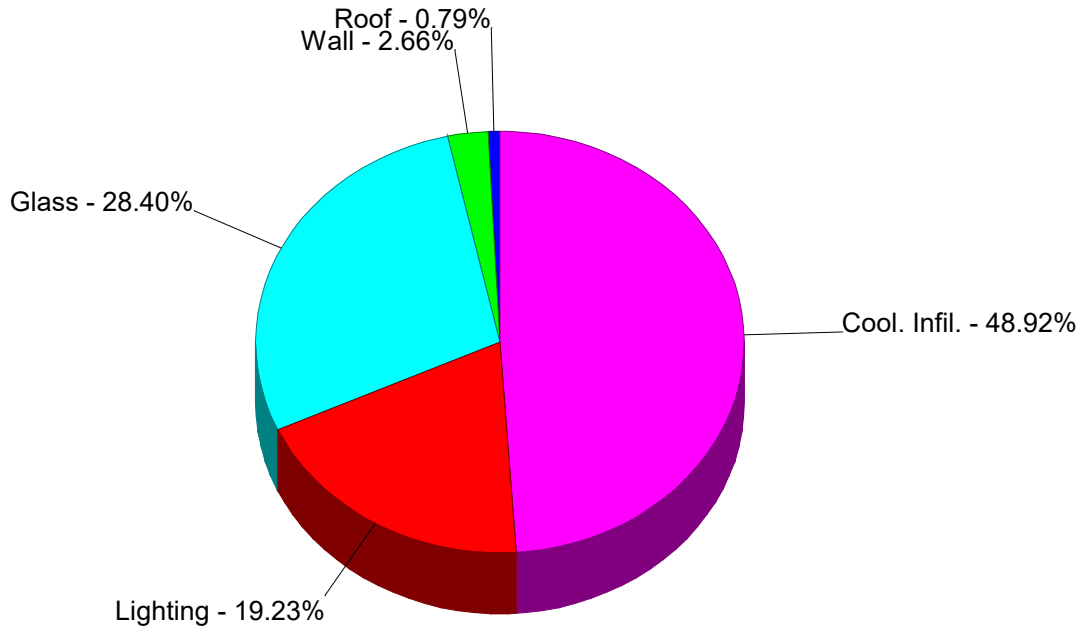




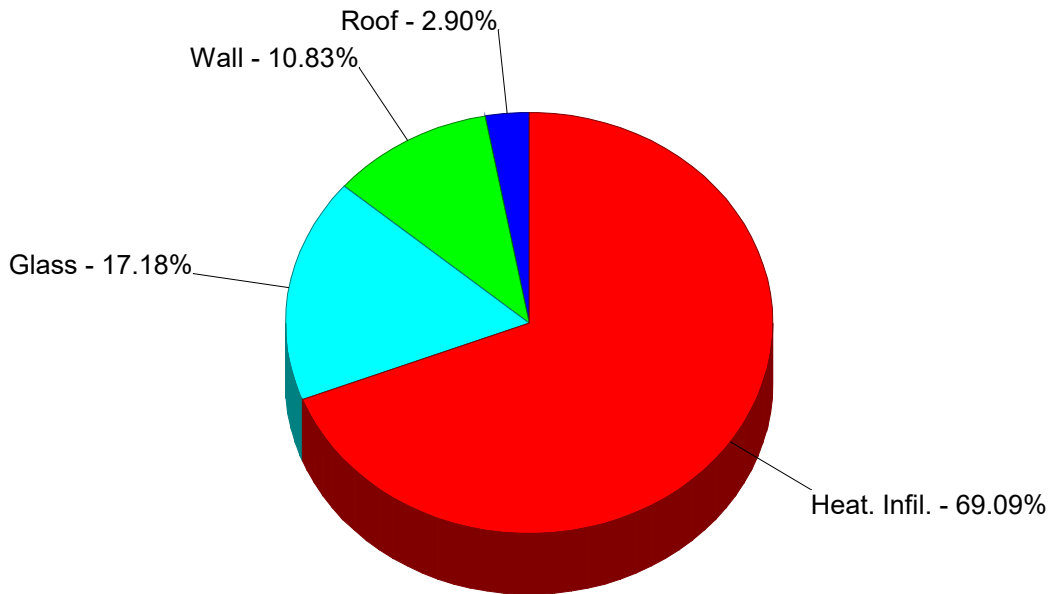
Room #4 - Hallway 103, Back Entry 104_2 Closets - Pie Charts

