

# OpenStudio Results

## Model Summary

### Building Summary

Information	Value	Units
Building Name	RESIDENTIAL BUILDING PIACENZA	building_name
Net Site Energy	355,848	kBtu
Total Building Area	4,483	ft^2
EUI (Based on Net Site Energy and Total Building Area)	79.37	kBtu/ft^2
OpenStudio Standards Building Type		

### Weather Summary

	Value
Weather File	Piacenza - ITA IGDG WMO#=160840
Latitude	44.92
Longitude	9.73
Elevation	440 (ft)
Time Zone	1.00
North Axis Angle	0.00
ASHRAE Climate Zone	

### Sizing Period Design Days

	Maximum Dry Bulb (F)	Daily Temperature Range (R)	Humidity Value	Humidity Type	Wind Speed (mph)	Wind Direction
PIACENZA ANN CLG .4% CONDNS DB=>MWB	91.58	21.42	72.86	Wetbulb [F]	5.14	90.0
PIACENZA ANN CLG .4% CONDNS DP=>MDB	81.32	21.42	73.4	Dewpoint [F]	5.14	90.0
PIACENZA ANN CLG .4% CONDNS ENTH=>MDB	86.54	21.42	32.2	Enthalpy [Btu/lb]	5.14	90.0
PIACENZA ANN CLG .4% CONDNS WB=>MDB	86.18	21.42	76.28	Wetbulb [F]	5.14	90.0
PIACENZA ANN HTG 99.6% CONDNS DB	21.02	0.0	21.02	Wetbulb [F]	4.47	250.0
PIACENZA ANN HTG WIND 99.6% CONDNS WS=>MCDB	42.44	0.0	42.44	Wetbulb [F]	19.91	250.0
PIACENZA ANN HUM_N 99.6% CONDNS DP=>MCDB	38.3	0.0	11.66	Dewpoint [F]	4.47	250.0

### Unmet Hours Summary

Time Setpoint Not Met	Time (hr)
During Heating	0.0
During Cooling	0.0
During Occupied Heating	0.0
During Occupied Cooling	0.0

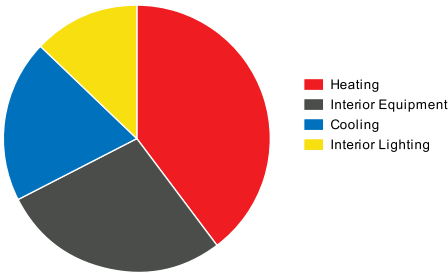
Unmet Hours Tolerance

Tolerance for Time Setpoint Not Met	Temperature (F)
Heating	0.36
Cooling	0.36

Annual Overview

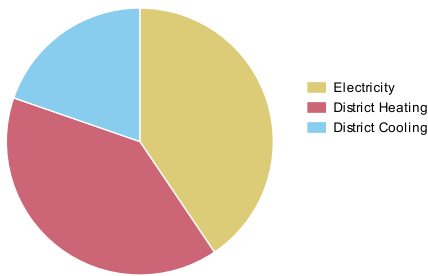
End Use - view table

End Use	Consumption (kBtu)
Heating	141,452
Cooling	70,091
Interior Lighting	45,723
Exterior Lighting	0
Interior Equipment	98,592
Exterior Equipment	0
Fans	0
Pumps	0
Heat Rejection	0
Humidification	0
Heat Recovery	0
Water Systems	0
Refrigeration	0
Generators	0



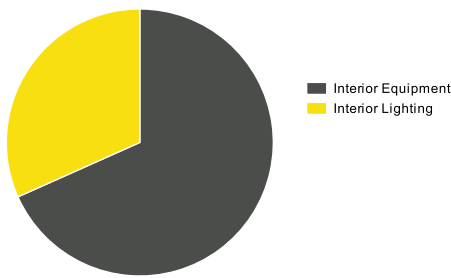
Energy Use - view table

Fuel	Consumption (kBtu)
Electricity	144,315
Natural Gas	0
Additional Fuel	0
District Cooling	70,091
District Heating	141,452



EUI - Electricity - view table

End Use	Consumption (kWh)
Heating	0
Cooling	0
Interior Lighting	13,400
Exterior Lighting	0
Interior Equipment	28,894
Exterior Equipment	0
Fans	0
Pumps	0
Heat Rejection	0
Humidification	0
Heat Recovery	0
Water Systems	0
Refrigeration	0
Generators	0



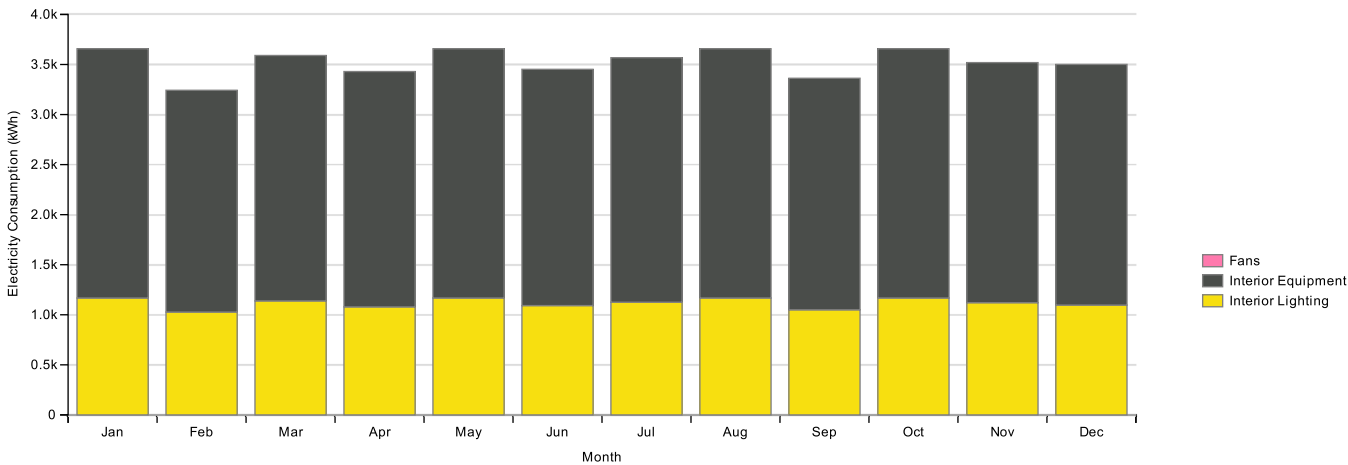
EUI - Gas - view table

End Use	Consumption (therms)
Heating	0
Cooling	0
Interior Lighting	0
Exterior Lighting	0
Interior Equipment	0
Exterior Equipment	0
Fans	0
Pumps	0
Heat Rejection	0
Humidification	0
Heat Recovery	0
Water Systems	0

