

BUILDING INFORMATION

Category:	Residential
Status:	In planning
Building type:	New construction
Year of construction:	2023
Units:	92
Number of occupants:	191 (Design)
Occupant density:	417.3 ft²/Person

Boundary conditions

Climate:	User defined
Internal heat gains:	1.1 Btu/hr ft²
Interior temperature:	68 °F
Overheat temperature:	77 °F

Building geometry

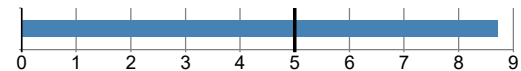
Enclosed volume:	939,955.8 ft³
Net-volume:	653,789.4 ft³
Total area envelope:	71,430.2 ft²
Area/Volume Ratio:	0.1 1/ft
Floor area:	79,710 ft²
Envelope area/iCFA:	0.896

PASSIVEHOUSE REQUIREMENTS

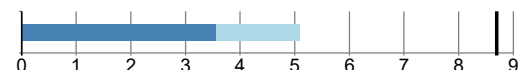
Certificate criteria: **Phius CORE 2021**

Heating demand

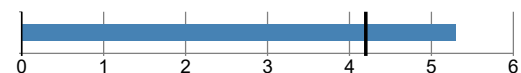
specific:	8.71 kBtu/ft²yr
target:	5 kBtu/ft²yr
total:	694,482.3 kBtu/yr

**Cooling demand**

sensible:	3.57 kBtu/ft²yr
latent:	1.53 kBtu/ft²yr
specific:	5.1 kBtu/ft²yr
target:	8.7 kBtu/ft²yr
total:	406,395.89 kBtu/yr

**Heating load**

specific:	5.3 Btu/hr ft²
target:	4.2 Btu/hr ft²
total:	422,283.32 Btu/hr

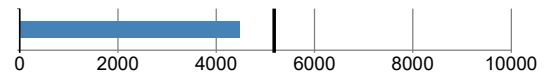
**Cooling load**

specific:	2.28 Btu/hr ft²
target:	2.5 Btu/hr ft²
total:	181,809.94 Btu/hr



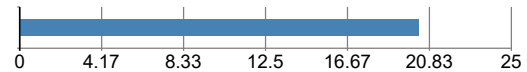
Source energy

total: **854,497.35** kWh/yr
 specific: **4,474** kWh/Person yr
 target: **5,175** kWh/Person yr
 total: **2,915,378.19** kBtu/yr
 specific: **36.58** kBtu/ft²yr



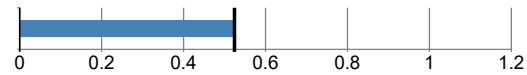
Site energy

total: **1,619,470.04** kBtu/yr
 specific: **20.32** kBtu/ft²yr
 total: **474,666.67** kWh/yr
 specific: **5.95** kWh/ft²



Air tightness

ACH50: **0.52** 1/hr
 CFM50 per envelope area: **0.08** cfm/ft²
 target: **0.52** 1/hr
 target CFM50: **0.08** cfm/ft²

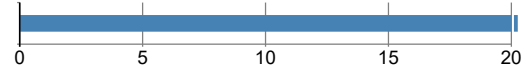


PASSIVEHOUSE RECOMMENDATIONS

Sensible recovery efficiency: **79.7** %



Frequency of overheating: **30** %
 Cooling system is required

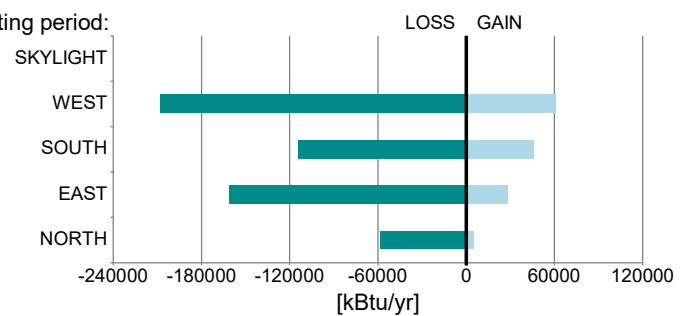


Frequency of overheating only applies if there is not a [properly sized] cooling system installed.

BUILDING ELEMENTS

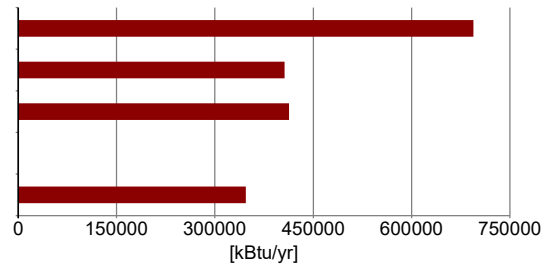
Windows

		Heat gain/loss heating period:	
Average SHGC:	0.36		
Average solar reduction factor heating:	0.35		
Average solar reduction factor cooling:	0.32		
Average U-value:	0.45	Btu/hr ft ² °F	
Total glazing area:	6,760.1	ft ²	
Total window area:	10,027.7	ft ²	



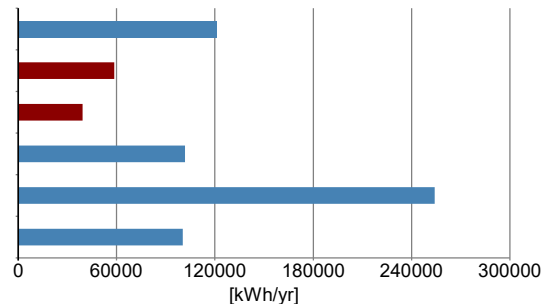
HVAC

Total heating demand:	694,482	kBtu/yr
Total cooling demand:	406,396	kBtu/yr
Total DHW energy demand:	413,032	kBtu/yr
Solar DHW contribution:	0	kBtu/yr
Auxiliary electricity:	347,369	kBtu/yr



Electricity

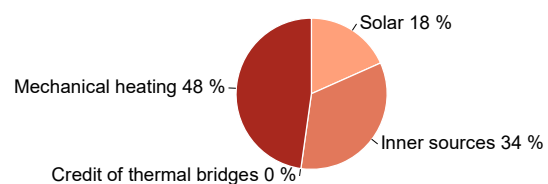
Direct heating / DHW:	121,060	kWh/yr
Heatpump heating:	58,662	kWh/yr
Cooling:	39,276	kWh/yr
HVAC auxiliary energy:	101,814	kWh/yr
Appliances:	254,195	kWh/yr
Renewable generation, coincident production and use:	100,340	kWh/yr
Total electricity demand:	474,667	kWh/yr



HEAT FLOW - HEATING PERIOD

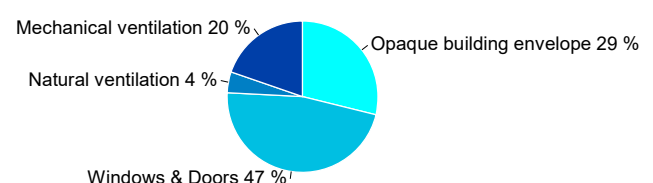
Heat gains

Solar:	240,688	kBtu/yr
Inner sources:	447,246	kBtu/yr
Credit of thermal bridges:	0	kBtu/yr
Mechanical heating:	694,482	kBtu/yr



Heat losses

Opaque building envelope:	383,263	kBtu/yr
Windows & Doors:	625,610	kBtu/yr
Natural ventilation:	58,942	kBtu/yr
Mechanical ventilation:	261,971	kBtu/yr

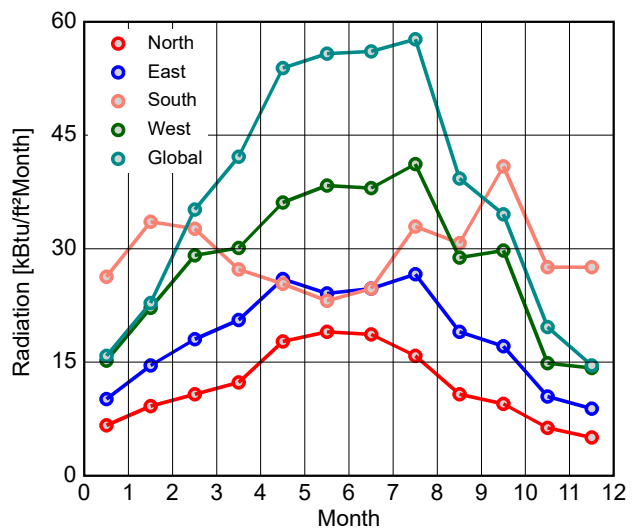
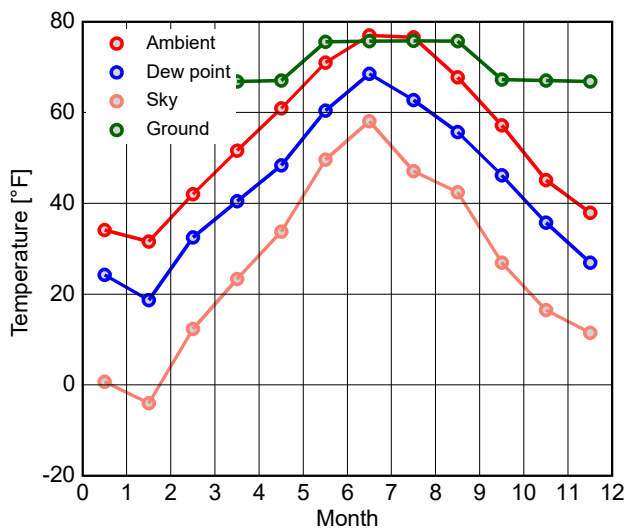


CLIMATE

Latitude: **40.7 °**
Longitude: **-73.8 °**
Elevation of weather station: **16.4 ft**
Elevation of building site: **16.5 ft**
Heat capacity air: **0.018 Btu/ft³F**
Daily temperature swing summer: **14.4 °F**
Average wind speed: **13.1 ft/s**

Ground

Average ground surface temperature: **56.2 °F**
Amplitude ground surface temperature: **54.7 °F**
Ground thermal conductivity: **1.2 Btu/hr ft °F**
Ground heat capacity: **29.8 Btu/ft³F**
Depth below grade of groundwater: **9.8 ft**
Flow rate groundwater: **0.2 ft/d**



Calculation parameters

Length of heating period: **243 days/yr**
Heating degree hours: **120.2 kFh/a**
Phase shift months: **0.7 mths**
Time constant heating demand: **132 hr**
Time constant cooling demand: **0 hr**
Time constant cooling demand with night ventilation: **0 hr**

Climate for	Heating load 1	Heating load 2	Cooling
Temperature [°F]	19.9	39.6	79
Solar radiation North [Btu/hr ft²]	14.6	5.1	20.3
Solar radiation East [Btu/hr ft²]	25.4	7	33.6
Solar radiation South [Btu/hr ft²]	63.4	14.6	41.8
Solar radiation West [Btu/hr ft²]	35.8	8.2	50.4
Solar radiation Global [Btu/hr ft²]	38.4	12	72.9

Relevant boundary conditions for heating load calculation: Heating load 1

ANNUAL HEAT DEMAND

Transmission losses :	1,061,503	kBtu/yr
Ventilation losses:	320,914	kBtu/yr
Total heat losses:	1,382,417	kBtu/yr

Solar heat gains:	266,139	kBtu/yr
Internal heat gains:	494,539	kBtu/yr
Total heat gains:	760,678	kBtu/yr
Utilization factor:	90.4	%
Useful heat gains:	687,934	kBtu/yr

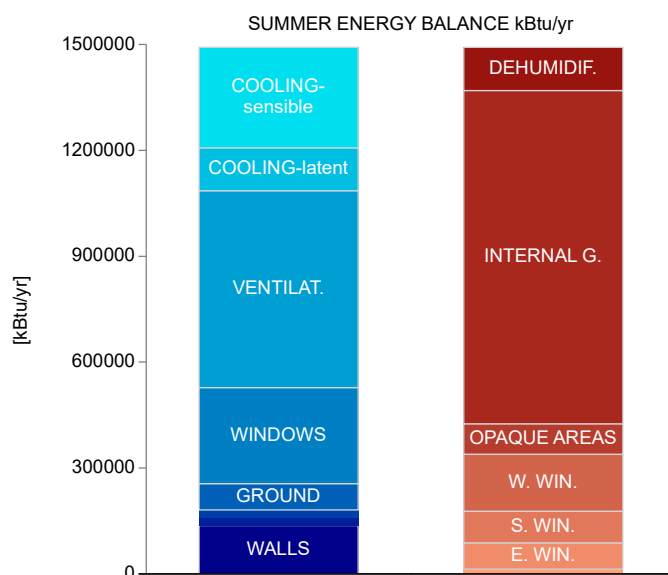
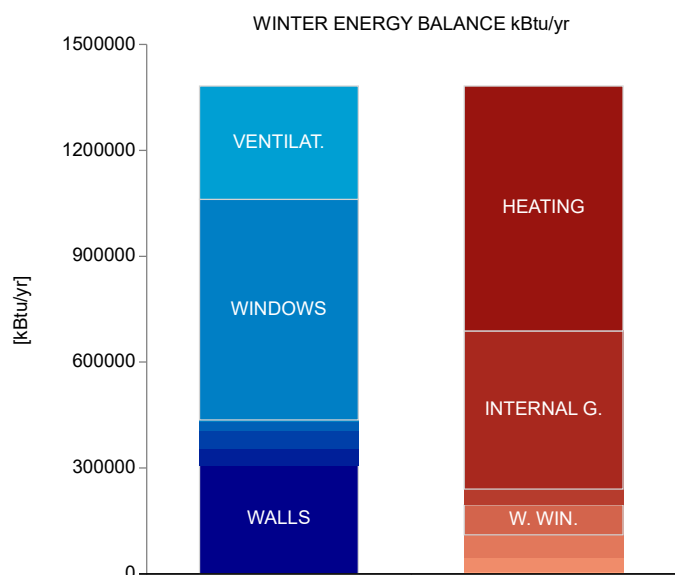
Annual heat demand:	694,482	kBtu/yr
Specific annual heat demand:	8,713.5	Btu/ft ² yr

ANNUAL COOLING DEMAND

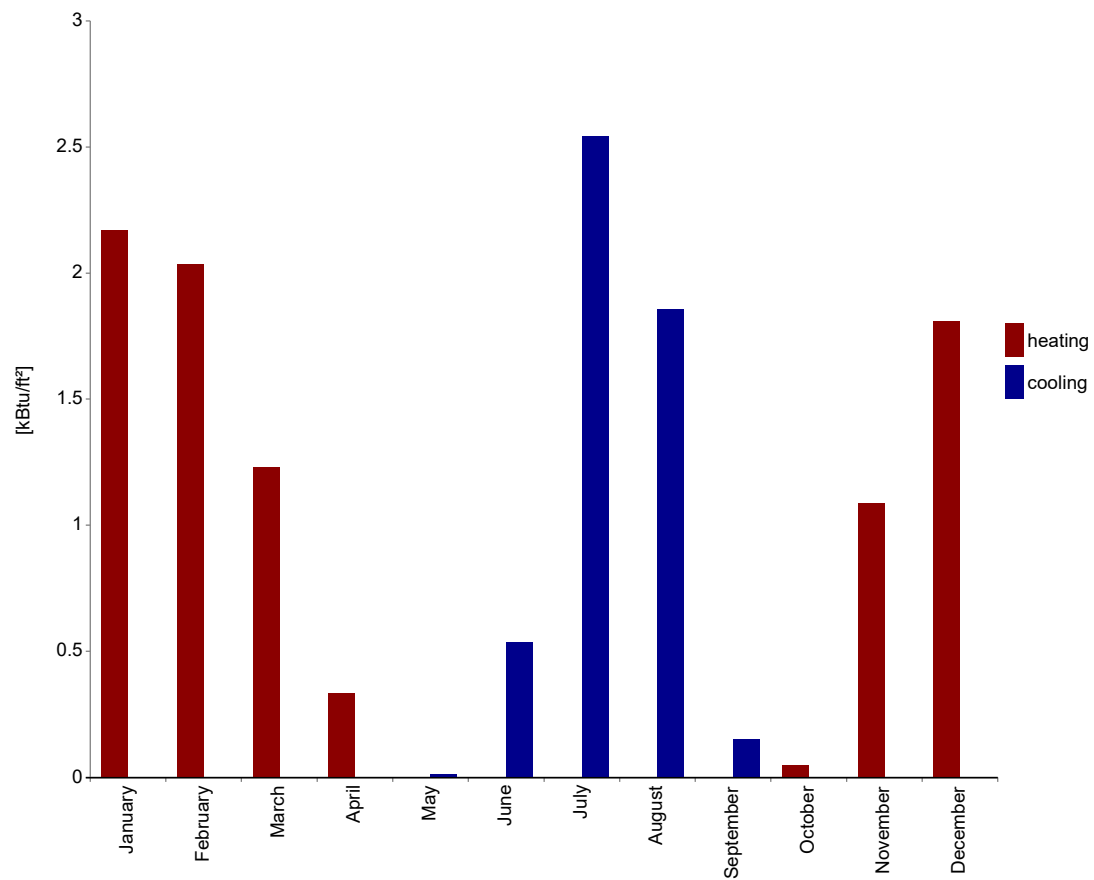
Solar heat gains:	425,172	kBtu/yr
Internal heat gains:	944,541	kBtu/yr
Total heat gains:	1,369,714	kBtu/yr

Transmission losses :	1,812,694	kBtu/yr
Ventilation losses:	1,911,963	kBtu/yr
Total heat losses:	3,724,657	kBtu/yr
Utilization factor:	29.1	%
Useful heat losses:	1,085,386	kBtu/yr

Cooling demand - sensible:	284,327	kBtu/yr
Cooling demand - latent:	122,069	kBtu/yr
Annual cooling demand:	406,396	kBtu/yr
Specific annual cooling demand:	5.1	kBtu/ft ² yr



SPECIFIC HEAT/COOLING DEMAND MONTHLY



Month	Heating [kBtu/ft²]	Cooling [kBtu/ft²]
January	2.2	0
February	2	0
March	1.2	0
April	0.3	0
May	0	0
June	0	0.5
July	0	2.5
August	0	1.9
September	0	0.2
October	0	0
November	1.1	0
December	1.8	0

HEATING LOAD

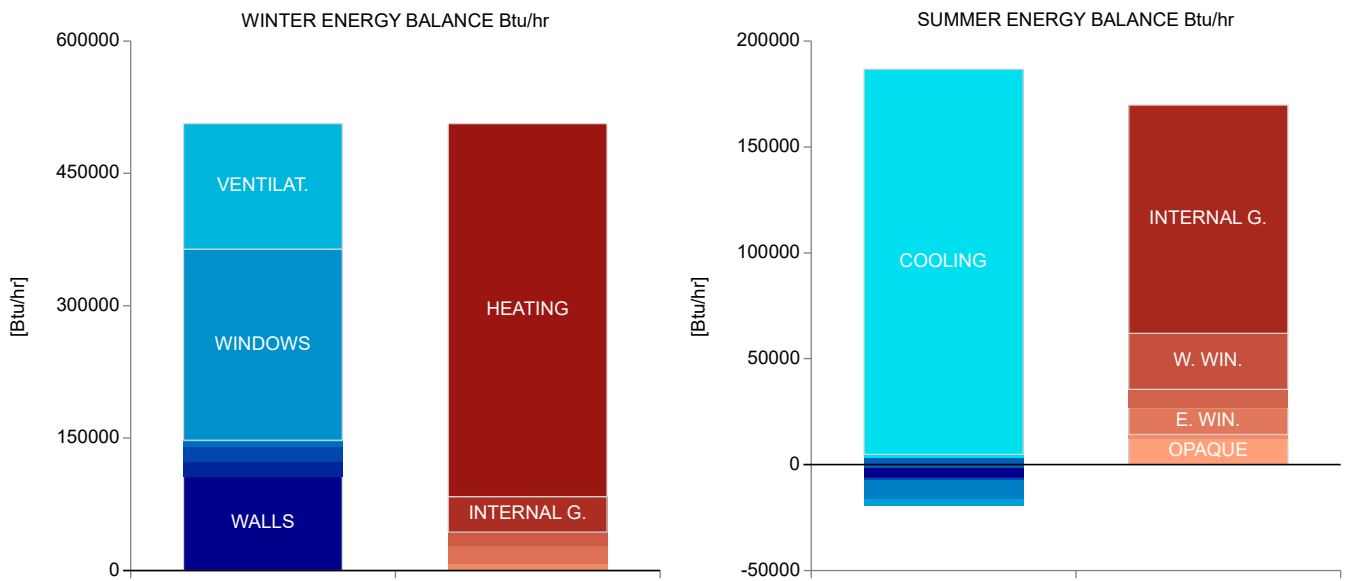
	First climate	Second climate
Transmission heat losses:	364,347.2 Btu/hr	217,900.1 Btu/hr
Ventilation heat losses:	141,894.4 Btu/hr	83,967.8 Btu/hr
Total heat loss:	506,241.6 Btu/hr	301,867.9 Btu/hr
Solar heat gain:	43,529.6 Btu/hr	10,523 Btu/hr
Internal heat gain:	40,428.7 Btu/hr	40,428.7 Btu/hr
Total heat gains heating:	83,958.3 Btu/hr	50,951.7 Btu/hr
Heating load:	422,283.3 Btu/hr	250,916.3 Btu/hr

Relevant heating load: **422,283.3** Btu/hr
Specific heating load: **5.3** Btu/hr ft²

COOLING LOAD

Solar heat gain:	61,955.2 Btu/hr
Internal heat gain:	107,834.9 Btu/hr
Total heat gains cooling:	169,790.1 Btu/hr
Transmission heat losses:	-7,437.5 Btu/hr
Ventilation heat losses:	-4,582.4 Btu/hr
Total heat loss:	-12,019.9 Btu/hr
Cooling load - sensible:	181,809.9 Btu/hr
Cooling load - latent:	0 Btu/hr

Relevant cooling load: **181,809.9** Btu/hr
Specific maximum cooling load: **2.3** Btu/hr ft²



AREAS

Name	Area [ft²]	Average U-value [Btu/hr ft² °F]	Absorption coefficient	Emission coefficient	Reduction factor shading [%]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.82: WALL [Wall EA1]: South (A180°, 727.32 ft², width 9 ft)	727.3	0.06	0.4	0.9	100	6078	9082.4
VC.82: WALL [Wall EA1]: West (A270°, 658.82 ft², width 22.796 ft)	658.8	0.06	0.4	0.9	100	5505.6	8226.9
VC.82: WALL [Wall EA1]: South (A180°, 267.62 ft², width 32.323 ft)	267.6	0.06	0.4	0.9	100	2236.4	3341.9
VC.82: WALL [Wall EA1]: South (A190.8°, 55.11 ft², width 5.982 ft)	55.1	0.06	0.4	0.9	100	460.6	688.2
VC.82: WALL [Wall EA1]: West (A270°, 5650.01 ft², width 103.677 ft)	5650	0.06	0.4	0.9	100	47215.7	70554.1
VC.82: WALL [Wall EA1]: East (A100.8°, 1903.69 ft², width 26.813 ft)	1903.7	0.06	0.4	0.9	100	15908.6	23772.2
VC.82: WALL [Wall EA1]: East (A90°, 7053.82 ft², width 121.612 ft)	7053.8	0.06	0.4	0.9	100	58946.9	88084.1
VC.82: WALL [Wall EA1]: East (A100.8°, 1584.19 ft², width 22.313 ft)	1584.2	0.06	0.4	0.9	100	13238.6	19782.4
VC.82: WALL [Wall EA1]: North (A10.8°, 360.92 ft², width 5.083 ft)	360.9	0.06	0.4	0.9	100	3016.1	4506.9
VC.82: WALL [Wall EA1]: North (A0°, 1806.48 ft², width 25.51 ft)	1806.5	0.06	0.4	0.9	100	15096.3	22558.3
VC.82: WALL [Wall EA1]: South (A190.8°, 360.92 ft², width 5.083 ft)	360.9	0.06	0.4	0.9	100	3016.1	4506.9
VC.82: WALL [Wall EA1]: West (A280.8°, 510.21 ft², width 25.51 ft)	510.2	0.06	0.4	0.9	100	4263.7	6371.2
VC.82: WALL [Wall EA1]: North (A0°, 547.32 ft², width 9 ft)	547.3	0.06	0.4	0.9	100	4573.8	6834.6
VC.82: WALL [Wall EA1]: South (A190.8°, 4387.63 ft², width 89.673 ft)	4387.6	0.06	0.4	0.9	100	36666.3	54790.2
VC.82: WALL [Wall EA1]: East (A100.8°, 244.47 ft², width 4.708 ft)	244.5	0.06	0.4	0.9	100	2043	3052.8
VC.82: WALL [Wall EA1]: West (A270°, 1803.27 ft², width 43.067 ft)	1803.3	0.06	0.4	0.9	100	15069.4	22518.2
VC.82: WALL [Wall EA1]: North (A10.8°, 2308.79 ft², width 41.037 ft)	2308.8	0.06	0.4	0.9	100	19294	28830.9
VC.82: WALL [Wall EA1]: West (A270°, 999.01 ft², width 33.802 ft)	999	0.06	0.4	0.9	100	8348.4	12475
VC.82: WALL [Wall EA1]: West (A270°, 123.11 ft², width 9.366 ft)	123.1	0.06	0.4	0.9	100	1028.8	1537.3
VC.82: WALL [Wall EA1]: North (A0°, 2744.71 ft², width 32.323 ft)	2744.7	0.06	0.4	0.9	100	22936.8	34274.4
VC.83: ROOF_CEILING [Roof R2]: Horizontal (528.2 ft², width 35.322 ft)	528.2	0.031	0.4	0.9	100	2285.2	3414.8
VC.83: ROOF_CEILING [Roof R2]: Horizontal (319.52 ft², width 32.323 ft)	319.5	0.031	0.4	0.9	100	1382.4	2065.7
VC.84: WALL [Wall EA3]: North (A0°, 202.65 ft², width 25.104 ft)	202.7	0.06	0.4	0.9	100	1693.5	2530.6
VC.84: WALL [Wall EA3]: West (A270°, 22.55 ft², width 2.505 ft)	22.5	0.06	0.4	0.9	100	188.4	281.5
VC.84: WALL [Wall EA3]: North (A10.7°, 5.96 ft², width 0.662 ft)	6	0.06	0.4	0.9	100	49.8	74.5
VC.84: WALL [Wall EA3]: North (A10.8°, 87.64 ft², width 9.738 ft)	87.6	0.06	0.4	0.9	100	732.4	1094.4
VC.84: WALL [Wall EA3]: West (A270°, 135.23 ft², width 15.025 ft)	135.2	0.06	0.4	0.9	100	1130	1688.6
VC.84: WALL [Wall EA3]: East (A90°, 48.66 ft², width 5.406 ft)	48.7	0.06	0.4	0.9	100	406.6	607.6
VC.84: WALL [Wall EA3]: East (A100.8°, 52.61 ft², width 5.846 ft)	52.6	0.06	0.4	0.9	100	439.7	657
VC.84: WALL [Wall EA3]: South (A190.8°, 196.79 ft², width 24.453 ft)	196.8	0.06	0.4	0.9	100	1644.5	2457.4
VC.85: WALL [Wall EA4]: South (A180°, 76.46 ft², width 8.495 ft)	76.5	0.06	0.4	0.9	100	638.9	954.8
VC.85: WALL [Wall EA4]: East (A100.8°, 82.51 ft², width 9.168 ft)	82.5	0.06	0.4	0.9	100	689.5	1030.4
VC.86: WALL [Wall EA2]: North (A0°, 255.1 ft², width 25.51 ft)	255.1	0.06	0.4	0.9	100	2131.8	3185.6
VC.86: WALL [Wall EA2]: South (A180°, 232.41 ft², width 16.51 ft)	232.4	0.06	0.4	0.9	100	1942.2	2902.2
VC.87: ROOF_CEILING [Roof R1]: Horizontal (8948.76 ft², width 98.149 ft)	8948.8	0.031	0.4	0.9	100	38716.4	57853.7
VC.87: ROOF_CEILING [Roof R1]: Horizontal (1043.51 ft², width 31.387 ft)	1043.5	0.031	0.4	0.9	100	4514.7	6746.3
VC.87: ROOF_CEILING [Roof R1]: Horizontal (646.53 ft², width 25.51 ft)	646.5	0.031	0.4	0.9	100	2797.2	4179.8
VC.88: FLOOR [Floor S1]: Horizontal (11316.32 ft², width 98.149 ft)	11316.3	0.355	0	0	0	25119.4	250919.7
VC.88: FLOOR [Floor S1]: Horizontal (15 ft², width 3.881 ft)	15	0.355	0	0	0	33.3	332.6
VC.88: FLOOR [Floor S1]: Horizontal (15 ft², width 3.881 ft)	15	0.355	0	0	0	33.3	332.6
VC.88: FLOOR [Floor S1]: Horizontal (140.21 ft², width 18.363 ft)	140.2	0.355	0	0	0	311.2	3108.9
VC.89: WALL [Wall B1]: South (A190.8°, 253.92 ft², width 68.669 ft)	253.9	0.109	0	0	0	173.7	1735
VC.89: WALL [Wall B1]: South (A190.8°, 13.5 ft², width 3 ft)	13.5	0.109	0	0	0	9.2	92.2
VC.89: WALL [Wall B1]: South (A190.8°, 13.5 ft², width 3 ft)	13.5	0.109	0	0	0	9.2	92.2
VC.89: WALL [Wall B1]: East (A100.8°, 22.5 ft², width 5 ft)	22.5	0.109	0	0	0	15.4	153.7
VC.89: WALL [Wall B1]: North (A10.8°, 13.5 ft², width 3 ft)	13.5	0.109	0	0	0	9.2	92.2
VC.89: WALL [Wall B1]: North (A10.8°, 13.5 ft², width 3 ft)	13.5	0.109	0	0	0	9.2	92.2
VC.89: WALL [Wall B1]: West (A280.8°, 22.5 ft², width 5 ft)	22.5	0.109	0	0	0	15.4	153.7
VC.89: WALL [Wall B1]: East (A100.8°, 22.5 ft², width 5 ft)	22.5	0.109	0	0	0	15.4	153.7
VC.89: WALL [Wall B1]: West (A280.8°, 22.5 ft², width 5 ft)	22.5	0.109	0	0	0	15.4	153.7

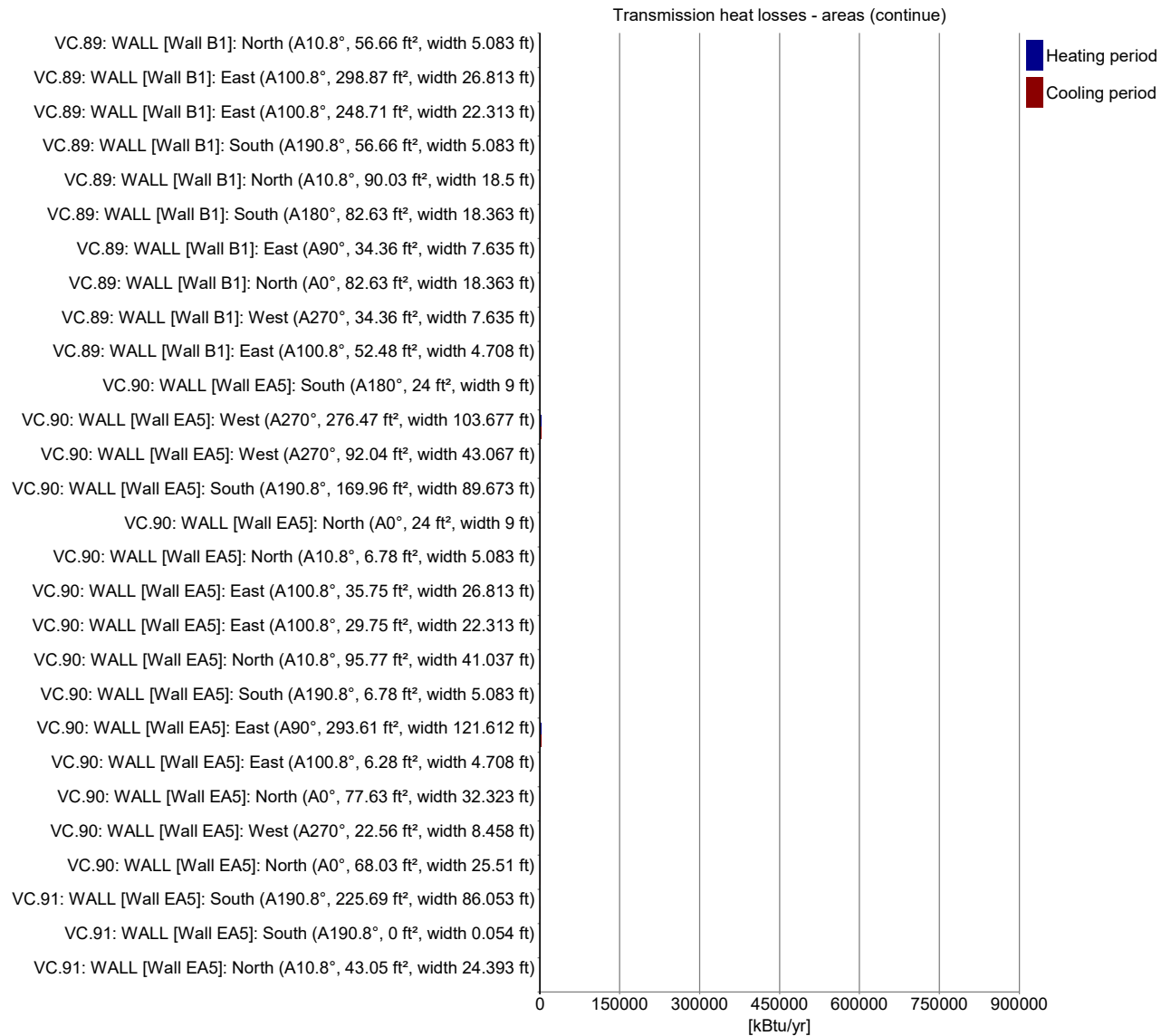
Transmission heat losses - areas (continue)