Room #4 peaks in August at 3pm

Room #4
Net Gain
1,775 Btuh



Room #4
Loss 2,389
Btuh

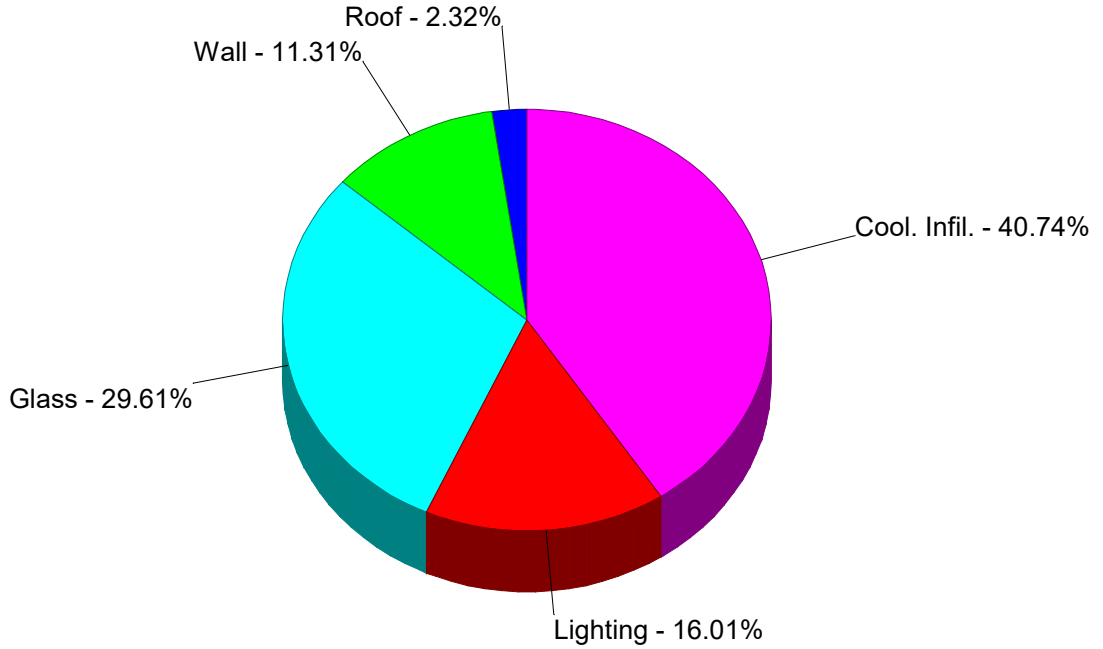




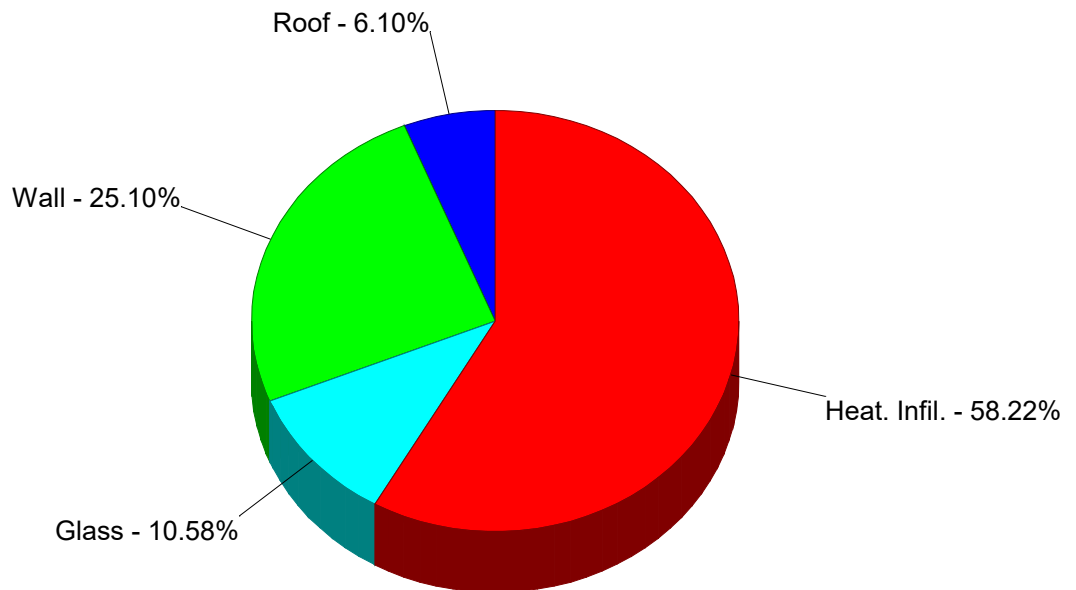
Room #5 - Bath 105 - Pie Charts

Room #5 peaks in August at 5pm

Room #5
Net Gain
1,324 Btuh



Room #5
Loss 1,760
Btuh

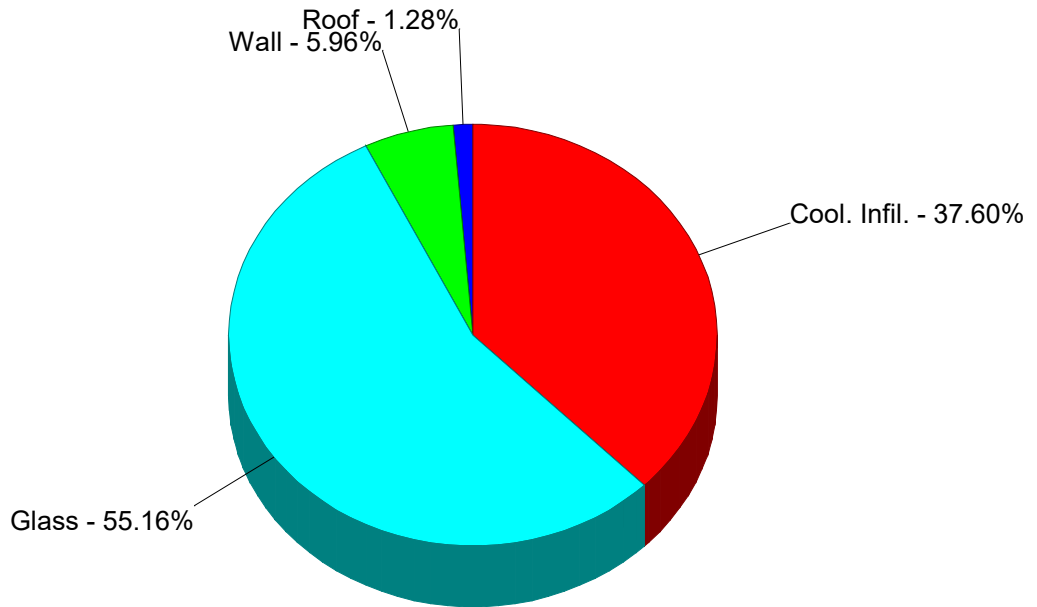




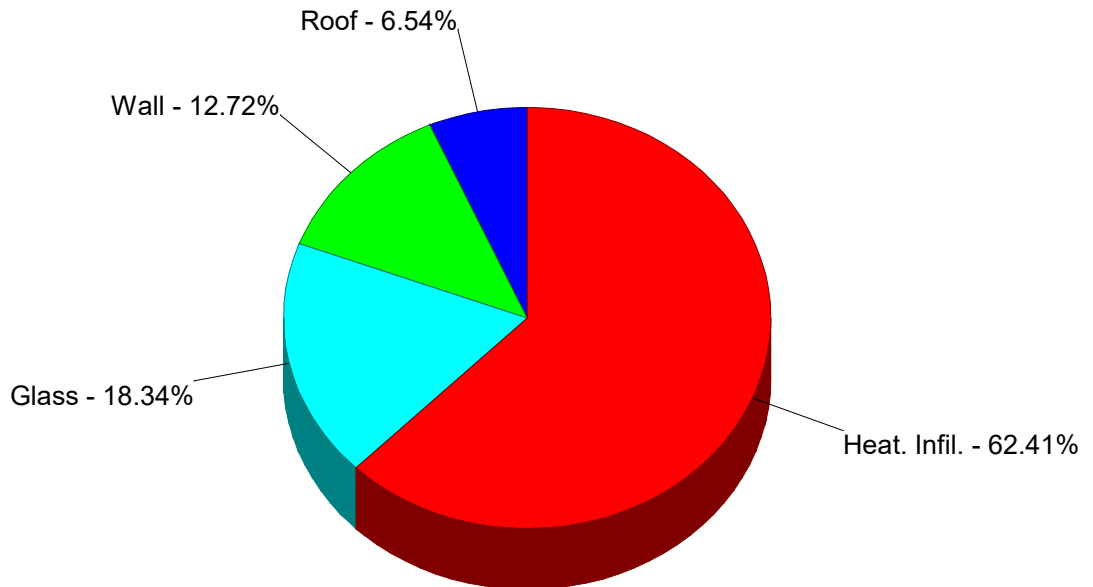
Room #6 - M. Bed 106_Closet - Pie Charts