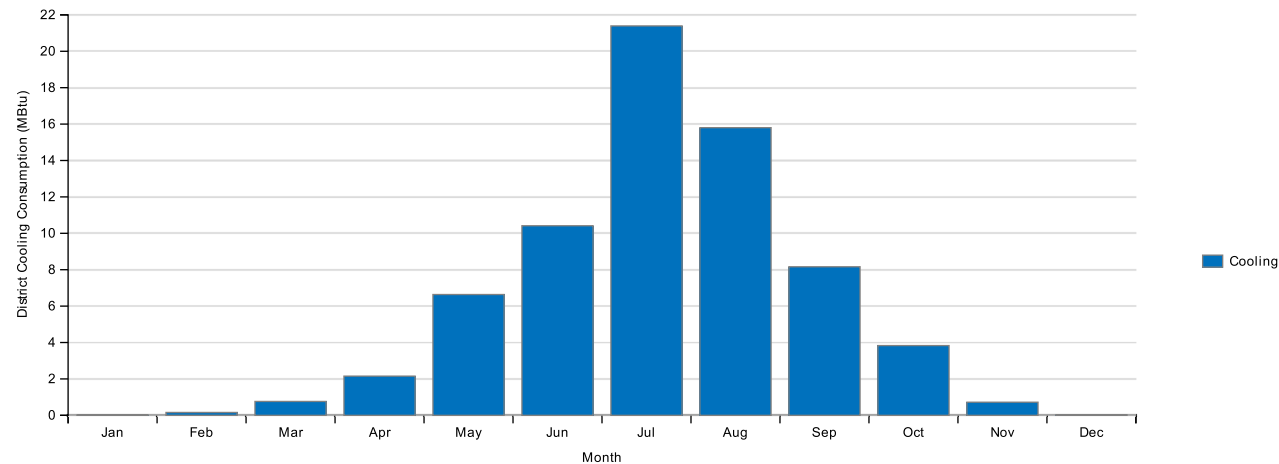
Refrigeration	0
Generators	0

Monthly Overview

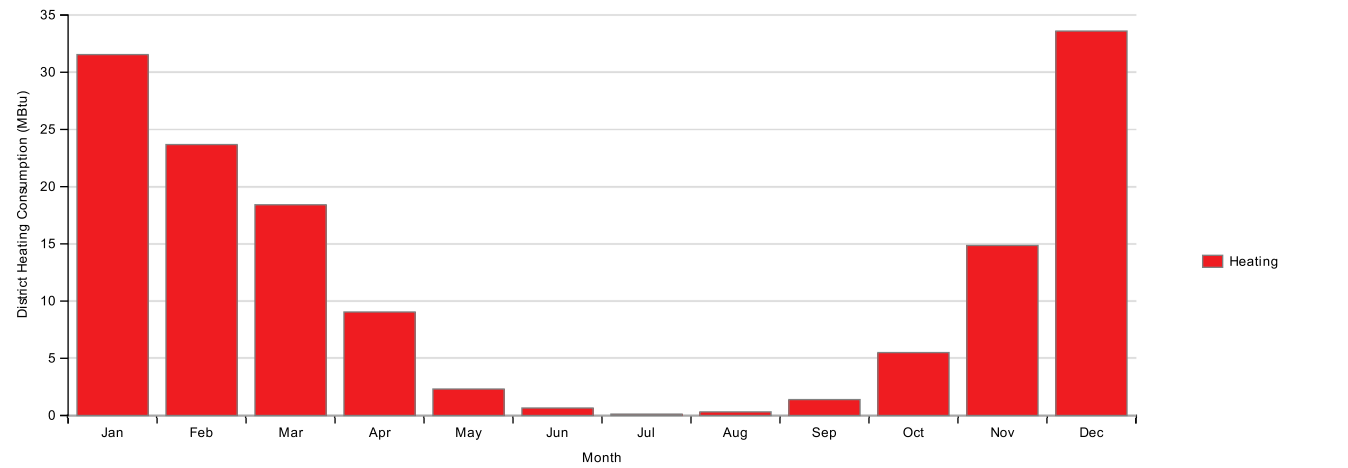
Electricity Consumption (kWh) - view table



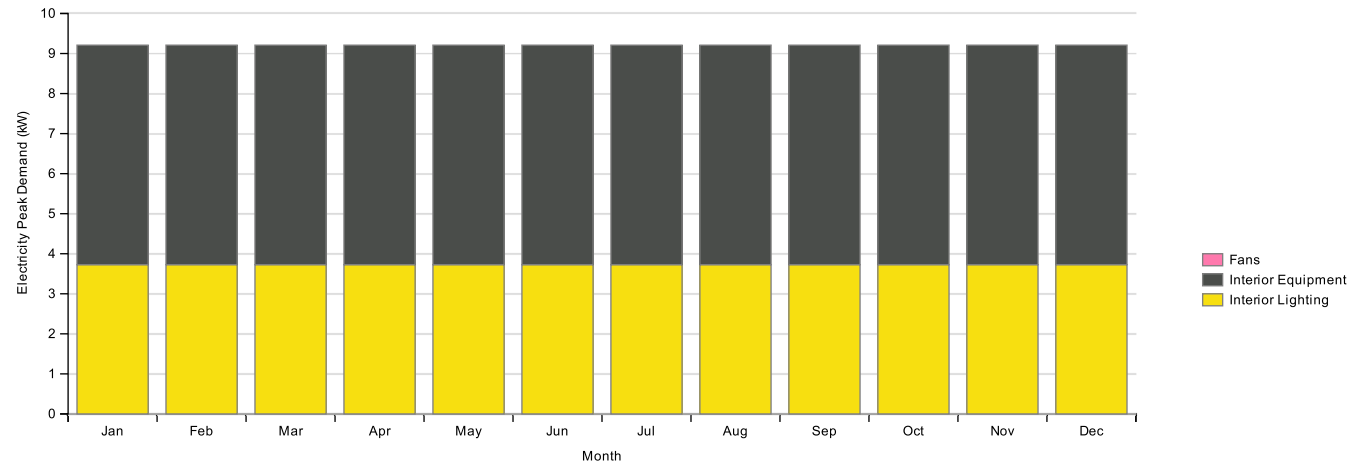
District Cooling Consumption (MBtu) - view table



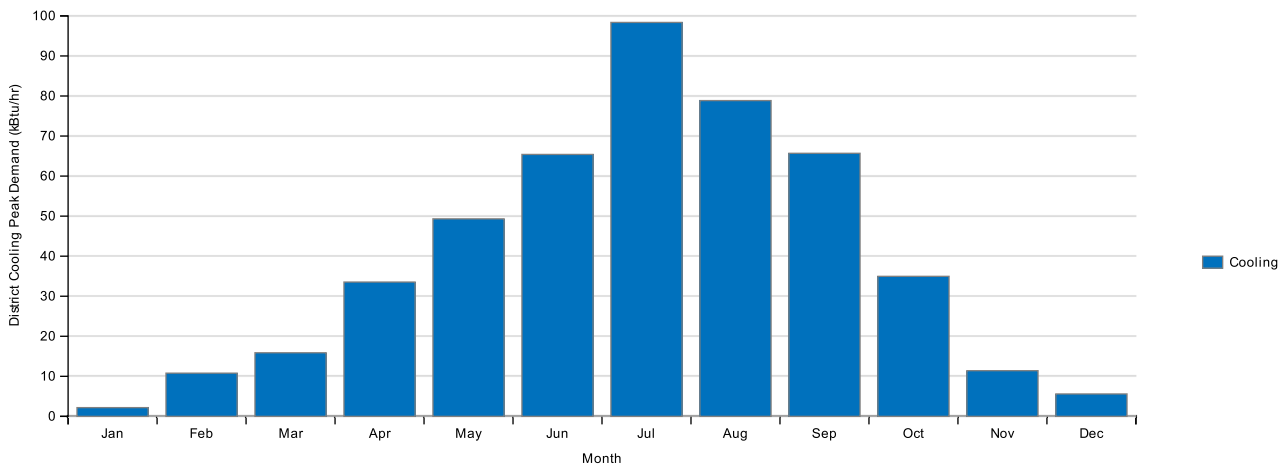
District Heating Consumption (MBtu) - view table



