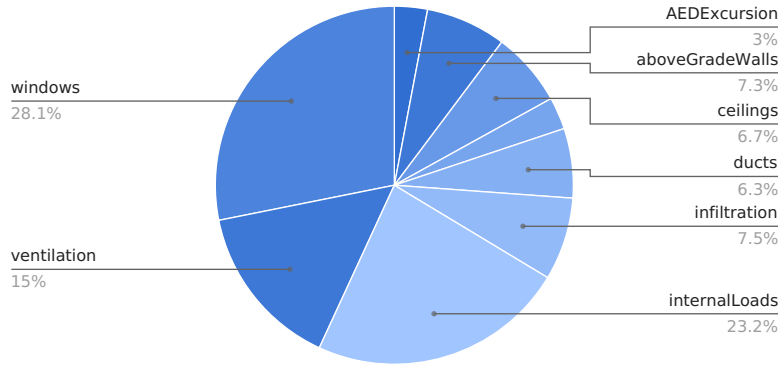


ST. LOUIS, LAMBERT IAP, MO

Summer Outdoor F:	93	Summer Indoor F:	75	Design Grains:	46	Daily Range:	Medium
Winter Outdoor F:	10	Winter Indoor F:	70	Cooling RH:	50%	Elevation (Ft):	709

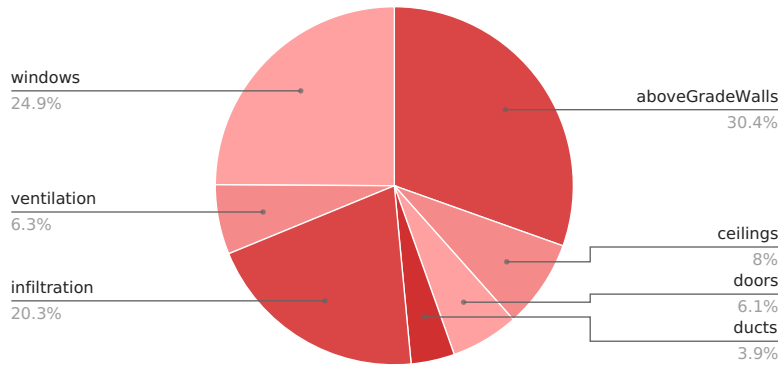
LOAD CALCULATION TOTALS

Heating BTU:	6980	Cooling BTU:	7605	SHR:	0.790	CFM:	248
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Cooling Loads

Name	Area	Sensible	Latent
AEDExcursion	0.00	226.76	0.00
aboveGradeWalls	506.00	552.55	0.00
belowGradeWalls	0.00	0.00	0.00
blowerMotor	0.00	0.00	0.00
ceiling	516.00	510.84	0.00
doors	25.50	221.34	0.00
ducts	0.00	445.51	32.13
infiltration	0.00	220.40	348.18
internalLoads	0.00	1168.00	600.00
skylights	0.00	0.00	0.00
ventilation	0.00	526.80	611.94
windows	80.50	2140.41	0.00
winterHumidification	0.00	0.00	0.00
Totals	-	6012.60	1592.25



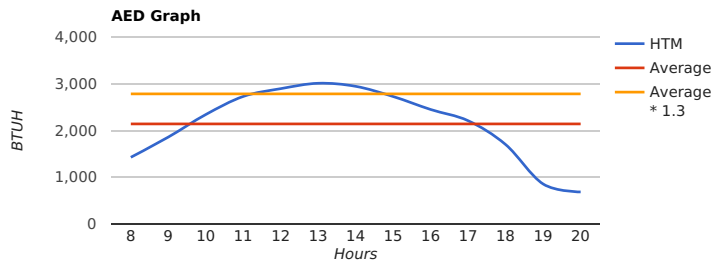
Heating Loads

Name	Area	Heat Loss
AEDExcursion	0.00	0.00
aboveGradeWalls	506.00	2125.20
belowGradeWalls	0.00	0.00
blowerMotor	0.00	0.00
ceiling	516.00	557.28
doors	25.50	428.40
ducts	0.00	274.66
infiltration	0.00	1416.84
internalLoads	0.00	0.00
skylights	0.00	0.00
ventilation	0.00	439.00
windows	80.50	1738.80
winterHumidification	0.00	0.00
Totals	-	6980.18

Warning (1): 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).