Room #6 peaks in August at 2pm

Room #6
Net Gain
4,180 Btuh



Room #6
Loss 4,787
Btuh

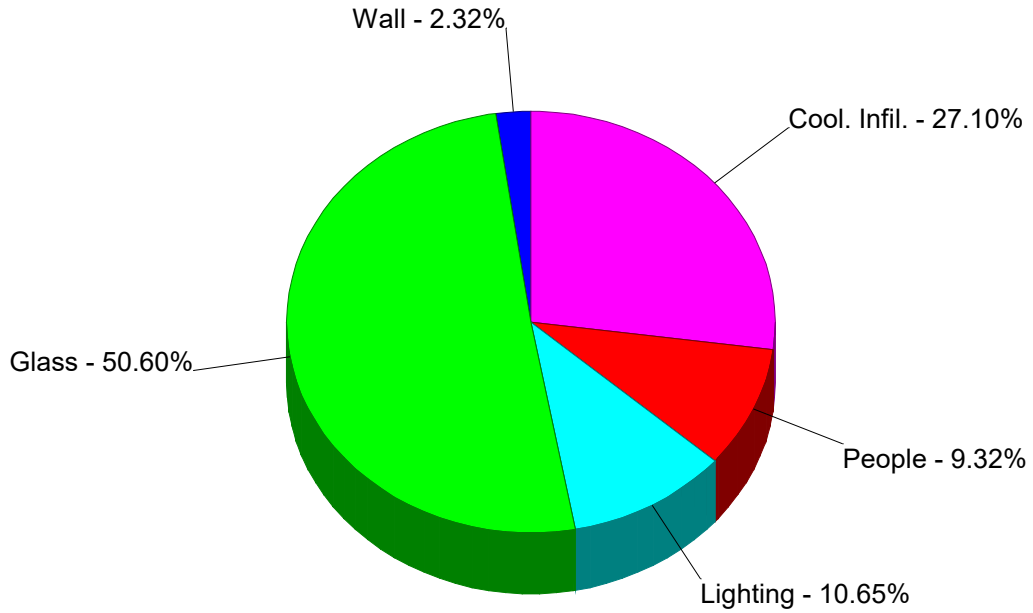




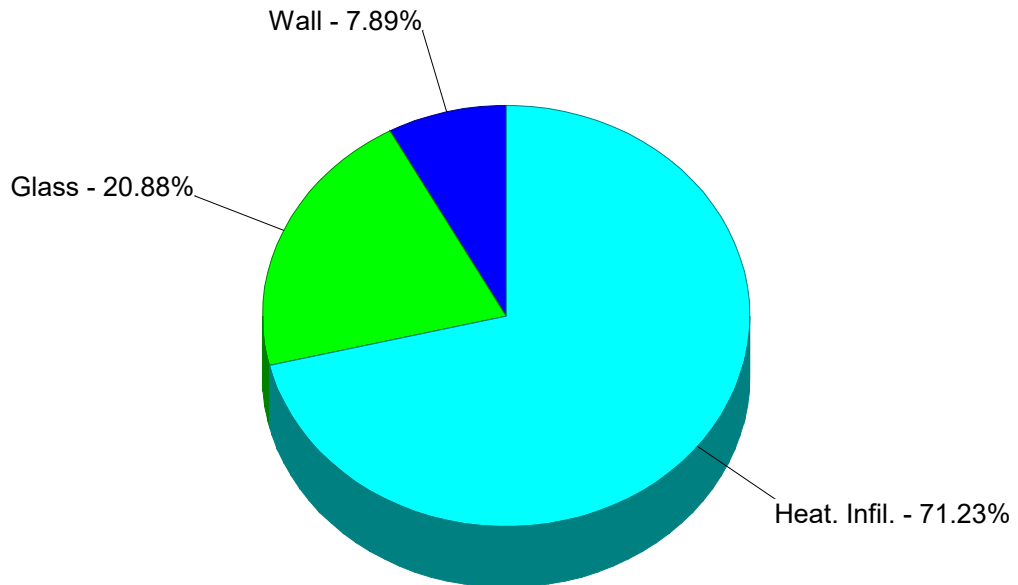
Room #7 - Living 107 - Pie Charts

Room #7 peaks in August at 2pm

Room #7
Net Gain
8,150 Btuh



Room #7
Loss 5,895
Btuh

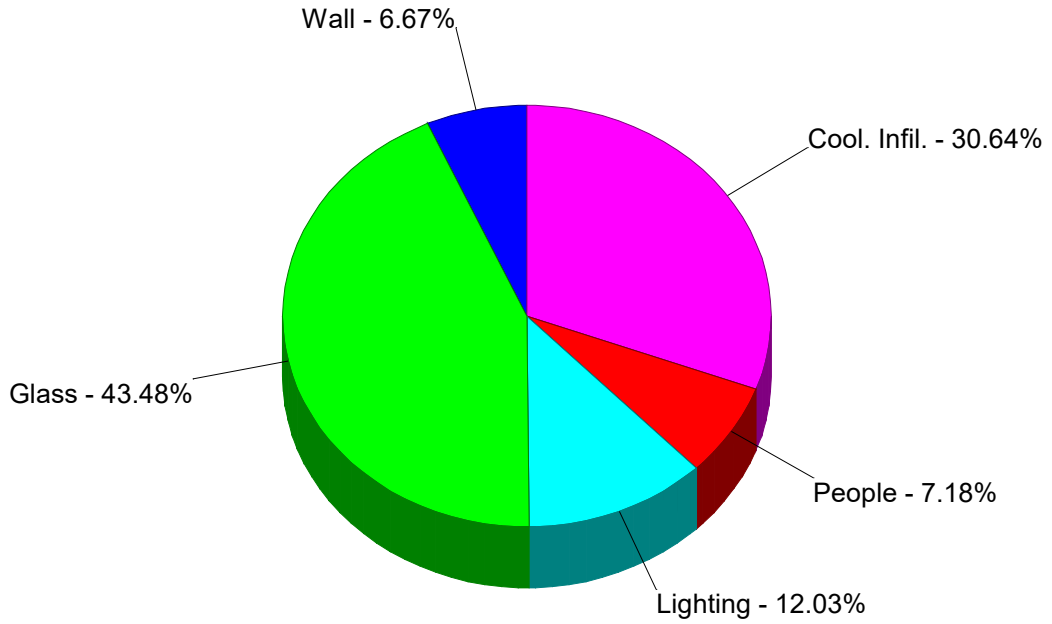




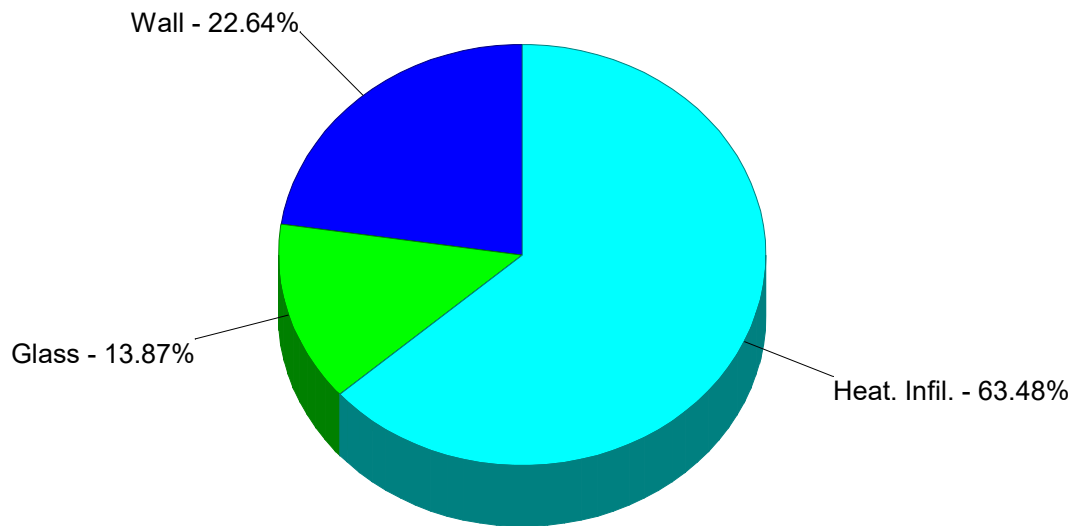
Room #8 - Dining 108 - Pie Charts

Room #8 peaks in August at 1pm