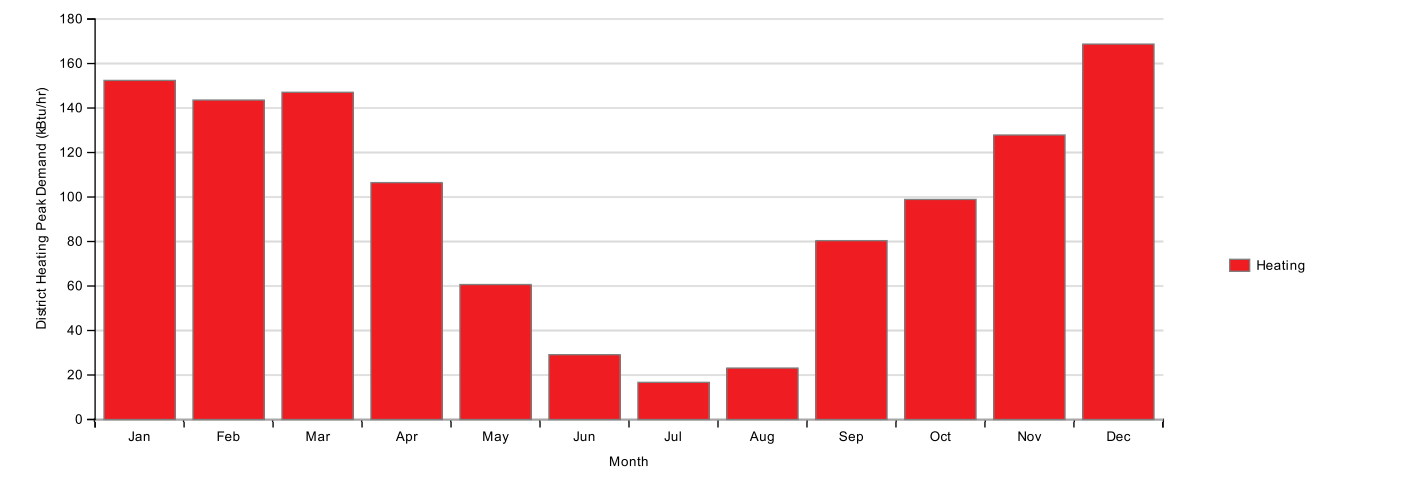
Electricity Peak Demand (kW) - view table



District Cooling Peak Demand (kBtu/hr) - view table



District Heating Peak Demand (kBtu/hr) - view table



Utility Bills/Rates

No Data to Show for Utility Bills/Rates

Envelope

Base Surface Constructions

Construction	Net Area (ft^2)	Surface Count	R Value (ft^2*h*R/Btu)
ASHRAE 189.1-2009 ExtRoof IEAD ClimateZone 1	1,494	6	19.96
ASHRAE 189.1-2009 ExtWall Mass ClimateZone 1	4,348	33	5.76

Sub Surface Constructions

Construction	Area (ft^2)	Surface Count	U-Factor (Btu/ft^2*h*R)
ASHRAE 189.1-2009 ExtWindow ClimateZone 1	692	33	

WWR & Skylight Ratio

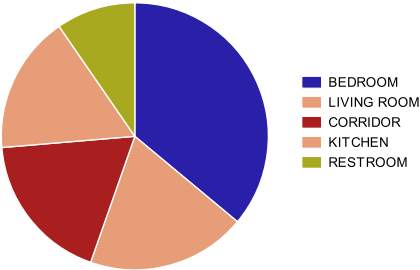
Description	Total (%)	North (%)	East (%)	South (%)	West (%)
Gross Window-Wall Ratio	13.73	11.99	7.38	23.03	8.27
Gross Window-Wall Ratio (Conditioned)	13.73	11.99	7.38	23.03	8.27
Skylight-Roof Ratio	0.0				

Space Type Breakdown

Space Type Breakdown - view table

Space Type Name	Floor Area (ft^2)	Standards Building Type	Standards Space Type
BEDROOM	1,616	Office	IT_Room
CORRIDOR	820	Office	Corridor
KITCHEN	750	Office	BreakRoom
LIVING ROOM	867	Office	Lobby

RESTROOM	430	Office	Restroom
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Space Type Summary

BEDROOM  
(6 spaces and 6 thermal zones)

Definition	Value	Unit	Inst. Multiplier
189.1-2009 - Office - IT_Room - CZ1-3 People Definition	0.0050	people/ft^2	1.0
189.1-2009 - Office - IT_Room - CZ1-3 Electric Equipment Definition	1.5600	W/ft^2	1.0
189.1-2009 - Office - IT_Room - CZ1-3 Lights Definition	0.9900	W/ft^2	1.0
189.1-2009 - Office - IT_Room - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - IT_Room - CZ1-3 Ventilation (outdoor air method Sum)	0.0500	cfm/floor area ft^2	

CORRIDOR  
(3 spaces and 3 thermal zones)

Definition	Value	Unit	Inst. Multiplier
189.1-2009 - Office - Corridor - CZ1-3 People Definition	0.0010	people/ft^2	1.0
189.1-2009 - Office - Corridor - CZ1-3 Electric Equipment Definition	0.1600	W/ft^2	1.0
189.1-2009 - Office - Corridor - CZ1-3 Lights Definition	0.4500	W/ft^2	1.0
189.1-2009 - Office - Corridor - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - Corridor - CZ1-3 Ventilation (outdoor air method Sum)	0.0500	cfm/floor area ft^2	

KITCHEN  
(3 spaces and 3 thermal zones)

Definition	Value	Unit	Inst. Multiplier
189.1-2009 - Office - BreakRoom - CZ1-3 People Definition	0.0500	people/ft^2	1.0
189.1-2009 - Office - BreakRoom - CZ1-3 Electric Equipment Definition	4.4600	W/ft^2	1.0
189.1-2009 - Office - BreakRoom - CZ1-3 Lights Definition	1.0800	W/ft^2	1.0
189.1-2009 - Office - BreakRoom - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - BreakRoom - CZ1-3 Ventilation (outdoor air method Sum)	15.0000	cfm/person	

LIVING ROOM  
(3 spaces and 3 thermal zones)

Definition	Value	Unit	Inst. Multiplier
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189.1-2009 - Office - Lobby - CZ1-3 People Definition	0.0100	people/ft^2	1.0
189.1-2009 - Office - Lobby - CZ1-3 Electric Equipment Definition	0.0700	W/ft^2	1.0
189.1-2009 - Office - Lobby - CZ1-3 Lights Definition	1.1700	W/ft^2	1.0
189.1-2009 - Office - Lobby - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - Lobby - CZ1-3 Ventilation (outdoor air method Sum)	15.0000	cfm/person	