Name	Area [ft²]	Average U-value [Btu/hr ft² °F]	Absorption coefficient	Emission coefficient	Reduction factor shading [%]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.89: WALL [Wall B1]: North (A10.8°, 56.66 ft², width 5.083 ft)	56.7	0.109	0	0	0	38.8	387.2
VC.89: WALL [Wall B1]: East (A100.8°, 298.87 ft², width 26.813 ft)	298.9	0.109	0	0	0	204.4	2042.2
VC.89: WALL [Wall B1]: East (A100.8°, 248.71 ft², width 22.313 ft)	248.7	0.109	0	0	0	170.1	1699.5
VC.89: WALL [Wall B1]: South (A190.8°, 56.66 ft², width 5.083 ft)	56.7	0.109	0	0	0	38.8	387.2
VC.89: WALL [Wall B1]: North (A10.8°, 90.03 ft², width 18.5 ft)	90	0.109	0	0	0	61.6	615.2
VC.89: WALL [Wall B1]: South (A180°, 82.63 ft², width 18.363 ft)	82.6	0.109	0	0	0	56.5	564.7
VC.89: WALL [Wall B1]: East (A90°, 34.36 ft², width 7.635 ft)	34.4	0.109	0	0	0	23.5	234.8
VC.89: WALL [Wall B1]: North (A0°, 82.63 ft², width 18.363 ft)	82.6	0.109	0	0	0	56.5	564.7
VC.89: WALL [Wall B1]: West (A270°, 34.36 ft², width 7.635 ft)	34.4	0.109	0	0	0	23.5	234.8
VC.89: WALL [Wall B1]: East (A100.8°, 52.48 ft², width 4.708 ft)	52.5	0.109	0	0	0	35.9	358.6
VC.90: WALL [Wall EA5]: South (A180°, 24 ft², width 9 ft)	24	0.06	0.4	0.9	100	200.6	299.7
VC.90: WALL [Wall EA5]: West (A270°, 276.47 ft², width 103.677 ft)	276.5	0.06	0.4	0.9	100	2310.4	3452.4
VC.90: WALL [Wall EA5]: West (A270°, 92.04 ft², width 43.067 ft)	92	0.06	0.4	0.9	100	769.1	1149.3
VC.90: WALL [Wall EA5]: South (A190.8°, 169.96 ft², width 89.673 ft)	170	0.06	0.4	0.9	100	1420.3	2122.3
VC.90: WALL [Wall EA5]: North (A0°, 24 ft², width 9 ft)	24	0.06	0.4	0.9	100	200.6	299.7
VC.90: WALL [Wall EA5]: North (A10.8°, 6.78 ft², width 5.083 ft)	6.8	0.06	0.4	0.9	100	56.6	84.6
VC.90: WALL [Wall EA5]: East (A100.8°, 35.75 ft², width 26.813 ft)	35.8	0.06	0.4	0.9	100	298.8	446.4
VC.90: WALL [Wall EA5]: East (A100.8°, 29.75 ft², width 22.313 ft)	29.8	0.06	0.4	0.9	100	248.6	371.5
VC.90: WALL [Wall EA5]: North (A10.8°, 95.77 ft², width 41.037 ft)	95.8	0.06	0.4	0.9	100	800.3	1196
VC.90: WALL [Wall EA5]: South (A190.8°, 6.78 ft², width 5.083 ft)	6.8	0.06	0.4	0.9	100	56.6	84.6
VC.90: WALL [Wall EA5]: East (A90°, 293.61 ft², width 121.612 ft)	293.6	0.06	0.4	0.9	100	2453.6	3666.5
VC.90: WALL [Wall EA5]: East (A100.8°, 6.28 ft², width 4.708 ft)	6.3	0.06	0.4	0.9	100	52.5	78.4
VC.90: WALL [Wall EA5]: North (A0°, 77.63 ft², width 32.323 ft)	77.6	0.06	0.4	0.9	100	648.7	969.4
VC.90: WALL [Wall EA5]: West (A270°, 22.56 ft², width 8.458 ft)	22.6	0.06	0.4	0.9	100	188.5	281.7
VC.90: WALL [Wall EA5]: North (A0°, 68.03 ft², width 25.51 ft)	68	0.06	0.4	0.9	100	568.5	849.5
VC.91: WALL [Wall EA5]: South (A190.8°, 225.69 ft², width 86.053 ft)	225.7	0.109	0	0	0	154.4	1542.1
VC.91: WALL [Wall EA5]: South (A190.8°, 0 ft², width 0.054 ft)	0	0.109	0	0	0	0	0
VC.91: WALL [Wall EA5]: North (A10.8°, 43.05 ft², width 24.393 ft)	43	0.109	0	0	0	29.4	294.2

Degree hours [kFh/a]

	Heating	Cooling
Ambient heating	77	115.1
Ground heating	3.5	34.7

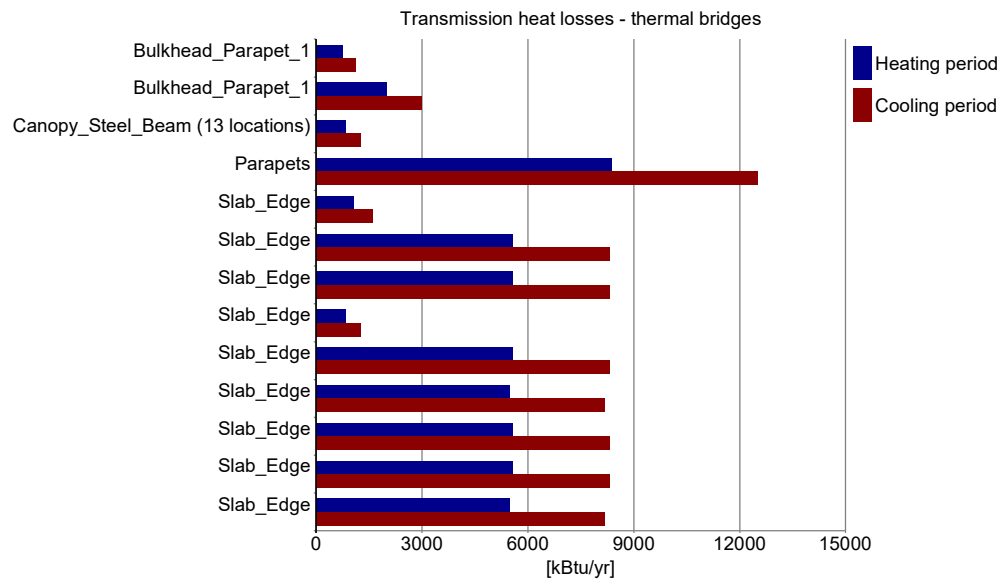




THERMAL BRIDGES

Transmission heat losses - thermal bridges

Name	Length [ft]	Psi-value [Btu/hr ft °F]	Transmission losses [kBtu/yr]	Transmission losses cooling [kBtu/yr]
Bulkhead_Parapet_1	32.3	0.166	743.9	1111.6
Bulkhead_Parapet_1	86.8	0.166	1998.4	2986.3
Canopy_Steel_Beam (13 locations)	13	0.468	843.5	1260.4
Parapets	548.4	0.11	8362.7	12496.3
Slab_Edge	106.4	0.072	1062.1	1587.1
Slab_Edge	557.6	0.072	5565.8	8316.9
Slab_Edge	557.6	0.072	5565.8	8316.9
Slab_Edge	84.4	0.072	842.7	1259.2
Slab_Edge	557.6	0.072	5565.8	8316.9
Slab_Edge	548.4	0.072	5473.8	8179.4
Slab_Edge	557.6	0.072	5565.8	8316.9
Slab_Edge	557.6	0.072	5565.8	8316.9
Slab_Edge	548.4	0.072	5473.8	8179.4



WINDOWS

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.1: SF04_Z4_C1_R1: West (A270°, 7.23 ft², width 3.618 ft)	1	90	0.45	0.4	73.8	77.2	158.1	305.8	451.3	674.4
VC.2: SF04_Z4_C1_R2: West (A270°, 21.09 ft², width 3.618 ft)	1	90	0.45	0.4	75.3	79.2	618.2	1,201	1,315.5	1,965.8
VC.3: SF04_Z4_C2_R1: West (A270°, 7.16 ft², width 3.582 ft)	1	90	0.45	0.4	73.8	77.2	156.1	301.9	446.8	667.7
VC.4: SF04_Z4_C2_R2: West (A270°, 20.88 ft², width 3.582 ft)	1	90	0.45	0.4	75.3	79.2	610.4	1,186	1,302.4	1,946.2
VC.5: SF04_Z4_C3_R1: West (A270°, 7.16 ft², width 3.582 ft)	1	90	0.45	0.4	73.8	77.2	156.1	302	446.8	667.7
VC.6: SF04_Z4_C3_R2: West (A270°, 20.88 ft², width 3.582 ft)	1	90	0.45	0.4	75.3	79.2	610.4	1,186	1,302.4	1,946.2
VC.7: SF04_Z4_C4_R1: West (A270°, 7.16 ft², width 3.582 ft)	1	90	0.45	0.4	73.8	77.2	156.1	301.9	446.8	667.7
VC.8: SF04_Z4_C4_R2: West (A270°, 20.88 ft², width 3.582 ft)	1	90	0.45	0.4	75.3	79.2	610.3	1,185.9	1,302.4	1,946.2
VC.9: SF04_Z4_C5_R1: West (A270°, 7.23 ft², width 3.618 ft)	1	90	0.45	0.4	73.8	77.2	158.1	305.7	451.3	674.4
VC.10: SF04_Z4_C5_R2: West (A270°, 21.09 ft², width 3.618 ft)	1	90	0.45	0.4	75.3	79.2	618.2	1,201	1,315.5	1,965.8
VC.11: SF05_Z4_C1_R1: West (A270°, 8.46 ft², width 4.231 ft)	1	90	0.45	0.4	72.1	77.1	182.7	360.2	527.8	788.7
VC.12: SF05_Z4_C1_R2: West (A270°, 24.66 ft², width 4.231 ft)	1	90	0.45	0.4	75.8	79.4	753.1	1,459	1,538.4	2,298.8
VC.13: SF05_Z4_C2_R1: West (A270°, 8.38 ft², width 4.192 ft)	1	90	0.45	0.4	71.7	77	179.1	354.4	522.9	781.3
VC.14: SF05_Z4_C2_R2: West (A270°, 24.43 ft², width 4.192 ft)	1	90	0.45	0.4	75.2	79.4	734.5	1,431.6	1,524.1	2,277.4
VC.15: SF05_Z4_C3_R1: West (A270°, 8.46 ft², width 4.231 ft)	1	90	0.45	0.4	71.7	77.1	180.8	358.2	527.8	788.7
VC.16: SF05_Z4_C3_R2: West (A270°, 24.66 ft², width 4.231 ft)	1	90	0.45	0.4	74.7	79.4	734.2	1,438.6	1,538.4	2,298.8
VC.17: SF01_Z4_C1_R1: West (A270°, 4.9 ft², width 3.684 ft)	1	90	0.45	0.4	55.4	58.9	60.9	117.8	305.8	457
VC.18: SF01_Z4_C1_R2: West (A270°, 24.54 ft², width 3.684 ft)	1	90	0.45	0.4	38.5	41.1	379.2	728	1,530.7	2,287.3
VC.19: SF01_Z4_C1_R3: West (A270°, 4.9 ft², width 3.684 ft)	1	90	0.45	0.4	36.9	36.7	42.3	78.4	305.8	457
VC.20: SF01_Z4_C2_R1: West (A270°, 30.98 ft², width 3.877 ft)	1	90	0.45	0.4	39.2	48.5	425.7	964.2	1,933	2,888.4
VC.21: SF01_Z4_C2_R2: West (A270°, 5.16 ft², width 3.877 ft)	1	90	0.45	0.4	37.3	39.2	43.3	84.5	321.9	481
VC.22: SF01_Z4_C3_R1: West (A270°, 2.23 ft², width 1.678 ft)	1	90	0.45	0.4	53.7	59.3	18.9	38.5	139.3	208.2
VC.23: SF01_Z4_C3_R2: West (A270°, 11.18 ft², width 1.678 ft)	1	90	0.45	0.4	40	46.4	119.7	255.7	697.3	1,041.9
VC.24: SF01_Z4_C3_R3: West (A270°, 2.23 ft², width 1.678 ft)	1	90	0.45	0.4	44.5	46.1	16.6	31.9	139.3	208.2
VC.25: SF06_Z4_C1_R1: South (A190.8°, 12.94 ft², width 6.473 ft)	1	90	0.45	0.4	62.5	52.9	375	544.5	807.4	1,206.5
VC.26: SF06_Z4_C1_R2: South (A190.8°, 37.72 ft², width 6.473 ft)	1	90	0.45	0.4	62.8	46.2	1,517.9	2,106.6	2,353.4	3,516.7
VC.27: SF06_Z4_C2_R1: South (A190.8°, 5.03 ft², width 2.517 ft)	1	90	0.45	0.4	61.7	52.9	118	172.2	314	469.2
VC.28: SF06_Z4_C2_R2: South (A190.8°, 14.67 ft², width 2.517 ft)	1	90	0.45	0.4	62.3	50.3	468.1	669.1	915.2	1,367.5
VC.29: SF07_Z4_C1_R1: South (A190.8°, 26.61 ft², width 3.995 ft)	1	90	0.45	0.4	73.9	69.9	1,089.7	1,653.6	1,660.1	2,480.7
VC.30: SF07_Z4_C2_R1: South (A190.8°, 13.32 ft², width 1.999 ft)	1	90	0.45	0.4	68.9	63.9	411.8	620	830.7	1,241.4
VC.31: 115A: East (A90°, 47.9 ft², width 5.994 ft)	1	90	0.45	0.4	60.1	71.2	738.8	1,598.7	2,988.7	4,465.9
VC.32: SF11_Z4_C1_R1: East (A90°, 27.59 ft², width 3.809 ft)	1	90	0.45	0.4	40.3	50.6	243.9	568	1,721.1	2,571.8
VC.33: SF11_Z4_C2_R1: East (A90°, 11.73 ft², width 5.034 ft)	1	90	0.45	0.4	42.9	51.6	96.8	213.6	731.9	1,093.7
VC.34: SF11_Z4_C2_R2: East (A90°, 24.73 ft², width 5.034 ft)	1	90	0.45	0.4	40.6	50.8	221.5	513.9	1,543.1	2,305.9
VC.35: SF09_Z4_C1_R1: West (A270°, 24.74 ft², width 3.415 ft)	1	90	0.45	0.4	78	79.5	787.8	1,475.1	1,543.4	2,306.2
VC.36: SF09_Z4_C2_R1: West (A270°, 2.32 ft², width 0.996 ft)	1	90	0.45	0.4	71.5	76.3	21.5	42.4	144.9	216.5
VC.37: SF09_Z4_C2_R2: West (A270°, 4.9 ft², width 0.996 ft)	1	90	0.45	0.4	72.1	78.1	54.5	108.7	305.4	456.4
VC.38: SF08_Z4_C1_R1: South (A180°, 10.66 ft², width 4.575 ft)	1	90	0.45	0.4	58.7	51.5	286.4	429	665.2	994
VC.39: SF08_Z4_C1_R2: South (A180°, 22.48 ft², width 4.575 ft)	1	90	0.45	0.4	66.9	63.1	804.5	1,243	1,402.5	2,095.7
VC.40: SF08_Z4_C2_R1: South (A180°, 24.74 ft², width 3.415 ft)	1	90	0.45	0.4	62.8	58.9	822.5	1,272.1	1,543.4	2,306.2
VC.41: W1_R_Z5_C1_R1: South (A180°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.1	48.9	889.3	1,129	1,522	2,274.3
VC.42: W1_R_Z5_C2_R1: South (A180°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	48.9	33.2	84	103.9	290.6	434.2
VC.43: W1_R_Z5_C2_R2: South (A180°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.6	41.6	290	365.2	678	1,013.1
VC.44: Assa_Abloy_707_Honeycomb_Door: South (A180°, 23.29 ft², width 3.33 ft)	1	90	0.45	0.4	85.3	77.8	1,056.2	1,610.3	1,452.8	2,170.9
VC.44: Assa_Abloy_707_Honeycomb_Door: North (A10.8°, 22.89 ft², width 3.362 ft)	1	90	0.45	0.4	49.8	48.1	180.4	346.7	1,428	2,133.8
VC.44: Assa_Abloy_707_Honeycomb_Door: North (A0°, 23.18 ft², width 3.351 ft)	1	90	0.45	0.4	66.6	62.1	271.5	468.9	1,445.9	2,160.5
VC.45: W5_L_Z4_C1_R1: West (A270°, 10.48 ft², width 2.331 ft)	1	90	0.45	0.4	63.8	62.2	203.6	363.3	653.8	976.9
VC.45: W5_L_Z4_C1_R1: North (A10.8°, 10.48 ft², width 2.331 ft)	1	90	0.45	0.4	40.4	32.1	58.3	92.4	653.8	976.9
VC.46: W5_L_Z4_C2_R1: North (A10.8°, 16.47 ft², width 3.663 ft)	1	90	0.45	0.4	40.4	32.5	103.5	165.8	1,027.4	1,535.2
VC.46: W5_L_Z4_C2_R1: West (A270°, 16.47 ft², width 3.663 ft)	1	90	0.45	0.4	62.6	63.5	344.4	639.8	1,027.4	1,535.2

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.47: W2_L_Z4_C1_R1: North (A0°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	57.7	46.7	42.9	64.4	373.6	558.2
VC.47: W2_L_Z4_C1_R1: North (A0°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	57.7	46.7	42.9	64.4	373.6	558.2
VC.47: W2_L_Z4_C1_R1: North (A0°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	52.9	42.6	39.8	59.1	373.6	558.2
VC.47: W2_L_Z4_C1_R1: North (A0°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	56	45.1	41.9	62.5	373.6	558.2
VC.47: W2_L_Z4_C1_R1: North (A0°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	56.6	45.8	42.2	63.2	373.6	558.2
VC.47: W2_L_Z4_C1_R1: North (A0°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	57.7	46.7	42.9	64.4	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A100.8°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	45.7	42.2	56.1	83.5	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A100.8°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	45.7	42.2	56.2	83.6	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A100.8°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	45.7	42.2	56.2	83.5	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A100.8°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	45.7	42.2	56.2	83.5	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A100.8°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	45.7	42.2	56.2	83.5	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A90°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	52.9	47.1	58.6	96	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A90°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	55.1	47.9	62.3	100	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A90°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	55.1	47.9	62.3	100	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A90°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	55.1	47.9	62.3	100	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A90°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	57.1	50.3	63.7	103.7	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A90°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	63.7	55.8	71.7	115.7	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A90°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	63.7	55.8	71.7	115.7	373.6	558.2
VC.47: W2_L_Z4_C1_R1: East (A90°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	63.7	55.8	71.7	115.7	373.6	558.2
VC.48: W2_L_Z4_C1_R2: North (A0°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	62.2	49.6	116.7	172.5	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A90°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	71.5	63.8	197	322.9	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: North (A0°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	62.2	49.6	116.7	172.5	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: North (A0°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	62.2	49.6	116.7	172.5	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: North (A0°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	58.9	46.5	111.9	163.4	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: North (A0°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	60.1	47.7	113.5	166.9	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: North (A0°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	61.7	49.3	115.9	171.4	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A100.8°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	49	48.1	142.5	224	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A100.8°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	46.3	45.1	135.6	212	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A100.8°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	46.3	45.1	135.6	212	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A100.8°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	46.3	45.1	135.6	212	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A100.8°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	46.4	45.1	135.7	212	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A90°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	60.4	54.3	165.4	272.9	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A90°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	61.6	54.8	170.1	278.1	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A90°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	61.6	54.8	170.1	278.1	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A90°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	61.6	54.8	170.1	278.2	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A90°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	65.7	59.3	179.1	296.5	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A90°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	71.5	63.8	197	322.9	747.2	1,116.5
VC.48: W2_L_Z4_C1_R2: East (A90°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	71.5	63.8	197	322.9	747.2	1,116.5
VC.49: W2_R_Z4_C1_R1: North (A0°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	56	45.1	41.9	62.5	373.6	558.2
VC.49: W2_R_Z4_C1_R1: North (A0°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	50.9	41.1	38.2	56.8	373.6	558.2
VC.50: W2_R_Z4_C1_R2: North (A0°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	54.3	43	103	150.6	747.2	1,116.5
VC.50: W2_R_Z4_C1_R2: North (A0°, 11.98 ft², width 2.997 ft)	1	90	0.45	0.4	60.1	47.7	113.5	166.9	747.2	1,116.5
VC.51: SF10_Z4_C1_R1: West (A270°, 10.38 ft², width 4.454 ft)	1	90	0.45	0.4	74.5	74.7	265.7	493.3	647.6	967.7
VC.51: SF10_Z4_C1_R1: South (A190.8°, 10.38 ft², width 4.454 ft)	1	90	0.45	0.4	55.1	51.1	259.6	390.5	647.6	967.7
VC.51: SF10_Z4_C1_R1: South (A190.8°, 10.38 ft², width 4.454 ft)	1	90	0.45	0.4	52.4	48.3	247.6	371.5	647.6	967.7
VC.52: SF10_Z4_C1_R2: West (A270°, 21.88 ft², width 4.454 ft)	1	90	0.45	0.4	81.4	82.5	730.1	1,369.4	1,365.3	2,040.2
VC.52: SF10_Z4_C1_R2: South (A190.8°, 21.88 ft², width 4.454 ft)	1	90	0.45	0.4	62.9	62.3	733.6	1,135	1,365.3	2,040.2
VC.52: SF10_Z4_C1_R2: South (A190.8°, 21.88 ft², width 4.454 ft)	1	90	0.45	0.4	55.6	55	648.3	1,002.8	1,365.3	2,040.2
VC.53: W4_R_Z4_C1_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	50.6	49.6	79	140.6	373.6	558.2
VC.53: W4_R_Z4_C1_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	50.6	49.6	79.1	140.7	373.6	558.2

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.53: W4_R_Z4_C1_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	50.6	49.6	79	140.6	373.6	558.2
VC.53: W4_R_Z4_C1_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	60.3	52.3	104.6	167.6	373.6	558.2
VC.53: W4_R_Z4_C1_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	50.6	49.6	79	140.6	373.6	558.2
VC.53: W4_R_Z4_C1_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	60.4	52.3	104.7	167.7	373.6	558.2
VC.53: W4_R_Z4_C1_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	50.9	50	79.5	141.4	373.6	558.2
VC.54: W4_R_Z4_C1_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	57.4	58.6	257	476.6	871.7	1,302.6
VC.54: W4_R_Z4_C1_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	53.1	55.2	232.8	440.7	871.7	1,302.6
VC.54: W4_R_Z4_C1_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	52.7	54.7	231.7	437.6	871.7	1,302.6
VC.54: W4_R_Z4_C1_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	52.6	54.5	231.3	436.3	871.7	1,302.6
VC.54: W4_R_Z4_C1_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	68	60.6	344.9	564.3	871.7	1,302.6
VC.54: W4_R_Z4_C1_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	52.6	54.5	231.3	436.2	871.7	1,302.6
VC.54: W4_R_Z4_C1_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	68.7	61.2	348.7	570.4	871.7	1,302.6
VC.55: W4_R_Z4_C2_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	48.9	49.1	73.7	135.8	373.6	558.2
VC.55: W4_R_Z4_C2_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	48.4	48.4	73.2	134.4	373.6	558.2
VC.55: W4_R_Z4_C2_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	48.4	48.4	73.2	134.4	373.6	558.2
VC.55: W4_R_Z4_C2_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	48.4	48.4	73.2	134.4	373.6	558.2
VC.55: W4_R_Z4_C2_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	62.4	54.6	106.8	173.5	373.6	558.2
VC.55: W4_R_Z4_C2_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	48.4	48.4	73.2	134.4	373.6	558.2
VC.55: W4_R_Z4_C2_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	62.5	54.7	107	173.7	373.6	558.2
VC.56: W4_R_Z4_C2_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	53.1	57	222.5	440.4	871.7	1,302.6
VC.56: W4_R_Z4_C2_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	48.6	51.4	205	402.8	871.7	1,302.6
VC.56: W4_R_Z4_C2_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	48.3	51.2	204.5	401.1	871.7	1,302.6
VC.56: W4_R_Z4_C2_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	48.4	51.2	204.7	401.2	871.7	1,302.6
VC.56: W4_R_Z4_C2_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	70.8	63.6	354	587.5	871.7	1,302.6
VC.56: W4_R_Z4_C2_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	48.3	51.2	204.5	401.1	871.7	1,302.6
VC.56: W4_R_Z4_C2_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	71.4	64.1	357.6	592.8	871.7	1,302.6
VC.57: W4_R_Z5_C1_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	61.9	55.1	104.6	172.1	373.6	558.2
VC.57: W4_R_Z5_C1_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	63.6	55.6	109	176.8	373.6	558.2
VC.58: W4_R_Z5_C1_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	72.5	64.9	363.4	601.4	871.7	1,302.6
VC.58: W4_R_Z5_C1_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	72.6	65	363.9	602.3	871.7	1,302.6
VC.59: W4_R_Z5_C2_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	61.6	55	103.7	171.1	373.6	558.2
VC.59: W4_R_Z5_C2_R1: West (A270°, 5.99 ft², width 2.997 ft)	1	90	0.45	0.4	63.6	55.6	109	176.8	373.6	558.2
VC.60: W4_R_Z5_C2_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	72.5	64.9	363.4	601.6	871.7	1,302.6
VC.60: W4_R_Z5_C2_R2: West (A270°, 13.97 ft², width 2.997 ft)	1	90	0.45	0.4	72.6	65	363.9	602.3	871.7	1,302.6
VC.61: W1.2_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.6	54.4	68.3	116.5	290.6	434.2
VC.61: W1.2_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.2	43.3	64.9	101.8	290.6	434.2
VC.62: W1.2_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	56.9	49.9	208.9	337.5	678	1,013.1
VC.62: W1.2_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	64.9	62.3	218.9	385.3	678	1,013.1
VC.63: W1.2_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.8	66.9	650.9	1,130.3	1,522	2,274.3
VC.63: W1.2_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.8	57.9	651.6	1,051.7	1,522	2,274.3
VC.64: W1.2_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.3	68.8	116.9	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.6	54.4	68.2	116.5	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53	47.7	41.6	68.8	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53	47.7	41.6	68.8	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.5	54.7	72.1	120.3	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.1	47.8	41.7	68.9	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.3	68.8	116.8	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.8	47.6	41.5	68.6	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.6	54.4	68.2	116.5	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50.9	47.4	39	66.1	290.6	434.2

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.64: W1.2_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	57.6	51.3	70.3	114.5	290.6	434.2
VC.64: W1.2_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53	47.7	41.6	68.8	290.6	434.2
VC.65: W1.2_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.1	221	386.6	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	64.9	62.3	219	385.4	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.6	54.7	137.5	231	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.6	54.7	137.3	230.8	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.3	62.7	233	399.3	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.9	54.9	138.4	232.1	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.1	220.9	386.5	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60	55.1	138.3	232.6	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	64.5	59.5	228.3	383.1	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.1	54.1	128.1	221.4	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	64.9	62.3	218.9	385.3	678	1,013.1
VC.65: W1.2_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.6	54.7	137.6	231.1	678	1,013.1
VC.66: W1.2_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	63.4	58.1	394.2	661.2	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.9	66.7	656.8	1,133.3	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.8	66.9	651.2	1,130.6	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.8	66.9	651.3	1,130.6	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	63.4	58.1	393.8	660.8	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	63.3	58.1	393.4	660.3	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.3	697.7	1,175.8	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.3	58.7	412.1	680.8	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.1	66.7	659.5	1,135.6	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65	58.6	409.9	678.1	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	63.2	680.5	1,119.5	1,522	2,274.3
VC.66: W1.2_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	58.5	57.1	343.8	609.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	48.2	38.1	196.6	309.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	49.8	39.2	203.5	319.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	44.6	35.5	180.9	286.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	45.9	36.4	186.5	294.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.1	67.2	655	1,136.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.4	1,138.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.7	67.5	424.2	737.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	75.8	68.3	478.3	790.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.7	68.2	709	1,192.9	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73	68.1	447.6	761.4	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	76.4	68.6	484	796.9	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	75.6	68.4	722.9	1,207.4	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	76	68.5	730.2	1,214.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.4	68	706.3	1,189.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	51.8	52.5	291.2	540	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.1	67.9	701.9	1,184	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	57.2	56	334.9	596.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.5	68	707.7	1,189.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	62.2	58.2	380	648.5	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	67.4	61.5	419.1	702.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	72.3	67.6	672.3	1,154.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.4	1,138.3	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	50.5	51.1	285.8	526.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.7	68.2	709.7	1,193.8	1,522	2,274.3

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	55.8	54.5	326.7	581.9	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	72.3	67.6	672.2	1,154.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	64.4	58.3	404.7	671.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65	58.4	410.7	677.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	68.2	60.8	662.6	1,089.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.4	64.7	688.8	1,140.5	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.3	58.8	423.8	691.9	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	69	61.9	434.5	719.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.7	67.4	698.9	1,177.5	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.2	66.8	660.8	1,137.5	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.2	68.7	492	805	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.2	68.7	492	805	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.7	67.1	666	1,145.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71	67.1	653.6	1,134.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.2	68.7	492	805	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.2	68.7	492	805	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.5	1,138.3	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	76.7	68.6	487.1	799.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.2	68.7	492	805	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.6	68	708.9	1,190.9	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	67.7	61.5	422.1	705.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	67.7	61.5	422.1	705.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	69	61.9	434.6	719.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	69	61.9	434.5	719.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	61.6	57.9	374.9	642	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	64.4	58.3	404.8	671.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77	68.6	490.8	803.3	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	76.4	68.4	484	796.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	76.9	68.6	489.4	802.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.2	68.7	491.8	804.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	60.3	62.3	334.6	628.3	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	68.3	67.2	398.3	711.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	63	47.2	860.8	1,078	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	64	48.2	874.2	1,096.1	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	64.9	48.3	891.2	1,111.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.4	48.4	899	1,120.4	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.1	48.1	896	1,115.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	69	51.1	947.5	1,181.4	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	67.6	50.5	925.8	1,158.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	68.2	50.8	933.8	1,167.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.2	48.1	896.3	1,116.2	1,522	2,274.3