Room #8
Net Gain
5,292 Btuh



Room #8
Loss 4,853
Btuh

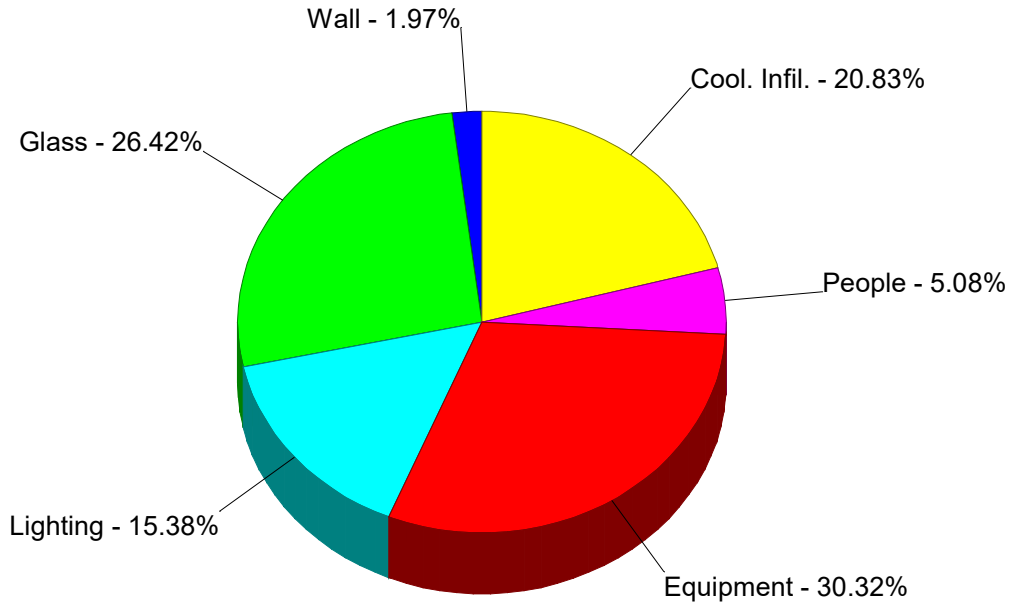




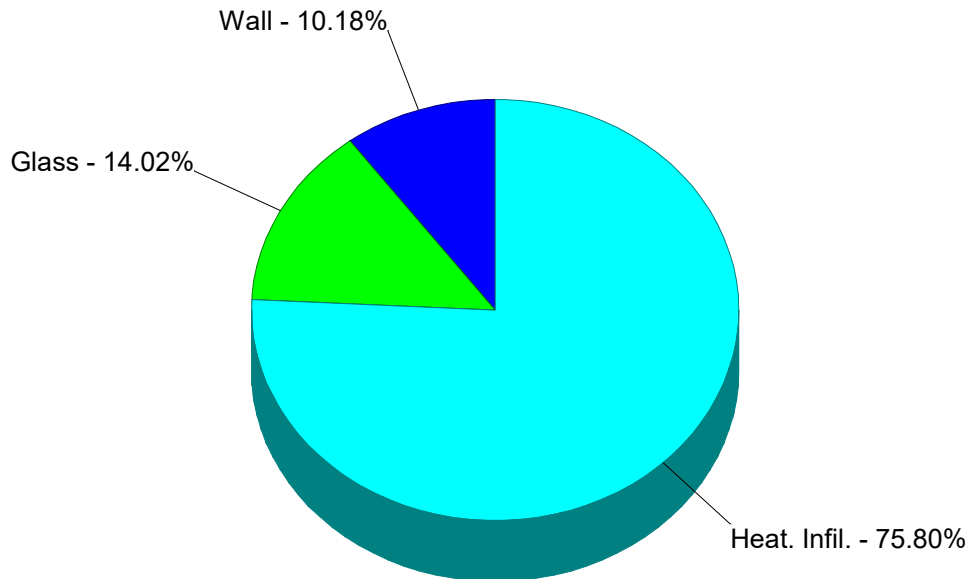
Room #9 - Kitchen 110 - Pie Charts

Room #9 peaks in August at 10am

Room #9
Net Gain
7,877 Btuh



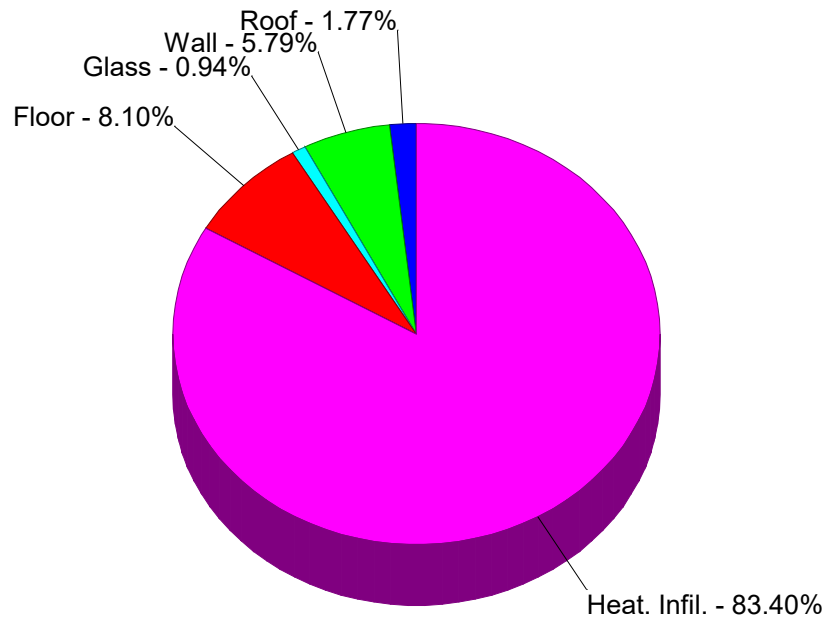
Room #9
Loss 5,156
Btuh





Room #10 - Garage 111 - Pie Charts

Room #10 peaks in August at 12am

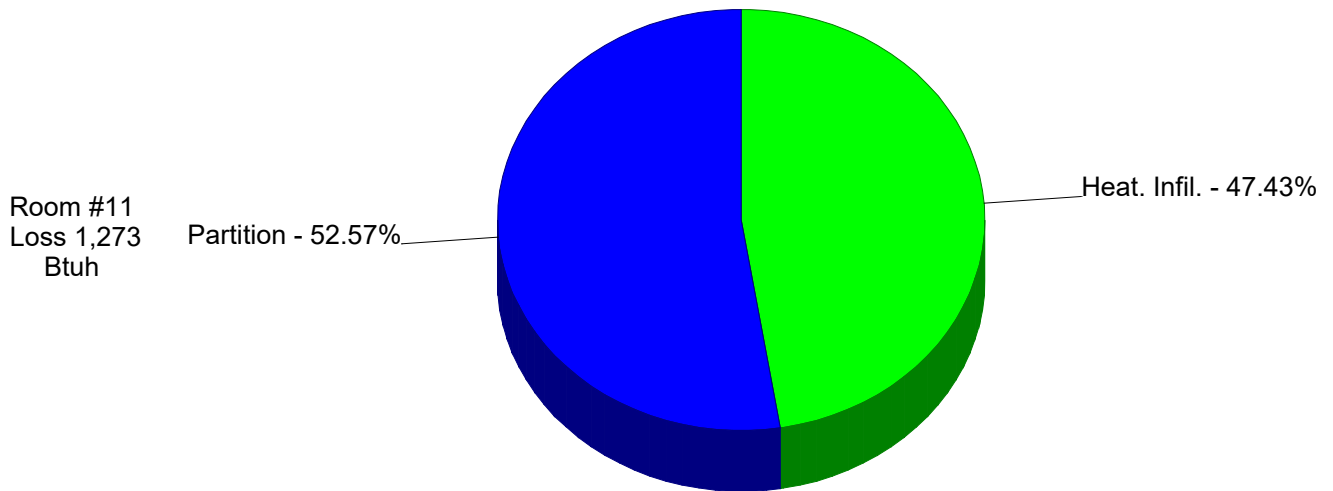