RESTROOM

(3 spaces and 3 thermal zones)

Definition	Value	Unit	Inst. Multiplier
189.1-2009 - Office - Restroom - CZ1-3 People Definition	0.0100	people/ft^2	1.0
189.1-2009 - Office - Restroom - CZ1-3 Electric Equipment Definition	0.0700	W/ft^2	1.0
189.1-2009 - Office - Restroom - CZ1-3 Lights Definition	0.8100	W/ft^2	1.0
189.1-2009 - Office - Restroom - CZ1-3 Infiltration	0.0595	cfm/ext surf area ft^2	
189.1-2009 - Office - Restroom - CZ1-3 Ventilation (outdoor air method Sum)	0.9600	cfm/floor area ft^2	

## Interior Lighting Summary

Interior Lighting Summary

	Zone	Lighting Power Density (W/ft^2)	Total Power (W)	Schedule Name	Scheduled Hours/Week (hr)	Actual Load Hours/Week (hr)	Return Air Fraction	Consumption (kWh)
BEDROOM 1 1F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 1 1F	0.99	262.94	OFFICE BLDG LIGHT	62.05	62.05	0.0000	850.0
BEDROOM 1 2F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 1 2F	0.99	262.94	OFFICE BLDG LIGHT	62.05	62.05	0.0000	850.0
BEDROOM 1 GF 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 1 GF	0.99	262.94	OFFICE BLDG LIGHT	62.05	62.05	0.0000	850.0
BEDROOM 2 1F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 2 1F	0.99	270.35	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
BEDROOM 2 2F 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 2 2F	0.99	270.35	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
BEDROOM 2 GF 189.1-2009 - OFFICE - IT_ROOM - CZ1-3 LIGHTS	BEDROOM 2 GF	0.99	270.35	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
CORRIDOR 1F 189.1-2009 - OFFICE - CORRIDOR - CZ1-3 LIGHTS	CORRIDOR 1F	0.45	122.96	OFFICE BLDG LIGHT	62.05	62.05	0.0000	397.22
CORRIDOR 2F 189.1-2009 - OFFICE - CORRIDOR - CZ1-3 LIGHTS	CORRIDOR 2F	0.45	122.96	OFFICE BLDG LIGHT	62.05	62.05	0.0000	397.22
CORRIDOR GF 189.1-2009 - OFFICE - CORRIDOR - CZ1-3 LIGHTS	CORRIDOR GF	0.45	122.96	OFFICE BLDG LIGHT	62.05	62.05	0.0000	397.22
KITCHEN 1F 189.1-2009 - OFFICE - BREAKROOM - CZ1-3 LIGHTS	KITCHEN 1F	1.08	270.17	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
KITCHEN 2F 189.1-2009 - OFFICE - BREAKROOM - CZ1-3 LIGHTS	KITCHEN 2F	1.08	270.17	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0



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KITCHEN GF 189.1-2009 - OFFICE - BREAKROOM - CZ1-3 LIGHTS	KITCHEN GF	1.08	270.17	OFFICE BLDG LIGHT	62.05	62.05	0.0000	875.0
LIVING ROOM 1F 189.1-2009 - OFFICE - LOBBY - CZ1-3 LIGHTS	LIVING ROOM 1F	1.17	338.02	OFFICE BLDG LIGHT	62.05	62.05	0.0000	1094.44
LIVING ROOM 2F 189.1-2009 - OFFICE - LOBBY - CZ1-3 LIGHTS	LIVING ROOM 2F	1.17	338.02	OFFICE BLDG LIGHT	62.05	62.05	0.0000	1094.44
LIVING ROOM GF 189.1-2009 - OFFICE - LOBBY - CZ1-3 LIGHTS	LIVING ROOM GF	1.17	338.02	OFFICE BLDG LIGHT	62.05	62.05	0.0000	1094.44
RESTROOM 1F 189.1-2009 - OFFICE - RESTROOM - CZ1-3 LIGHTS	RESTROOM 1F	0.81	116.22	OFFICE BLDG LIGHT	62.05	62.05	0.0000	375.0
RESTROOM 2F 189.1-2009 - OFFICE - RESTROOM - CZ1-3 LIGHTS	RESTROOM 2F	0.81	116.22	OFFICE BLDG LIGHT	62.05	62.05	0.0000	375.0
RESTROOM GF 189.1-2009 - OFFICE - RESTROOM - CZ1-3 LIGHTS	RESTROOM GF	0.81	116.22	OFFICE BLDG LIGHT	62.05	62.05	0.0000	375.0

Plug Loads Summary

Electric Plug Load Consumption

	Electricity Annual Value (kWh)
InteriorEquipment:Electricity:Zone:BEDROOM 1 1F	1966.67
InteriorEquipment:Electricity:Zone:BEDROOM 1 2F	1966.67
InteriorEquipment:Electricity:Zone:BEDROOM 1 GF	1966.67
InteriorEquipment:Electricity:Zone:BEDROOM 2 1F	2022.22
InteriorEquipment:Electricity:Zone:BEDROOM 2 2F	2022.22
InteriorEquipment:Electricity:Zone:BEDROOM 2 GF	2022.22
InteriorEquipment:Electricity:Zone:CORRIDOR 1F	208.33
InteriorEquipment:Electricity:Zone:CORRIDOR 2F	208.33
InteriorEquipment:Electricity:Zone:CORRIDOR GF	208.33
InteriorEquipment:Electricity:Zone:KITCHEN 1F	5294.44
InteriorEquipment:Electricity:Zone:KITCHEN 2F	5294.44
InteriorEquipment:Electricity:Zone:KITCHEN GF	5294.44
InteriorEquipment:Electricity:Zone:LIVING ROOM 1F	97.22
InteriorEquipment:Electricity:Zone:LIVING ROOM 2F	97.22
InteriorEquipment:Electricity:Zone:LIVING ROOM GF	97.22
InteriorEquipment:Electricity:Zone:RESTROOM 1F	47.22
InteriorEquipment:Electricity:Zone:RESTROOM 2F	47.22
InteriorEquipment:Electricity:Zone:RESTROOM GF	47.22