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	64.8	47.7	892.6	1,110	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.6	49	916.4	1,139.9	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.5	48.5	899.7	1,121.6	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.6	48.6	900.3	1,122.5	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	68.2	50.7	935.3	1,168.2	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	68.5	50.9	939.9	1,173.3	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	40.9	32.8	164.6	262.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	43.6	34.7	176.2	279.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	51.1	41.8	202.6	328.4	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	58.7	47.3	236	377.3	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	63.5	50.8	256.9	407.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.2	52	264.4	418.7	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	57.4	46.4	230.3	368.9	1,522	2,274.3
VC.67: W1_R_Z4_C1_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	60.6	48.6	244.6	389.4	1,522	2,274.3
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	44.1	35.7	21.9	35.2	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	45.9	37.1	23	36.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	43	34.9	21.3	34.4	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	44.3	35.9	22.1	35.4	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.6	54.5	68.3	116.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	117	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.6	55.1	47.2	78.6	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.2	55.4	49.3	80.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73	121.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.1	55.3	47.8	79.3	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.6	50	81.4	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73.1	121.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73.1	121.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	59.4	54.7	69.6	118	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.8	46.7	37.8	64.6	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	59.9	54.8	70.6	119	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.5	48.4	43.3	70.8	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.8	55	72.5	120.9	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.5	47.7	41	68.1	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.3	50.3	44.4	73.1	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	59	54.6	68.9	117.3	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	116.9	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.4	46.4	37.5	64.2	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73	121.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.1	48.1	43	70.3	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	59.4	54.7	69.6	118	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.4	48	43.5	70.6	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.4	48	43.5	70.6	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.7	52.5	71.2	116.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.9	52.8	71.4	117.2	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.5	50.3	44.6	73.3	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.6	50.4	44.7	73.4	290.6	434.2

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.6	54.8	72.3	120.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.3	68.8	116.8	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.8	55.6	50	81.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.8	55.6	50	81.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.4	54.2	68.1	116.1	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.6	54.4	68.2	116.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.8	55.6	50	81.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.8	55.6	50	81.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	116.9	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.8	55.3	48.8	80.2	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.8	55.6	50	81.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.7	55	72.3	120.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.3	50.3	44.4	73.1	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.3	50.3	44.4	73.1	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.6	50.4	44.7	73.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.6	50.4	44.7	73.4	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.4	47.7	40.8	68	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.4	48	43.5	70.6	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.4	55.5	49.6	81	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61	55.1	47.8	79.2	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.5	55.5	49.7	81.1	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.8	55.6	50	81.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.6	52.4	40.8	70.9	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.68: W1_R_Z4_C2_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61	55.3	47.7	79.2	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.68: W1_R_Z4_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	48.3	32.5	84.9	102.9	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	48.7	32.8	85.7	103.8	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.8	32.9	88.2	106.2	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50	33.2	88.5	106.6	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.8	32.9	88.3	106.2	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.3	35.2	92.1	111.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.5	34.8	90.6	109.8	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.1	35.1	91.7	111.1	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50	33.2	88.5	106.6	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50	33.2	88.5	106.6	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50.9	33.8	90	108.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50.1	33.3	88.5	106.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50	33.2	88.5	106.6	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.1	35.1	91.7	111.1	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.1	35.1	91.7	111.1	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.5	94.2	113.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.6	94.2	113.7	290.6	434.2

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.5	94.2	113.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.5	94.2	113.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	41.9	34.1	20.8	33.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	43	34.9	21.3	34.4	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	46.3	37.9	22.8	37	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	48.4	39.4	23.9	38.7	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.1	41.4	25.4	40.8	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.2	42.9	26.6	42.5	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	48.8	39.7	24.2	39	290.6	434.2
VC.68: W1_R_Z4_C2_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.3	42.2	26.1	41.8	290.6	434.2
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	44.6	35.2	67.8	106.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	47.4	37.2	72.5	113.2	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	42.3	33.5	64	100.8	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	44.3	34.9	67.3	105.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.5	219.8	386.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.2	62.5	220	386.9	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.8	63.2	154.5	262.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.5	63.5	161.1	269.3	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.9	63.2	235.7	403.3	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	68.5	63.4	157.1	265.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.1	270.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	68.9	63.4	241.5	409.2	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.4	63.5	244.6	412.3	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	68.1	63.1	237.3	404.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	51.9	51.3	111.6	201	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.6	63	234.4	401.3	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.4	55.1	135.9	230.2	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.6	63	234.4	401.3	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.8	54.5	130.4	224.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.3	57.4	142.7	241.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.4	62.6	221.1	388	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.5	219.8	386.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	51.4	50.9	110.3	199.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	68	63.3	235.8	403.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	58.5	54.2	133.5	226.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.8	62.7	223.6	390.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60	54.8	139	232.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.1	54.8	139.3	232.8	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65	60.1	229.1	386	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.3	60.4	230	387.8	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.5	57.5	143.5	242.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.6	57.6	143.7	242.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.3	62.7	233.1	399.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.2	62.2	221.4	387.3	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.2	62.4	220.3	386.9	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65	62.4	219.5	386.2	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.5	219.8	386.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.6	63	234.4	401.3	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.3	57.4	142.7	241.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.3	57.4	142.7	241.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.6	57.6	143.7	242.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.6	57.6	143.7	242.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57	54.3	127.3	220.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60	54.8	139	232.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.2	270.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.2	270.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.2	60.7	127.8	233.2	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.4	63.3	152.8	261.3	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	55.7	40.4	286.6	354.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.1	41	294.8	363.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.6	40.8	298.7	366.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	58.4	41.8	301.7	371.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	58.4	41.6	302.1	371.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.4	43.8	317.1	390.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.4	43.4	311.1	384.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.5	43.4	311.6	384.7	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.9	41.2	299.6	368.3	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.9	41.2	299.6	368.4	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.3	42.1	306.8	377.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	58.4	41.8	301.6	371.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	58.4	41.7	301.6	371.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.6	43.5	312.7	385.8	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.9	43.6	314.3	387.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.8	43.9	319.5	392.9	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.7	43.9	319.5	392.9	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.7	43.9	319.5	392.9	678	1,013.1
VC.69: W1_R_Z4_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.8	43.9	319.5	392.9	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	40.2	32	60.6	95.9	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	42.1	33.3	63.7	100.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	45.8	36.7	68.4	109.2	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	50.8	40.3	76.6	121.1	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	55.9	44.1	85	133.5	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	58	45.6	88.4	138.4	678	1,013.1

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	50.5	40.2	76.2	120.6	678	1,013.1
VC.69: W1_R_Z4_C2_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	54.6	43.1	82.9	130.3	678	1,013.1
VC.70: W1_L_Z4_C1_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.7	39.8	25	39.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	48.9	39.2	24.6	39.1	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50	33.2	88.5	106.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.8	55.6	50	81.5	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.6	32.6	87.9	105.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.8	55.6	50	81.5	290.6	434.2
VC.70: W1_L_Z4_C1_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	44.4	35.9	22.1	35.5	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	116.9	290.6	434.2
VC.70: W1_L_Z4_C1_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	44.9	36.3	22.4	35.9	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.6	50	81.5	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50	33.2	88.5	106.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.6	50	81.5	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.8	33	88.2	106.2	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	59.4	54.7	69.6	118	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	116.9	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.6	50.4	44.7	73.4	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	59.4	54.7	69.6	118	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.6	50.4	44.7	73.5	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	116.9	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62	55.3	74.7	123.3	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73	121.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	59.3	54.7	69.6	118	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.5	94.2	113.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.2	55.4	49.3	80.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.4	48	43.5	70.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73.1	121.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.6	50	81.5	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.4	48	43.5	70.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	59.4	54.7	69.6	118	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.5	94.2	113.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.5	94.2	113.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.2	50	44.5	73	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.5	94.2	113.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.8	46.7	37.8	64.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.7	50.5	44.8	73.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50.1	47.1	38	65	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.7	48.2	43.7	71	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.6	50.4	44.7	73.4	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.7	50.5	44.7	73.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	116.9	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.3	50.3	44.5	73.1	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.9	33	88.3	106.3	290.6	434.2

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.1	48.1	43	70.3	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	54.7	48.4	43.6	71.1	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.4	34.2	90.8	109.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	43.2	35.1	21.5	34.6	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	56.6	54.2	42.3	73.5	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	59.6	55	45.9	77.4	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73	121.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.70: W1_L_Z4_C1_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	45.2	36.5	22.6	36.2	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73	121.7	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50.9	34.2	89.7	108.5	290.6	434.2
VC.70: W1_L_Z4_C1_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	48.7	39.6	24.1	38.9	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50.3	47.2	38.1	65.3	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.8	34.7	91.3	110.4	290.6	434.2
VC.70: W1_L_Z4_C1_R1: East (A90°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51	48.1	38.5	66.2	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.70: W1_L_Z4_C1_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.9	42.7	26.4	42.3	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.3	34.6	90.1	109.3	290.6	434.2
VC.70: W1_L_Z4_C1_R1: North (A10.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.3	42.2	26.1	41.8	290.6	434.2
VC.70: W1_L_Z4_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.2	34.6	90	109.1	290.6	434.2
VC.70: W1_L_Z4_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.71: W1_L_Z4_C1_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	51.4	40.1	78.9	122.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	51	40.1	77.8	121.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.1	62.9	231.5	398.3	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.9	41.2	299.6	368.3	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.3	40.5	297.5	364.9	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.3	270.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	45.5	35.8	69.3	108.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.5	219.8	386.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	46.6	36.6	71.1	111.3	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.2	270.5	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.9	41.2	299.6	368.3	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.2	270.5	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.7	40.9	298.7	366.9	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.8	62.7	223.6	390.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.5	219.8	386.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	63.3	58.4	145.1	245.1	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.8	62.7	223.6	390.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	63.4	58.6	145.4	245.8	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.5	219.8	386.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.9	63.2	235.7	403.4	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.8	62.7	223.5	390.5	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.7	43.9	319.5	392.9	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.1	63.4	159.8	267.9	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.2	57.3	142.5	240.9	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	68	63.3	235.8	403.5	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	162.2	270.5	678	1,013.1

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.5	56.5	141.4	238.2	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.8	62.7	223.6	390.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.8	43.9	319.5	392.9	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.8	43.9	319.5	392.9	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	58.1	143	243.2	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.7	43.9	319.5	392.9	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	51.6	50.9	111.2	200	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.9	57.9	144.2	243.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	52.9	52.6	113.4	204.9	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62	56.9	142.7	240.2	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.6	57.6	143.7	242.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.9	58	144.3	243.8	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.5	219.9	386.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	63.2	58.2	145.1	245	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.7	40.9	299.1	367.2	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59	54.8	134.9	228.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	62.2	57.4	142.4	241.1	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	43.3	310.6	383.4	678	1,013.1
VC.71: W1_L_Z4_C1_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	42.2	33.4	63.9	100.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.8	61.8	131.9	239.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.2	63	147.9	256.3	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	68	63.3	235.7	403.4	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.71: W1_L_Z4_C1_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	46.7	37.2	70.1	111.4	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.9	63.2	235.7	403.3	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	43.3	310.7	383.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	49.6	39.5	74.7	118.4	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	54.3	54	115.4	210.3	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	43.4	310.9	383.8	678	1,013.1
VC.71: W1_L_Z4_C1_R2: East (A90°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.5	57.1	122.9	222.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.71: W1_L_Z4_C1_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	55.6	43.8	84.4	132.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.4	42.9	305.5	377.7	678	1,013.1
VC.71: W1_L_Z4_C1_R2: North (A10.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	54.6	43.1	82.9	130.4	678	1,013.1
VC.71: W1_L_Z4_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.3	42.9	305.4	377.6	678	1,013.1
VC.71: W1_L_Z4_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	54.2	42.4	222.9	348	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	50.7	40.3	205.4	325.4	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.7	67.8	695.1	1,176.6	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.2	48.1	896.3	1,116.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.2	68.7	492	805	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.2	48.1	896.3	1,116.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.2	68.7	492	805	1,522	2,274.3

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.72: W1_L_Z4_C2_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	44.6	35.5	180.7	286.4	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.4	1,138.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	47.9	37.9	195.4	307.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77	68.6	490.8	803.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65	48	894.8	1,113.6	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77	68.6	490.8	803.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	64.6	47.5	890.6	1,106.4	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	72	67.5	667.7	1,150	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.4	1,138.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	69.5	62.5	437.2	724.2	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	72	67.5	667.7	1,150	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	69.6	62.7	438.1	725.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.4	1,138.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	76.6	68.6	740.4	1,224.2	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.7	68.2	709	1,193	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	72.2	67.5	670.9	1,152.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	76	68.3	480.6	792.7	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.4	60	416.9	692.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.8	68.3	710.7	1,195.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77	68.6	490.8	803.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.2	59.8	416.1	690.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	72.3	67.6	672.2	1,154.7	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65	61.5	391.6	677.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	51.8	52.5	291.2	539.9	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	68.4	62	427.1	712.9	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	61.3	57.2	374.2	639.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	68.7	61.7	433.5	716.7	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	69	61.9	434.5	719.2	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	68.5	62.1	427.5	713.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.4	1,138.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	69	62.3	433.6	719.8	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.1	48	895.5	1,114	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	59.9	57.5	357.3	624.2	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.5	60.7	413.2	693.2	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	67.6	50.1	926.9	1,156.6	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	42.3	33.8	170.6	271.5	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.7	66.7	371.4	684.4	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.9	68.1	457	770.3	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.7	68.2	709.7	1,193.9	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	47	38	187.6	301.9	1,522	2,274.3

Transmission heat losses - windows (continue)

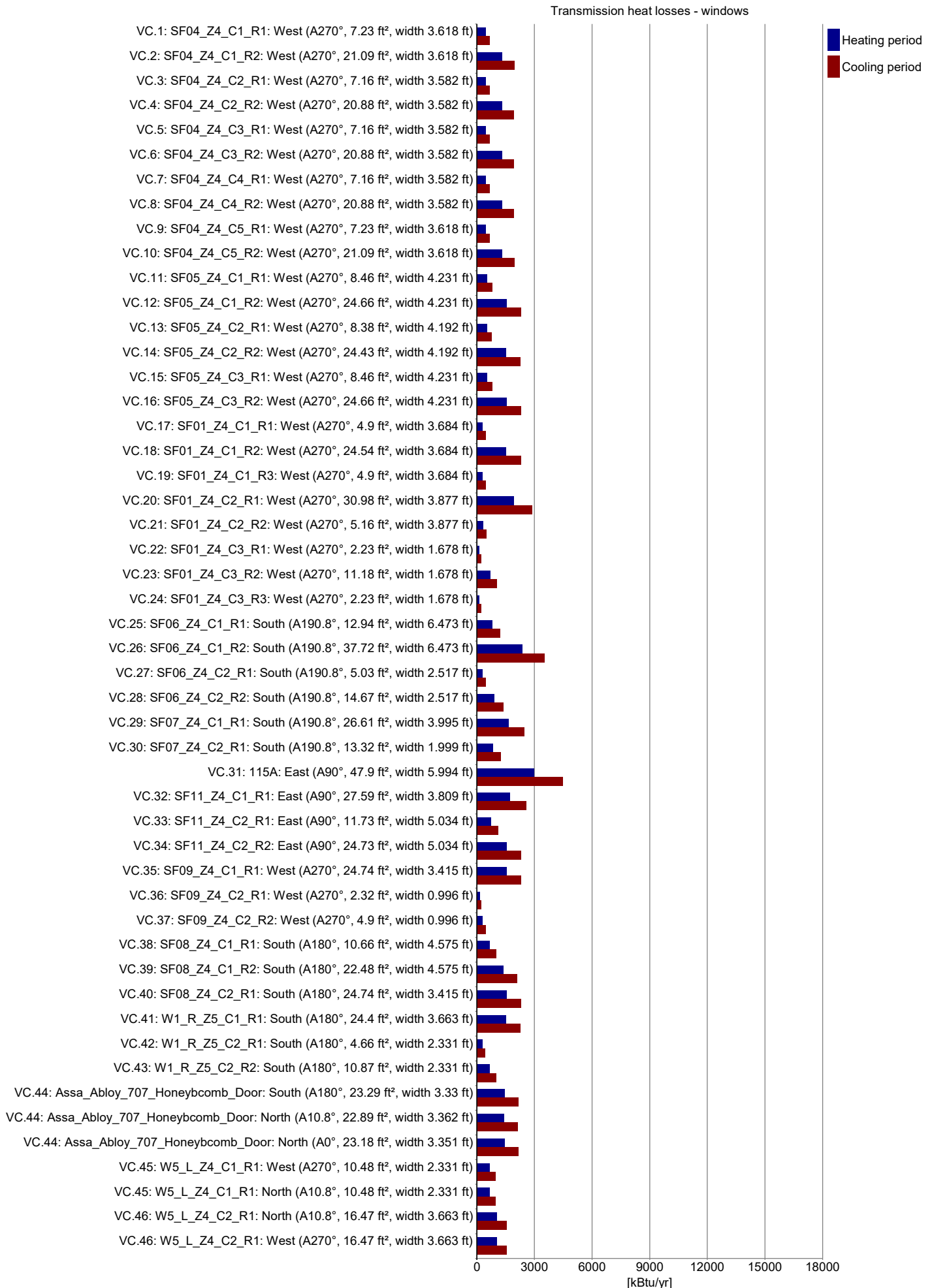
Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.7	68.2	709	1,192.9	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	67.6	50.3	927.6	1,158.2	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	51.3	41.9	203.4	329.6	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	55.6	56.9	309.3	579.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	67.8	50.5	930	1,161.6	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: East (A90°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.1	61.4	393.5	678.6	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	62.2	49.8	251.2	399.5	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	67.1	50.2	917.7	1,149	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: North (A10.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	57.3	46.3	229.8	368.2	1,522	2,274.3
VC.72: W1_L_Z4_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.9	50.1	914	1,144.8	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.3	67.9	704.9	1,186.8	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	69.8	51.3	959.9	1,194.6	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	63.1	47.4	861.3	1,079.7	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	64.4	47.7	885.2	1,103.1	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.7	68.2	709	1,192.9	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.9	50.1	914.4	1,145.4	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.4	1,138.3	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	75.3	68.3	717.7	1,202.2	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.6	49.1	917.3	1,141.1	1,522	2,274.3
VC.73: W1_R_Z5_C1_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.2	48.5	893.6	1,116.2	1,522	2,274.3
VC.74: W1_R_Z5_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.6	32.9	87.7	105.7	290.6	434.2
VC.74: W1_R_Z5_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.74: W1_R_Z5_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.74: W1_R_Z5_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	52.9	35.4	93.3	112.7	290.6	434.2
VC.74: W1_R_Z5_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	46.9	32.1	82.1	100	290.6	434.2
VC.74: W1_R_Z5_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.5	32.9	87.6	105.6	290.6	434.2
VC.74: W1_R_Z5_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73	121.7	290.6	434.2
VC.74: W1_R_Z5_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.74: W1_R_Z5_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.74: W1_R_Z5_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.3	34.7	90.2	109.4	290.6	434.2
VC.74: W1_R_Z5_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.5	94.2	113.7	290.6	434.2
VC.74: W1_R_Z5_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	117	290.6	434.2
VC.74: W1_R_Z5_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.74: W1_R_Z5_C2_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73.1	121.7	290.6	434.2
VC.74: W1_R_Z5_C2_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51	33.9	90.2	108.8	290.6	434.2
VC.75: W1_R_Z5_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	58.3	41.9	300.7	371.1	678	1,013.1
VC.75: W1_R_Z5_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.75: W1_R_Z5_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.6	63	234.2	401.2	678	1,013.1
VC.75: W1_R_Z5_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.7	43.9	319.5	392.9	678	1,013.1
VC.75: W1_R_Z5_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.9	41.2	299.8	368.5	678	1,013.1
VC.75: W1_R_Z5_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.3	40.8	296.6	364.8	678	1,013.1
VC.75: W1_R_Z5_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.9	63.2	235.7	403.4	678	1,013.1
VC.75: W1_R_Z5_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.75: W1_R_Z5_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.75: W1_R_Z5_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.5	42.9	306.3	378.7	678	1,013.1
VC.75: W1_R_Z5_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.7	43.9	319.5	392.9	678	1,013.1
VC.75: W1_R_Z5_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.2	62.5	220.1	387	678	1,013.1
VC.75: W1_R_Z5_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.75: W1_R_Z5_C2_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	68.6	63.4	239.3	407	678	1,013.1
VC.75: W1_R_Z5_C2_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.3	42.1	306.8	377.1	678	1,013.1
VC.76: W1_L_Z5_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	49.5	32.9	87.6	105.6	290.6	434.2
VC.76: W1_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73	121.7	290.6	434.2
VC.76: W1_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.76: W1_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.9	55	72.7	121.1	290.6	434.2
VC.76: W1_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.76: W1_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	116.9	290.6	434.2
VC.76: W1_L_Z5_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	53.3	35.5	94.2	113.7	290.6	434.2
VC.76: W1_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	58.8	54.6	68.5	116.9	290.6	434.2
VC.76: W1_L_Z5_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	50.4	33.5	89	107.3	290.6	434.2
VC.76: W1_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	61.2	55.2	73	121.7	290.6	434.2
VC.76: W1_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	60.3	54.9	71.6	120	290.6	434.2
VC.76: W1_L_Z5_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.3	34.6	90.1	109.3	290.6	434.2
VC.76: W1_L_Z5_C1_R1: West (A270°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	62.7	55.5	76.2	124.8	290.6	434.2
VC.76: W1_L_Z5_C1_R1: South (A190.8°, 4.66 ft², width 2.331 ft)	1	90	0.45	0.4	51.2	34	90.6	109.2	290.6	434.2
VC.77: W1_L_Z5_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	57.3	40.8	296.6	364.7	678	1,013.1
VC.77: W1_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	67.9	63.2	235.7	403.3	678	1,013.1
VC.77: W1_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.77: W1_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.77: W1_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.77: W1_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.5	219.8	386.7	678	1,013.1
VC.77: W1_L_Z5_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	61.7	43.9	319.5	392.9	678	1,013.1
VC.77: W1_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	65.1	62.5	219.9	386.7	678	1,013.1
VC.77: W1_L_Z5_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	58.3	41.6	301.3	370.8	678	1,013.1
VC.77: W1_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	68	63.3	235.7	403.5	678	1,013.1
VC.77: W1_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	66.9	62.8	230.6	397.4	678	1,013.1
VC.77: W1_L_Z5_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	59.3	42.9	305.4	377.6	678	1,013.1
VC.77: W1_L_Z5_C1_R2: West (A270°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	69.8	63.6	246.5	414.1	678	1,013.1
VC.77: W1_L_Z5_C1_R2: South (A190.8°, 10.87 ft², width 2.331 ft)	1	90	0.45	0.4	60.2	43.2	310.5	383.2	678	1,013.1
VC.78: W1_L_Z5_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	67.6	50.2	927.4	1,157.4	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	64.4	47.7	885.2	1,103.1	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.7	68.2	709	1,192.9	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	76.4	68.5	737.4	1,221	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.7	1,138.5	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	70.1	51.5	965.6	1,200.8	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	71.3	67.3	656.7	1,138.5	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	65.5	48.5	900.6	1,122.2	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	74.8	68.2	710	1,194.3	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	73.6	67.7	693.6	1,175.1	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: South (A190.8°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	66.9	50.1	914.4	1,145.3	1,522	2,274.3
VC.78: W1_L_Z5_C2_R1: West (A270°, 24.4 ft², width 3.663 ft)	1	90	0.45	0.4	77.1	68.7	747.9	1,232.1	1,522	2,274.3
VC.79: W3_L_Z4_C1_R1: East (A90°, 6.99 ft², width 3.497 ft)	1	90	0.45	0.4	40.8	40.1	50	89.7	435.8	651.3

Transmission heat losses - windows (continue)

Name	Quantity	Inclination [°]	U-value total [Btu/hr ft² °F]	SHGC (perpendicular)	Reduction factor shading [%]	Reduction factor shading summer [%]	Solar gain heating [kBtu/yr]	Solar gain cooling [kBtu/yr]	Transmission losses heating [kBtu/yr]	Transmission losses cooling [kBtu/yr]
VC.79: W3_L_Z4_C1_R1: East (A90°, 6.99 ft², width 3.497 ft)	1	90	0.45	0.4	41.1	40.4	50.4	90.4	435.8	651.3
VC.79: W3_L_Z4_C1_R1: East (A90°, 6.99 ft², width 3.497 ft)	1	90	0.45	0.4	45.8	46	55.3	100.8	435.8	651.3
VC.79: W3_L_Z4_C1_R1: East (A90°, 6.99 ft², width 3.497 ft)	1	90	0.45	0.4	48	48.1	57.9	105.6	435.8	651.3
VC.79: W3_L_Z4_C1_R1: East (A90°, 6.99 ft², width 3.497 ft)	1	90	0.45	0.4	49.3	49.7	59.4	108.5	435.8	651.3
VC.79: W3_L_Z4_C1_R1: East (A90°, 6.99 ft², width 3.497 ft)	1	90	0.45	0.4	40.3	39.8	49.3	88.8	435.8	651.3
VC.79: W3_L_Z4_C1_R1: East (A90°, 6.99 ft², width 3.497 ft)	1	90	0.45	0.4	40.8	40.1	50	89.7	435.8	651.3
VC.80: W3_L_Z4_C1_R2: East (A90°, 16.3 ft², width 3.497 ft)	1	90	0.45	0.4	39.4	41.1	134.7	258.8	1,017	1,519.7
VC.80: W3_L_Z4_C1_R2: East (A90°, 16.3 ft², width 3.497 ft)	1	90	0.45	0.4	39.4	41.1	134.7	259	1,017	1,519.7
VC.80: W3_L_Z4_C1_R2: East (A90°, 16.3 ft², width 3.497 ft)	1	90	0.45	0.4	42.3	44.4	142.7	277.8	1,017	1,519.7
VC.80: W3_L_Z4_C1_R2: East (A90°, 16.3 ft², width 3.497 ft)	1	90	0.45	0.4	46.2	48.9	156.6	303.7	1,017	1,519.7
VC.80: W3_L_Z4_C1_R2: East (A90°, 16.3 ft², width 3.497 ft)	1	90	0.45	0.4	48.8	51.7	164.8	320.5	1,017	1,519.7
VC.80: W3_L_Z4_C1_R2: East (A90°, 16.3 ft², width 3.497 ft)	1	90	0.45	0.4	52.3	55.1	178.8	343.8	1,017	1,519.7
VC.80: W3_L_Z4_C1_R2: East (A90°, 16.3 ft², width 3.497 ft)	1	90	0.45	0.4	38.9	40.7	132.4	255.5	1,017	1,519.7
VC.81: Assa_Abloy_707_Honeybcomb_Door: South (A190.8°, 23.29 ft², width 3.33 ft)	1	90	0.45	0.4	85.9	79.2	1,080.9	1,624.5	1,452.8	2,170.9
VC.81: Assa_Abloy_707_Honeybcomb_Door: North (A0°, 23.29 ft², width 3.33 ft)	1	90	0.45	0.4	73.9	69.1	301.4	523	1,452.8	2,170.9



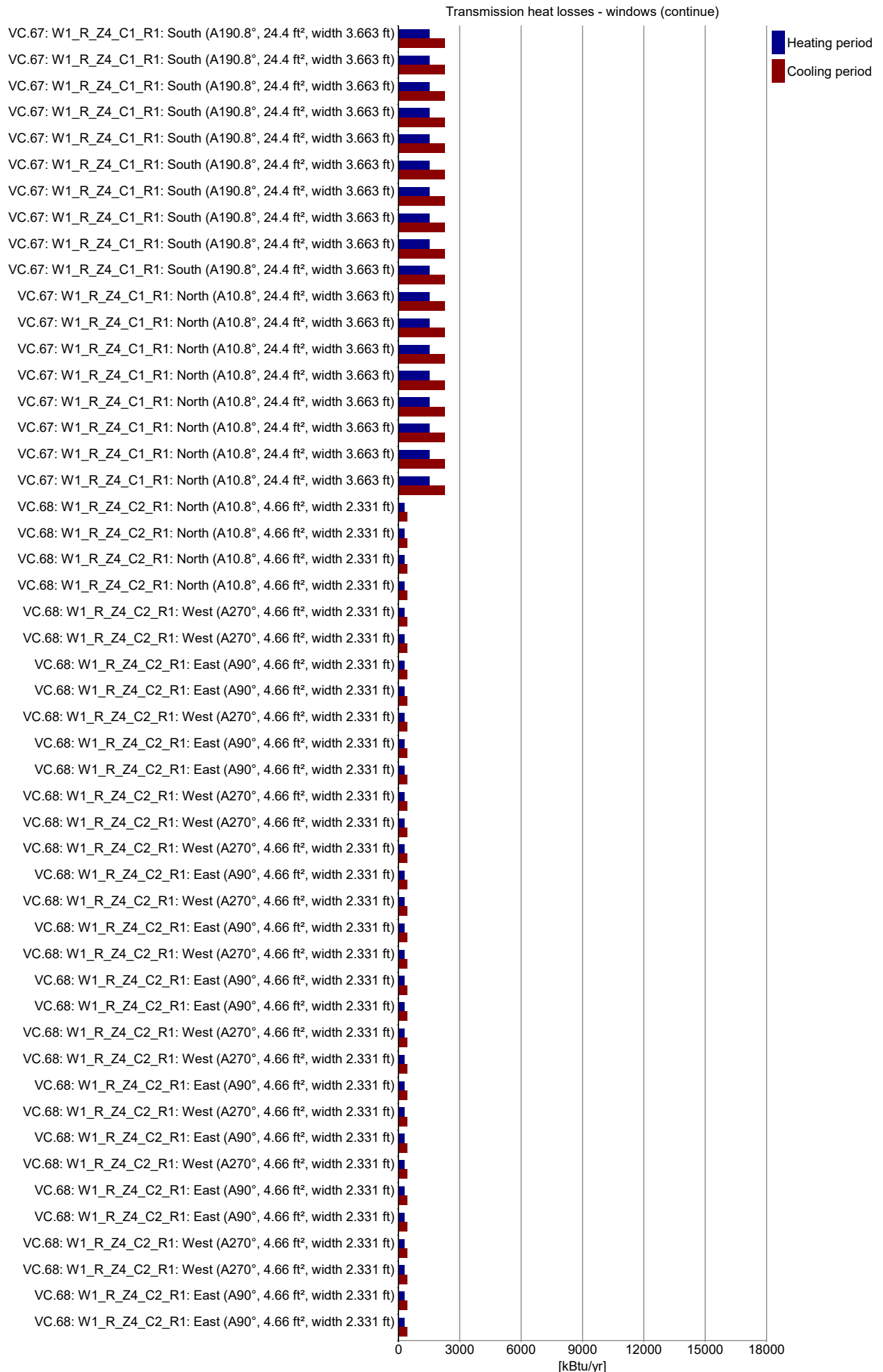


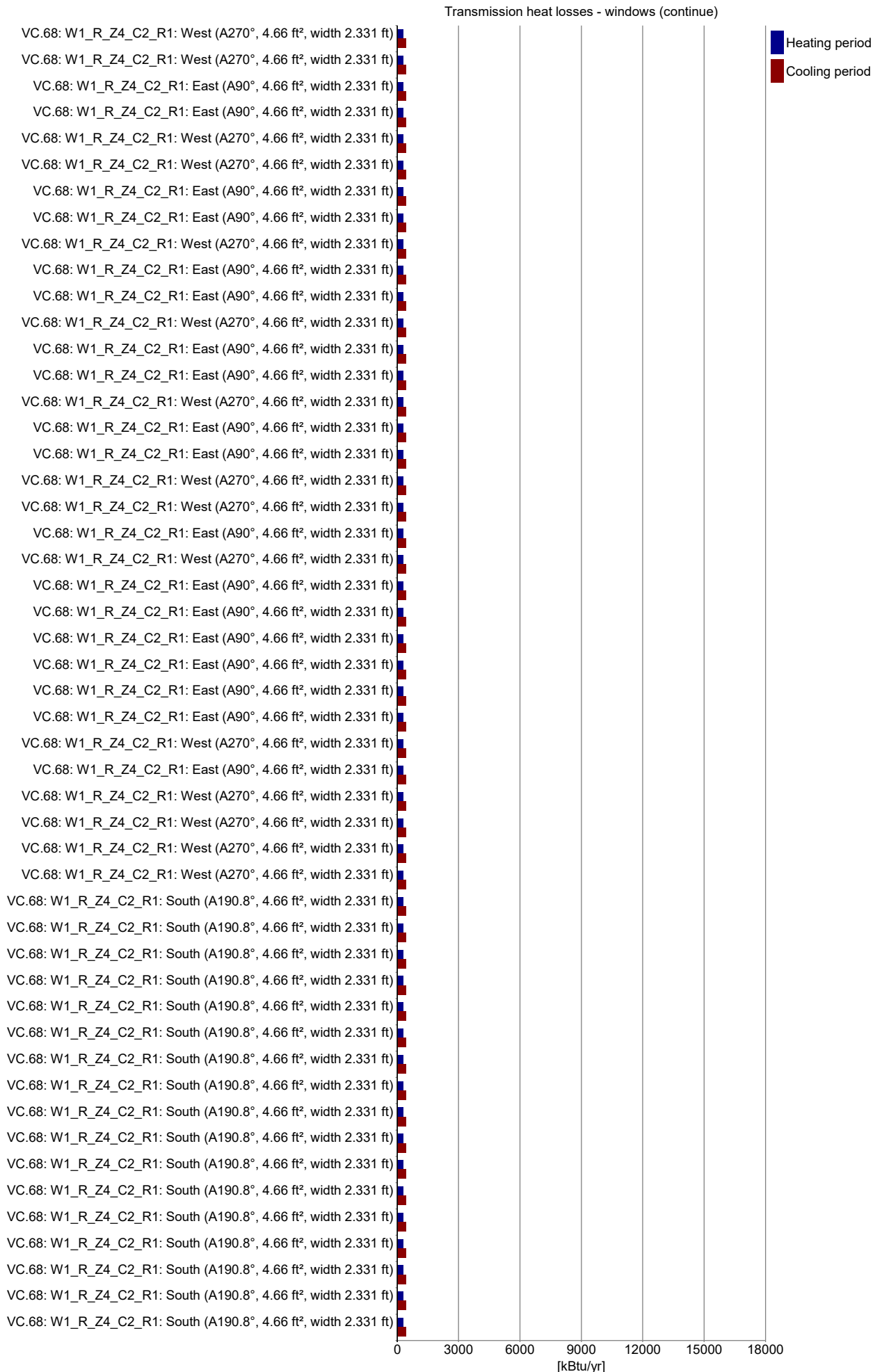
Transmission heat losses - windows (continue)