Room #10
Loss
76,261
Btuh



Room #11 - Mech 001 - Pie Charts

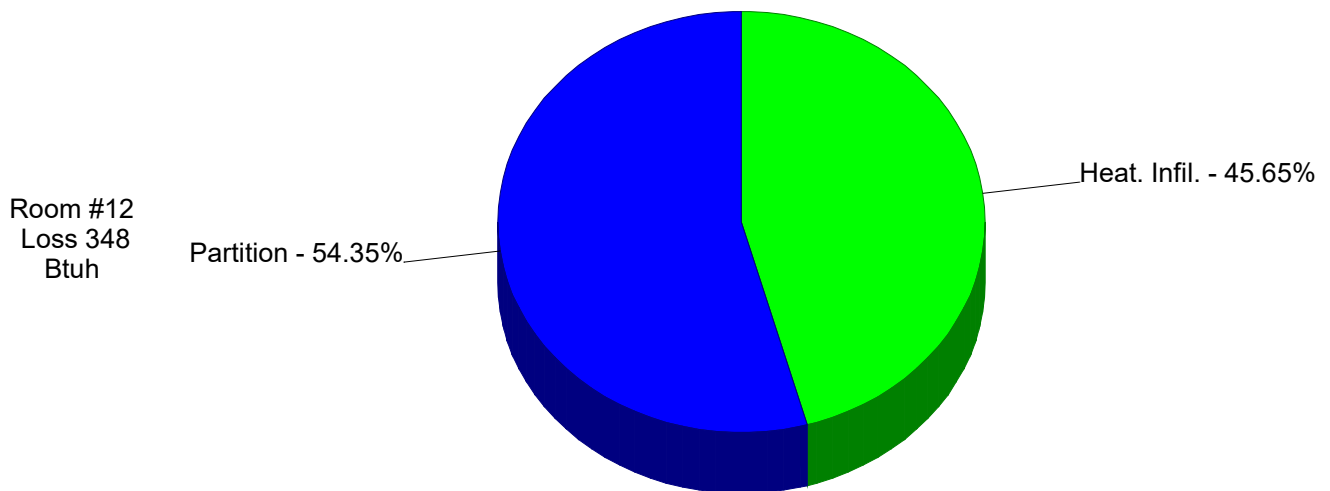
Room #11 peaks in August at 12am





Room #12 - Bath 002 - Pie Charts

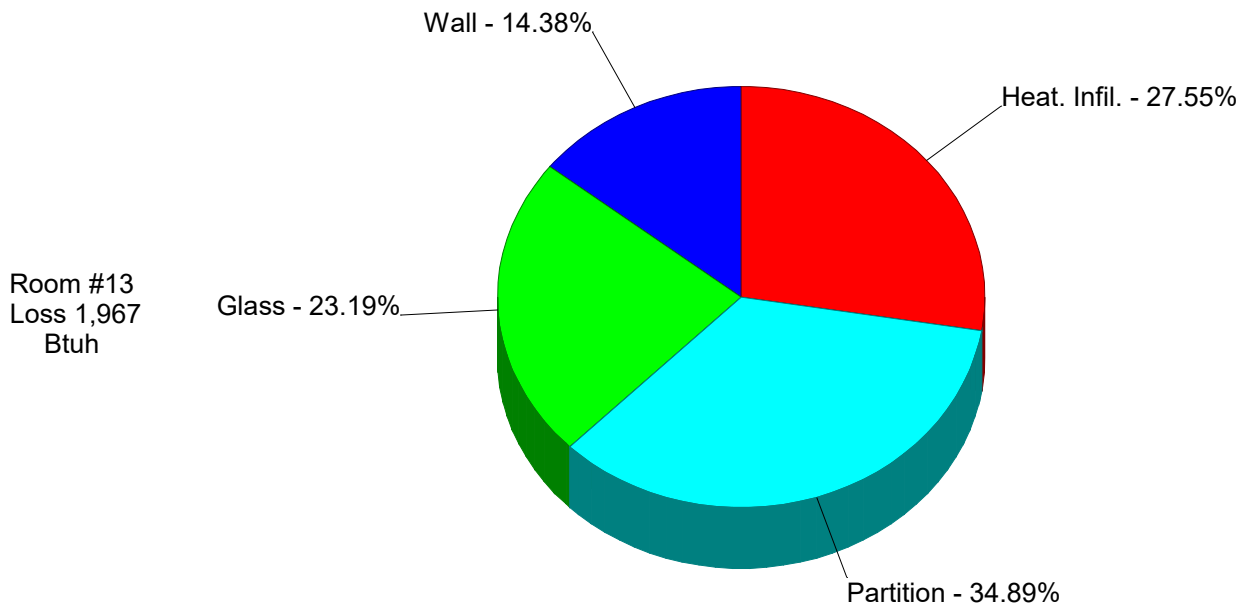
Room #12 peaks in August at 12am





Room #13 - Bed 003 - Pie Charts

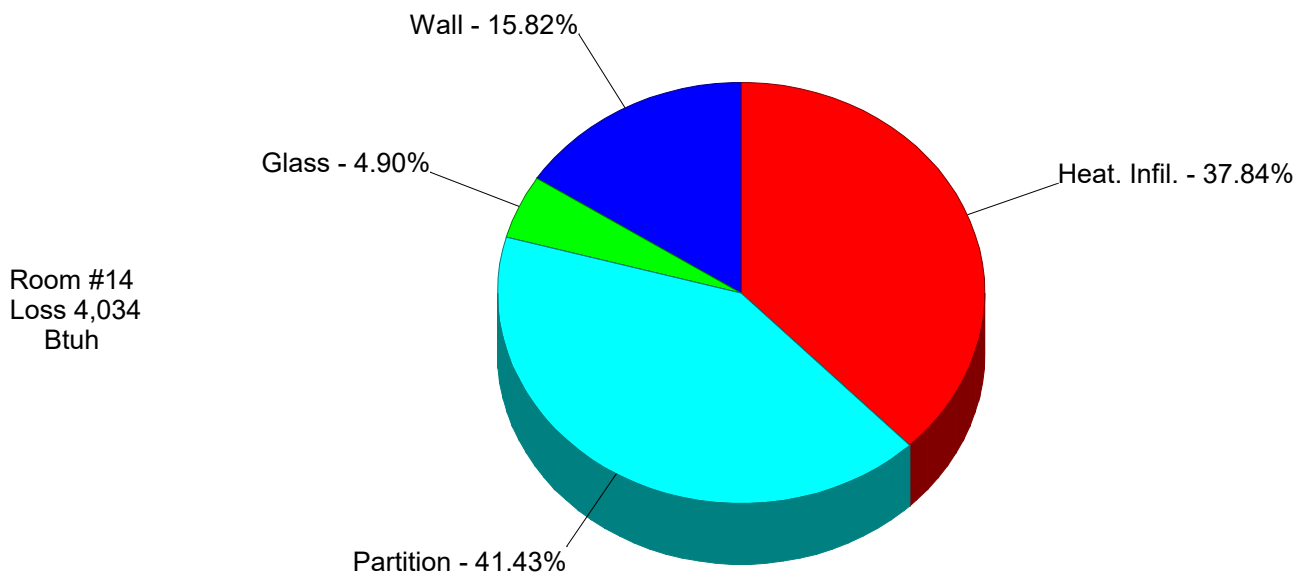
Room #13 peaks in August at 12am





Room #14 - Basement 004 - Pie Charts

Room #14 peaks in August at 12am