Exterior Lighting

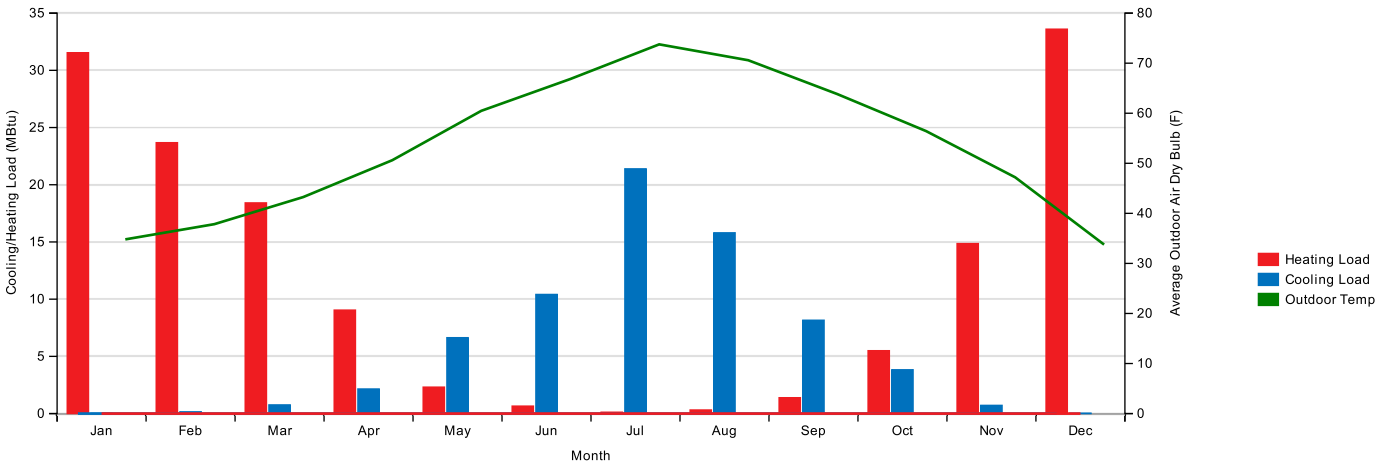
No Data to Show for Exterior Lighting

Water Use Equipment

No Data to Show for Water Use Equipment

HVAC Load Profiles

Monthly Load Profiles - view table



Zone Conditions

Temperature (Table values represent hours spent in each temperature range)

Zone	Unmet Htg (hr)	Unmet Htg - Occ (hr)	< 56 (F)	56- 61 (F)	61- 66 (F)	66- 68 (F)	68- 70 (F)	70- 72 (F)	72- 74 (F)	74- 76 (F)	76- 78 (F)	78- 83 (F)	>= 88 (F)	Unmet Clg (hr)	Unmet Clg - Occ (hr)	Mean Temp (F)
BEDROOM 1 1F	0	0	0	1386	619	215	2153	700	569	2488	272	358	0	0	0	70.2 (F)
BEDROOM 1 2F	0	0	0	1558	566	198	2311	606	528	2375	246	372	0	0	0	69.9 (F)
BEDROOM 1 GF	0	0	0	1407	806	344	2369	913	720	2081	80	40	0	0	0	69.3 (F)
BEDROOM 2 1F	0	0	0	1323	649	233	2080	777	639	2449	275	335	0	0	0	70.2 (F)
BEDROOM 2 2F	0	0	0	1528	578	214	2264	680	554	2347	224	371	0	0	0	69.9 (F)
BEDROOM 2 GF	0	0	0	1327	855	371	2275	1026	812	2013	67	14	0	0	0	69.3 (F)
CORRIDOR 1F	0	0	0	1311	823	305	3063	803	691	1492	183	89	0	0	0	69.1 (F)
CORRIDOR 2F	0	0	0	1551	688	260	3069	691	620	1525	210	146	0	0	0	69.0 (F)
CORRIDOR GF	0	0	0	1389	1128	505	3625	972	610	523	8	0	0	0	0	67.9 (F)
KITCHEN 1F	0	0	0	207	563	329	1023	682	699	3665	366	1226	0	0	0	73.3 (F)
KITCHEN 2F	0	0	0	627	651	286	1109	655	612	3388	329	1103	0	0	0	72.5 (F)
KITCHEN GF	0	0	0	64	792	471	1118	932	984	3694	459	246	0	0	0	72.4 (F)
LIVING ROOM 1F	0	0	0	1534	643	215	2676	595	588	2032	245	232	0	0	0	69.5 (F)
LIVING ROOM 2F	0	0	0	1715	535	219	2729	560	505	2000	221	276	0	0	0	69.4 (F)
LIVING ROOM GF	0	0	0	1573	879	407	2930	853	709	1365	41	3	0	0	0	68.5 (F)
RESTROOM 1F	0	0	0	2305	693	245	3596	488	378	948	35	72	0	0	0	67.5 (F)
RESTROOM 2F	0	0	0	2322	657	224	3582	487	381	982	43	82	0	0	0	67.6 (F)
RESTROOM GF	0	0	0	2455	776	220	3723	458	302	758	32	36	0	0	0	67.1 (F)

Humidity (Table values represent hours spent in each Humidity range)

Zone	< 30 (%)	30-35 (%)	35-40 (%)	40-45 (%)	45-50 (%)	50-55 (%)	55-60 (%)	60-65 (%)	65-70 (%)	70-75 (%)	>= 80 (%)	Mean Relative Humidity (%)
BEDROOM 1 1F	1507	901	854	1522	1556	945	757	436	222	50	9	43.0 (%)
BEDROOM 1 2F	1602	859	824	1391	1507	942	738	526	263	93	12	43.3 (%)
BEDROOM 1 GF	1490	891	767	1000	1297	863	792	694	465	239	138	45.9 (%)
BEDROOM 2 1F	1485	901	876	1403	1583	1013	744	481	209	55	7	43.2 (%)
BEDROOM 2 2F	1585	857	828	1276	1554	991	737	558	271	90	8	43.5 (%)
BEDROOM 2 GF	1473	884	801	921	1200	928	838	653	525	255	147	46.3 (%)
CORRIDOR 1F	1732	845	697	808	863	985	1038	873	572	220	98	45.7 (%)
CORRIDOR 2F	1777	816	691	815	916	978	1004	880	540	230	89	45.5 (%)
CORRIDOR GF	1719	823	651	611	579	670	724	834	736	528	337	49.8 (%)
KITCHEN 1F	880	999	1510	1917	2247	854	252	87	12	2	0	41.8 (%)
KITCHEN 2F	932	1025	1232	1671	2246	1140	378	124	12	0	0	42.4 (%)
KITCHEN GF	870	898	1093	1144	1605	1357	861	604	207	80	35	45.5 (%)
LIVING ROOM 1F	1088	856	757	968	1305	1098	1101	892	463	190	35	47.0 (%)
LIVING ROOM 2F	1206	874	784	922	1273	1034	1050	908	444	207	48	46.6 (%)
LIVING ROOM GF	1079	851	721	725	768	726	914	993	820	561	321	51.0 (%)
RESTROOM 1F	1840	779	612	594	647	585	643	694	650	658	517	49.9 (%)
RESTROOM 2F	1843	776	615	603	648	586	663	697	656	666	513	49.7 (%)
RESTROOM GF	1838	780	604	583	605	565	578	656	575	566	503	51.1 (%)

Zone Overview

Zone Summary

	Area (ft^2)	Conditioned (Y/N)	Part of Total Floor Area (Y/N)	Volume (ft^3)	Multiplier	Gross Wall Area (ft^2)	Window Glass Area (ft^2)	Lighting (W/ft^2)	People (ft^2/person)	Plug and Process (W/ft^2)
BEDROOM 1 1F	265.55	Yes	Yes	2656.02	1.00	370.71	59.74	0.99	199.99	1.56
BEDROOM 1 2F	265.55	Yes	Yes	2656.02	1.00	370.71	59.74	0.99	199.99	1.56
BEDROOM 1 GF	265.55	Yes	Yes	2656.02	1.00	370.71	59.74	0.99	199.99	1.56
BEDROOM 2 1F	273.08	Yes	Yes	2730.88	1.00	334.65	24.22	0.99	199.99	1.56
BEDROOM 2 2F	273.08	Yes	Yes	2730.88	1.00	334.65	24.22	0.99	199.99	1.56
BEDROOM 2 GF	273.08	Yes	Yes	2730.88	1.00	334.65	24.22	0.99	199.99	1.56
CORRIDOR 1F	273.3	Yes	Yes	2732.3	1.00	200.1	43.27	0.45	999.97	0.16