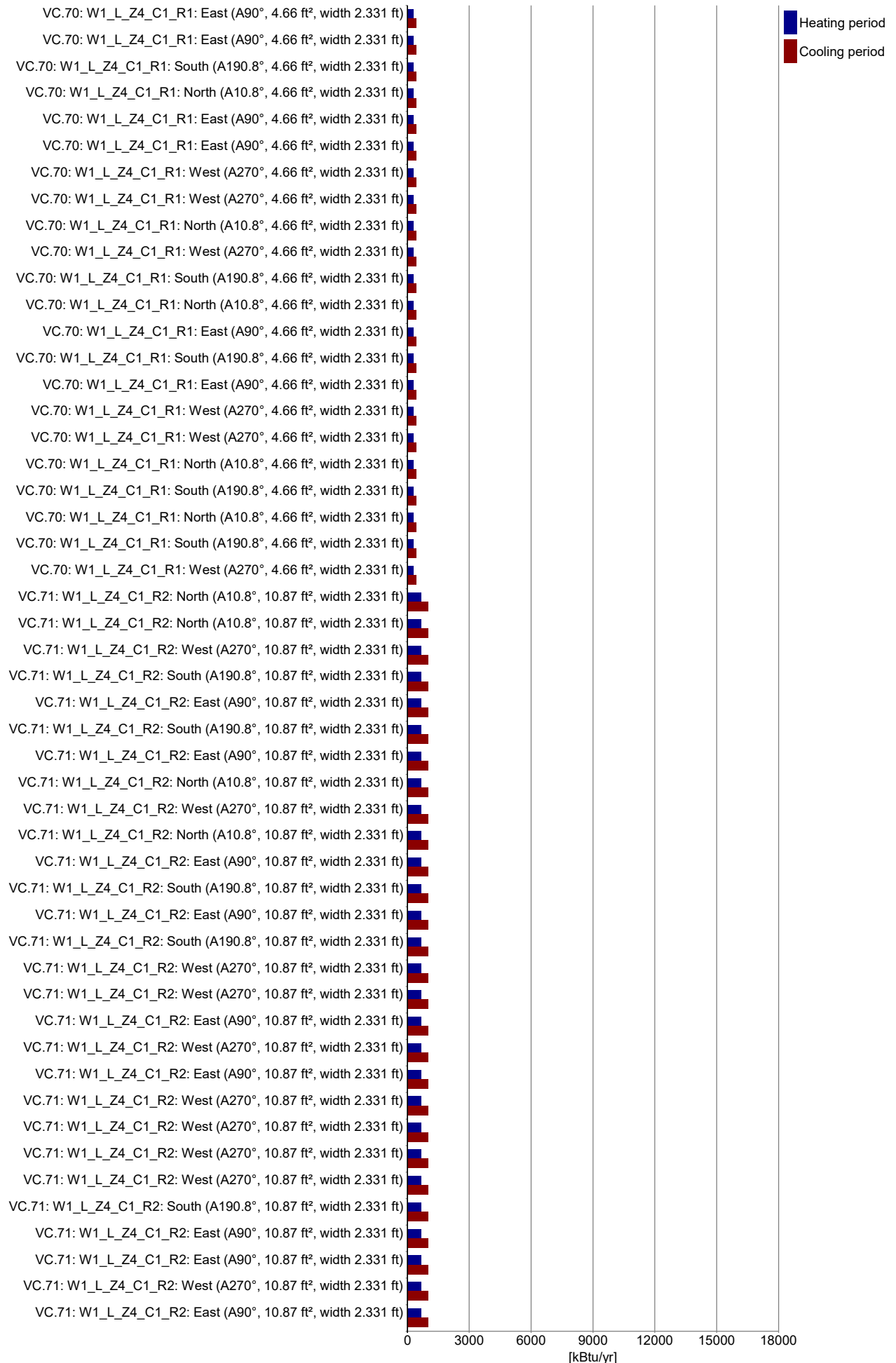




Transmission heat losses - windows (continue)



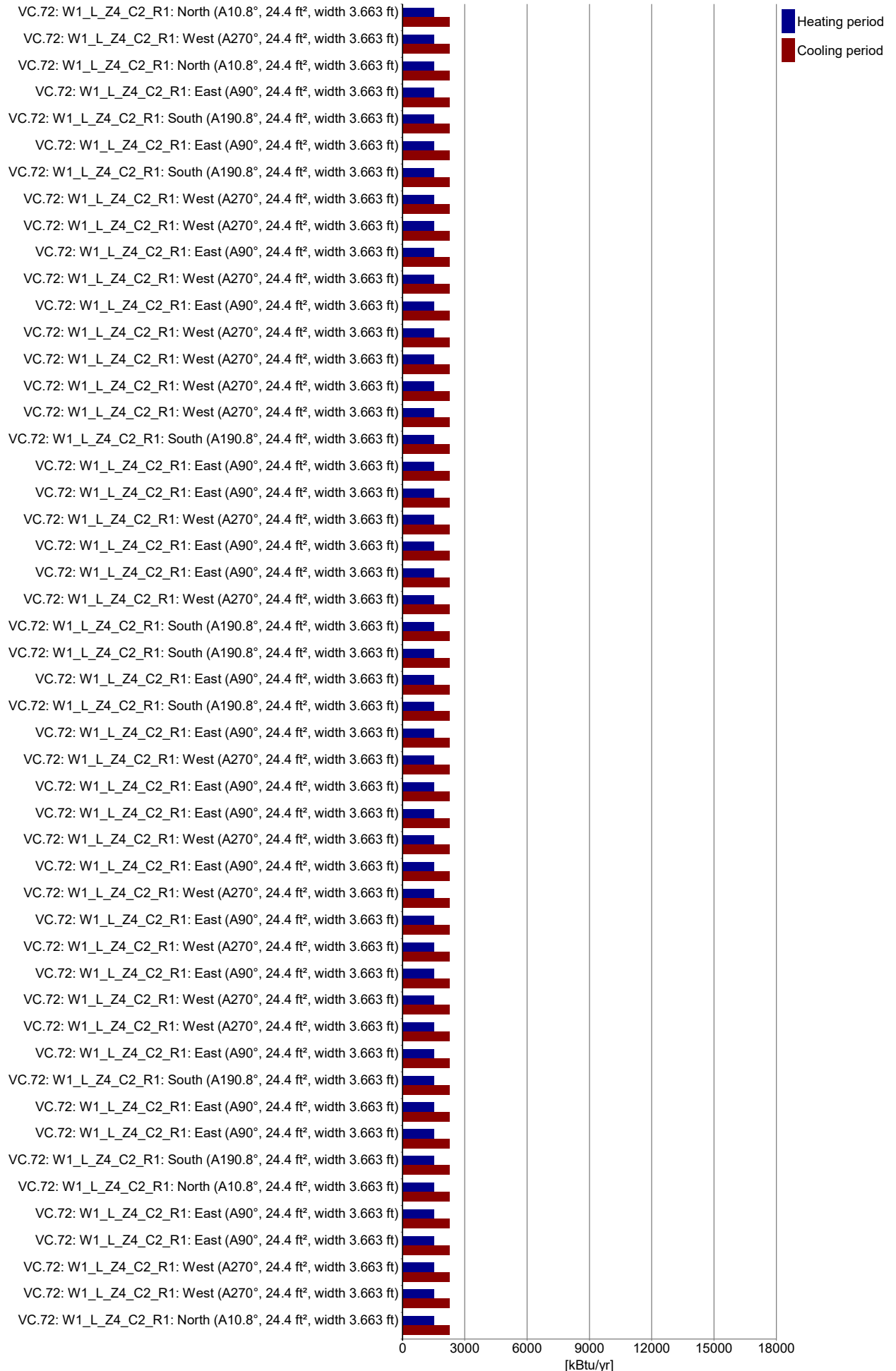
Transmission heat losses - windows (continue)



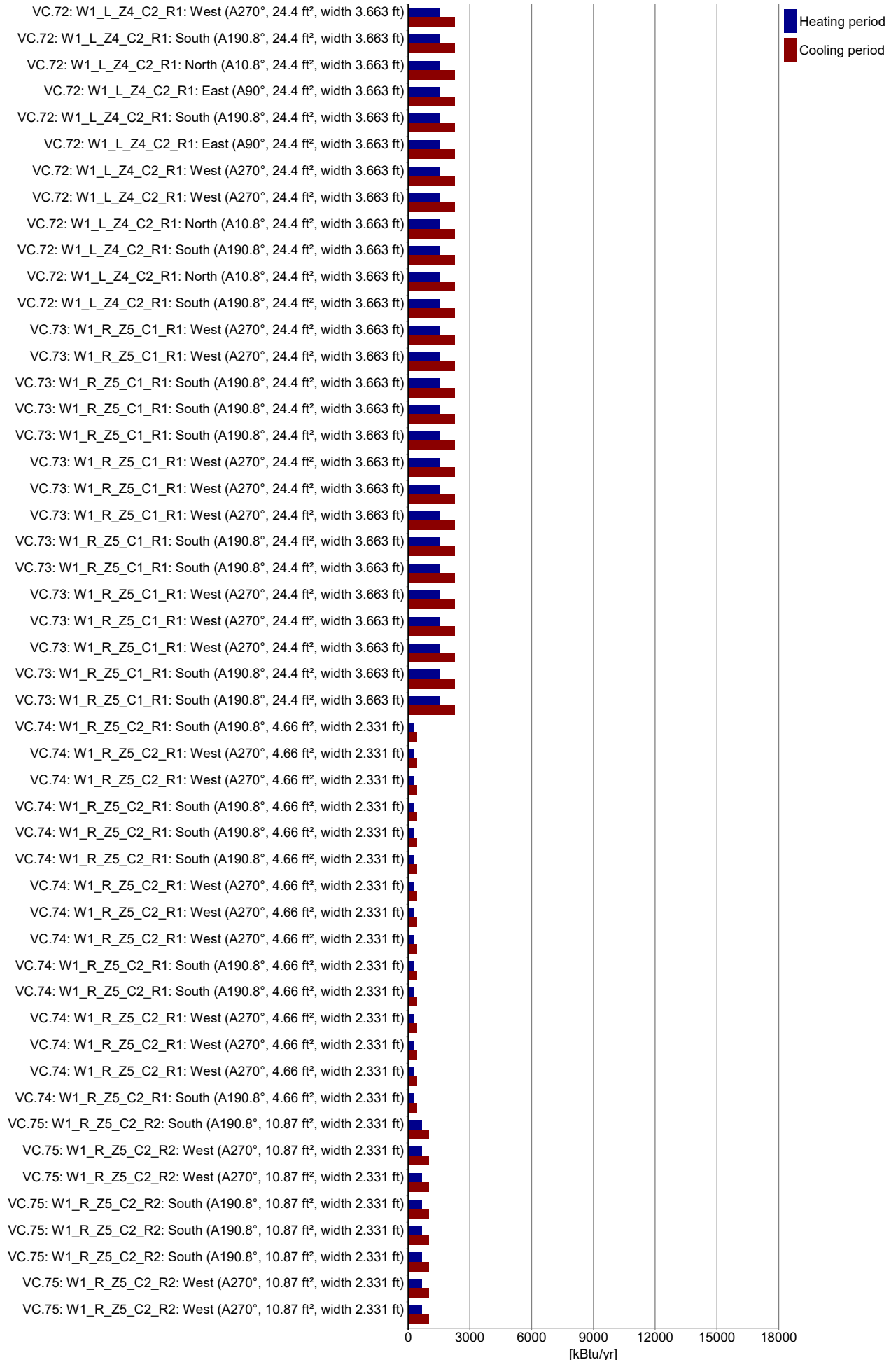
Transmission heat losses - windows (continue)



Transmission heat losses - windows (continue)

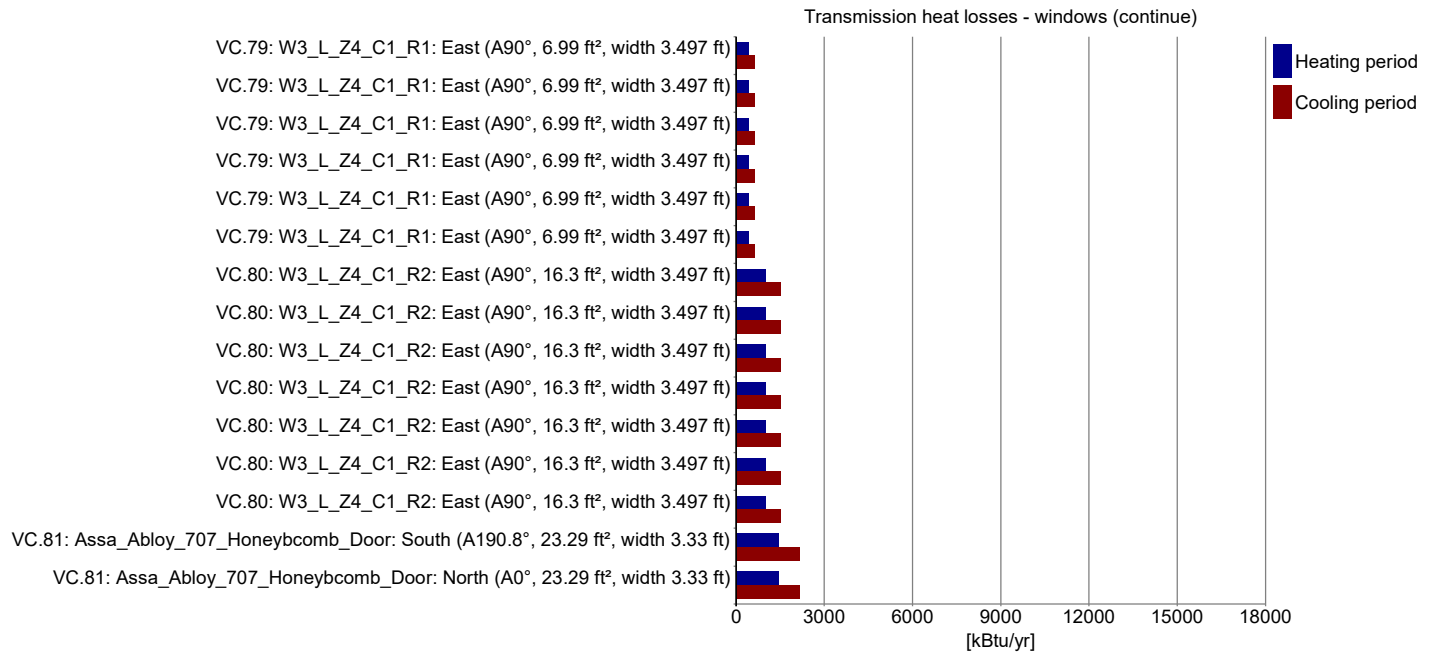


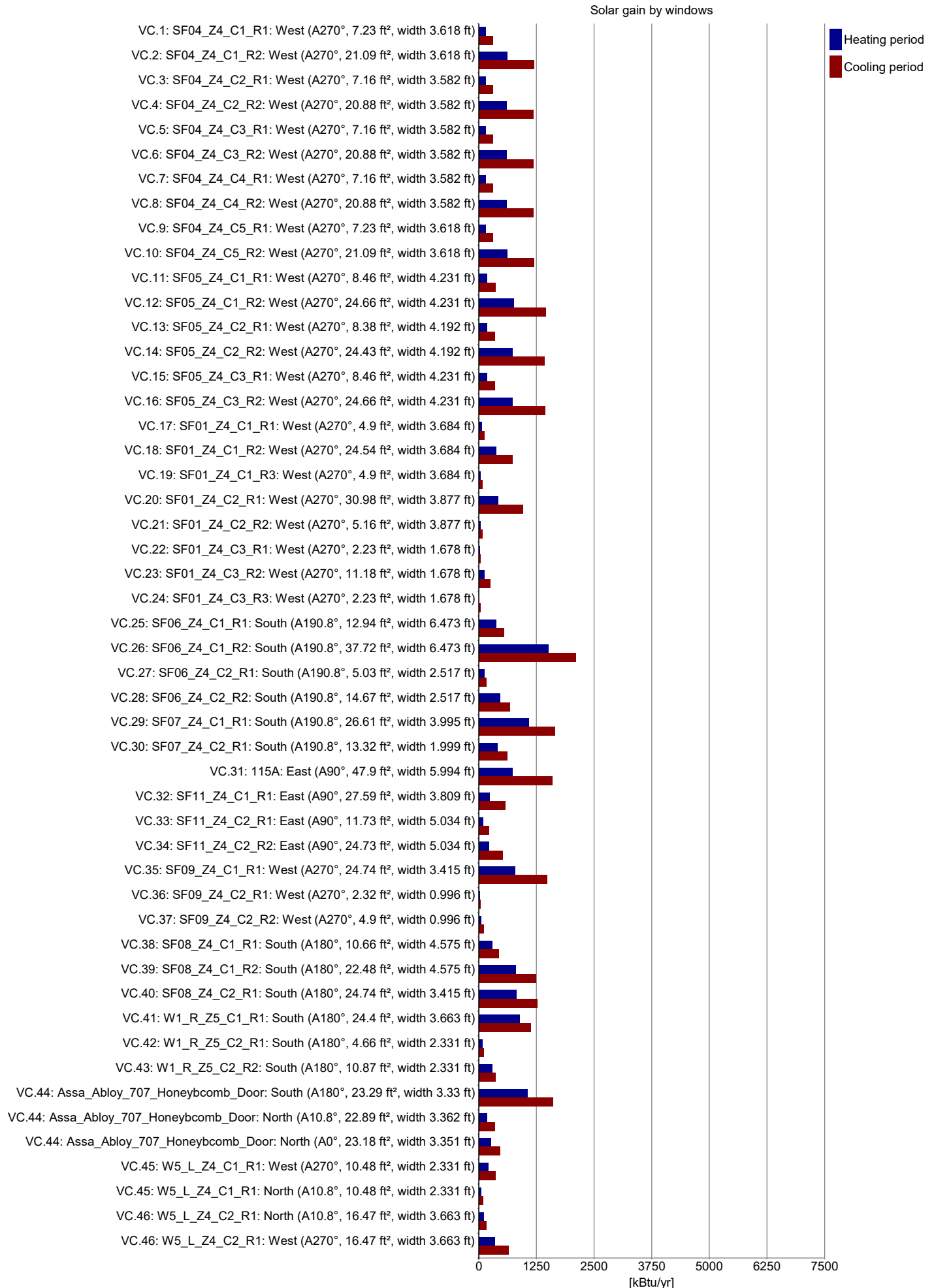
Transmission heat losses - windows (continue)



Transmission heat losses - windows (continue)







Solar gain by windows (continue)



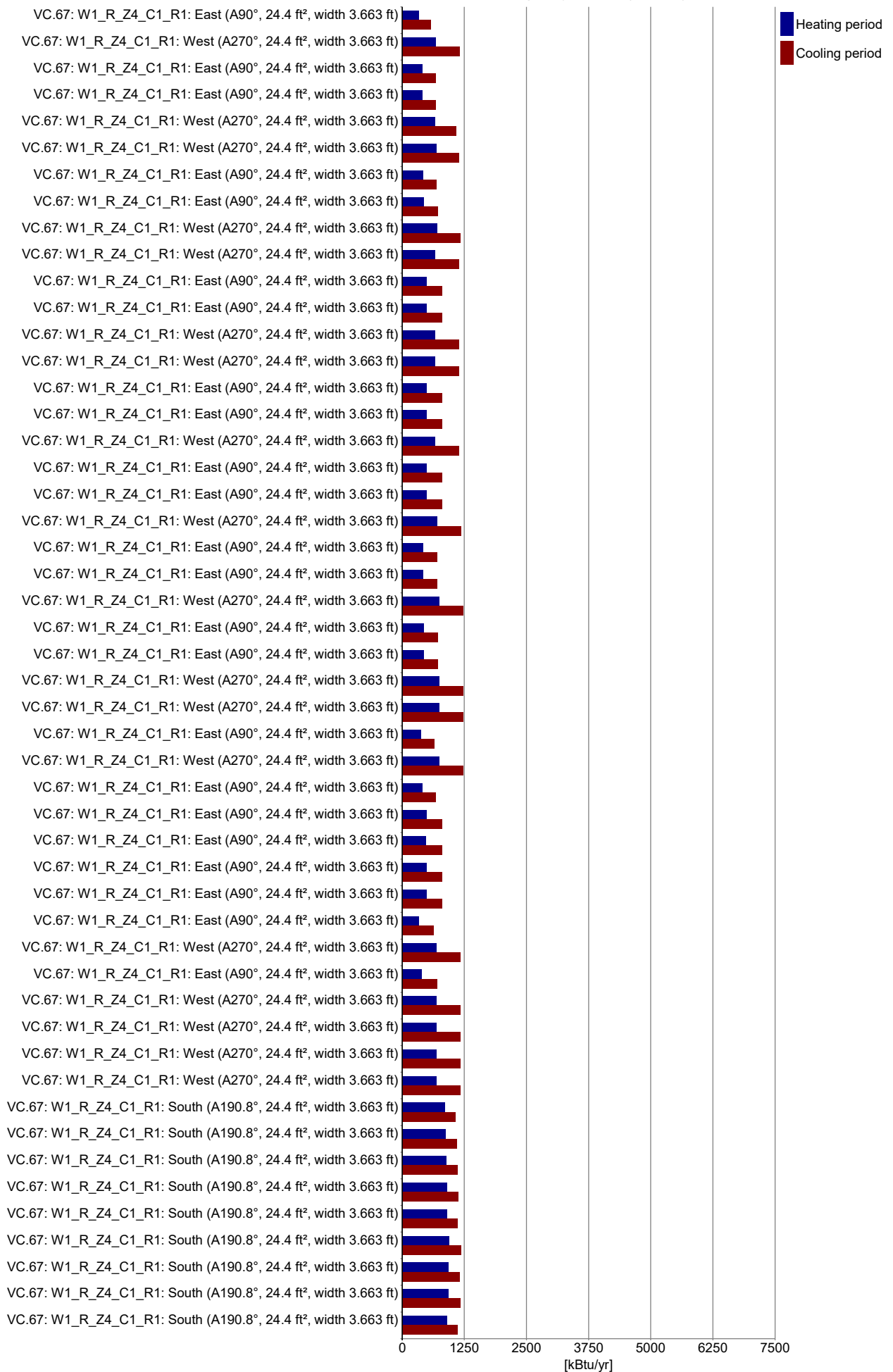
Solar gain by windows (continue)



Solar gain by windows (continue)



Solar gain by windows (continue)



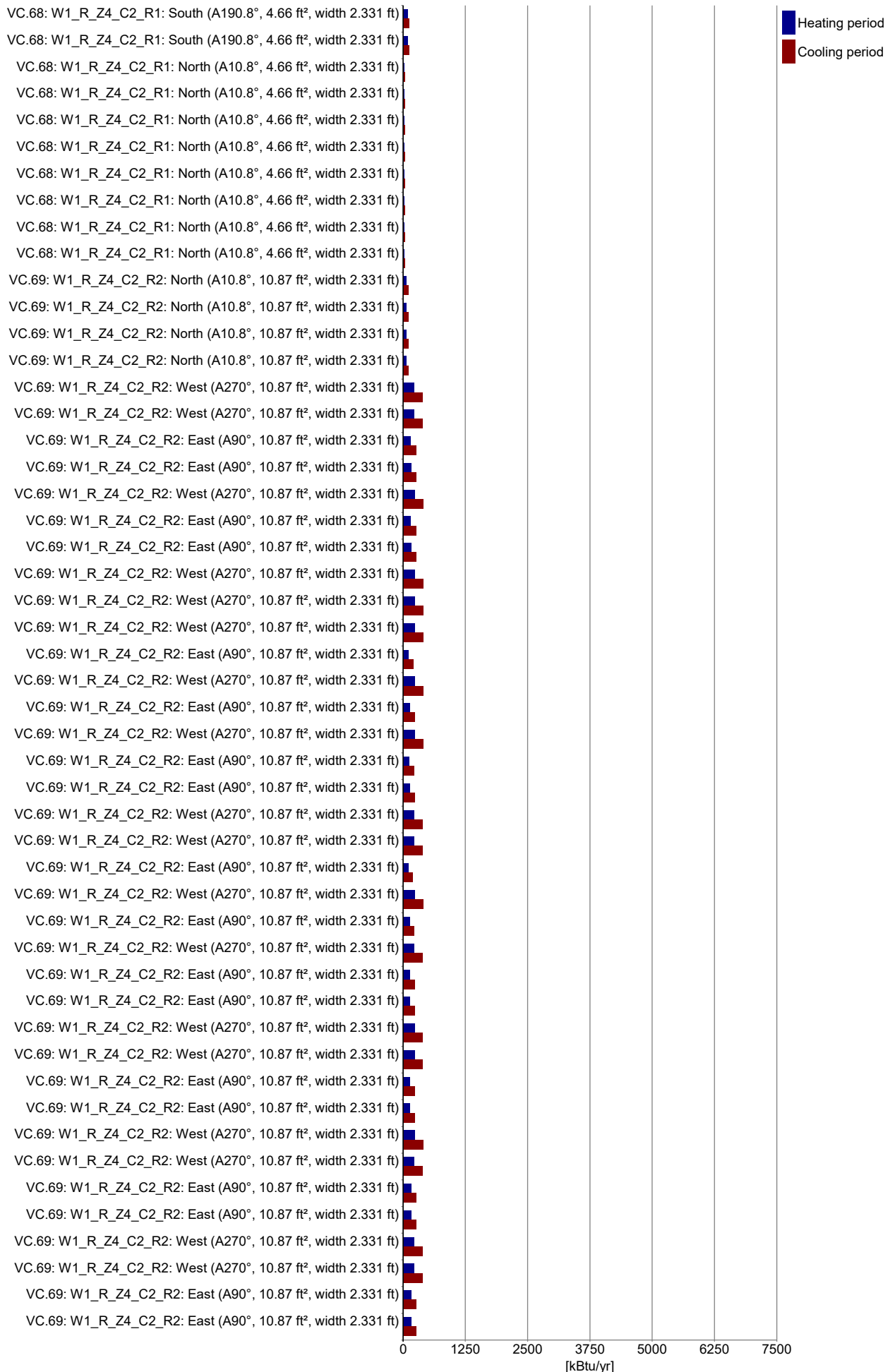
Solar gain by windows (continue)



Solar gain by windows (continue)



Solar gain by windows (continue)



Solar gain by windows (continue)



Solar gain by windows (continue)



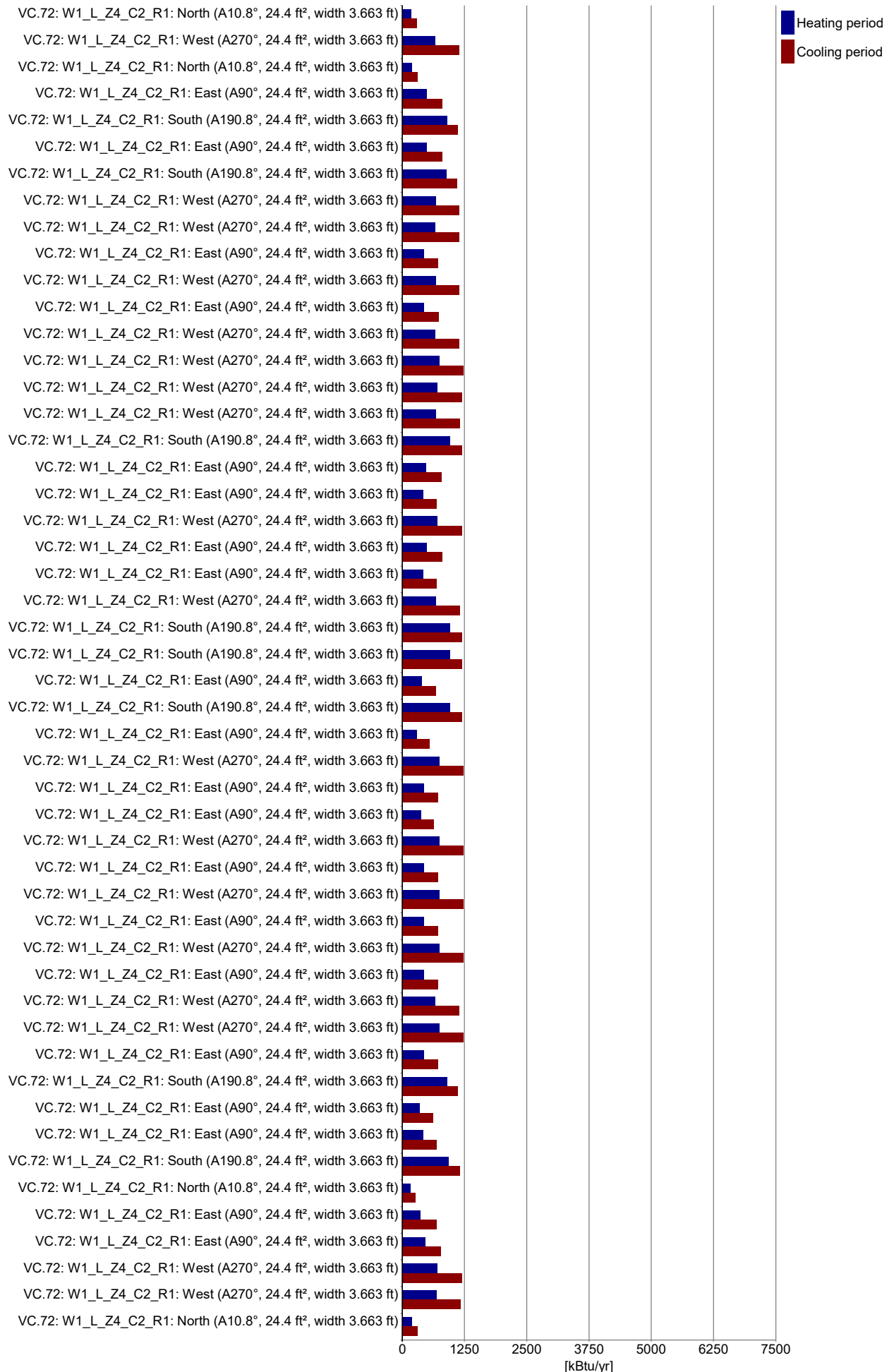
Solar gain by windows (continue)