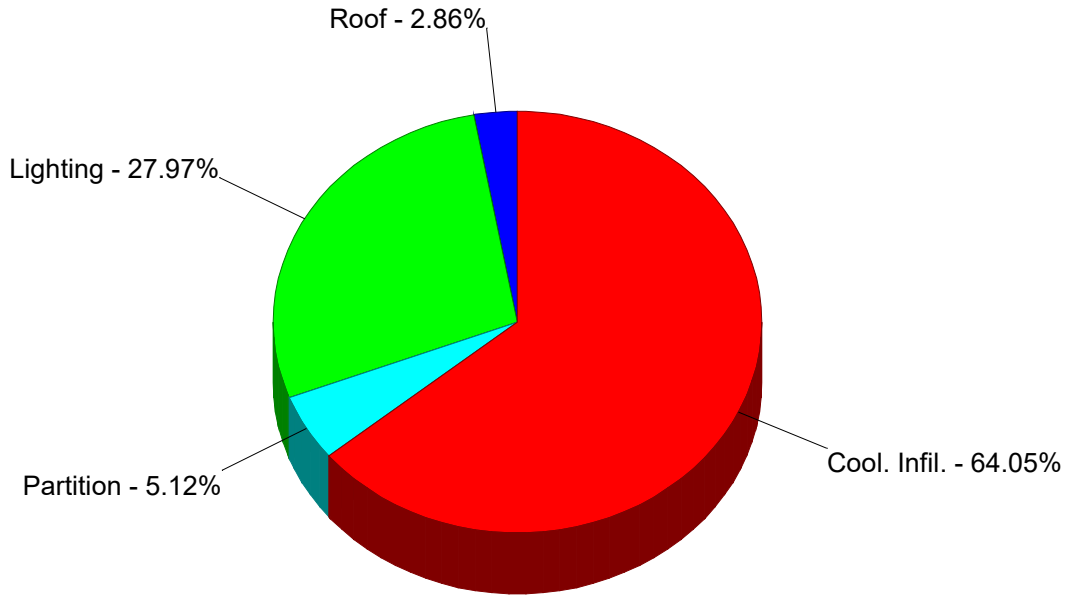




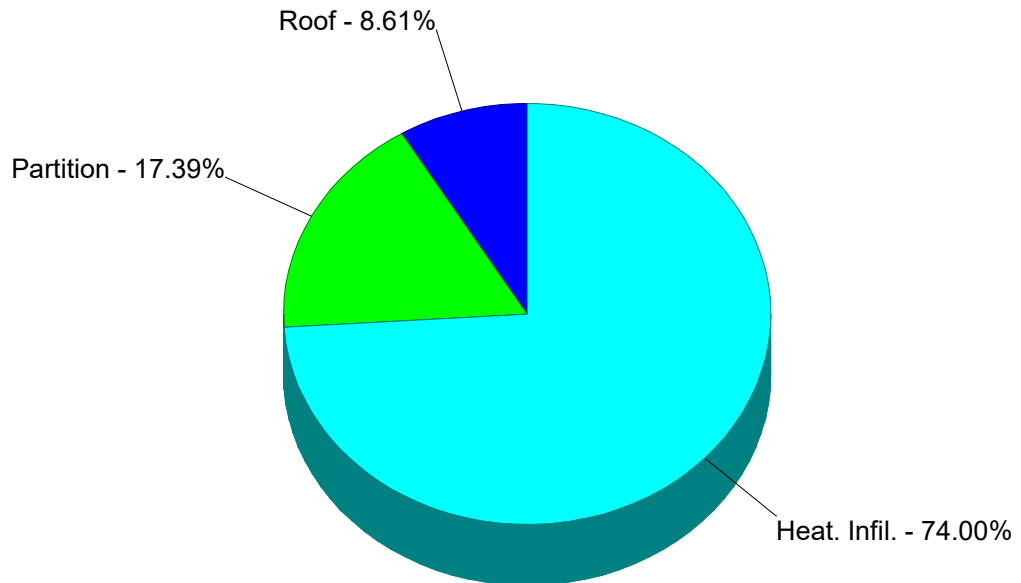
Room #15 - Hall 200 - Pie Charts

Room #15 peaks in August at 3pm

Room #15
Net Gain
999 Btuh



Room #15
Loss 1,644
Btuh

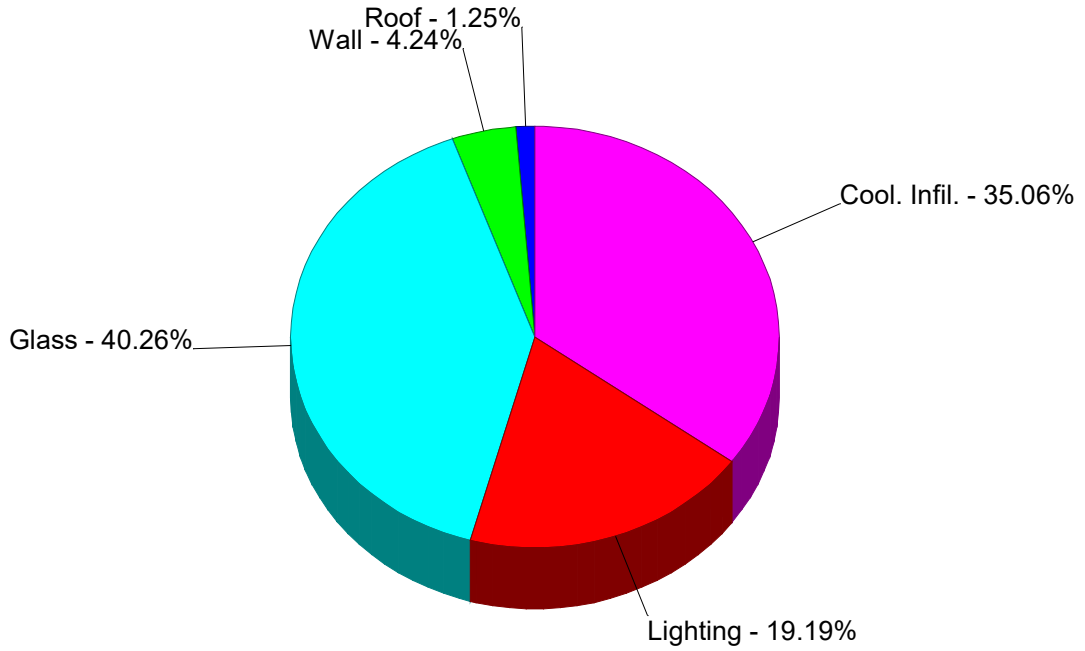




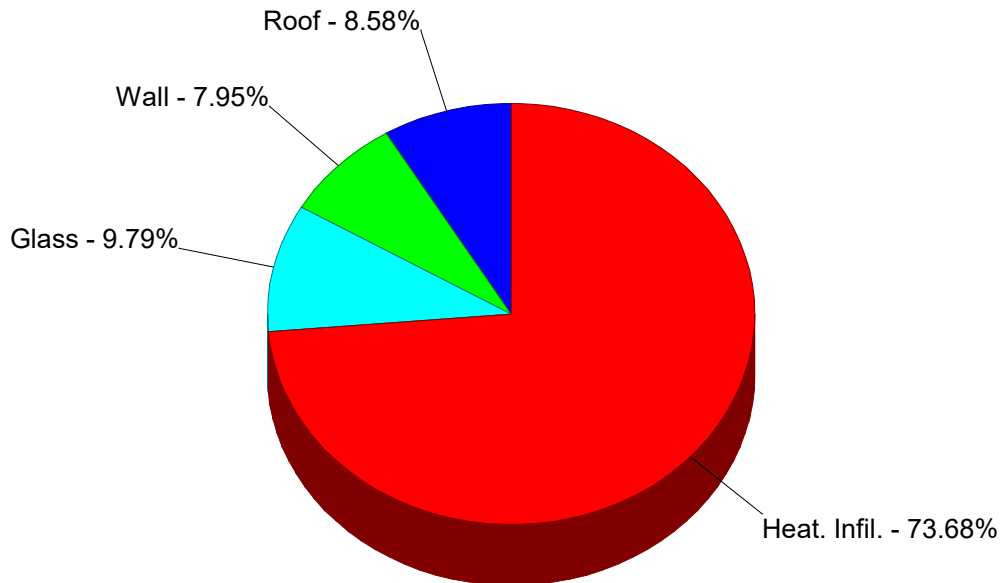
Room #16 - Bath 201 - Pie Charts

Room #16 peaks in August at 10am

Room #16
Net Gain
1,424 Btuh



Room #16
Loss 1,615
Btuh