Warning (2): The sensible load for this application peaks during late fall or early winter. This behavior is caused by glass that faces SouthEast, South or SouthWest. Some rooms may be noticeably cooler or warmer than the temperature set point if zoning is not provided. Simultaneous heating and cooling may be required.

AED Graph



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. See Cool Calc Manual S Report for equipment sizing verification.

## COMPONENT LOADS

### Above Grade Walls

Construction Nr.	Exposure	Area	Heating HTM	Cooling HTM	Heating BTU	Sensible BTU	Latent BTU
13D-5oc m	S	56.00	4.20	1.09	235.20	61.15	0.00
13D-5oc m	W	108.50	4.20	1.09	455.70	118.48	0.00
13D-5oc m	E	61.50	4.20	1.09	258.30	67.16	0.00
13D-5oc m	E	189.00	4.20	1.09	793.80	206.39	0.00
13D-5oc m	S	91.00	4.20	1.09	382.20	99.37	0.00

### Below Grade Walls

(none)

### Blower Motor

(none)

### Ceilings

Construction Nr.	Area	Heating HTM	Cooling HTM	Heating BTU	Sensible BTU	Latent BTU
16BR-56	154.00	1.08	0.99	166.32	152.46	0.00
16BR-56	42.00	1.08	0.99	45.36	41.58	0.00
16BR-56	50.00	1.08	0.99	54.00	49.50	0.00
16BR-56	270.00	1.08	0.99	291.60	267.30	0.00

### Doors

Construction Nr.	Exposure	Area	Heating HTM	Cooling HTM	Heating BTU	Sensible BTU	Latent BTU
11	S	25.50	16.80	8.68	428.40	221.34	0.00

### Ducts

EHLF	ESGF	ELG	Heating BTU	Sensible BTU	Latent BTU
0.04	0.09	32.13	0.00	0.00	0.00

### Infiltration

NCFM Heating	NCFM Cooling	Heating BTU	Sensible BTU	Latent BTU
21.95	11.38	1416.84	220.40	348.18

### Internal Loads

Heating BTU	Sensible BTU	Latent BTU
0.00	230.00	200.00
0.00	0.00	0.00
0.00	51.25	0.00
0.00	426.75	0.00
0.00	0.00	0.00
0.00	460.00	400.00

### Ventilation

VCFM	Heating BTU	Sensible BTU	Latent BTU
20.00	439.00	526.80	611.94

### Windows

Construction Nr.	Exposure	Area	Heating HTM	Heating BTU	Sensible BTU Avg.	Sensible BTU Peak	Latent BTU
3C	S	17.50	21.60	378.00	445.98	784.14	0.00
3C	W	17.50	21.60	378.00	527.93	1100.78	0.00
3C	E	10.50	21.60	226.80	274.53	603.98	0.00
3C	S	35.00	21.60	756.00	891.96	1568.28	0.00

### Winter Humidification

(none)

FormType: HVAC System  
HVAC System Name: 2nd Floor Back



### ROOM LOADS

Room Name	Heating	Sensible	Latent	Cooling	CFM
2nd Floor Back Bedroom	2674.83	2235.33	328.01	2563.34	112.00
2nd Floor Back Corridor	45.36	519.58	0.00	519.58	26.00
2nd Floor Bathroom	736.72	702.82	40.96	743.78	35.00
2nd Floor Master Bedroom and Bath	3082.28	2635.86	579.21	3215.07	119.00