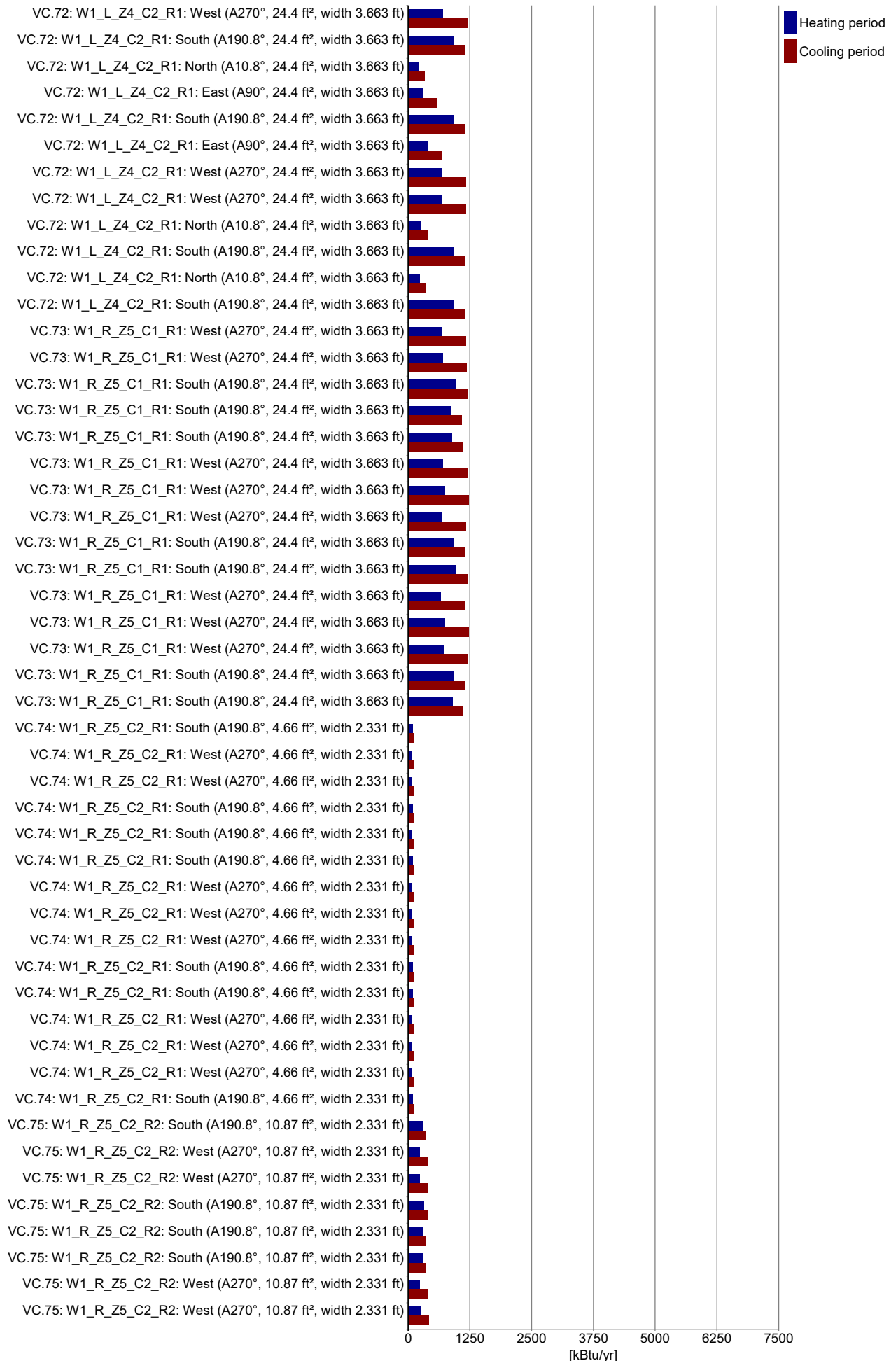
Solar gain by windows (continue)



Solar gain by windows (continue)

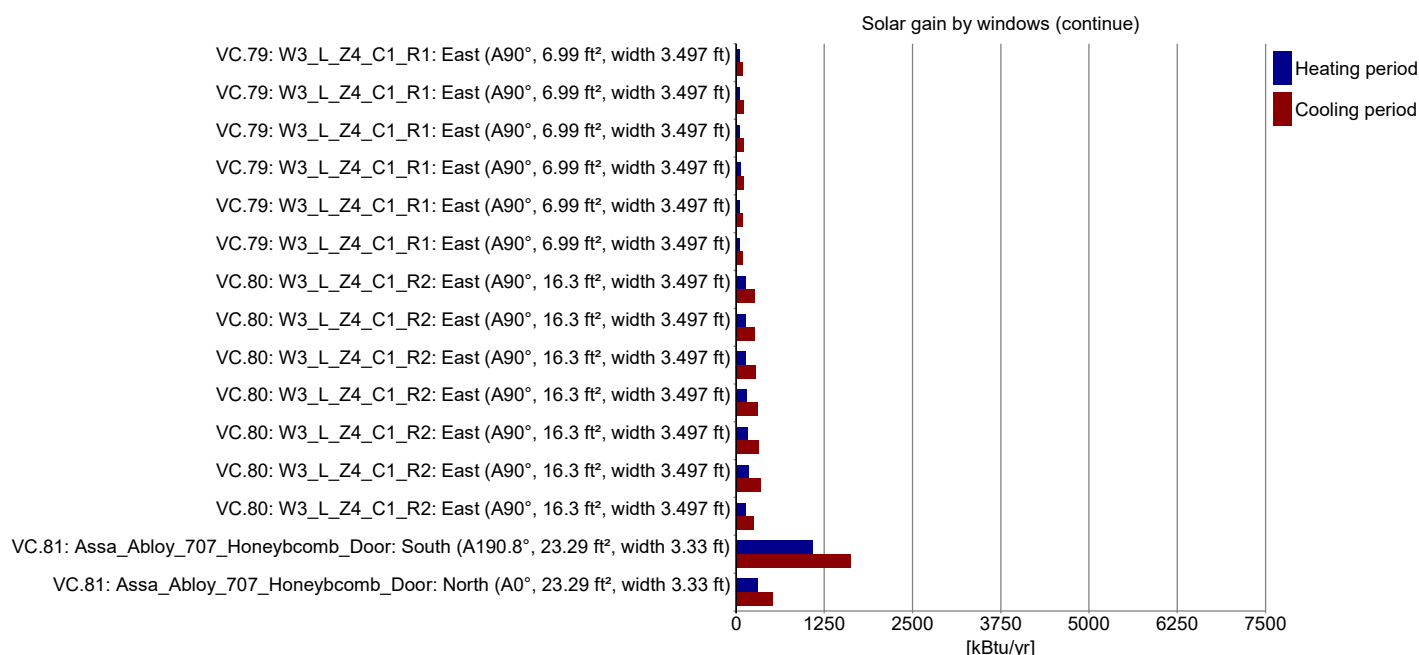


Solar gain by windows (continue)



Solar gain by windows (continue)





Summary building envelope

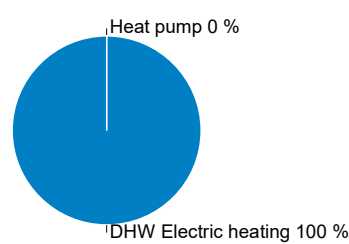
	Total area / length	Average U-value / Psi value	Transmission losses
Exterior wall ambient:	36,725.4 ft²	0.06 Btu/hr ft² °F	306,904.3 kBtu/yr
Exterior wall ground:	1,704.1 ft²	0.109 Btu/hr ft² °F	1,165.7 kBtu/yr
Basement:	11,486.5 ft²	0.355 Btu/hr ft² °F	25,497.2 kBtu/yr
Roof:	11,486.5 ft²	0.031 Btu/hr ft² °F	49,695.9 kBtu/yr
Windows:	10,027.7 ft²	0.45 Btu/hr ft² °F	625,610.5 kBtu/yr
Doors:	0 ft²	0 Btu/hr ft² °F	0 kBtu/yr
Thermal bridge ambient:	4,755.9 ft	0.08 Btu/hr ft °F	52,629.6 kBtu/yr
Thermal bridge perimeter:	0 ft	0 Btu/hr ft °F	0 kBtu/yr
Thermal bridge floor slab:	0 ft	0 Btu/hr ft °F	0 kBtu/yr

Shading

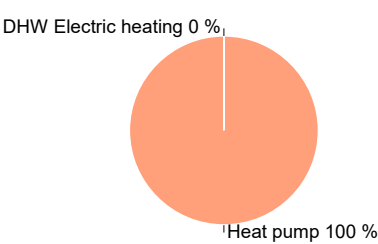
	Heating	Cooling
Reduction factor North:	52.3 %	42.4 %
Reduction factor East:	63.4 %	59.2 %
Reduction factor South:	64.2 %	48.4 %
Reduction factor West:	69.4 %	65.2 %
Reduction factor Horizontal:	100 %	100 %

System	DHW			Heating			Total		
	Covered DHW demand [%]	Estimated solar fraction [%]	Final energy demand [kBtu/yr]	Covered heating demand [%]	Estimated solar fraction [%]	Final energy demand [kBtu/yr]	Performance ratio	CO2 equivalent emissions [lb/yr]	Source energy demand [kBtu/yr]
Heat pump, unnamed_annual_heat_pump	0	0	0	100	0	200,144.8	0	87,952,960.9	360,260.6
DHW Electric heating, Hot Water Heater	100	0	413,032.4	0	0	0	1	181,505,739.4	743,458.4
Σ	100	0	413,032.4	100	0	200,144.8		269,458,700.3	1,103,719

DHW - final energy



Heating - final energy



COOLING UNITS

	sensible	latent
Air cooling:	2.6 kBtu/ft²yr	0.3 kBtu/ft²yr
Recirculation cooling:	0.9 kBtu/ft²yr	0.8 kBtu/ft²yr
Additional dehumidification:		0.5 kBtu/ft²yr
Panel cooling:	0 kBtu/ft²yr	
Sum:	3.6 kBtu/ft²yr	1.5 kBtu/ft²yr

VENTILATION

Energy transportable by supply air

Heating energy

transportable: **2.3** W/ft²
load: **1.55** W/ft²



Cooling energy

transportable: **1.37** W/ft²
load: **0.67** W/ft²



Infiltration pressure test ACH50: **0.52** 1/hr
Total extract air demand: **8,618.33** cfm
Supply air per person: **18** cfm
Occupancy: **191**

Average air flow rate: **8,749.57** cfm
Average air change rate: **0.8** 1/hr
Effective ACH ambient: **0.2** 1/hr
Effective ACH ground: **0** 1/hr
Energetically effective air exchange: **0.2** 1/hr
Infiltration air change rate: **0.04** 1/hr
Infiltration air change rate (heating load): **0.09** 1/hr

Type of ventilation system: **Balanced PH ventilation**
Wind screening coefficient (e): **0.07**
Wind exposure factor: **15**
Wind shield factor: **0.05**

Ventilation heat losses: **278,119.22** kBtu/yr

Devices

Name	Sensible recovery efficiency [-]	Electric efficiency [W/cfm]	Heat recovery efficiency SHX [-]	Effective recovery efficiency [-]
ERV-C	0.6	0.11	0	0.6
ERV-O	0.6	0.11	0	0.6
Swegon_[ERV_1-2-3-4-5]	0.8	0.04	0	0.8
Altogether	0.8	0.05	0	0.8

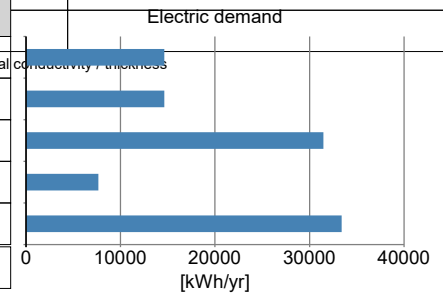
Ducts

Name	Length (total) [ft]	Clear cross-section [ft²]	U-value [Btu/hr ft² °F]	Assigned ventilation units
ERV-O_supply	3.3	0.2164	4.09	unnamed_annual_heat_pump
ERV-O_exhaust	3.3	0.2164	4.09	unnamed_annual_heat_pump
ERV1_a	12.1	0.9722	0.8	Swegon_[ERV_1-2-3-4-5]
ERV2_a	53.2	2	1.06	Swegon_[ERV_1-2-3-4-5]
ERV3_a	14.3	2.5	1.16	Swegon_[ERV_1-2-3-4-5]
ERV4_a	42.2	1.6667	1	Swegon_[ERV_1-2-3-4-5]
ERV5_a	13.6	1.1667	0.85	Swegon_[ERV_1-2-3-4-5]
ERV1_a	14.3	0.9722	0.8	Swegon_[ERV_1-2-3-4-5]
ERV2_a	51.2	2	1.06	Swegon_[ERV_1-2-3-4-5]
ERV3_a	16.7	2.7222	1.26	Swegon_[ERV_1-2-3-4-5]
ERV4_a	16.1	0.5556	0.64	Swegon_[ERV_1-2-3-4-5]

ERV4_b	7.9	0.4444	0.58	Swegon_[ERV_1-2-3-4-5]
ERV4_c	66.5	1.6667	1	Swegon_[ERV_1-2-3-4-5]
ERV4_d	16.1	0.5556	0.64	Swegon_[ERV_1-2-3-4-5]
ERV5_a	35.2	0.5556	0.64	Swegon_[ERV_1-2-3-4-5]
ERV5_b	17.2	1	0.8	Swegon_[ERV_1-2-3-4-5]

ELECTRICITY DEMAND - AUXILIARY ELECTRICITY

ERV-C_supply			3.3	0.2164	4.27	ERV-C																																										
Type	Quantity	Indoor	Norm demand	Electric demand [kWh/yr]	Source energy [kBtu/yr]	ERV-C																																										
Other	1	no	2,038.4 W	14646.7	89949.1	<div><div></div><div>Electric demand</div><div></div></div> <table><thead><tr><th>Component</th><th>Quantity</th><th>Indoor</th><th>Norm demand</th><th>Electric demand [kWh/yr]</th><th>Source energy [kBtu/yr]</th></tr></thead><tbody><tr><td>Other</td><td>1</td><td>no</td><td>2,038.4 W</td><td>14646.7</td><td>89949.1</td></tr><tr><td>Other</td><td>1</td><td>no</td><td>2,038.4 W</td><td>14646.7</td><td>89949.1</td></tr><tr><td>Ventilation winter</td><td>1</td><td>no</td><td>0.8 W/cfm</td><td>31451.3</td><td>193150.4</td></tr><tr><td>Ventilation Defrost</td><td>1</td><td>no</td><td>41,120.9 W</td><td>669.4</td><td>47102.8</td></tr><tr><td>Ventilation summer</td><td>1</td><td>no</td><td>0.8 W/cfm</td><td>31399.6</td><td>205113.2</td></tr><tr><td>Σ</td><td></td><td></td><td></td><td>625264.7</td><td></td></tr></tbody></table>	Component	Quantity	Indoor	Norm demand	Electric demand [kWh/yr]	Source energy [kBtu/yr]	Other	1	no	2,038.4 W	14646.7	89949.1	Other	1	no	2,038.4 W	14646.7	89949.1	Ventilation winter	1	no	0.8 W/cfm	31451.3	193150.4	Ventilation Defrost	1	no	41,120.9 W	669.4	47102.8	Ventilation summer	1	no	0.8 W/cfm	31399.6	205113.2	Σ				625264.7	
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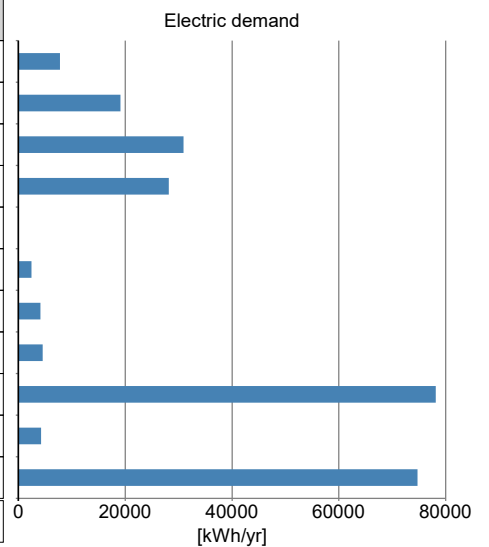


Mechanical ventilation summer with HR: **no**

Preferred minimum indoor temperature for night ventilation: **68 °F**

ELECTRICITY DEMAND RESIDENTIAL BUILDING

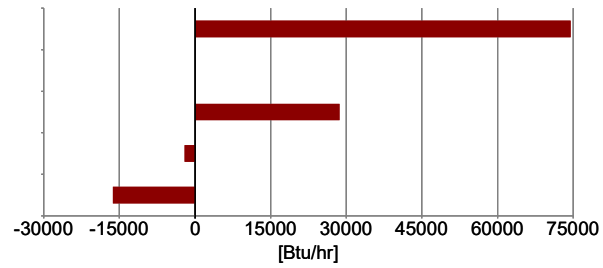
Type	Quantity	Indoor	Norm demand	Electric demand [kWh/yr]	Non-electric demand [kWh/yr]	Source energy [kBtu/yr]
Kitchen dishwasher	1	yes	1.2	7762.3	0	47670.1
Kitchen cooking	1	yes	0.2	19100	0	117297.9
Kitchen fridge/freeze combo	1	yes	0.9	30912	0	189838.3
Laundry - dryer	1	yes	3.9	28136.8	0	172795.2
Energy consumed by evaporation	1	yes	3.1	0	2433.9	14947.3
Laundry - washer	1	yes	0.4	2427	0	14904.7
User defined MELs	1	yes	4,142.2	4142.2	0	25438.3
User defined	1	yes	4,550	4550	0	27942.7
User defined MELs	1	yes	78,163.5	78163.5	0	480021.3
User defined lighting	1	no	4,263	4263	0	26180.1
User defined lighting	1	yes	74,738	74738	0	458984.6
Σ	11			254194.7	2433.9	1576020.5



INTERNAL HEAT GAINS

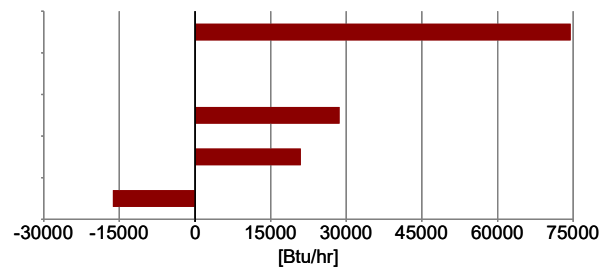
Heating season

Electricity total:	74,481.2	Btu/hr
Auxiliary electricity:	0	Btu/hr
People:	28,675.6	Btu/hr
Cold water:	-2,058	Btu/hr
Evaporation:	-16,293	Btu/hr
Σ:	84,805.8	Btu/hr
Specific internal heat gains:	1.1	Btu/hr ft ²



Cooling season

Electricity total:	74,481.2	Btu/hr
Auxiliary electricity:	0	Btu/hr
People:	28,675.6	Btu/hr
Cold and hot water:	20,971.1	Btu/hr
Evaporation:	-16,293	Btu/hr
Σ:	84,805.8	Btu/hr
Specific internal heat gains:	1.1	Btu/hr ft ²



DHW AND DISTRIBUTION

DHW consumption per person per day: **6.6** gal/Person/day
 Average cold water temperature supply: **56.2** °F

Useful heat DHW: **333,293.9** kBtu/yr
 Specific useful heat DHW: **4,181.7** Btu/ft²yr

Total heat losses of the DHW system: **79,738.5** kBtu/yr
 Specific losses of the DHW system: **1,000.5** Btu/ft²yr
 Performance ratio DHW distribution system and storage: **1.2**
 Utilization ratio DHW distribution system and storage: **0.8**
 Total heat demand of DHW system: **413,032.4** kBtu/yr
 Total specific heat demand of DHW system: **5,182.2** Btu/ft²yr

Total heat losses of the hydronic heating distribution: **0** kBtu/yr
 Specific losses of the hydronic heating distribution: **0** Btu/ft²yr
 Performance ratio of heat distribution: **100** %

Region	Length [ft]	Annual heat loss [kBtu/yr]
Hydronic heating distribution pipes		
Σ	0	0
DHW circulation pipes		
In conditioned space	3931	64634.9
Σ	3931	64634.9
Individual pipes		
In conditioned space	277.6	2263
Σ	277.6	2263
Water storage		
Device 5 (Water storage): Hot Water Storage Tank		1063
Σ		1063

Property/Site

Building name: **Ridgeway VI**

Property information

Owner's name:

Property address: **Bishop Willims J. Walls Place**

City: **Yonkers, NY**

Zip: **10701**

Site information

Climate Location: **User defined**

Building

Building Information

Area of Conditioned Space: **79,710 ft²**

Volume of conditioned space: **653,789.4 ft³**

Number of bedrooms: **99**

Foundation Type: **Slab on grade**

Winter setpoint temperature: **68 °F**

Summer setpoint temperature: **77 °F**

Below grade walls

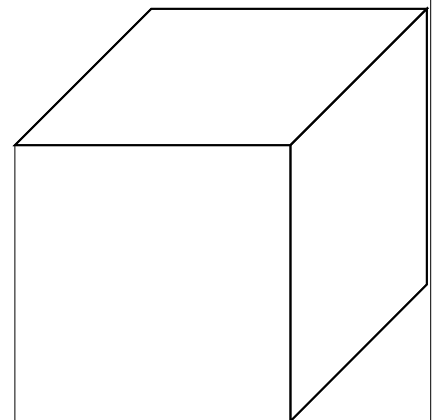
Name	Area [ft ²]	Assembly
WALL [Wall B1]	1,435.3	BASELINE: GROUND WALL
WALL [Wall EA5]	268.7	BASELINE: GROUND WALL
Total	1,704.1	

Assembly (Id.41): BASELINE: GROUND WALL

Homogenous layers

Thermal resistance: 8.403 hr ft² °F/Btu (without R_{si}, R_{se})

Thickness: 39.37 in



Nr.	Material/Layer (from outside to inside)	ρ [lb/ft ³]	c [Btu/lb°F]	λ [Btu/hr ft °F]	Thickness [in]	Color
1	Material			0.3904	39.37	

Slab floor

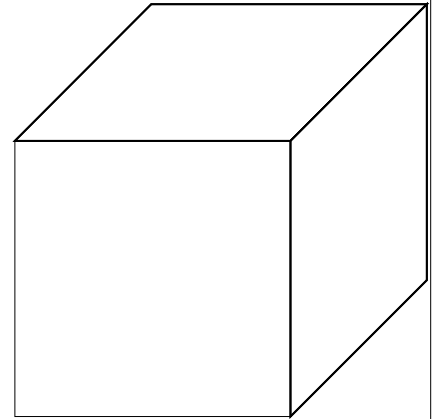
Name	Area [ft²]	Assembly
FLOOR [Floor S1]	11,486.5	BASELINE: GROUND FLOOR

Assembly (Id.43): BASELINE: GROUND FLOOR

Homogenous layers

Thermal resistance: 1.852 hr ft² °F/Btu (without Rsi, Rse)

Thickness: 39.37 in



Nr.	Material/Layer (from outside to inside)	ρ [lb/ft³]	c [Btu/lb °F]	λ [Btu/hr ft °F]	Thickness [in]	Color
1	Material			1.7717	39.37	

Slab on grade

Floor slab area: **11,486.5 ft²**

U-Value of basement slab: **0.7 Btu/hr ft² °F**

Floor slab perimeter (P): **641.6 ft**

Total R-value of perimeter insulation: **15.1 hr ft² °F/Btu**

Above-grade walls & Rim/band joists

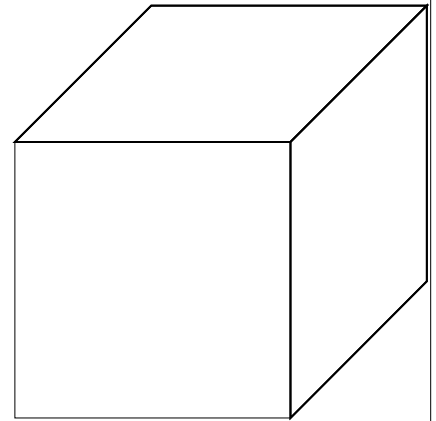
Name	Orientation	Area [ft²]	Short wave radiation absorption	Assembly
WALL [Wall EA1]	S (17 %), E (32 %), W (29 %), N (23 %)	34,097.4	0.4	BASELINE: EXPOSED WALL
ROOF_CEILING [Roof R2]	Horizontal (100 %)	847.7	0.4	BASELINE: ROOF
WALL [Wall EA3]	S (26 %), E (13 %), W (21 %), N (39 %)	752.1	0.4	BASELINE: EXPOSED WALL
WALL [Wall EA4]	S (48 %), E (52 %)	159	0.4	BASELINE: EXPOSED WALL
WALL [Wall EA2]	S (48 %), N (52 %)	487.5	0.4	BASELINE: EXPOSED WALL
ROOF_CEILING [Roof R1]	Horizontal (100 %)	10,638.8	0.4	BASELINE: ROOF
WALL [Wall EA5]	S (16 %), E (30 %), W (32 %), N (22 %)	1,229.4	0.4	BASELINE: EXPOSED WALL
Total		48,211.9		

Assembly (Id.40): BASELINE: EXPOSED WALL

Homogenous layers

Thermal resistance: 15.625 hr ft² °F/Btu (without Rsi, Rse)

Thickness: 39.37 in



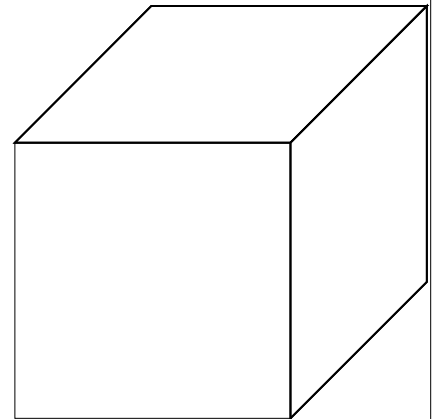
Nr.	Material/Layer (from outside to inside)	ρ [lb/ft³]	c [Btu/lb°F]	λ [Btu/hr ft °F]	Thickness [in]	Color
1	Material			0.21	39.37	

Assembly (Id.39): BASELINE: ROOF

Homogenous layers

Thermal resistance: 31.25 hr ft² °F/Btu (without Rsi, Rse)

Thickness: 39.37 in



Nr.	Material/Layer (from outside to inside)	ρ [lb/ft³]	c [Btu/lb°F]	λ [Btu/hr ft °F]	Thickness [in]	Color
1	Material			0.105	39.37	

Windows and Glass Doors

Name	Orientation	Area [ft²]	Window type
SF04_Z4_C1_R1	W (100 %)	7.2	BASELINE: WINDOW 052
SF04_Z4_C1_R2	W (100 %)	21.1	BASELINE: WINDOW 053
SF04_Z4_C2_R1	W (100 %)	7.2	BASELINE: WINDOW 054
SF04_Z4_C2_R2	W (100 %)	20.9	BASELINE: WINDOW 055
SF04_Z4_C3_R1	W (100 %)	7.2	BASELINE: WINDOW 056
SF04_Z4_C3_R2	W (100 %)	20.9	BASELINE: WINDOW 057
SF04_Z4_C4_R1	W (100 %)	7.2	BASELINE: WINDOW 058
SF04_Z4_C4_R2	W (100 %)	20.9	BASELINE: WINDOW 059
SF04_Z4_C5_R1	W (100 %)	7.2	BASELINE: WINDOW 060
SF04_Z4_C5_R2	W (100 %)	21.1	BASELINE: WINDOW 061
SF05_Z4_C1_R1	W (100 %)	8.5	BASELINE: WINDOW 062
SF05_Z4_C1_R2	W (100 %)	24.7	BASELINE: WINDOW 063
SF05_Z4_C2_R1	W (100 %)	8.4	BASELINE: WINDOW 064
SF05_Z4_C2_R2	W (100 %)	24.4	BASELINE: WINDOW 065

SF05_Z4_C3_R1	W (100 %)	8.5	BASELINE: WINDOW 066
SF05_Z4_C3_R2	W (100 %)	24.7	BASELINE: WINDOW 067
SF01_Z4_C1_R1	W (100 %)	4.9	BASELINE: WINDOW 009
SF01_Z4_C1_R2	W (100 %)	24.5	BASELINE: WINDOW 010
SF01_Z4_C1_R3	W (100 %)	4.9	BASELINE: WINDOW 011
SF01_Z4_C2_R1	W (100 %)	31	BASELINE: WINDOW 012
SF01_Z4_C2_R2	W (100 %)	5.2	BASELINE: WINDOW 013
SF01_Z4_C3_R1	W (100 %)	2.2	BASELINE: WINDOW 014
SF01_Z4_C3_R2	W (100 %)	11.2	BASELINE: WINDOW 015
SF01_Z4_C3_R3	W (100 %)	2.2	BASELINE: WINDOW 016
SF06_Z4_C1_R1	S (100 %)	12.9	BASELINE: WINDOW 046
SF06_Z4_C1_R2	S (100 %)	37.7	BASELINE: WINDOW 047
SF06_Z4_C2_R1	S (100 %)	5	BASELINE: WINDOW 048
SF06_Z4_C2_R2	S (100 %)	14.7	BASELINE: WINDOW 049
SF07_Z4_C1_R1	S (100 %)	26.6	BASELINE: WINDOW 050
SF07_Z4_C2_R1	S (100 %)	13.3	BASELINE: WINDOW 051
115A	E (100 %)	47.9	BASELINE: WINDOW 038
SF11_Z4_C1_R1	E (100 %)	27.6	BASELINE: WINDOW 039
SF11_Z4_C2_R1	E (100 %)	11.7	BASELINE: WINDOW 040
SF11_Z4_C2_R2	E (100 %)	24.7	BASELINE: WINDOW 041
SF09_Z4_C1_R1	W (100 %)	24.7	BASELINE: WINDOW 070
SF09_Z4_C2_R1	W (100 %)	2.3	BASELINE: WINDOW 071
SF09_Z4_C2_R2	W (100 %)	4.9	BASELINE: WINDOW 072
SF08_Z4_C1_R1	S (100 %)	10.7	BASELINE: WINDOW 075
SF08_Z4_C1_R2	S (100 %)	22.5	BASELINE: WINDOW 076
SF08_Z4_C2_R1	S (100 %)	24.7	BASELINE: WINDOW 077
W1_R_Z5_C1_R1	S (100 %)	24.4	BASELINE: WINDOW 032
W1_R_Z5_C2_R1	S (100 %)	4.7	BASELINE: WINDOW 033
W1_R_Z5_C2_R2	S (100 %)	10.9	BASELINE: WINDOW 034
Assa_Abloy_707_Honeycomb_Door	S (34 %), N (66 %)	69.4	BASELINE: WINDOW 017
W5_L_Z4_C1_R1	W (50 %), N (50 %)	21	BASELINE: WINDOW 068
W5_L_Z4_C2_R1	W (50 %), N (50 %)	32.9	BASELINE: WINDOW 069
W2_L_Z4_C1_R1	E (68 %), N (32 %)	113.8	BASELINE: WINDOW 044
W2_L_Z4_C1_R2	E (68 %), N (32 %)	227.5	BASELINE: WINDOW 045
W2_R_Z4_C1_R1	N (100 %)	12	BASELINE: WINDOW 073
W2_R_Z4_C1_R2	N (100 %)	24	BASELINE: WINDOW 074
SF10_Z4_C1_R1	S (67 %), W (33 %)	31.1	BASELINE: WINDOW 018
SF10_Z4_C1_R2	S (67 %), W (33 %)	65.7	BASELINE: WINDOW 019
W4_R_Z4_C1_R1	W (100 %)	41.9	BASELINE: WINDOW 001
W4_R_Z4_C1_R2	W (100 %)	97.8	BASELINE: WINDOW 002
W4_R_Z4_C2_R1	W (100 %)	41.9	BASELINE: WINDOW 003
W4_R_Z4_C2_R2	W (100 %)	97.8	BASELINE: WINDOW 004
W4_R_Z5_C1_R1	W (100 %)	12	BASELINE: WINDOW 005
W4_R_Z5_C1_R2	W (100 %)	27.9	BASELINE: WINDOW 006
W4_R_Z5_C2_R1	W (100 %)	12	BASELINE: WINDOW 007
W4_R_Z5_C2_R2	W (100 %)	27.9	BASELINE: WINDOW 008
W1.2_L_Z5_C1_R1	W (100 %)	9.3	BASELINE: WINDOW 020