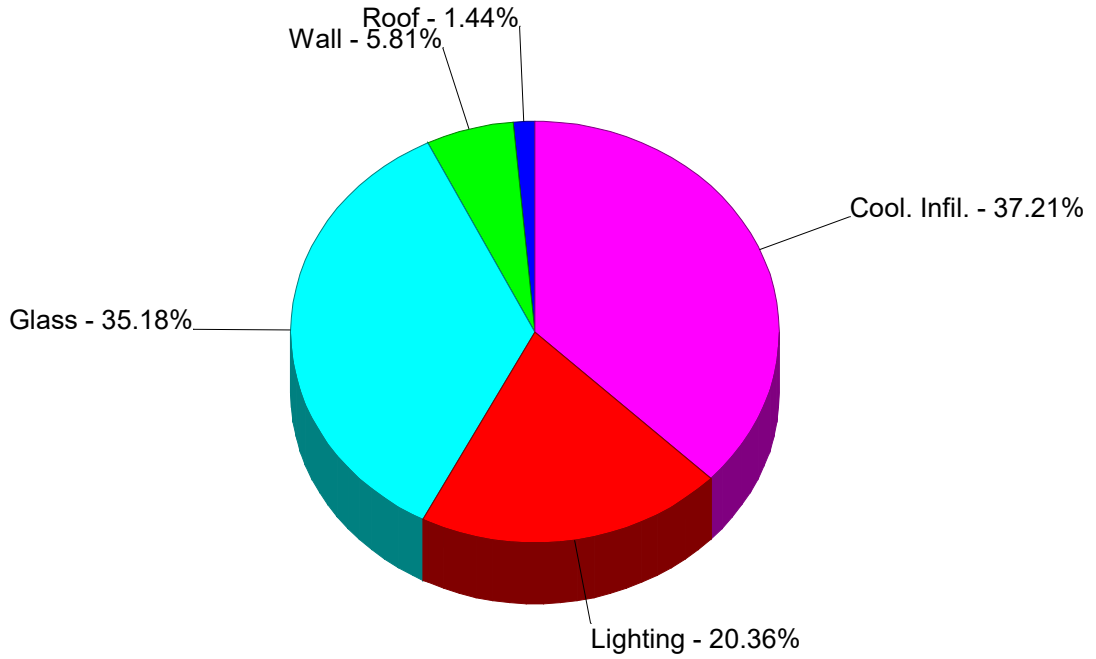




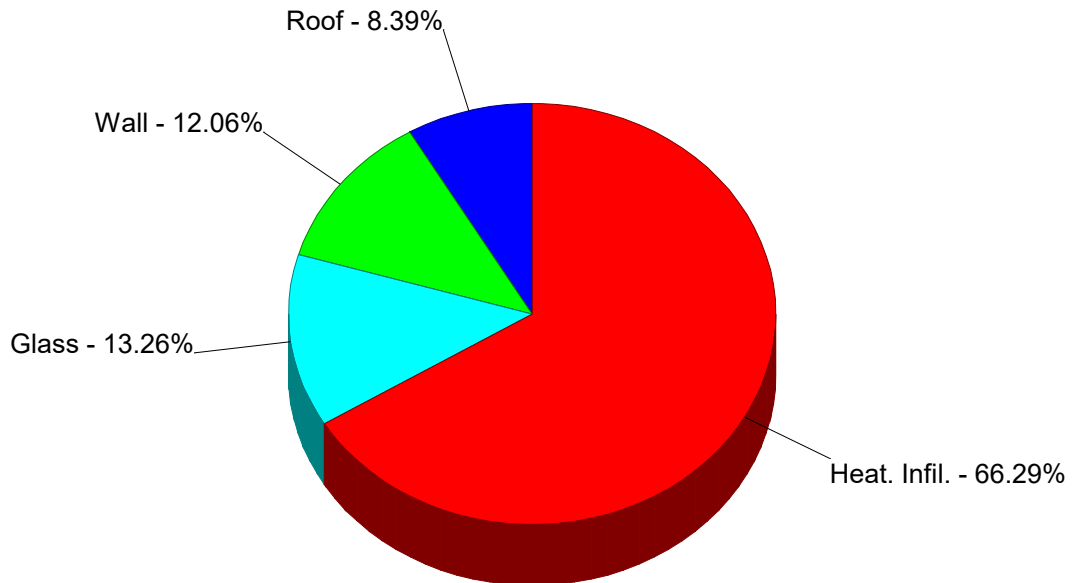
Room #17 - Bed 202 - Pie Charts

Room #17 peaks in August at 10am

Room #17
Net Gain
3,599 Btuh



Room #17
Loss 4,814
Btuh

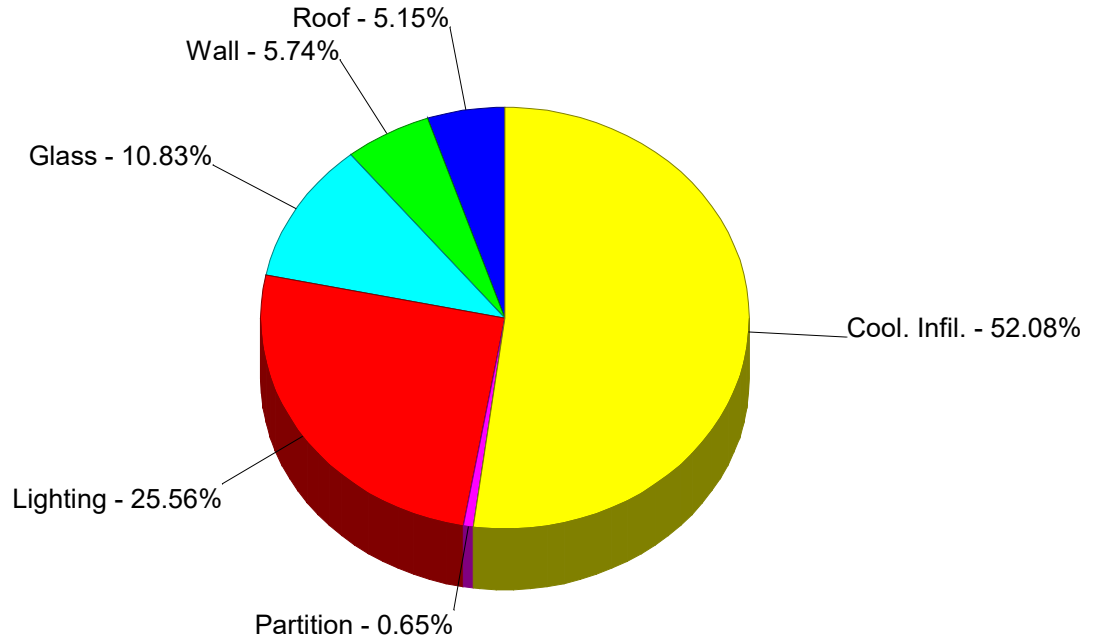




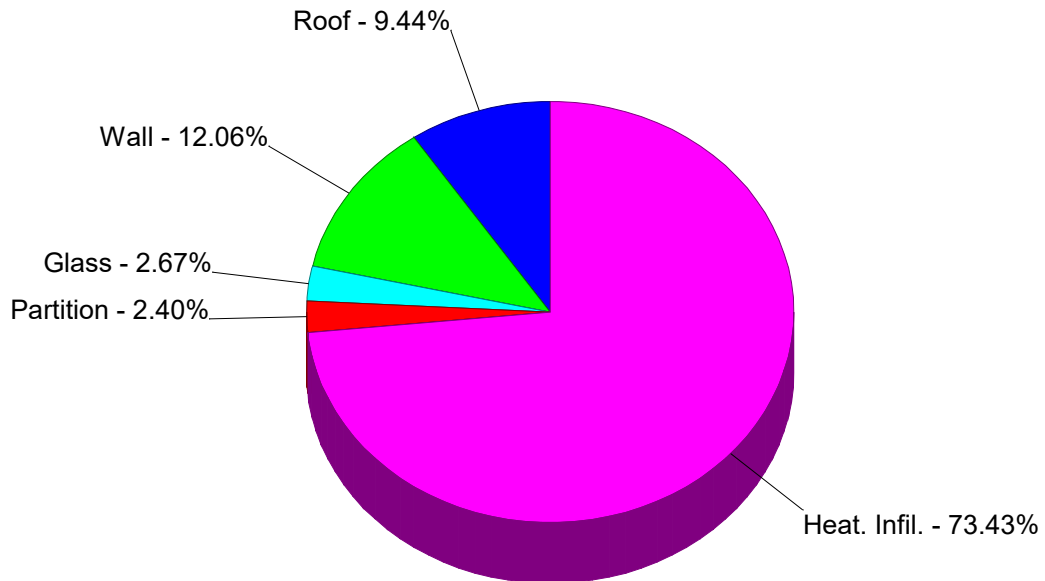
Room #18 - Bed 203 - Pie Charts

Room #18 peaks in August at 7pm

Room #18
Net Gain
2,544 Btuh



Room #18
Loss 3,853
Btuh