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CORRIDOR 2F	273.3	Yes	Yes	2732.3	1.00	200.1	43.27	0.45	999.97	0.16
CORRIDOR GF	273.3	Yes	Yes	2732.3	1.00	200.1	43.27	0.45	999.97	0.16
KITCHEN 1F	250.15	Yes	Yes	2501.69	1.00	183.74	43.59	1.08	20.02	4.46
KITCHEN 2F	250.15	Yes	Yes	2501.69	1.00	183.74	43.59	1.08	20.02	4.46
KITCHEN GF	250.15	Yes	Yes	2501.69	1.00	183.74	43.59	1.08	20.02	4.46
LIVING ROOM 1F	288.9	Yes	Yes	2889.09	1.00	488.9	38.75	1.17	100.0	0.07
LIVING ROOM 2F	288.9	Yes	Yes	2889.09	1.00	488.9	38.75	1.17	100.0	0.07
LIVING ROOM GF	288.9	Yes	Yes	2889.09	1.00	488.9	38.75	1.17	100.0	0.07
RESTROOM 1F	143.48	Yes	Yes	1434.83	1.00	101.72	20.99	0.81	100.0	0.07
RESTROOM 2F	143.48	Yes	Yes	1434.83	1.00	101.72	20.99	0.81	100.0	0.07
RESTROOM GF	143.48	Yes	Yes	1434.83	1.00	101.72	20.99	0.81	100.0	0.07
Total	4483.38			44833.74		5039.34	691.69	0.92	75.46	1.36
Conditioned Total	4483.38			44833.74		5039.34	691.69	0.92	75.46	1.36
Unconditioned Total	0.0			0.0		0.0	0.0	0.0	0.0	0.0
Not Part of Total	0.0			0.0		0.0	0.0	0.0	0.0	0.0

Zone Sensible Cooling and Heating Sensible Sizing

	Heating/Cooling	Calculated Design Load	Design Load With Sizing Factor	Calculated Design Air Flow (ft^3/min)	Design Air Flow With Sizing Factor (ft^3/min)	Date/Time Of Peak	Outdoor Temperature at Peak Load (F)	Outdoor Humidity Ratio at Peak Load (lbWater/lbAir)
BEDROOM 1 1F	Cooling	0.42 (ton)	0.48 (ton)	258.5	296.64	8/21 15:30:00	90.93	0.01
BEDROOM 1 1F	Heating	6.05 (kBtu/h)	7.56 (kBtu/h)	163.15	203.41	1/21 06:00:00	21.02	0.0
BEDROOM 1 2F	Cooling	0.45 (ton)	0.52 (ton)	279.69	322.07	8/21 16:00:00	90.3	0.01
BEDROOM 1 2F	Heating	7.48 (kBtu/h)	9.35 (kBtu/h)	201.29	252.15	1/21 06:00:00	21.02	0.0
BEDROOM 1 GF	Cooling	0.3 (ton)	0.34 (ton)	184.34	211.89	8/21 15:30:00	90.93	0.01
BEDROOM 1 GF	Heating	5.86 (kBtu/h)	7.33 (kBtu/h)	158.92	199.17	1/21 06:00:00	21.02	0.0
BEDROOM 2 1F	Cooling	0.33 (ton)	0.38 (ton)	205.53	237.31	8/21 15:45:00	90.61	0.01
BEDROOM 2 1F	Heating	4.92 (kBtu/h)	6.15 (kBtu/h)	133.49	167.39	1/21 06:00:00	21.02	0.0
BEDROOM 2 2F	Cooling	0.37 (ton)	0.43 (ton)	228.84	264.86	8/21 17:15:00	88.05	0.01
BEDROOM 2 2F	Heating	6.39 (kBtu/h)	7.98 (kBtu/h)	171.63	216.13	1/21 06:00:00	21.02	0.0
BEDROOM 2 GF	Cooling	0.24 (ton)	0.28 (ton)	148.32	171.63	8/21 15:30:00	90.93	0.01
BEDROOM 2 GF	Heating	4.86 (kBtu/h)	6.07 (kBtu/h)	131.37	163.15	1/21 06:00:00	21.02	0.0

11/1/2018OpenStudio Results

CORRIDOR 1F	Cooling	0.18 (ton)	0.21 (ton)	112.3	129.25	8/21 18:00:00	86.43	0.01
CORRIDOR 1F	Heating	4.34 (kBtu/h)	5.42 (kBtu/h)	116.54	146.2	1/21 06:00:00	21.02	0.0
CORRIDOR 2F	Cooling	0.24 (ton)	0.27 (ton)	146.2	167.39	8/21 18:00:00	86.43	0.01
CORRIDOR 2F	Heating	5.86 (kBtu/h)	7.32 (kBtu/h)	158.92	197.06	1/21 06:00:00	21.02	0.0
CORRIDOR GF	Cooling	0.07 (ton)	0.08 (ton)	44.5	50.85	8/21 17:45:00	86.97	0.01
CORRIDOR GF	Heating	4.35 (kBtu/h)	5.44 (kBtu/h)	116.54	146.2	1/21 06:00:00	21.02	0.0
KITCHEN 1F	Cooling	1.0 (ton)	1.15 (ton)	614.48	707.71	8/21 15:00:00	91.58	0.01
KITCHEN 1F	Heating	3.22 (kBtu/h)	4.03 (kBtu/h)	86.87	188.58	1/21 06:00:00	21.02	0.0
KITCHEN 2F	Cooling	1.03 (ton)	1.18 (ton)	633.55	728.89	8/21 15:15:00	91.26	0.01
KITCHEN 2F	Heating	4.57 (kBtu/h)	5.72 (kBtu/h)	122.9	188.58	1/21 06:00:00	21.02	0.0
KITCHEN GF	Cooling	0.88 (ton)	1.01 (ton)	544.55	625.07	8/21 15:00:00	91.58	0.01
KITCHEN GF	Heating	3.17 (kBtu/h)	3.96 (kBtu/h)	84.76	188.58	1/21 06:00:00	21.02	0.0
LIVING ROOM 1F	Cooling	0.37 (ton)	0.42 (ton)	226.72	260.62	8/21 15:30:00	90.93	0.01
LIVING ROOM 1F	Heating	5.88 (kBtu/h)	7.35 (kBtu/h)	158.92	199.17	1/21 06:00:00	21.02	0.0
LIVING ROOM 2F	Cooling	0.4 (ton)	0.47 (ton)	250.03	286.05	8/21 16:00:00	90.3	0.01
LIVING ROOM 2F	Heating	7.43 (kBtu/h)	9.28 (kBtu/h)	201.29	250.03	1/21 06:00:00	21.02	0.0
LIVING ROOM GF	Cooling	0.25 (ton)	0.29 (ton)	154.68	175.87	8/21 15:15:00	91.26	0.01
LIVING ROOM GF	Heating	5.66 (kBtu/h)	7.07 (kBtu/h)	152.56	190.7	1/21 06:00:00	21.02	0.0
RESTROOM 1F	Cooling	0.29 (ton)	0.33 (ton)	175.87	203.41	8/21 15:00:00	91.58	0.01
RESTROOM 1F	Heating	9.64 (kBtu/h)	12.05 (kBtu/h)	260.62	326.31	1/21 06:00:00	21.02	0.0
RESTROOM 2F	Cooling	0.3 (ton)	0.35 (ton)	186.46	214.01	8/21 15:15:00	91.26	0.01
RESTROOM 2F	Heating	10.43 (kBtu/h)	13.04 (kBtu/h)	281.81	351.73	1/21 06:00:00	21.02	0.0
RESTROOM GF	Cooling	0.24 (ton)	0.27 (ton)	146.2	169.51	8/21 15:00:00	91.58	0.01
RESTROOM GF	Heating	9.65 (kBtu/h)	12.07 (kBtu/h)	260.62	326.31	1/21 06:00:00	21.02	0.0