W1.2_L_Z5_C1_R2	W (100 %)	21.7	BASELINE: WINDOW 021
W1.2_L_Z5_C2_R1	W (100 %)	48.8	BASELINE: WINDOW 022
W1.2_L_Z4_C1_R1	E (50 %), W (50 %)	55.9	BASELINE: WINDOW 023
W1.2_L_Z4_C1_R2	E (50 %), W (50 %)	130.4	BASELINE: WINDOW 024
W1.2_L_Z4_C2_R1	E (50 %), W (50 %)	292.7	BASELINE: WINDOW 025
W1_R_Z4_C1_R1	S (21 %), E (35 %), W (32 %), N (13 %)	2,244.4	BASELINE: WINDOW 026
W1_R_Z4_C2_R1	S (21 %), E (35 %), W (32 %), N (13 %)	428.5	BASELINE: WINDOW 027
W1_R_Z4_C2_R2	S (21 %), E (35 %), W (32 %), N (13 %)	999.8	BASELINE: WINDOW 028
W1_L_Z4_C1_R1	S (20 %), E (34 %), W (33 %), N (13 %)	326	BASELINE: WINDOW 029
W1_L_Z4_C1_R2	S (20 %), E (34 %), W (33 %), N (13 %)	760.7	BASELINE: WINDOW 030
W1_L_Z4_C2_R1	S (20 %), E (34 %), W (33 %), N (13 %)	1,707.7	BASELINE: WINDOW 031
W1_R_Z5_C1_R1	S (47 %), W (53 %)	365.9	BASELINE: WINDOW 032
W1_R_Z5_C2_R1	S (47 %), W (53 %)	69.9	BASELINE: WINDOW 033
W1_R_Z5_C2_R2	S (47 %), W (53 %)	163	BASELINE: WINDOW 034
W1_L_Z5_C1_R1	S (36 %), W (64 %)	65.2	BASELINE: WINDOW 035
W1_L_Z5_C1_R2	S (36 %), W (64 %)	152.1	BASELINE: WINDOW 036
W1_L_Z5_C2_R1	S (36 %), W (64 %)	341.5	BASELINE: WINDOW 037
W3_L_Z4_C1_R1	E (100 %)	48.9	BASELINE: WINDOW 042
W3_L_Z4_C1_R2	E (100 %)	114.1	BASELINE: WINDOW 043
Assa_Abloy_707_Honeycomb_Door	S (50 %), N (50 %)	46.6	BASELINE: WINDOW 017
Total		10,027.7	

Window type (Id 210): BASELINE: WINDOW 052**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 211): BASELINE: WINDOW 053**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 212): BASELINE: WINDOW 054**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 213): BASELINE: WINDOW 055**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 214): BASELINE: WINDOW 056**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 215): BASELINE: WINDOW 057**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 216): BASELINE: WINDOW 058**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 217): BASELINE: WINDOW 059**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 218): BASELINE: WINDOW 060**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 219): BASELINE: WINDOW 061**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 220): BASELINE: WINDOW 062**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 221): BASELINE: WINDOW 063**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 222): BASELINE: WINDOW 064**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 223): BASELINE: WINDOW 065**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 224): BASELINE: WINDOW 066**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 225): BASELINE: WINDOW 067**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 167): BASELINE: WINDOW 009**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 168): BASELINE: WINDOW 010**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 169): BASELINE: WINDOW 011**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 170): BASELINE: WINDOW 012**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 171): BASELINE: WINDOW 013**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 172): BASELINE: WINDOW 014**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 173): BASELINE: WINDOW 015**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 174): BASELINE: WINDOW 016**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 204): BASELINE: WINDOW 046**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 205): BASELINE: WINDOW 047**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 206): BASELINE: WINDOW 048**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 207): BASELINE: WINDOW 049**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 208): BASELINE: WINDOW 050**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 209): BASELINE: WINDOW 051**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 196): BASELINE: WINDOW 038**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 197): BASELINE: WINDOW 039**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 198): BASELINE: WINDOW 040**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 199): BASELINE: WINDOW 041**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 228): BASELINE: WINDOW 070**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 229): BASELINE: WINDOW 071**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 230): BASELINE: WINDOW 072**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 233): BASELINE: WINDOW 075**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 234): BASELINE: WINDOW 076**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 235): BASELINE: WINDOW 077**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 190): BASELINE: WINDOW 032**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 191): BASELINE: WINDOW 033**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 192): BASELINE: WINDOW 034**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 175): BASELINE: WINDOW 017**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 226): BASELINE: WINDOW 068**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 227): BASELINE: WINDOW 069**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 202): BASELINE: WINDOW 044**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 203): BASELINE: WINDOW 045**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 231): BASELINE: WINDOW 073**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 232): BASELINE: WINDOW 074**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 176): BASELINE: WINDOW 018**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 177): BASELINE: WINDOW 019**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 159): BASELINE: WINDOW 001**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 160): BASELINE: WINDOW 002**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 161): BASELINE: WINDOW 003**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 162): BASELINE: WINDOW 004**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 163): BASELINE: WINDOW 005**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 164): BASELINE: WINDOW 006**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 165): BASELINE: WINDOW 007**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 166): BASELINE: WINDOW 008**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 178): BASELINE: WINDOW 020**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 179): BASELINE: WINDOW 021**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 180): BASELINE: WINDOW 022**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 181): BASELINE: WINDOW 023**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 182): BASELINE: WINDOW 024**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 183): BASELINE: WINDOW 025**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 184): BASELINE: WINDOW 026**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 185): BASELINE: WINDOW 027**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 186): BASELINE: WINDOW 028**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 187): BASELINE: WINDOW 029**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 188): BASELINE: WINDOW 030**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 189): BASELINE: WINDOW 031**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 193): BASELINE: WINDOW 035**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 194): BASELINE: WINDOW 036**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 195): BASELINE: WINDOW 037**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 200): BASELINE: WINDOW 042**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 201): BASELINE: WINDOW 043**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Ceilings

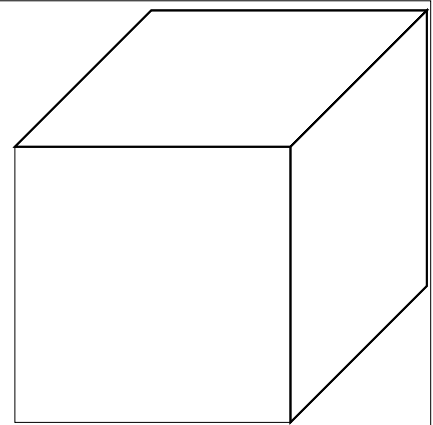
Name	Area [ft ²]	Short wave radiation absorption	Assembly
ROOF_CEILING [Roof R2]	847.7	0.4	BASELINE: ROOF
ROOF_CEILING [Roof R1]	10,638.8	0.4	BASELINE: ROOF
Total	11,486.5		

Assembly (Id.39): BASELINE: ROOF

Homogenous layers

Thermal resistance: 31.25 hr ft² °F/Btu (without Rsi, Rse)

Thickness: 39.37 in



Nr.	Material/Layer (from outside to inside)	ρ [lb/ft ³]	c [Btu/lb °F]	λ [Btu/hr ft °F]	Thickness [in]	Color
1	Material			0.105	39.37	

Space heating

Type	Performance ratio of heat generator [-]	Fuel type
Heat pump	0.29	Electricity

Space cooling

Type	Distribution	Capacity [kBtu/hr]	COP
Heat pump	Supply air Recirculation air	706.4	2 7.81
Heat pump	Supply air Recirculation air	706.4	2 7.81
Total		1,412.8	

Water heating

Type	Performance ratio of heat generator [-]	Fuel type
DHW Electric heating	1	Electricity

Water storage

Nr	Capacity [gal]
1	150
Total	150

Infiltration/Ventilation

ACH @ 50 Pascal **0.5** 1/hr

CFM @ 50 Pascal **5,714.4** cfm

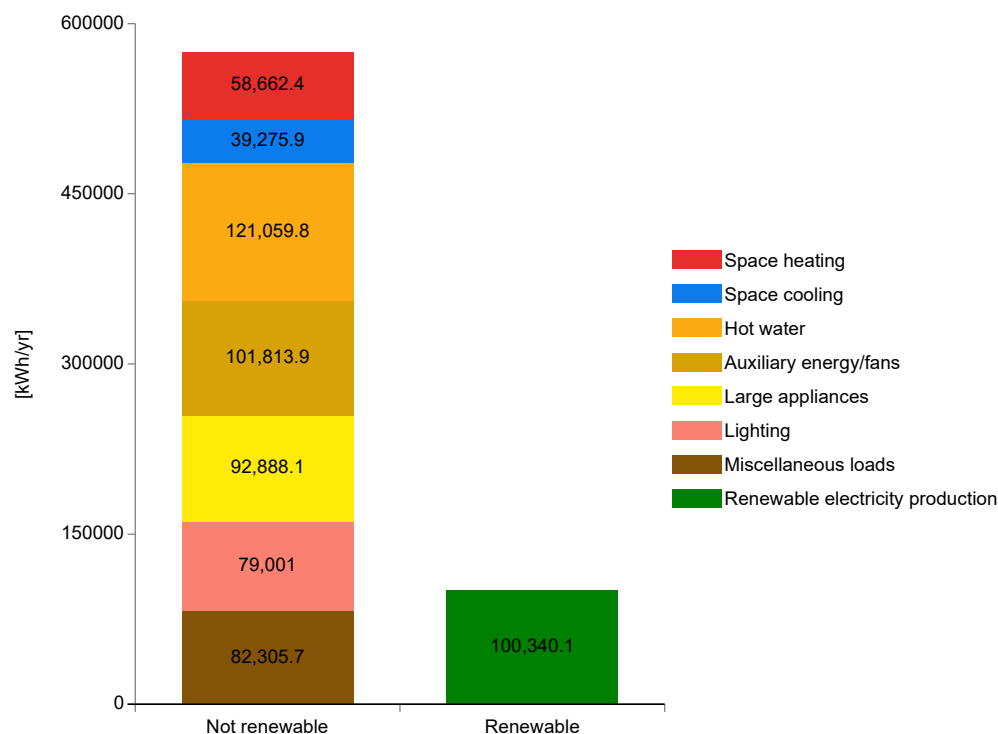
Nr	Sensible recovery efficiency [-]	Rate [cfm]	Electric efficiency [W/cfm]	Fan [W]	Defrost	Temperature below which defrost must be used [°F]	Subsoil heat exchanger efficiency [-]
3	0.36	332.55	0.06	631.84	yes	15.3	0
1	0.36	107.91	0.06	205.02	yes	15.3	0
2	0.49	4,632.11	0.03	3,520.4	yes	15.3	0
Total	0.48	5,072.56		4,357.26			

Lights and appliances

Type	Energy use [kWh/yr]	In conditioned space
Kitchen dishwasher	7,762.28	yes
Kitchen cooking	19,100	yes
Kitchen fridge/freeze combo	30,912	yes
Laundry - dryer	28,136.82	yes
Energy consumed by evaporation	0 (2,433.9)	yes
Laundry - washer	2,426.98	yes
User defined MELs	4,142.2	yes
User defined	4,550	yes
User defined MELs	78,163.47	yes
User defined lighting	4,263	no
User defined lighting	74,738	yes
Other	14,646.72	no
Other	14,646.72	no
Ventilation winter	31,451.32	no
Ventilation Defrost	7,669.91	no
Ventilation summer	33,399.27	no
Total	356,008.68	

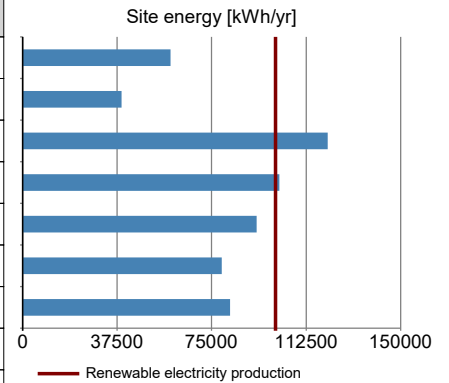
Project name:	Ridgeway VI
Climate:	User defined
Type:	Residential
Interior conditioned floor area:	79,710 ft²
Number of units:	92
Occupants:	191
Site energy use:	1,619,470 kBtu/yr
Specific site energy use:	20.3 kBtu/ft²yr
Site energy use:	474,666.7 kWh/yr
Specific site energy use:	6 kWh/ft²yr
Site energy use per person:	2,485.2 kWh/Person yr
Net site energy use (with 100% renewables):	1,610,204 kBtu/yr
Specific net site energy use (with 100% renewables):	20.2 kBtu/ft²yr
Net site energy use (with 100% renewables):	471,950.8 kWh/yr
Specific net site energy use (with 100% renewables):	5.9 kWh/ft²yr
Net site energy use per person (with 100% renewables):	2,470.9 kWh/Person yr

OVERVIEW



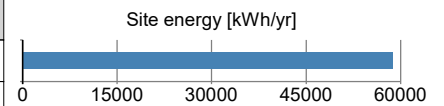
TOTAL USE BY TYPE

Type	Site Energy [kWh/yr]	Specific site energy [kWh/ft² yr]	Site Energy [kBtu/yr]	Specific Site Energy [kBtu/ft² yr]
Space heating	58,662.4	0.7	200,144.8	2.5
Space cooling	39,275.9	0.5	134,001.6	1.7
Hot water	121,059.8	1.5	413,032.4	5.2
Auxiliary energy/fans	101,813.9	1.3	347,369.3	4.4
Large appliances	92,888.1	1.2	316,916	4
Lighting	79,001	1	269,536	3.4
Miscellaneous loads	82,305.7	1	280,810.9	3.5
Renewable electricity production	-100,340.1	-1.3	-342,340.9	-4.3
Total	474,666.7	6	1,619,470	20.3



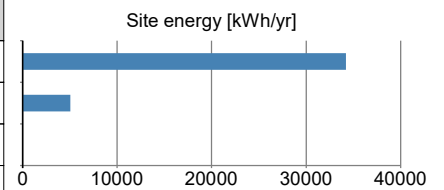
SPACE HEATING

Type	Site Energy [kWh/yr]	Specific site energy [kWh/ft² yr]	Site Energy [kBtu/yr]	Specific Site Energy [kBtu/ft² yr]
Heat pump	58,662.4	0.7	200,144.8	2.5
Total	58,662.4	0.7	200,144.8	2.5



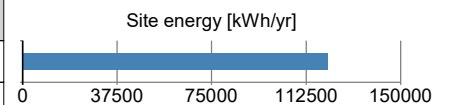
SPACE COOLING

Type	Site Energy [kWh/yr]	Specific site energy [kWh/ft² yr]	Site Energy [kBtu/yr]	Specific Site Energy [kBtu/ft² yr]
Supply Air Cooling	34,217.3	0.4	116,742.9	1.5
Recirculation Cooling	5,058.5	0.1	17,258.7	0.2
Dehumidification	0	0	0	0
Total	39,275.9	0.5	134,001.6	1.7



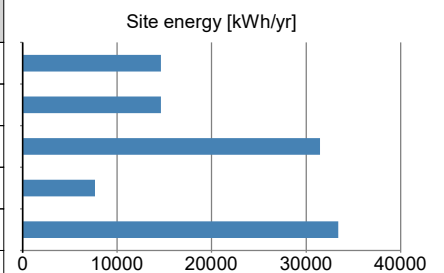
DHW

Type	Site Energy [kWh/yr]	Specific site energy [kWh/ft² yr]	Site Energy [kBtu/yr]	Specific Site Energy [kBtu/ft² yr]
DHW Electric heating	121,059.8	1.5	413,032.4	5.2
Total	121,059.8	1.5	413,032.4	5.2



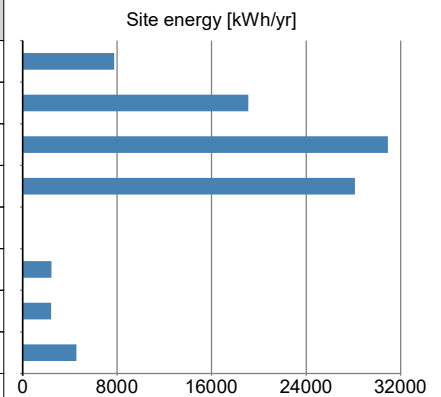
AUXILIARY ENERGY/FANS

Type	Site Energy [kWh/yr]	Specific site energy [kWh/ft² yr]	Site Energy [kBtu/yr]	Specific Site Energy [kBtu/ft² yr]
Other	14,646.7	0.2	49,971.7	0.6
Other	14,646.7	0.2	49,971.7	0.6
Ventilation winter	31,451.3	0.4	107,305.8	1.3
Ventilation Defrost	7,669.9	0.1	26,168.2	0.3
Ventilation summer	33,399.3	0.4	113,951.8	1.4
Total	101,813.9	1.3	347,369.3	4.4



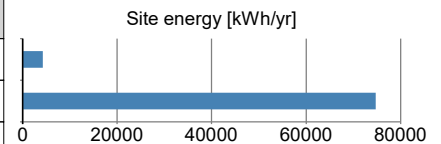
LARGE APPLIANCES

Type	Site Energy [kWh/yr]	Specific site energy [kWh/ft ² yr]	Site Energy [kBtu/yr]	Specific Site Energy [kBtu/ft ² yr]
Kitchen dishwasher	7,762.3	0.1	26,483.4	0.3
Kitchen cooking	19,100	0.2	65,165.5	0.8
Kitchen fridge/freeze combo	30,912	0.4	105,465.7	1.3
Laundry - dryer	28,136.8	0.4	95,997.3	1.2
Energy consumed by evaporation	0	0	0	0
	(2,433.9)	(0)	(8,304)	(0.1)
Laundry - washer	2,427	0	8,280.4	0.1
User defined	4,550	0.1	15,523.7	0.2
Total	92,888.1	1.2	316,916	4



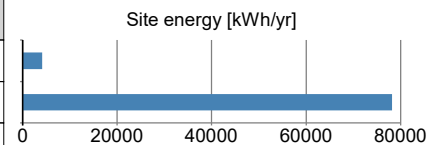
LIGHTING

Type	Site Energy [kWh/yr]	Specific site energy [kWh/ft ² yr]	Site Energy [kBtu/yr]	Specific Site Energy [kBtu/ft ² yr]
User defined lighting	4,263	0.1	14,544.5	0.2
User defined lighting	74,738	0.9	254,991.5	3.2
Total	79,001	1	269,536	3.4



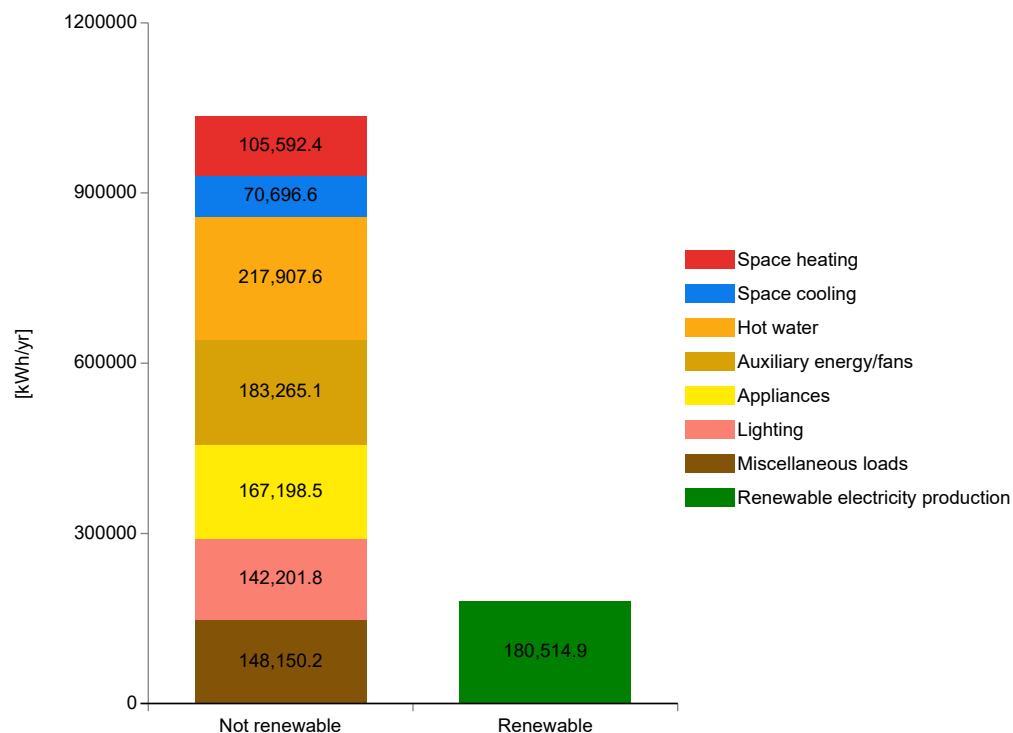
MISC LOADS

Type	Site Energy [kWh/yr]	Specific site energy [kWh/ft ² yr]	Site Energy [kBtu/yr]	Specific Site Energy [kBtu/ft ² yr]
User defined MELs	4,142.2	0.1	14,132.4	0.2
User defined MELs	78,163.5	1	266,678.5	3.3
Total	82,305.7	1	280,810.9	3.5



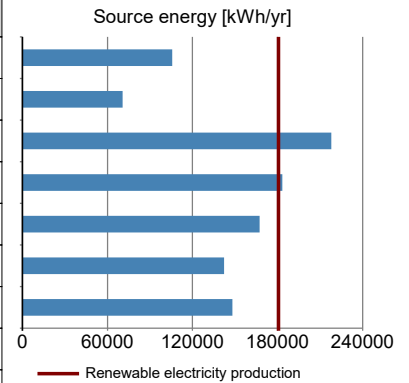
Project name:	Ridgeway VI
Climate:	User defined
Type:	Residential
Interior conditioned floor area:	79,710 ft²
Number of units:	92
Occupants:	191
Source energy use:	2,915,378.2 kBtu/yr
Specific source energy use:	36.6 kBtu/ft²yr
Source energy use:	854,497.3 kWh/yr
Source energy use per person:	4,474 kWh/Person yr
Net source energy use (with 100% renewables):	2,898,708.3 kBtu/yr
Specific net source energy use (with 100% renewables):	36.4 kBtu/ft²yr
Net source energy use (with 100% renewables):	849,611.4 kWh/yr
Specific source energy use per person (with 100% renewables):	4,448.2 kWh/Person yr
PHIUS+ Source Zero:	NO

OVERVIEW



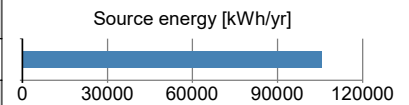
TOTAL USE BY TYPE

Type	Source energy [kWh/yr]	Specific source energy [kWh/ft² yr]	Source energy [kBtu/yr]	Specific source energy [kBtu/ft² yr]
Space heating	105,592.4	1.3	360,260.6	4.5
Space cooling	70,696.6	0.9	241,202.9	3
Hot water	217,907.6	2.7	743,458.4	9.3
Auxiliary energy/fans	183,265.1	2.3	625,264.7	7.8
Appliances	167,198.5	2.1	570,448.8	7.2
Lighting	142,201.8	1.8	485,164.8	6.1
Miscellaneous loads	148,150.2	1.9	505,459.6	6.3
Renewable electricity production	-180,514.9	-2.3	-615,881.5	-7.7
Total	854,497.3	10.7	2,915,378.2	36.6



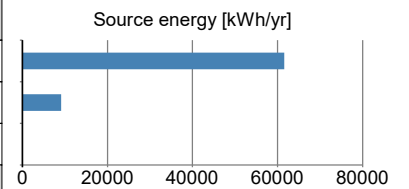
SPACE HEATING

Type	Source energy [kWh/yr]	Specific source energy [kWh/ft² yr]	Source energy [kBtu/yr]	Specific source energy [kBtu/ft² yr]	Source energy factor [kWh/kWh]	Source
Heat pump	105,592.4	1.3	360,260.6	4.5	1.8	Electricity
Total	105,592.4	1.3	360,260.6	4.5		



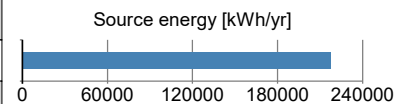
SPACE COOLING

Type	Source energy [kWh/yr]	Specific source energy [kWh/ft² yr]	Source energy [kBtu/yr]	Specific source energy [kBtu/ft² yr]	Source energy factor [kWh/kWh]	Source
Supply Air Cooling	61,591.2	0.8	210,137.1	2.6	1.8	Electricity
Recirculation Cooling	9,105.4	0.1	31,065.7	0.4	1.8	Electricity
Dehumidification	0	0	0	0	1.8	Electricity
Total	70,696.6	0.9	241,202.9	3		



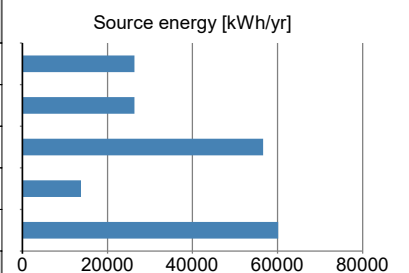
DHW

Type	Source energy [kWh/yr]	Specific source energy [kWh/ft² yr]	Source energy [kBtu/yr]	Specific source energy [kBtu/ft² yr]	Source energy factor [kWh/kWh]	Source
DHW Electric heating	217,907.6	2.7	743,458.4	9.3	1.8	Electricity
Total	217,907.6	2.7	743,458.4	9.3		



AUXILIARY ENERGY/FANS

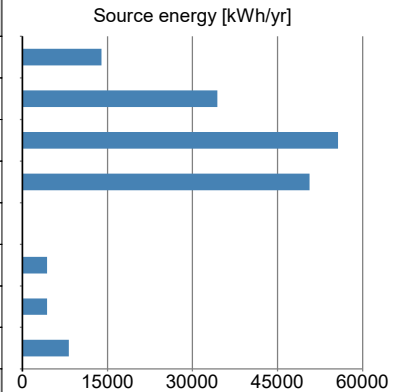
Type	Source energy [kWh/yr]	Specific source energy [kWh/ft² yr]	Source energy [kBtu/yr]	Specific source energy [kBtu/ft² yr]	Source energy factor [kWh/kWh]	Source
Other	26,364.1	0.3	89,949.1	1.1	1.8	Electricity
Other	26,364.1	0.3	89,949.1	1.1	1.8	Electricity
Ventilation winter	56,612.4	0.7	193,150.4	2.4	1.8	Electricity
Ventilation Defrost	13,805.8	0.2	47,102.8	0.6	1.8	Electricity
Ventilation summer	60,118.7	0.8	205,113.2	2.6	1.8	Electricity
Total	183,265.1	2.3	625,264.7	7.8		



LARGE APPLIANCES

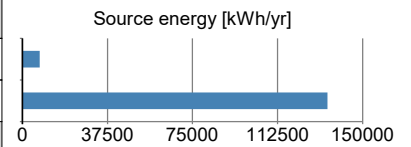
Type	Source energy [kWh/yr]	Specific source energy [kWh/ft² yr]	Source energy [kBtu/yr]	Specific source energy [kBtu/ft² yr]	Source energy factor [kWh/kWh]	Source
Kitchen dishwasher	13,972.1	0.2	47,670.1	0.6	1.8	Electricity
Kitchen cooking	34,380	0.4	117,297.9	1.5	1.8	Electricity
Kitchen fridge/freeze combo	55,641.6	0.7	189,838.3	2.4	1.8	Electricity
Laundry - dryer	50,646.3	0.6	172,795.2	2.2	1.8	Electricity
Energy consumed by evaporation	0	0	0	0	1.8	Electricity
	(4,381.05)	(0.05)	(14,947.28)	(0.19)	1.8	HVAC System *)
Laundry - washer	4,368.6	0.1	14,904.7	0.2	1.8	Electricity
User defined	8,190	0.1	27,942.7	0.4	1.8	Electricity
Total	167,198.5	2.1	570,448.8	7.2		

*) Energy demand covered with HVAC System



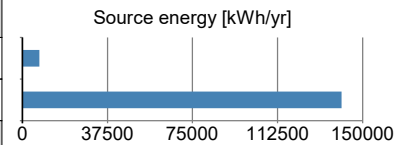
LIGHTING

Type	Source energy [kWh/yr]	Specific source energy [kWh/ft² yr]	Source energy [kBtu/yr]	Specific source energy [kBtu/ft² yr]	Source energy factor [kWh/kWh]	Source
User defined lighting	7,673.4	0.1	26,180.1	0.3	1.8	Electricity
User defined lighting	134,528.4	1.7	458,984.6	5.8	1.8	Electricity
Total	142,201.8	1.8	485,164.8	6.1		



MISC LOADS

Type	Source energy [kWh/yr]	Specific source energy [kWh/ft² yr]	Source energy [kBtu/yr]	Specific source energy [kBtu/ft² yr]	Source energy factor [kWh/kWh]	Source
User defined MELs	7,456	0.1	25,438.3	0.3	1.8	Electricity
User defined MELs	140,694.2	1.8	480,021.3	6	1.8	Electricity
Total	148,150.2	1.9	505,459.6	6.3		



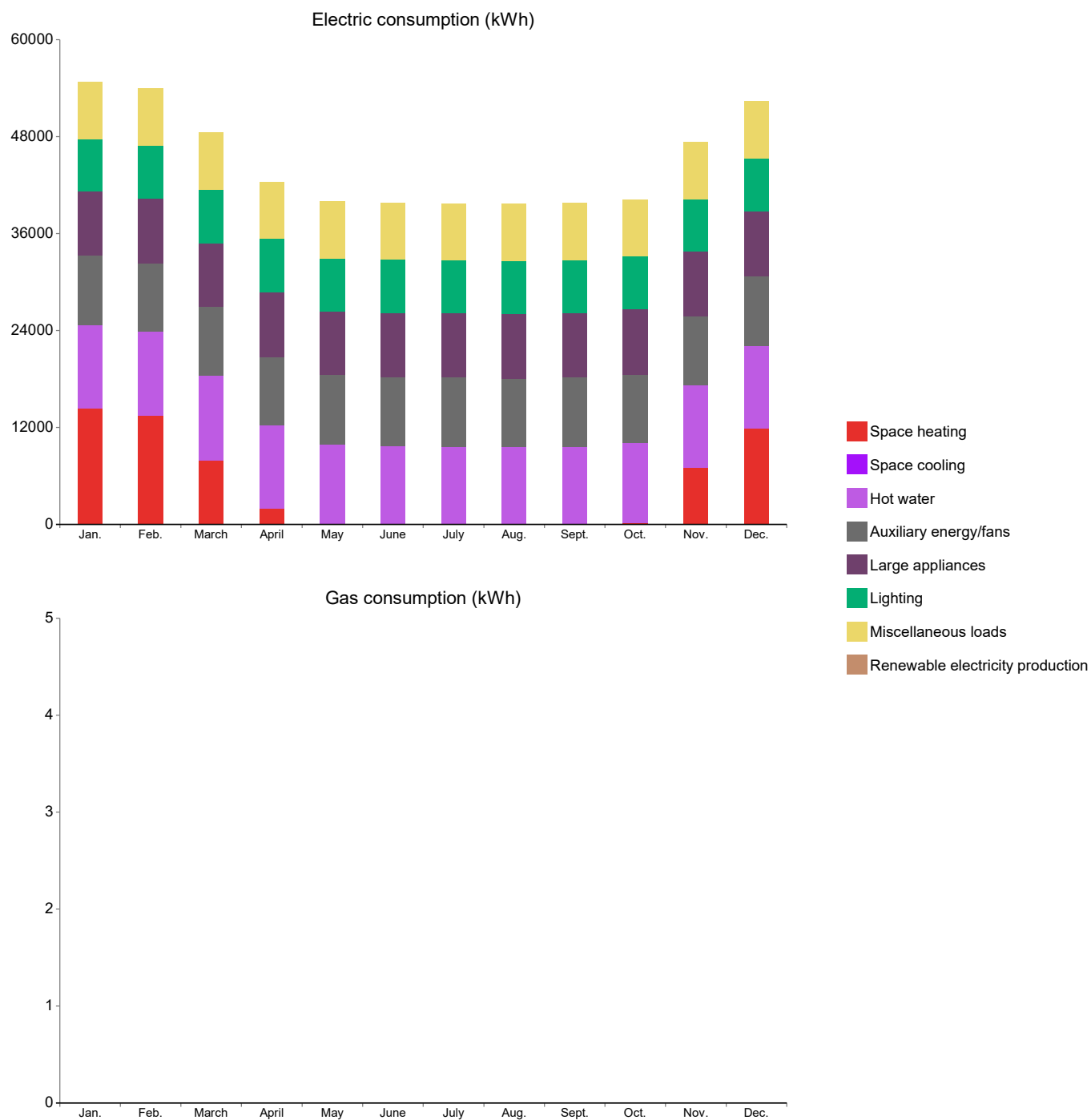
SITE ENERGY MONTHLY REPORT

ELECTRICITY USE [kWh]

Type	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Space heating	14,603.78	13,696.78	8,285.85	2,247.89	8.6	0	0	0	0	317.58	7,314.46	12,187.48
Space cooling	NaN	NaN	NaN	NaN	NaN	NaN	∞	∞	NaN	NaN	NaN	NaN
Hot water	10,315.92	10,330.34	10,300.92	10,221.02	10,099.41	9,946.87	9,820.48	9,779.32	9,855.27	9,995.55	10,143.17	10,251.53
Auxiliary energy/fans	8,484.49	8,484.49	8,484.49	8,484.49	8,484.49	8,484.49	8,484.49	8,484.49	8,484.49	8,484.49	8,484.49	8,484.49
Large appliances	7,943.5	7,943.5	7,943.5	7,943.5	7,943.5	7,943.5	7,943.5	7,943.5	7,943.5	7,943.5	7,943.5	7,943.5
Lighting	6,583.42	6,583.42	6,583.42	6,583.42	6,583.42	6,583.42	6,583.42	6,583.42	6,583.42	6,583.42	6,583.42	6,583.42
Miscellaneous loads	6,858.81	6,858.81	6,858.81	6,858.81	6,858.81	6,858.81	6,858.81	6,858.81	6,858.81	6,858.81	6,858.81	6,858.81
Renewable electricity production	0	0	0	0	0	0	0	0	0	0	0	0