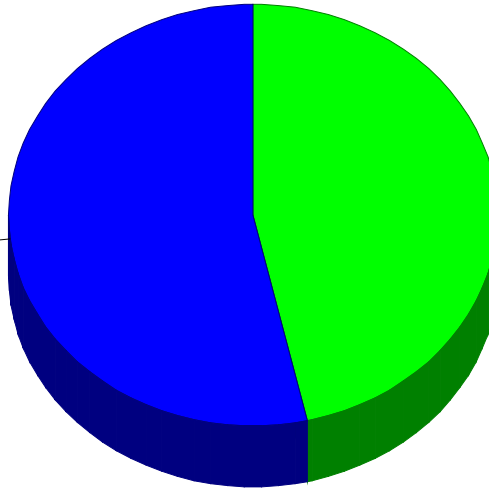


Room #19 - Crawl Space - Pie Charts

Room #19 peaks in August at 10pm

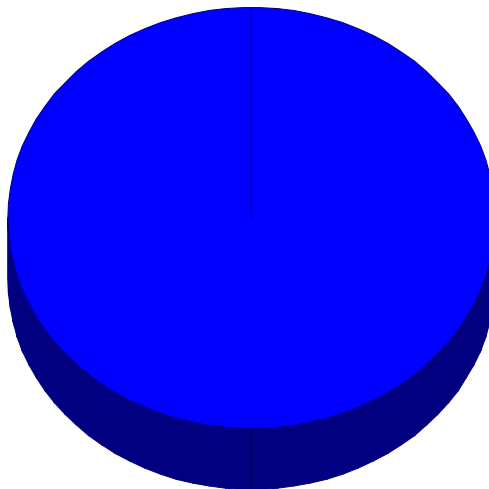
Room #19
Net Gain
1,239 Btuh

Lighting - 53.58%



Partition - 46.42%

Room #19
Loss 274
Btuh



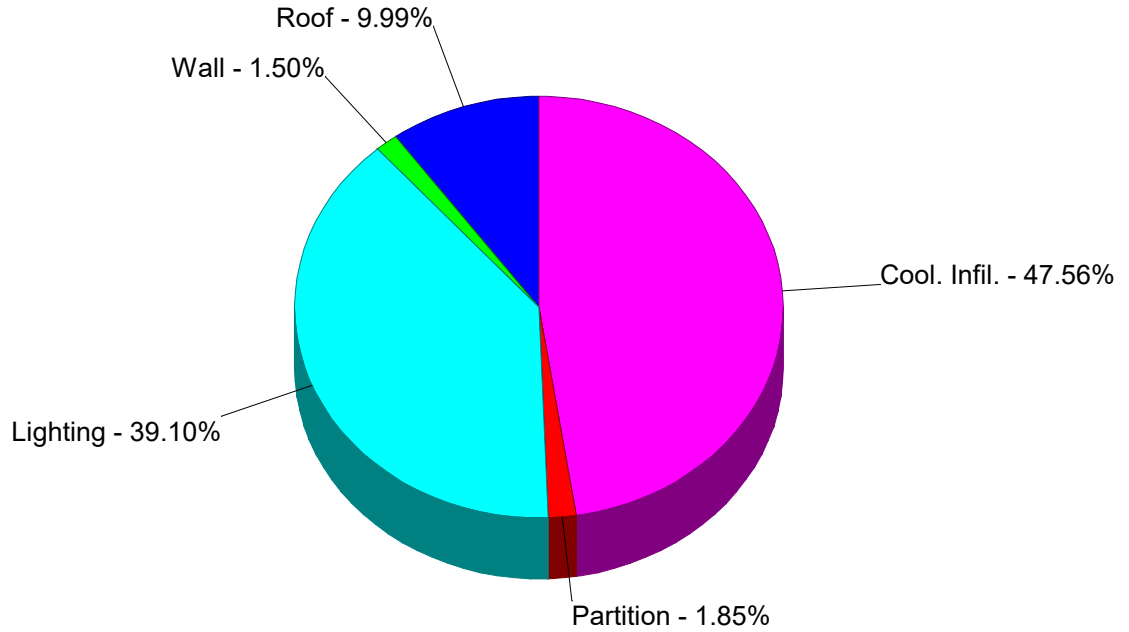
Partition - 100.00%



Room #20 - Storage Attic 204 - Pie Charts

Room #20 peaks in August at 5pm

Room #20
Net Gain
1,766 Btuh



Room #20
Loss 2,485
Btuh