Zone Equipment Detail

No Data to Show for Zone Equipment Detail

Air Loops Detail

No Data to Show for Air Loops Detail

Plant Loops Detail

No Data to Show for Plant Loops Detail

Outdoor Air

Average and Minimum Outdoor Air During Occupied Hours

	Average Number of Occupants	Nominal Number of Occupants	Zone Volume (ft^3)	Avg. Mechanical Ventilation (ach)	Min. Mechanical Ventilation (ach)	Avg. Infiltration (ach)	Min. Infiltration (ach)	Avg. Simple Ventilation (ach)	Min. Simple Ventilation (ach)
BEDROOM 1 1F	0.51	1.33	2656	0.0	0.0	0.167	0.002	0.31	0.005
BEDROOM 1 2F	0.51	1.33	2656	0.0	0.0	0.287	0.004	0.31	0.005
BEDROOM 1 GF	0.51	1.33	2656	0.0	0.0	0.167	0.002	0.31	0.005
BEDROOM 2 1F	0.52	1.37	2731	0.0	0.0	0.147	0.002	0.31	0.005
BEDROOM 2 2F	0.52	1.37	2731	0.0	0.0	0.266	0.003	0.31	0.005
BEDROOM 2 GF	0.52	1.37	2731	0.0	0.0	0.147	0.002	0.31	0.005
CORRIDOR 1F	0.15	0.27	2732	0.0	0.0	0.088	0.001	0.309	0.005
CORRIDOR 2F	0.15	0.27	2732	0.0	0.0	0.207	0.003	0.309	0.005
CORRIDOR GF	0.15	0.27	2732	0.0	0.0	0.087	0.001	0.309	0.005
KITCHEN 1F	4.79	12.51	2502	0.0	0.0	0.088	0.001	1.372	0.004
KITCHEN 2F	4.79	12.51	2502	0.0	0.0	0.209	0.003	1.372	0.004
KITCHEN GF	4.79	12.51	2502	0.0	0.0	0.088	0.001	1.372	0.004
LIVING ROOM 1F	1.11	2.89	2889	0.0	0.0	0.202	0.003	0.273	0.001
LIVING ROOM 2F	1.11	2.89	2889	0.0	0.0	0.322	0.004	0.273	0.001
LIVING ROOM GF	1.11	2.89	2889	0.0	0.0	0.202	0.003	0.273	0.001
RESTROOM 1F	0.55	1.43	1435	0.0	0.0	0.084	0.001	5.929	0.098
RESTROOM 2F	0.55	1.43	1435	0.0	0.0	0.204	0.003	5.93	0.098
RESTROOM GF	0.55	1.43	1435	0.0	0.0	0.084	0.001	5.926	0.098

Cash Flow

No Data to Show for Cash Flow

Site and Source Summary

Site and Source Energy

	Total Energy (kBtu)	Energy Per Total Building Area (kBtu/ft^2)	Energy Per Conditioned Building Area (kBtu/ft^2)
Total Site Energy	355848.5	79.4	79.4
Net Site Energy	355848.5	79.4	79.4
Total Source Energy	1042134.4	232.4	232.4
Net Source Energy	1042134.4	232.4	232.4

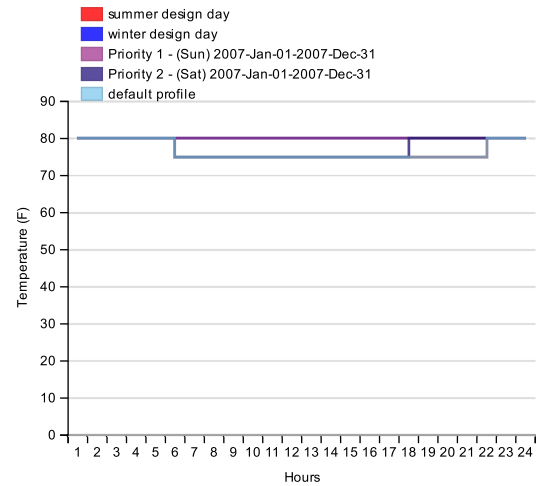
Site to Source Energy Conversion Factors

	Site=>Source Conversion Factor
Electricity	3.167
Natural Gas	1.084
District Cooling	1.056
District Heating	3.613