GAS USE [kWh]

Type	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Space heating	0	0	0	0	0	0	0	0	0	0	0	0
Space cooling	0	0	0	0	0	0	0	0	0	0	0	0
Hot water	0	0	0	0	0	0	0	0	0	0	0	0
Auxiliary energy/fans	0	0	0	0	0	0	0	0	0	0	0	0
Large appliances	0	0	0	0	0	0	0	0	0	0	0	0
Lighting	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous loads	0	0	0	0	0	0	0	0	0	0	0	0
Renewable electricity production	0	0	0	0	0	0	0	0	0	0	0	0



Project data

Client	
Surname & Name	TCB (The Community Builders)
Locality	New York, NY
Postal code	10018
Street	8 W. 38th Street
Tel.	
e-mail	
Building	
Name/Type	Ridgeway VI
Locality	Yonkers, NY
Postal code	10701
Street	Bishop Willims J. Walls Place
Country	
Owner	
Surname & Name	
Locality	
Postal code	
Street	
Responsible	
Surname & Name	Ed May bldgtyp, llc
Locality	Brooklyn, NY
Postal code	11238
Street	231 Park Place, #22
Tel.	510-499-5191
License Nr.	ed@bldgtyp.com
e-mail	
Date	1.1.0001

Climate

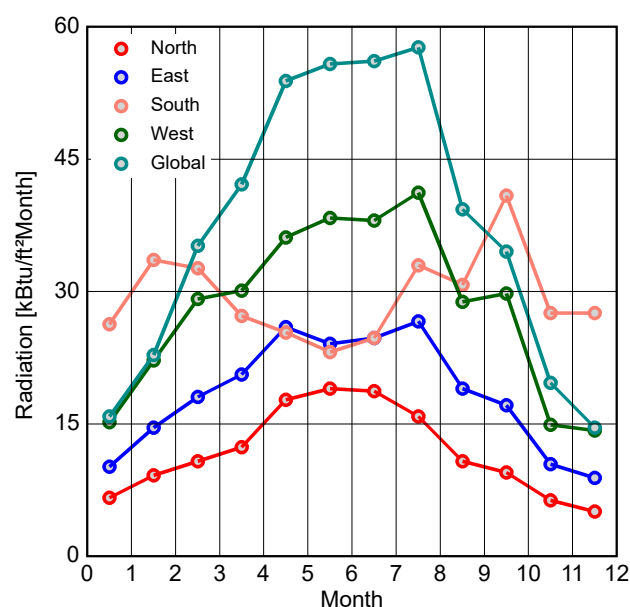
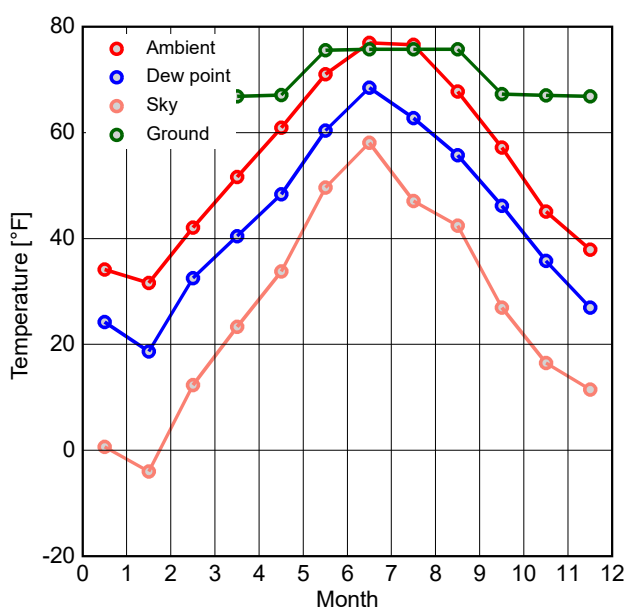
Case 1: Climate

Location: User defined

Latitude	[°]	40.65
Longitude	[°]	-73.8
Altitude weather station	[ft]	16.4042
Altitude building	[ft]	16.5
Daily temperature swing summer	[°F]	14.4
Average wind speed	[ft/s]	13.1234
Additional data		
Ground thermal conductivity	[Btu/hr ft °F]	1.1556
Ground heat capacity	[Btu/lb °F]	0.2388
Ground density	[lb/ft³]	124.8559
Depth below grade of groundwater	[ft]	9.8425
Flow rate of groundwater	[ft/d]	0.164

Climate Data

Setting	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Heating W. 1	Heating W. 2	Cooling W. 1	Cooling W. 2
Temperature [°F]																
Ambient	34.2	31.6	42.1	51.6	61	71.1	77	76.6	67.8	57.2	45.1	37.9	19.9	39.6	79	79
Dew point	24.3	18.7	32.5	40.5	48.4	60.4	68.5	62.8	55.8	46.2	35.8	27				
Sky	0.7	-4	12.4	23.4	33.8	49.6	58.1	47.1	42.4	27	16.5	11.5				
Ground	66.7	66.7	66.7	66.9	67.1	75.6	75.8	75.8	75.7	67.3	67.1	66.9				
Solar radiation [kBtu/ft²Month]													Solar radiation [Btu/hr ft²]			
North	6.7	9.2	10.8	12.4	17.8	19	18.7	15.8	10.8	9.5	6.3	5.1	14.6	5.1	20.3	20.3
East	10.1	14.6	18.1	20.6	26	24.1	24.7	26.6	19	17.1	10.5	8.9	25.4	7	33.6	33.6
South	26.3	33.6	32.7	27.3	25.4	23.1	24.7	33	30.7	40.9	27.6	27.6	63.4	14.6	41.8	41.8
West	15.2	22.2	29.2	30.1	36.1	38.4	38	41.2	28.8	29.8	14.9	14.3	35.8	8.2	50.4	50.4
Global	15.8	22.8	35.2	42.2	53.9	55.8	56.1	57.7	39.3	34.6	19.7	14.6	38.4	12	72.9	72.9



Passive house data

General data

Building category	Residential
Occupancy type	Residential
Building status	In planning
Type	New construction
Indoor temperature	[°F] 68
Internal gains setting	Calculated
Internal heat gains	[Btu/hr ft²] 1.064
Occupancy setting method	Design
Number of occupants	191
Number of units	92
Number of floors	9
Visualized volume	[ft³] 939955.8
Gross volume	[ft³] 939955.8
Net volume	[ft³] 653789.4
Floor area	[ft²] 79710

Additional data

Preferred minimum indoor temperature for night ventilation	[°F] 68
Overheating temperature threshold	[°F] 77
Fresh air per person	[cfm] 18
Hot water tap-openings per person per day	3
Hot water tap-opening utilization days per year	[days/yr] 365
Air-tightness metric	Envelope airtightness at 50 Pa
Envelope airtightness at 50 Pa	[cfm/ft²] 0.0801
Non combustible materials	Yes
Type of ventilation system	Balanced PH ventilation
Max. humidity ratio (if dehumidification)	[lbw/lba] 0.012
Building wind exposure	Several sides exposed - moderate screening
Wind screening coefficient (e)	0.07
Wind exposure factor (f)	15
Wind shield factor	0.05
DHW consumption (60°) per person per day	[gal/Person/day]
Average cold water temperature of the supply	[°F]
Mechanical room temperature	[°F] 41.18

Foundation interface: Whole-Building

Type	Slab on grade
Floor slab area	[ft²] 11486.5327
U-Value of basement slab	[Btu/hr ft² °F] 0.6666
Floor slab perimeter (P)	[ft] 641.5683
Position of the perimeter insulation	Horizontal
Perimeter insulation width/depth	[ft] 3
Thickness of perimeter insulation	[in] 3
Conductivity perimeter insulation	[Btu/hr ft °F] 0.0166
Phase shift months	[months]
Harmonic fraction	[Btu/hr F]

Ventilation utilization pattern

Name	Operating days per week	Weeks per year	Additional data
Phius_default	7	52	24 h/d (100%)

Zones / Components

Case 1/Zone 1

Case 1/Zone 1: General data

Name	Unnamed_Bldg_Segment	
Type	Simulated zone	
PH case		
Geometry		
Gross volume	[ft³]	939955.8015
Net volume	[ft³]	653789.4062
Floor area	[ft²]	79710.0033
Clearance height	[ft]	8.2021
Other data		
Specific heat capacity	[Btu/ft²F]	23.2442
Humidity capacity	[lb/(lbw/lbda) ft²]	143.3713

Inner load / occupancy

Occupant quantity		191		
Humidity sources		[lb/(ft ² hr)]	4.096E-4	
Device	Quantity	In conditioned space	Norm demand	Additional info
Kitchen dishwasher		Yes	260 kWh/Year	
Kitchen cooking		Yes	0.2 kWh/Use	
Kitchen fridge/freeze combo	92	Yes	336 kWh/Year	
Laundry - dryer		Yes	0 kWh/CEF - Combined Ener	
Laundry - washer		Yes	150 kWh/Year	
User defined - Misc electric loads	1	Yes	4142.1988 kWh/Use	
User defined	1	Yes	4550 kWh/Year	
User defined - Misc electric loads	1	Yes	78163.472 kWh/Use	
User defined - lighting	1	No	4263 kWh/Use	
User defined - lighting	1	Yes	74738 kWh/Use	

Ventilation / Rooms

Name	Room type	Quantity	Utilization pattern	Design volume flow rate [cfm]		Average volume flow rate [cfm]		Average air change rate [1/hr]
				Supply Air	Exhaust Air	Supply Air	Exhaust Air	
101-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
102-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
103-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
104-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
105-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
106-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
107-TOILET	User defined	1	Pattern 1: Phius_default	0	49.9997	0	0	
108-PACKAGE ROOM	User defined	1	Pattern 1: Phius_default	5.2089	5.2089	0	0	
109-MANAGEMENT SUITE	User defined	1	Pattern 1: Phius_default	62.5011	62.5011	0	0	
110-FILE ROOM	User defined	1	Pattern 1: Phius_default	5.2089	5.2089	0	0	
111-OFFICE	User defined	1	Pattern 1: Phius_default	31.2476	31.2476	0	0	
113-LOBBY	User defined	1	Pattern 1: Phius_default	1199.9983	0	0	0	
114-TRASH RM	User defined	1	Pattern 1: Phius_default	0	49.9997	0	0	
115-COMPACTOR RM	User defined	1	Pattern 1: Phius_default	0	285.0011	0	0	
116-ELEVATOR LOBBY	User defined	1	Pattern 1: Phius_default	79.1696	79.1696	0	0	
118-COMMUNITY ROOM	User defined	1	Pattern 1: Phius_default	564.9994	564.9994	0	0	
119-TOILET	User defined	1	Pattern 1: Phius_default	0	49.9997	0	0	
120-STORAGE ROOM	User defined	1	Pattern 1: Phius_default	0	129.9992	0	0	
121-JANITOR CLOSET	User defined	1	Pattern 1: Phius_default	0	39.9997	0	0	
123-MECHANICAL ROOM	User defined	1	Pattern 1: Phius_default	0	235.0014	0	0	
125-PUMP ROOM	User defined	1	Pattern 1: Phius_default	0	85.0024	0	0	
126-ATS	User defined	1	Pattern 1: Phius_default	0	49.9997	0	0	
127-ELECTRICAL ROOM	User defined	1	Pattern 1: Phius_default	0	125.0021	0	0	
128-CUSTODIAL OFFICE & STORAGE	User defined	1	Pattern 1: Phius_default	0	49.9997	0	0	
129-GROUNDS STORAGE	User defined	1	Pattern 1: Phius_default	0	49.9997	0	0	
201-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
202-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
203-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
204-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
205-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
206-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
207-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
208-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
209-2BR	User defined	1	Pattern 1: Phius_default	75.0025	75.0025	0	0	
210-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
211-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
212-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
213-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
214-ELECTRICAL ROOM	User defined	1	Pattern 1: Phius_default	0	49.9997	0	0	
215-TEL ROOM	User defined	1	Pattern 1: Phius_default	0	25.0028	0	0	
216-JANITOR'S CLOSET	User defined	1	Pattern 1: Phius_default	0	35.0027	0	0	
218-TRASH RM	User defined	1	Pattern 1: Phius_default	0	65.0025	0	0	
2CSOUTH-SOUTH CORRIDOR	User defined	1	Pattern 1: Phius_default	225.0015	0	0	0	
301-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
302-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
303-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
304-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
305-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
306-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
307-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
308-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
309-2BR	User defined	1	Pattern 1: Phius_default	75.0025	75.0025	0	0	
310-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
311-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
312-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
313-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
314-ELECTRICAL ROOM	User defined	1	Pattern 1: Phius_default	0	49.9997	0	0	

ROOM								
315-TEL RM	User defined	1	Pattern 1: Phius_default	0	25.0028	0	0	
316-JANITOR'S CLOSET	User defined	1	Pattern 1: Phius_default	0	35.0027	0	0	
318-TRASH RM	User defined	1	Pattern 1: Phius_default	0	65.0025	0	0	
3CSOUTH-SOUTH CORRIDOR	User defined	1	Pattern 1: Phius_default	225.0015	0	0	0	
401-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
ACH via natural ventilation (day)			[1/hr] 0	Pattern 1: Phius_default	49.9997	49.9997	0	0
Average mechanical ventilation air change rate			[1/hr] 0	Pattern 1: Phius_default	49.9997	49.9997	0	0
ACH via natural ventilation (night)			[1/hr] 0	Pattern 1: Phius_default	49.9997	49.9997	0	0
406-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
Case 1/Zone 1: Visualized components								
408-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
408-2BR	User defined	1	Pattern 1: Phius_default	75.0025	75.0025	0	0	
Zone 1/Component 1: General data								
Name				SF04_Z4_C1_R1	49.9997	49.9997	0	0
Type				Transparent	49.9997	49.9997	0	0
Inner side				Zone 1: Unnamed_Bldg_Segment	49.9997	49.9997	0	0
Outer side				Outer air	0	49.9997	0	0
Window type				Window type (Id 210): BASELINE: WINDOW 052	0	25.0028	0	0
Uw -mounted				[Btu/hr ft² °F] 0.45	0	35.0027	0	0
Geometry					0	65.0025	0	0
Area				[ft²] 7.2	49.9997	49.9997	0	0
Inclination				[°] 90	49.9997	49.9997	0	0
Orientation				West (100 %)	49.9997	49.9997	0	0
504-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
505-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
Zone 1/Component 2: General data								
Name				SF04_Z4_C1_R2	49.9997	49.9997	0	0
Type				Transparent	49.9997	49.9997	0	0
Inner side				Zone 1: Unnamed_Bldg_Segment	49.9997	49.9997	0	0
Outer side				Outer air	49.9997	49.9997	0	0
Window type				Window type (Id 211): BASELINE: WINDOW 053	49.9997	49.9997	0	0
Uw -mounted				[Btu/hr ft² °F] 0.45	49.9997	49.9997	0	0
Geometry								
Area				[ft²] 21.1	0	25.0028	0	0
Inclination				[°] 90	0	35.0027	0	0
Orientation				West (100 %)	0	65.0025	0	0
CORRIDOR	User defined	1	Pattern 1: Phius_default	225.0015	0	0	0	
601-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
Zone 1/Component 3: General data								
Name				SF04_Z4_C2_R1	49.9997	49.9997	0	0
Type				Transparent	49.9997	49.9997	0	0
Inner side				Zone 1: Unnamed_Bldg_Segment	49.9997	49.9997	0	0
Outer side				Outer air	49.9997	49.9997	0	0
Window type				Window type (Id 212): BASELINE: WINDOW 054	49.9997	49.9997	0	0
Uw -mounted				[Btu/hr ft² °F] 0.45	75.0025	75.0025	0	0
Geometry								
Area				[ft²] 7.2	49.9997	49.9997	0	0
Inclination				[°] 90	49.9997	49.9997	0	0
Orientation				West (100 %)	49.9997	49.9997	0	0
ROOM					0	49.9997	0	0
615-TEL ROOM	User defined	1	Pattern 1: Phius_default	0	25.0028	0	0	
616-JANITOR'S CLOSET	User defined	1	Pattern 1: Phius_default	0	35.0027	0	0	
618-TRASH RM	User defined	1	Pattern 1: Phius_default	0	65.0025	0	0	
6CSOUTH-SOUTH CORRIDOR	User defined	1	Pattern 1: Phius_default	225.0015	0	0	0	
701-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
702-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
703-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
704-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
705-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
706-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
707-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
708-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	

709-1BR	User defined	1	Pattern 1: Phius_default	65.0025	65.0025	0	0	
710-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
711-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
712-JAN RM	User defined	1	Pattern 1: Phius_default	0	35.0027	0	0	
713-ELEC RM	User defined	1	Pattern 1: Phius_default	0	49.9997	0	0	
714-TELE C	User defined	1	Pattern 1: Phius_default	0	25.0028	0	0	
Zone 1/Component 4: General data								
Name				SF04_Z4_C2_R2	129.9992	129.9992	0	0
Type				Transparent	0	65.0025	0	0
Inner side				Zone 1: Unnamed_Bldg_Segment	165.0019	0	0	0
Outer side				Outer air	49.9997	49.9997	0	0
Window type				Window type (Id 213): BASELINE: WINDOW 055	49.9997	49.9997	0	0
Uw -mounted [Btu/hr ft² °F]				0.45	49.9997	49.9997	0	0
Geometry								
Area [ft²]				20.9	49.9997	49.9997	0	0
Inclination [°]				90	65.0025	65.0025	0	0
Orientation				West (100 %)	49.9997	49.9997	0	0
810-1BR	User defined	1	Pattern 1: Phius_default	49.9997	49.9997	0	0	
811-JAN RM	User defined	1	Pattern 1: Phius_default	0	35.0027	0	0	
Zone 1/Component 5: General data								
Name				SF04_Z4_C3_R1	49.9997	0	0	
Type				Transparent	0	25.0028	0	0
Inner side				Zone 1: Unnamed_Bldg_Segment	0	65.0025	0	0
Outer side				Outer air	35.0008	0	0	0
Window type				Window type (Id 214): BASELINE: WINDOW 056	8618.3	8318.4	0	0
Uw -mounted [Btu/hr ft² °F]				0.45				
Geometry								
Area [ft²]				7.2				
Inclination [°]				90				
Orientation				West (100 %)				

Zone 1/Component 6: General data

Name				SF04_Z4_C3_R2
Type				Transparent
Inner side				Zone 1: Unnamed_Bldg_Segment
Outer side				Outer air
Window type				Window type (Id 215): BASELINE: WINDOW 057
Uw -mounted [Btu/hr ft² °F]				0.45
Geometry				
Area [ft²]				20.9
Inclination [°]				90
Orientation				West (100 %)

Zone 1/Component 7: General data

Name				SF04_Z4_C4_R1
Type				Transparent
Inner side				Zone 1: Unnamed_Bldg_Segment
Outer side				Outer air
Window type				Window type (Id 216): BASELINE: WINDOW 058
Uw -mounted [Btu/hr ft² °F]				0.45
Geometry				
Area [ft²]				7.2
Inclination [°]				90
Orientation				West (100 %)

Zone 1/Component 8: General data

Name	SF04_Z4_C4_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 217): BASELINE: WINDOW 059
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 20.9
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 9: General data

Name	SF04_Z4_C5_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 218): BASELINE: WINDOW 060
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 7.2
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 10: General data

Name	SF04_Z4_C5_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 219): BASELINE: WINDOW 061
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 21.1
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 11: General data

Name	SF05_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 220): BASELINE: WINDOW 062
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 8.5
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 12: General data

Name	SF05_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 221): BASELINE: WINDOW 063
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 24.7
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 13: General data

Name	SF05_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 222): BASELINE: WINDOW 064
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 8.4
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 14: General data

Name	SF05_Z4_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 223): BASELINE: WINDOW 065
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 24.4
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 15: General data

Name	SF05_Z4_C3_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 224): BASELINE: WINDOW 066
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 8.5
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 16: General data

Name	SF05_Z4_C3_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 225): BASELINE: WINDOW 067
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 24.7
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 17: General data

Name	SF01_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 167): BASELINE: WINDOW 009
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 4.9
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 18: General data

Name	SF01_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 168): BASELINE: WINDOW 010
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 24.5
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 19: General data

Name	SF01_Z4_C1_R3
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 169): BASELINE: WINDOW 011
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 4.9
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 20: General data

Name	SF01_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 170): BASELINE: WINDOW 012
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 31
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 21: General data

Name	SF01_Z4_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 171): BASELINE: WINDOW 013
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 5.2
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 22: General data

Name	SF01_Z4_C3_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 172): BASELINE: WINDOW 014
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 2.2
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 23: General data

Name	SF01_Z4_C3_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 173): BASELINE: WINDOW 015
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 11.2
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 24: General data

Name	SF01_Z4_C3_R3
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 174): BASELINE: WINDOW 016
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 2.2
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 25: General data

Name	SF06_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 204): BASELINE: WINDOW 046
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 12.9
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 26: General data

Name	SF06_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 205): BASELINE: WINDOW 047
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 37.7
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 27: General data

Name	SF06_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 206): BASELINE: WINDOW 048
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 5
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 28: General data

Name	SF06_Z4_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 207): BASELINE: WINDOW 049
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 14.7
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 29: General data

Name	SF07_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 208): BASELINE: WINDOW 050
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 26.6
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 30: General data

Name	SF07_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 209): BASELINE: WINDOW 051
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 13.3
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 31: General data

Name	115A
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 196): BASELINE: WINDOW 038
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 47.9
Inclination	[°] 90
Orientation	East (100 %)

Zone 1/Component 32: General data

Name	SF11_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 197): BASELINE: WINDOW 039
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 27.6
Inclination	[°] 90
Orientation	East (100 %)

Zone 1/Component 33: General data

Name	SF11_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 198): BASELINE: WINDOW 040
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 11.7
Inclination	[°] 90
Orientation	East (100 %)

Zone 1/Component 34: General data

Name	SF11_Z4_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 199): BASELINE: WINDOW 041
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 24.7
Inclination	[°] 90
Orientation	East (100 %)

Zone 1/Component 35: General data

Name	SF09_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 228): BASELINE: WINDOW 070
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 24.7
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 36: General data

Name	SF09_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 229): BASELINE: WINDOW 071
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 2.3
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 37: General data

Name	SF09_Z4_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 230): BASELINE: WINDOW 072
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 4.9
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 38: General data

Name	SF08_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 233): BASELINE: WINDOW 075
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 10.7
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 39: General data

Name	SF08_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 234): BASELINE: WINDOW 076
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 22.5
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 40: General data

Name	SF08_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 235): BASELINE: WINDOW 077
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 24.7
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 41: General data

Name	W1_R_Z5_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 190): BASELINE: WINDOW 032
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 24.4
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 42: General data

Name	W1_R_Z5_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 191): BASELINE: WINDOW 033
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 4.7
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 43: General data

Name	W1_R_Z5_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 192): BASELINE: WINDOW 034
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 10.9
Inclination	[°] 90
Orientation	South (100 %)

Zone 1/Component 44: General data

Name	Assa_Abloy_707_Honeycomb_Door
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 175): BASELINE: WINDOW 017
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 69.4
Inclination	[°] 90
Orientation	South (34 %), North (66 %)

Zone 1/Component 45: General data

Name	W5_L_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 226): BASELINE: WINDOW 068
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 21
Inclination	[°] 90
Orientation	West (50 %), North (50 %)

Zone 1/Component 46: General data

Name	W5_L_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 227): BASELINE: WINDOW 069
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 32.9
Inclination	[°] 90
Orientation	West (50 %), North (50 %)

Zone 1/Component 47: General data

Name	W2_L_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 202): BASELINE: WINDOW 044
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 113.8
Inclination	[°] 90
Orientation	East (68 %), North (32 %)

Zone 1/Component 48: General data

Name	W2_L_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 203): BASELINE: WINDOW 045
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 227.5
Inclination	[°] 90
Orientation	East (68 %), North (32 %)

Zone 1/Component 49: General data

Name	W2_R_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 231): BASELINE: WINDOW 073
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 12
Inclination	[°] 90
Orientation	North (100 %)

Zone 1/Component 50: General data

Name	W2_R_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 232): BASELINE: WINDOW 074
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 24
Inclination	[°] 90
Orientation	North (100 %)

Zone 1/Component 51: General data

Name	SF10_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 176): BASELINE: WINDOW 018
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 31.1
Inclination	[°] 90
Orientation	South (67 %), West (33 %)

Zone 1/Component 52: General data

Name	SF10_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 177): BASELINE: WINDOW 019
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 65.7
Inclination	[°] 90
Orientation	South (67 %), West (33 %)

Zone 1/Component 53: General data

Name	W4_R_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 159): BASELINE: WINDOW 001
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 41.9
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 54: General data

Name	W4_R_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 160): BASELINE: WINDOW 002
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 97.8
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 55: General data

Name	W4_R_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 161): BASELINE: WINDOW 003
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 41.9
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 56: General data

Name	W4_R_Z4_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 162): BASELINE: WINDOW 004
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 97.8
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 57: General data

Name	W4_R_Z5_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 163): BASELINE: WINDOW 005
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 12
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 58: General data

Name	W4_R_Z5_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 164): BASELINE: WINDOW 006
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 27.9
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 59: General data

Name	W4_R_Z5_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 165): BASELINE: WINDOW 007
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 12
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 60: General data

Name	W4_R_Z5_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 166): BASELINE: WINDOW 008
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 27.9
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 61: General data

Name	W1.2_L_Z5_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 178): BASELINE: WINDOW 020
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 9.3
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 62: General data

Name	W1.2_L_Z5_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 179): BASELINE: WINDOW 021
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 21.7
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 63: General data

Name	W1.2_L_Z5_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 180): BASELINE: WINDOW 022
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 48.8
Inclination	[°] 90
Orientation	West (100 %)

Zone 1/Component 64: General data

Name	W1.2_L_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 181): BASELINE: WINDOW 023
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 55.9
Inclination	[°] 90
Orientation	East (50 %), West (50 %)

Zone 1/Component 65: General data

Name	W1.2_L_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 182): BASELINE: WINDOW 024
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 130.4
Inclination	[°] 90
Orientation	East (50 %), West (50 %)

Zone 1/Component 66: General data

Name	W1.2_L_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 183): BASELINE: WINDOW 025
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 292.7
Inclination	[°] 90
Orientation	East (50 %), West (50 %)

Zone 1/Component 67: General data

Name	W1_R_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 184): BASELINE: WINDOW 026
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 2244.4
Inclination	[°] 90
Orientation	South (21 %), East (35 %), West (32 %), North (13 %)

Zone 1/Component 68: General data

Name	W1_R_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 185): BASELINE: WINDOW 027
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 428.5
Inclination	[°] 90
Orientation	South (21 %), East (35 %), West (32 %), North (13 %)

Zone 1/Component 69: General data

Name	W1_R_Z4_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 186): BASELINE: WINDOW 028
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 999.8
Inclination	[°] 90
Orientation	South (21 %), East (35 %), West (32 %), North (13 %)

Zone 1/Component 70: General data

Name	W1_L_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 187): BASELINE: WINDOW 029
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 326
Inclination	[°] 90
Orientation	South (20 %), East (34 %), West (33 %), North (13 %)

Zone 1/Component 71: General data

Name	W1_L_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 188): BASELINE: WINDOW 030
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 760.7
Inclination	[°] 90
Orientation	South (20 %), East (34 %), West (33 %), North (13 %)

Zone 1/Component 72: General data

Name	W1_L_Z4_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 189): BASELINE: WINDOW 031
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 1707.7
Inclination	[°] 90
Orientation	South (20 %), East (34 %), West (33 %), North (13 %)

Zone 1/Component 73: General data

Name	W1_R_Z5_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 190): BASELINE: WINDOW 032
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 365.9
Inclination	[°] 90
Orientation	South (47 %), West (53 %)

Zone 1/Component 74: General data

Name	W1_R_Z5_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 191): BASELINE: WINDOW 033
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 69.9
Inclination	[°] 90
Orientation	South (47 %), West (53 %)

Zone 1/Component 75: General data

Name	W1_R_Z5_C2_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 192): BASELINE: WINDOW 034
Uw -mounted	[Btu/hr ft ² °F] 0.45
Geometry	
Area	[ft ²] 163
Inclination	[°] 90
Orientation	South (47 %), West (53 %)

Zone 1/Component 76: General data

Name	W1_L_Z5_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 193): BASELINE: WINDOW 035
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 65.2
Inclination	[°] 90
Orientation	South (36 %), West (64 %)

Zone 1/Component 77: General data

Name	W1_L_Z5_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 194): BASELINE: WINDOW 036
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 152.1
Inclination	[°] 90
Orientation	South (36 %), West (64 %)

Zone 1/Component 78: General data

Name	W1_L_Z5_C2_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 195): BASELINE: WINDOW 037
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 341.5
Inclination	[°] 90
Orientation	South (36 %), West (64 %)

Zone 1/Component 79: General data

Name	W3_L_Z4_C1_R1
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 200): BASELINE: WINDOW 042
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 48.9
Inclination	[°] 90
Orientation	East (100 %)

Zone 1/Component 80: General data

Name	W3_L_Z4_C1_R2
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 201): BASELINE: WINDOW 043
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 114.1
Inclination	[°] 90
Orientation	East (100 %)

Zone 1/Component 81: General data

Name	Assa_Abloy_707_Honeycomb_Door
Type	Transparent
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Window type	Window type (Id 175): BASELINE: WINDOW 017
Uw -mounted	[Btu/hr ft² °F] 0.45
Geometry	
Area	[ft²] 46.6
Inclination	[°] 90
Orientation	South (50 %), North (50 %)

Zone 1/Component 82: General data

Name	WALL [Wall EA1]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Assembly	Assembly (Id.40): BASELINE: EXPOSED WALL
U	[Btu/hr ft² °F] 0.0603
Geometry	
Area	[ft²] 34097.4
Inclination	[°] 90
Orientation	South (17 %), East (32 %), West (29 %), North (23 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0.2271 / 0.7382
Absorption / Emission (User defined)	[-] 0.4 / 0.9

Zone 1/Component 83: General data

Name	ROOF_CEILING [Roof R2]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Assembly	Assembly (Id.39): BASELINE: ROOF
U	[Btu/hr ft² °F] 0.0312
Geometry	
Area	[ft²] 847.7
Inclination	[°] 0
Orientation	Horizontal (100 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0.2271 / 0.5678
Absorption / Emission (User defined)	[-] 0.4 / 0.9

Zone 1/Component 84: General data

Name	WALL [Wall EA3]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Assembly	Assembly (Id.40): BASELINE: EXPOSED WALL
U	[Btu/hr ft² °F] 0.0603
Geometry	
Area	[ft²] 752.1
Inclination	[°] 90
Orientation	South (26 %), East (13 %), West (21 %), North (39 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0.2271 / 0.7382
Absorption / Emission (User defined)	[-] 0.4 / 0.9

Zone 1/Component 85: General data

Name	WALL [Wall EA4]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Assembly	Assembly (Id.40): BASELINE: EXPOSED WALL
U	[Btu/hr ft² °F] 0.0603
Geometry	
Area	[ft²] 159
Inclination	[°] 90
Orientation	South (48 %), East (52 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0.2271 / 0.7382
Absorption / Emission (User defined)	[-] 0.4 / 0.9

Zone 1/Component 86: General data

Name	WALL [Wall EA2]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Assembly	Assembly (Id.40): BASELINE: EXPOSED WALL
U	[Btu/hr ft² °F] 0.0603
Geometry	
Area	[ft²] 487.5
Inclination	[°] 90
Orientation	South (48 %), North (52 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0.2271 / 0.7382
Absorption / Emission (User defined)	[-] 0.4 / 0.9

Zone 1/Component 87: General data

Name	ROOF_CEILING [Roof R1]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Assembly	Assembly (Id.39): BASELINE: ROOF
U	[Btu/hr ft² °F] 0.0312
Geometry	
Area	[ft²] 10638.8
Inclination	[°] 0
Orientation	Horizontal (100 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0.2271 / 0.5678
Absorption / Emission (User defined)	[-] 0.4 / 0.9