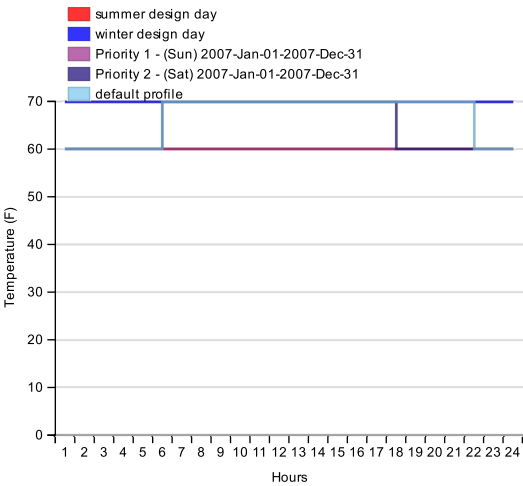
Schedule Overview

Schedule Overview - view table

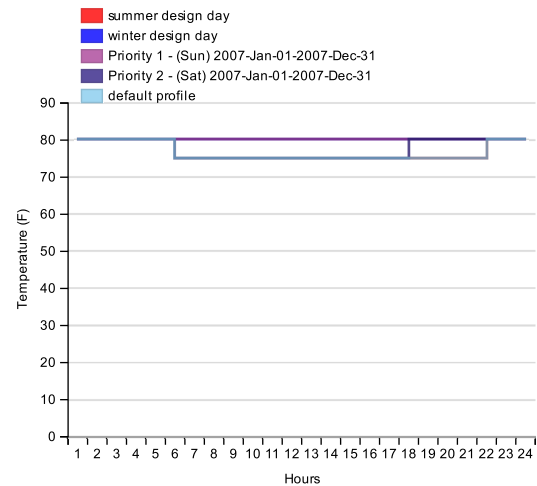
Large Office ClgSetp



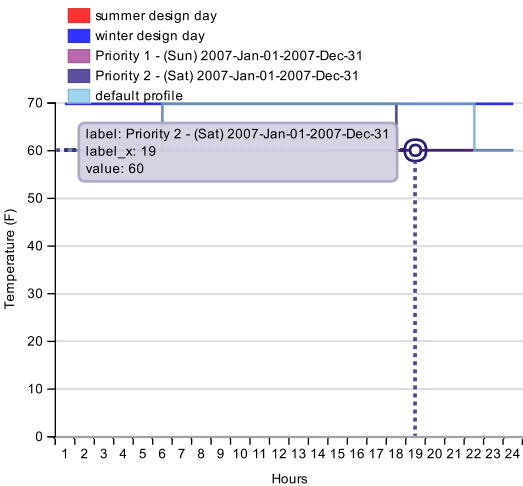
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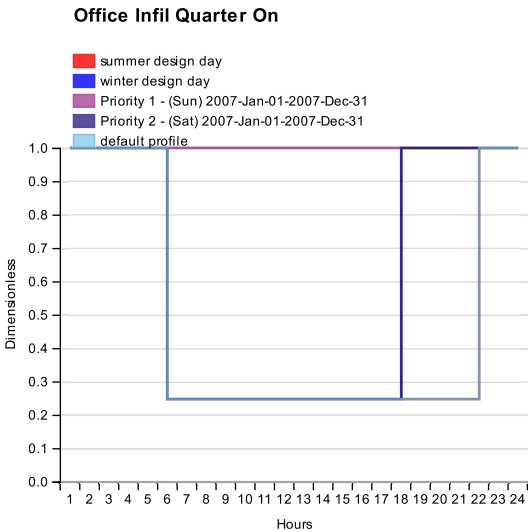
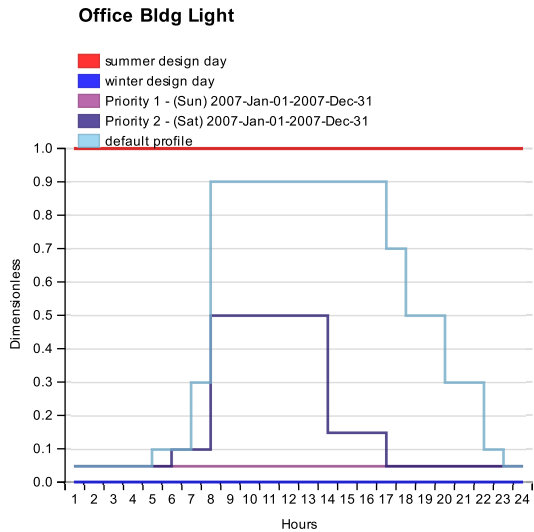
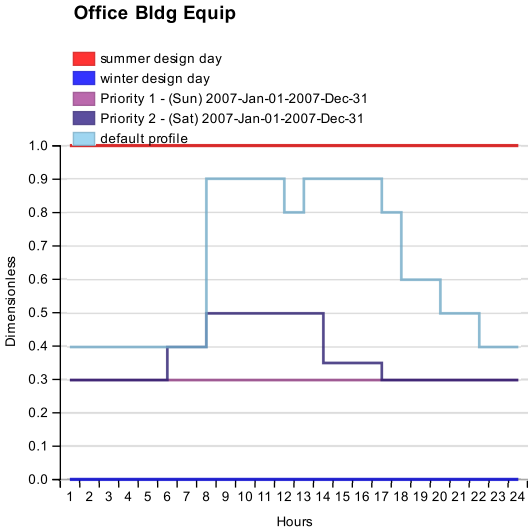
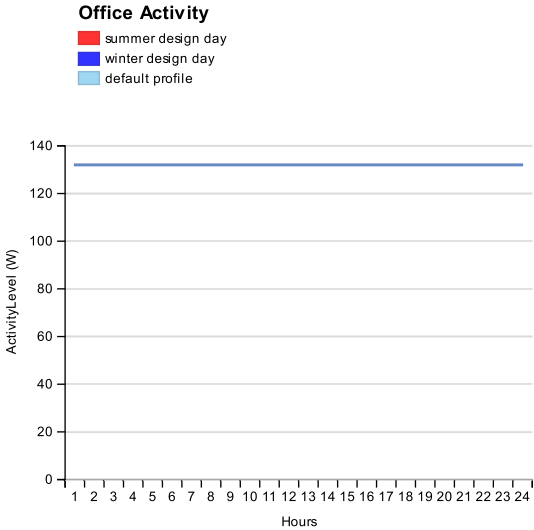


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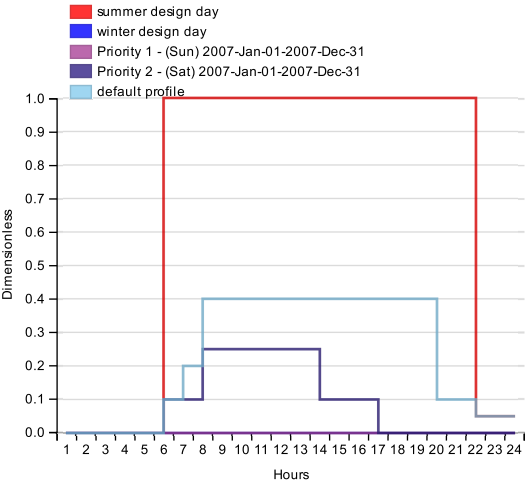
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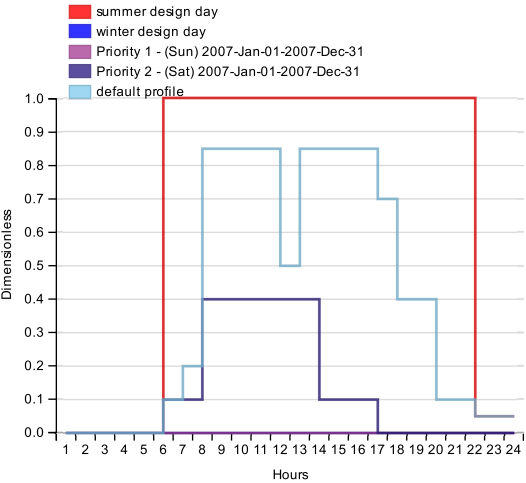




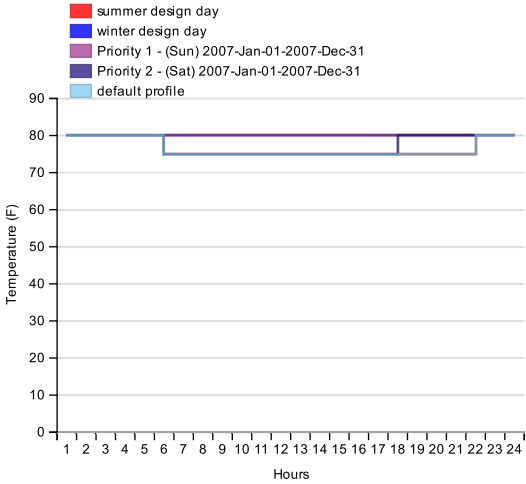
Office Misc Occ



Office Work Occ



Small Office ClgSetp



Small Office HtgSetp