Zone 1/Component 88: General data

Name	FLOOR [Floor S1]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Ground
Assembly	Assembly (Id.43): BASELINE: GROUND FLOOR
U	[Btu/hr ft² °F] 0.355
Geometry	
Area	[ft²] 11486.5
Inclination	[°] 180
Orientation	Horizontal (100 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0 / 0.9653

Zone 1/Component 89: General data

Name	WALL [Wall B1]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Ground
Assembly	Assembly (Id.41): BASELINE: GROUND WALL
U	[Btu/hr ft² °F] 0.1094
Geometry	
Area	[ft²] 1435.3
Inclination	[°] 90
Orientation	South (29 %), East (47 %), West (6 %), North (18 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0 / 0.7382

Zone 1/Component 90: General data

Name	WALL [Wall EA5]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Outer air
Assembly	Assembly (Id.40): BASELINE: EXPOSED WALL
U	[Btu/hr ft² °F] 0.0603
Geometry	
Area	[ft²] 1229.4
Inclination	[°] 90
Orientation	South (16 %), East (30 %), West (32 %), North (22 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0.2271 / 0.7382
Absorption / Emission (User defined)	[-] 0.4 / 0.9

Zone 1/Component 91: General data

Name	WALL [Wall EA5]
Type	Opaque
Inner side	Zone 1: Unnamed_Bldg_Segment
Outer side	Ground
Assembly	Assembly (Id.41): BASELINE: GROUND WALL
U	[Btu/hr ft² °F] 0.1094
Geometry	
Area	[ft²] 268.7
Inclination	[°] 90
Orientation	South (84 %), North (16 %)
Surface	
Rse / Rsi (According to component type)	[hr ft² °F/Btu] 0 / 0.7382

Case 1/Zone 1: Thermal bridges

Linear thermal bridges

Nr	Name	Linear thermal transmittance [Btu/hr ft °F]	Length [ft]	Attachment
1	Bulkhead_Parapet_1	0.166	32.3229	
2	Bulkhead_Parapet_1	0.166	86.8346	
3	Canopy_Steel_Beam (13 locations)	0.468	13	
4	Parapets	0.11	548.3563	
5	Slab_Edge	0.072	106.4031	
6	Slab_Edge	0.072	557.5708	
7	Slab_Edge	0.072	557.5708	
8	Slab_Edge	0.072	84.4166	
9	Slab_Edge	0.072	557.5708	
10	Slab_Edge	0.072	548.3563	
11	Slab_Edge	0.072	557.5708	
12	Slab_Edge	0.072	557.5708	
13	Slab_Edge	0.072	548.3563	

Assemblies/window types

Window type (Id 210): BASELINE: WINDOW 052**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 211): BASELINE: WINDOW 053**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 212): BASELINE: WINDOW 054**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 213): BASELINE: WINDOW 055**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 214): BASELINE: WINDOW 056**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 215): BASELINE: WINDOW 057**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 216): BASELINE: WINDOW 058**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 217): BASELINE: WINDOW 059**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 218): BASELINE: WINDOW 060**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 219): BASELINE: WINDOW 061**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 220): BASELINE: WINDOW 062**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 221): BASELINE: WINDOW 063**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 222): BASELINE: WINDOW 064**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 223): BASELINE: WINDOW 065**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 224): BASELINE: WINDOW 066**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 225): BASELINE: WINDOW 067**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 167): BASELINE: WINDOW 009**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 168): BASELINE: WINDOW 010**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 169): BASELINE: WINDOW 011**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 170): BASELINE: WINDOW 012**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 171): BASELINE: WINDOW 013**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 172): BASELINE: WINDOW 014**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 173): BASELINE: WINDOW 015**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 174): BASELINE: WINDOW 016**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 204): BASELINE: WINDOW 046**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 205): BASELINE: WINDOW 047**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 206): BASELINE: WINDOW 048**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 207): BASELINE: WINDOW 049**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 208): BASELINE: WINDOW 050**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 209): BASELINE: WINDOW 051**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 196): BASELINE: WINDOW 038**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 197): BASELINE: WINDOW 039**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 198): BASELINE: WINDOW 040**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 199): BASELINE: WINDOW 041**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 228): BASELINE: WINDOW 070**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 229): BASELINE: WINDOW 071**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 230): BASELINE: WINDOW 072**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 233): BASELINE: WINDOW 075**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 234): BASELINE: WINDOW 076**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 235): BASELINE: WINDOW 077**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 190): BASELINE: WINDOW 032**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 191): BASELINE: WINDOW 033**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 192): BASELINE: WINDOW 034**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 175): BASELINE: WINDOW 017**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 226): BASELINE: WINDOW 068**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 227): BASELINE: WINDOW 069**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 202): BASELINE: WINDOW 044**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 203): BASELINE: WINDOW 045**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 231): BASELINE: WINDOW 073**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 232): BASELINE: WINDOW 074**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 176): BASELINE: WINDOW 018**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 177): BASELINE: WINDOW 019**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 159): BASELINE: WINDOW 001**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 160): BASELINE: WINDOW 002**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 161): BASELINE: WINDOW 003**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 162): BASELINE: WINDOW 004**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 163): BASELINE: WINDOW 005**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 164): BASELINE: WINDOW 006**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 165): BASELINE: WINDOW 007**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 166): BASELINE: WINDOW 008**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 178): BASELINE: WINDOW 020**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 179): BASELINE: WINDOW 021**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 180): BASELINE: WINDOW 022**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 181): BASELINE: WINDOW 023**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 182): BASELINE: WINDOW 024**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 183): BASELINE: WINDOW 025**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 184): BASELINE: WINDOW 026**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 185): BASELINE: WINDOW 027**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 186): BASELINE: WINDOW 028**Basic data**

Uw -mounted [Btu/hr ft² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 187): BASELINE: WINDOW 029**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 188): BASELINE: WINDOW 030**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 189): BASELINE: WINDOW 031**Basic data**

Uw -mounted	[Btu/hr ft ² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 193): BASELINE: WINDOW 035**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 194): BASELINE: WINDOW 036**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 195): BASELINE: WINDOW 037**Basic data**

Uw -mounted	[Btu/hr ft² °F]	0.45
Frame factor		0.75
Glass U-value	[Btu/hr ft² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)		0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 200): BASELINE: WINDOW 042**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

Window type (Id 201): BASELINE: WINDOW 043**Basic data**

Uw -mounted [Btu/hr ft ² °F]	0.45
Frame factor	0.75
Glass U-value [Btu/hr ft ² °F]	0.45
SHGC/Solar energy transmittance (perpendicular)	0.36

Frame data

Setting	Left	Right	Top	Bottom
Frame width [in]	3.937	3.937	3.937	3.937
Frame U-value [Btu/hr ft ² °F]	0.45	0.45	0.45	0.45
Glazing-to-frame psi-value [Btu/hr ft °F]	0	0	0	0
Frame-to-Wall psi-value [Btu/hr ft °F]	0	0	0	0

Solar radiation angle dependent data

Angle [°]	Total solar trans.
0	

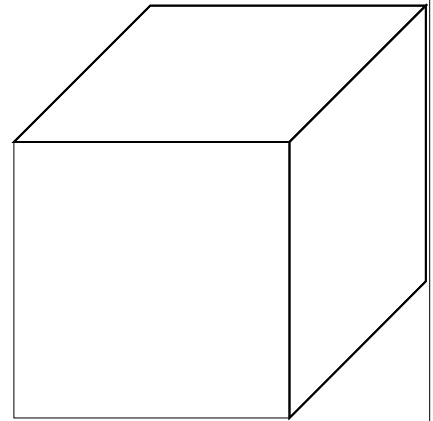
Assembly (Id.40): BASELINE: EXPOSED WALL

Homogenous layers

Thermal resistance: 15.625 hr ft² °F/Btu (without Rsi, Rse)

Heat transfer coefficient (U-value): 0.06 Btu/hr ft² °F

Thickness: 39.37 in



Nr.	Material/Layer (from outside to inside)	ρ [lb/ft³]	c [Btu/lb°F]	λ [Btu/hr ft °F]	Thickness [in]	Color
1	Material			0.21	39.37	

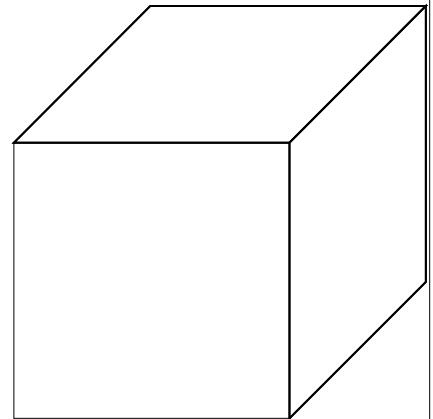
Assembly (Id.39): BASELINE: ROOF

Homogenous layers

Thermal resistance: 31.25 hr ft² °F/Btu (without Rsi, Rse)

Heat transfer coefficient (U-value): 0.031 Btu/hr ft² °F

Thickness: 39.37 in



Nr.	Material/Layer (from outside to inside)	ρ [lb/ft³]	c [Btu/lb°F]	λ [Btu/hr ft °F]	Thickness [in]	Color
1	Material			0.105	39.37	

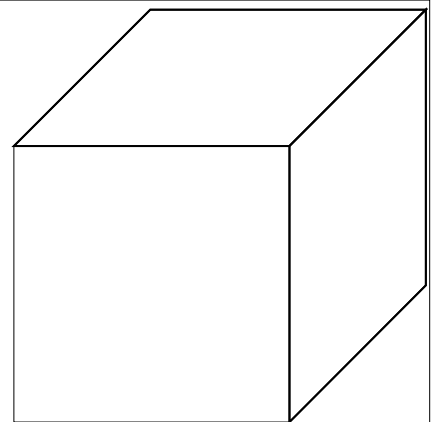
Assembly (Id.43): BASELINE: GROUND FLOOR

Homogenous layers

Thermal resistance: 1.852 hr ft² °F/Btu (without Rsi, Rse)

Heat transfer coefficient (U-value): 0.355 Btu/hr ft² °F

Thickness: 39.37 in



Nr.	Material/Layer (from outside to inside)	ρ [lb/ft³]	c [Btu/lb°F]	λ [Btu/hr ft °F]	Thickness [in]	Color
1	Material			1.7717	39.37	

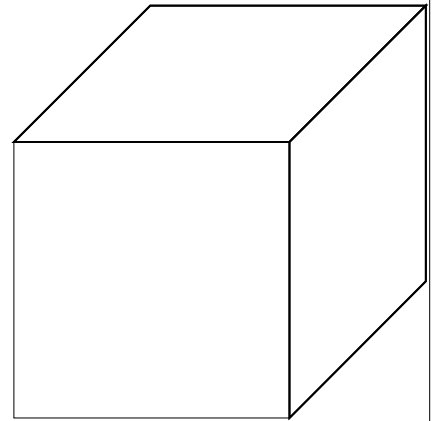
Assembly (Id.41): BASELINE: GROUND WALL

Homogenous layers

Thermal resistance: 8.403 hr ft² °F/Btu (without Rsi, Rse)

Heat transfer coefficient (U-value): 0.109 Btu/hr ft² °F

Thickness: 39.37 in



Nr.	Material/Layer (from outside to inside)	ρ [lb/ft³]	c [Btu/lb°F]	λ [Btu/hr ft °F]	Thickness [in]	Color
1	Material			0.3904	39.37	

HVAC

System 1 (User defined): Ideal Air System, Device

Mechanical ventilation: ERV-C

Sensible recovery efficiency	[-]	0.61
Humidity recovery efficiency	[-]	0.51
Electric efficiency	[W/cfm]	1.9
Equipped with frost protection		Yes
Subsoil heat exchanger efficiency	[-]	0
Quantity		1
HRV/ERV in conditioned space		No
No summer bypass feature (summer ventilation with HRV/ERV)		No
Defrost active		Yes
Temperature below which defrost must be used	[°F]	26
Rooms ventilated by this unit		Z.1, R.16, User defined: 118-COMMUNITY ROOM

Mechanical ventilation: ERV-O

Sensible recovery efficiency	[-]	0.61
Humidity recovery efficiency	[-]	0.51
Electric efficiency	[W/cfm]	1.9
Equipped with frost protection		Yes
Subsoil heat exchanger efficiency	[-]	0
Quantity		1
HRV/ERV in conditioned space		No
No summer bypass feature (summer ventilation with HRV/ERV)		No
Defrost active		Yes
Temperature below which defrost must be used	[°F]	26
Rooms ventilated by this unit		Z.1, R.8, User defined: 108-PACKAGE ROOM; Z.1, R.9, User defined: 109-MANAGEMENT SUITE; Z.1, R.10, User defined: 110-FILE ROOM; Z.1, R.11, User defined: 111-OFFICE; Z.1, R.15, User define

Heat pump, Heat pump - rated monthly COP: Heating_and_Cooling

Rated COP 1	[-]	2.08
Ambient Temperature 1	[°F]	17
Rated COP 2	[-]	4.1
Ambient Temperature 2	[°F]	47
Coverage		Heating 1, Cooling 0.5

Electric resistance space heat / DHW: Hot Water Heater

Coverage		DHW 1
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Water storage: Hot Water Storage Tank

Storage capacity	[gal]	150.0005
Specific total thermal storage losses	[Btu/hr F]	4.0996
Specific storage losses standby part only	[Btu/hr F]	4.0996
Typical storage water temperature	[°F]	140
Within thermal envelope		Yes
Quantity		3

Photovoltaic / renewable energy: Rooftop PV System

Photovoltaic / renewable energy	[kWh/yr]	103056
Array size	[kW]	85.88
Utilization factor	[-]	----

Mechanical ventilation: Swegon_[ERV_1-2-3-4-5]

Sensible recovery efficiency	[-]	0.84
Humidity recovery efficiency	[-]	0.76
Electric efficiency	[W/cfm]	0.76
Equipped with frost protection		Yes
Subsoil heat exchanger efficiency	[-]	0
Quantity		1
HRV/ERV in conditioned space		No
No summer bypass feature (summer ventilation with HRV/ERV)		No
Defrost active		Yes
Temperature below which defrost must be used	[°F]	26
Rooms ventilated by this unit		<p>Z.1, R.1, User defined: 101-1BR; Z.1, R.2, User defined: 102-1BR; Z.1, R.3, User defined: 103-1BR; Z.1, R.4, User defined: 104-1BR; Z.1, R.5, User defined: 105-1BR; Z.1, R.6, User defined: 106-1BR; Z.1, R.7, User defined: 107-TOILET; Z.1, R.12, User defined: 113-LOBBY; Z.1, R.13, User defined: 114-TRASH RM; Z.1, R.14, User defined: 115-COMPACTOR RM; Z.1, R.17, User defined: 119-TOILET; Z.1, R.18, User defined: 120-STORAGE ROOM; Z.1, R.19, User defined: 121-JANITOR CLOSET; Z.1, R.20, User defined: 123-MECHANICAL ROOM; Z.1, R.21, User defined: 125-PUMP ROOM; Z.1, R.22, User defined: 126-ATS; Z.1, R.23, User defined: 127-ELECTRICAL ROOM; Z.1, R.24, User defined: 128-CUSTODIAL OFFICE & STORAGE; Z.1, R.25, User defined: 129-GROUNDS STORAGE; Z.1, R.26, User defined: 201-1BR; Z.1, R.27, User defined: 202-1BR; Z.1, R.28, User defined: 203-1BR; Z.1, R.29, User defined: 204-1BR; Z.1, R.30, User defined: 205-1BR; Z.1, R.31, User defined: 206-1BR; Z.1, R.32, User defined: 207-1BR; Z.1, R.33, User defined: 208-1BR; Z.1, R.34, User defined: 209-2BR; Z.1, R.35, User defined: 210-1BR; Z.1, R.36, User defined: 211-1BR; Z.1, R.37, User defined: 212-1BR; Z.1, R.38, User defined: 213-1BR; Z.1, R.39, User defined: 214-ELECTRICAL ROOM; Z.1, R.40, User defined: 215-TEL ROOM; Z.1, R.41, User defined: 216-JANITOR'S CLOSET; Z.1, R.42, User defined: 218-TRASH RM; Z.1, R.43, User defined: 2CSOUTH-SOUTH CORRIDOR; Z.1, R.44, User defined: 301-1BR; Z.1, R.45, User defined: 302-1BR; Z.1, R.46, User defined: 303-1BR; Z.1, R.47, User defined: 304-1BR; Z.1, R.48, User defined: 305-1BR; Z.1, R.49, User defined: 306-1BR; Z.1, R.50, User defined: 307-1BR; Z.1, R.51, User defined: 308-1BR; Z.1, R.52, User defined: 309-2BR; Z.1, R.53, User defined: 310-1BR; Z.1, R.54, User defined: 311-1BR; Z.1, R.55, User defined: 312-1BR; Z.1, R.56, User defined: 313-1BR; Z.1, R.57, User defined: 314-ELECTRICAL ROOM; Z.1, R.58, User defined: 315-TEL ROOM; Z.1, R.59, User defined: 316-JANITOR'S CLOSET; Z.1, R.60, User defined: 318-TRASH RM; Z.1, R.61, User defined: 3CSOUTH-SOUTH CORRIDOR; Z.1, R.62, User defined: 401-1BR; Z.1, R.63, User defined: 402-1BR; Z.1, R.64, User defined: 403-1BR; Z.1, R.65, User defined: 404-1BR; Z.1, R.66, User defined: 405-1BR; Z.1, R.67, User defined: 406-1BR; Z.1, R.68, User defined: 407-1BR; Z.1, R.69, User defined: 408-1BR; Z.1, R.70, User defined: 409-2BR; Z.1, R.71, User defined: 410-1BR; Z.1, R.72, User defined: 411-1BR; Z.1, R.73, User defined: 412-1BR</p>

WUFI®Passive		Z.1, R.74, User defined: 413-1BR; Z.1, R.75, User defined: 414-ELECTRICAL ROOM; Z.1, R.76, User defined: 415-TEL ROOM; Z.1, R.77, User defined: 416-JANITOR'S CLOSET; Z.1, R.78, User defined: 418-TRASH RM; Z.1, R.79, User defined: 4CSOUTH-SOUTH CORRIDOR; Z.1, R.80,	
System 1 (User defined): Ideal Air System, Distribution			
Heating distibution		503-1BR; Z.1, R.83, User defined: 504-1BR; Z.1, R.84, User defined: 505-1BR; Z.1, R.85,	
Setting	In conditioned space	Outside conditioned space 1	Outside conditioned space 2
Design flow temperature [°F]		User defined: 511-1BR; Z.1, R.91, User defined: 512-1BR; Z.1, R.92, User defined: 513-1BR; Z.1, R.93, User defined: 514-	ELECTRICAL ROOM; Z.1, R.94, User defined: 515-TEL ROOM; Z.1, R.95, User defined: 516-JANITOR'S CLOSET; Z.1, R.96, User defined: 518-TRASH RM; Z.1, R.97, User defined: 5CSOUTH-SOUTH CORRIDOR; Z.1, R.98, User defined: 601-1BR; Z.1, R.99, User defined: 602-1BR; Z.1, R.100, User defined: 603-1BR; Z.1, R.101, User defined: 604-1BR; Z.1, R.102, User defined: 605-1BR; Z.1, R.103, User defined: 606-1BR; Z.1, R.104, User defined: 607-1BR; Z.1, R.105, User defined: 608-1BR; Z.1, R.106, User defined: 609-1BR; Z.1, R.107, User defined: 610-1BR; Z.1, R.108, User defined: 611-1BR; Z.1, R.109, User defined: 612-1BR; Z.1, R.110, User defined: 613-1BR; Z.1, R.111, User defined: 614-ELECTRICAL ROOM; Z.1, R.112, User defined: 615-TEL ROOM; Z.1, R.113, User defined: 616-JANITOR'S CLOSET; Z.1, R.114, User defined: 618-TRASH RM; Z.1, R.115, User defined: 6CSOUTH-SOUTH CORRIDOR; Z.1, R.116, User defined: 619-1BR; Z.1, R.117, User defined: 620-1BR; Z.1, R.118, User defined: 621-1BR; Z.1, R.119, User defined: 622-1BR; Z.1, R.120, User defined: 623-1BR; Z.1, R.121, User defined: 624-1BR; Z.1, R.122, User defined: 625-1BR; Z.1, R.123, User defined: 626-1BR; Z.1, R.124, User defined: 627-1BR; Z.1, R.125, User defined: 628-1BR; Z.1, R.126, User defined: 629-1BR; Z.1, R.127, User defined: 630-1BR; Z.1, R.128, User defined: 631-1BR; Z.1, R.129, User defined: 632-1BR; Z.1, R.130, User defined: 633-1BR; Z.1, R.131, User defined: 634-1BR; Z.1, R.132, User defined: 635-1BR; Z.1, R.133, User defined: 636-1BR; Z.1, R.134, User defined: 637-1BR; Z.1, R.135, User defined: 638-1BR; Z.1, R.136, User defined: 639-1BR; Z.1, R.137, User defined: 640-1BR; Z.1, R.138, User defined: 641-1BR; Z.1, R.139, User defined: 642-1BR; Z.1, R.140, User defined: 643-1BR; Z.1, R.141, User defined: 644-1BR; Z.1, R.142, User defined: 645-1BR; Z.1, R.143, User defined: 646-1BR; Z.1, R.144, User defined: 647-1BR; Z.1, R.145, User defined: 648-1BR; Z.1, R.146, User defined: 649-1BR; Z.1, R.147, User defined: 650-1BR; Z.1, R.148, User defined: 651-1BR; Z.1, R.149, User defined: 652-1BR; Z.1, R.150, User defined: 653-1BR; Z.1, R.151, User defined: 654-1BR; Z.1, R.152, User defined: 655-1BR; Z.1, R.153, User defined: 656-1BR; Z.1, R.154, User defined: 657-1BR; Z.1, R.155, User defined: 658-1BR; Z.1, R.156, User defined: 659-1BR; Z.1, R.157, User defined: 660-1BR; Z.1, R.158, User defined: 661-1BR; Z.1, R.159, User defined: 662-1BR; Z.1, R.160, User defined: 663-1BR; Z.1, R.161, User defined: 664-1BR; Z.1, R.162, User defined: 665-1BR; Z.1, R.163, User defined: 666-1BR; Z.1, R.164, User defined: 667-1BR; Z.1, R.165, User defined: 668-1BR; Z.1, R.166, User defined: 669-1BR; Z.1, R.167, User defined: 670-1BR; Z.1, R.168, User defined: 671-1BR; Z.1, R.169, User defined: 672-1BR; Z.1, R.170, User defined: 673-1BR; Z.1, R.171, User defined: 674-1BR; Z.1, R.172, User defined: 675-1BR; Z.1, R.173, User defined: 676-1BR; Z.1, R.174, User defined: 677-1BR; Z.1, R.175, User defined: 678-1BR; Z.1, R.176, User defined: 679-1BR; Z.1, R.177, User defined: 680-1BR; Z.1, R.178, User defined: 681-1BR; Z.1, R.179, User defined: 682-1BR; Z.1, R.180, User defined: 683-1BR; Z.1, R.181, User defined: 684-1BR; Z.1, R.182, User defined: 685-1BR; Z.1, R.183, User defined: 686-1BR; Z.1, R.184, User defined: 687-1BR; Z.1, R.185, User defined: 688-1BR; Z.1, R.186, User defined: 689-1BR; Z.1, R.187, User defined: 690-1BR; Z.1, R.188, User defined: 691-1BR; Z.1, R.189, User defined: 692-1BR; Z.1, R.190, User defined: 693-1BR; Z.1, R.191, User defined: 694-1BR; Z.1, R.192, User defined: 695-1BR; Z.1, R.193, User defined: 696-1BR; Z.1, R.194, User defined: 697-1BR; Z.1, R.195, User defined: 698-1BR; Z.1, R.196, User defined: 699-1BR; Z.1, R.197, User defined: 700-1BR; Z.1, R.198, User defined: 701-1BR; Z.1, R.199, User defined: 702-1BR; Z.1, R.200, User defined: 703-1BR; Z.1, R.201, User defined: 704-1BR; Z.1, R.202, User defined: 705-1BR; Z.1, R.203, User defined: 706-1BR; Z.1, R.204, User defined: 707-1BR; Z.1, R.205, User defined: 708-1BR; Z.1, R.206, User defined: 709-1BR; Z.1, R.207, User defined: 710-1BR; Z.1, R.208, User defined: 711-1BR; Z.1, R.209, User defined: 712-1BR; Z.1, R.210, User defined: 713-1BR; Z.1, R.211, User defined: 714-1BR; Z.1, R.212, User defined: 715-1BR; Z.1, R.213, User defined: 716-1BR; Z.1, R.214, User defined: 717-1BR; Z.1, R.215, User defined: 718-1BR; Z.1, R.216, User defined: 719-1BR; Z.1, R.217, User defined: 720-1BR; Z.1, R.218, User defined: 721-1BR; Z.1, R.219, User defined: 722-1BR; Z.1, R.220, User defined: 723-1BR; Z.1, R.221, User defined: 724-1BR; Z.1, R.222, User defined: 725-1BR; Z.1, R.223, User defined: 726-1BR; Z.1, R.224, User defined: 727-1BR; Z.1, R.225, User defined: 728-1BR; Z.1, R.226, User defined: 729-1BR; Z.1, R.227, User defined: 730-1BR; Z.1, R.228, User defined: 731-1BR; Z.1, R.229, User defined: 732-1BR; Z.1, R.230, User defined: 733-1BR; Z.1, R.231, User defined: 734-1BR; Z.1, R.232, User defined: 735-1BR; Z.1, R.233, User defined: 736-1BR; Z.1, R.234, User defined: 737-1BR; Z.1, R.235, User defined: 738-1BR; Z.1, R.236, User defined: 739-1BR; Z.1, R.237, User defined: 740-1BR; Z.1, R.238, User defined: 741-1BR; Z.1, R.239, User defined: 742-1BR; Z.1, R.240, User defined: 743-1BR; Z.1, R.241, User defined: 744-1BR; Z.1, R.242, User defined: 745-1BR; Z.1, R.243, User defined: 746-1BR; Z.1, R.244, User defined: 747-1BR; Z.1, R.245, User defined: 748-1BR; Z.1, R.246, User defined: 749-1BR; Z.1, R.247, User defined: 750-1BR; Z.1, R.248, User defined: 751-1BR; Z.1, R.249, User defined: 752-1BR; Z.1, R.250, User defined: 753-1BR; Z.1, R.251, User defined: 754-1BR; Z.1, R.252, User defined: 755-1BR; Z.1, R.253, User defined: 756-1BR; Z.1, R.254, User defined: 757-1BR; Z.1, R.255, User defined: 758-1BR; Z.1, R.256, User defined: 759-1BR; Z.1, R.257, User defined: 760-1BR; Z.1, R.258, User defined: 761-1BR; Z.1, R.259, User defined: 762-1BR; Z.1, R.260, User defined: 763-1BR; Z.1, R.261, User defined: 764-1BR; Z.1, R.262, User defined: 765-1BR; Z.1, R.263, User defined: 766-1BR; Z.1, R.264, User defined: 767-1BR; Z.1, R.265, User defined: 768-1BR; Z.1, R.266, User defined: 769-1BR; Z.1, R.267, User defined: 770-1BR; Z.1, R.268, User defined: 771-1BR; Z.1, R.269,

Duct 1: ERV-O_supply

Duct type	Supply / outdoor air duct
Duct shape	Round
Quantity	[-] 1
Duct length	[ft] 3.2808
Duct diameter, nominal width	[in] 6.2992
Insulation thickness	[in] 1
Thermal conductivity	[Btu/hr ft °F] 0.0231
Is reflective	Yes
Assigned ventilation units	unnamed_annual_heat_pump

Duct 2: ERV-O_exhaust

Duct type	Extract / Exhaust air duct
Duct shape	Round
Quantity	[-] 1
Duct length	[ft] 3.2808
Duct diameter, nominal width	[in] 6.2992
Insulation thickness	[in] 1
Thermal conductivity	[Btu/hr ft °F] 0.0231
Is reflective	Yes
Assigned ventilation units	unnamed_annual_heat_pump

Duct 3: ERV1_a

Duct type	Supply / outdoor air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 12.1309
Duct width/height	[in] 14
Ductshape height	[in] 10
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 4: ERV2_a

Duct type	Supply / outdoor air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 53.2119
Duct width/height	[in] 18
Ductshape height	[in] 16
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 5: ERV3_a

Duct type	Supply / outdoor air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 14.313
Duct width/height	[in] 18
Ductshape height	[in] 20
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 6: ERV4_a

Duct type	Supply / outdoor air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 42.2489
Duct width/height	[in] 12
Ductshape height	[in] 20
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 7: ERV5_a

Duct type	Supply / outdoor air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 13.5932
Duct width/height	[in] 12
Ductshape height	[in] 14
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 8: ERV1_a

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 14.2904
Duct width/height	[in] 14
Ductshape height	[in] 10
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 9: ERV2_a

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 51.1595
Duct width/height	[in] 18
Ductshape height	[in] 16
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 10: ERV3_a

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 16.7035
Duct width/height	[in] 14
Ductshape height	[in] 28
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 11: ERV4_a

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 16.1212
Duct width/height	[in] 10
Ductshape height	[in] 8
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 12: ERV4_b

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 7.919
Duct width/height	[in] 8
Ductshape height	[in] 8
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 13: ERV4_c

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 66.4985
Duct width/height	[in] 12
Ductshape height	[in] 20
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 14: ERV4_d

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 16.1212
Duct width/height	[in] 10
Ductshape height	[in] 8
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 15: ERV5_a

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 35.1899
Duct width/height	[in] 10
Ductshape height	[in] 8
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 16: ERV5_b

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 17.2484
Duct width/height	[in] 12
Ductshape height	[in] 12
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 17: ERV5_c

Duct type	Extract / Exhaust air duct
Duct shape	Rectangular
Quantity	[-] 1
Duct length	[ft] 6.9976
Duct width/height	[in] 10
Ductshape height	[in] 8
Insulation thickness	[in] 4
Thermal conductivity	[Btu/hr ft °F] 0.02
Is reflective	Yes
Assigned ventilation units	Swegon_[ERV_1-2-3-4-5]

Duct 18: ERV-C_supply

Duct type	Supply / outdoor air duct
Duct shape	Round
Quantity	[-] 1
Duct length	[ft] 3.2808
Duct diameter, nominal width	[in] 6.2992
Insulation thickness	[in] 1
Thermal conductivity	[Btu/hr ft °F] 0.0231
Is reflective	Yes
Assigned ventilation units	ERV-C

Duct 19: ERV-C_exhaust

Duct type	Extract / Exhaust air duct
Duct shape	Round
Quantity	[-] 1
Duct length	[ft] 3.2808
Duct diameter, nominal width	[in] 6.2992
Insulation thickness	[in] 1
Thermal conductivity	[Btu/hr ft °F] 0.0231
Is reflective	Yes
Assigned ventilation units	ERV-C

Supportive device / auxiliary energy

Name	Type	Quantity	In conditioned space	Energy norm demand [Btu/hr]	Additional info
DE-1 Dryer Exhaust	Other	1	No	2038.4	Period of operation 7.1854 khr/yr
DS-1 Dryer Makeup Air	Other	1	No	2038.4	Period of operation 7.1854 khr/yr

System 2 (User defined): Extra Cooling System, Device**Heat pump, Heat pump: unnamed_annual_heat_pump**

Coverage	Cooling 0.5
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System 2 (User defined): Extra Cooling System, Distribution

Cooling distribution

Cooling via ventilation air	No
Cooling via air recirculation	Yes
Dehumidification	Yes
Panel cooling	No
Additional data	
Recirculation air cooling is single-speed	No
Minimum temperature of cooling coil (for recirculation air)	[°F] 54
Recirculation air flow rate	[cfm] 16163

Results

Main results

Specific space heating demand	[kBtu/ft ² yr]	8.7
Specific sensible cooling energy demand	[kBtu/ft ² yr]	3.6
Specific dehumidification energy demand	[kBtu/ft ² yr]	0
Specific heating load	[Btu/hr ft ²]	5.3
Specific cooling load	[Btu/hr ft ²]	2.3
Specific source energy demand	[kBtu/ft ² yr]	36.6
Pressurization test result	[ACH50]	0.524
Average U-value exterior wall ambient	[Btu/hr ft ² °F]	0.06
Average U-value exterior wall ground	[Btu/hr ft ² °F]	0.109
Average U-value roof ceiling ambient	[Btu/hr ft ² °F]	0.031
Average U-value floor slab basement ceiling	[Btu/hr ft ² °F]	0.355
Average ΔU thermal bridges	[Btu/hr ft ² °F]	0.005
Average U-value window total	[Btu/hr ft ² °F]	0.45
Effective heat recovery efficiency	[%]	79.7