Manual N Calculations HVAC Load Calculations

Project Name: Dr Ukaegbu Office

Unit A Tenant Fit Out

Project Address: Columbia County

Lake City, FL 32055

Software: Carrier HAP v5.10

HAP is a multi-function tool supporting peak load calculation and system sizing for commercial buildings of any size. Peak loads are calculated with the ASHRAE Transfer Function Method. Required airflow rates and equipment capacities are derived based on the specified system type. Calculations use a full 8,760 hour-by-hour simulation approach.

HAP complies with ASHRAE Standard 183

Air System Sizing Summary for AHU-1 CU-1

Project Name: Dr Ukaegba Office Prepared by: FloridaEnergyCalcs.com

04/24/2022 06:52PM

Air System Information Air System Name Equipment Class Air System Type	SPLT AHU		Floor Area	1 1 Lake City, Florida	ft²
Sizing Calculation Information Calculation Months				Sum of space airflow rates	
Sizing Data	Calculated		Space Crivi Sizing	Individual peak space loads	
Central Cooling Coil Sizing Data					
Total coil load				Sep 1400	
Total coil load				91.5 / 75.9	
Sensible coil load				74.5 / 64.6	
Coil CFM at Sep 1400				57.7 / 56.8	
Max block CFM				55.8	°F
Sum of peak zone CFM		CFM		0.100	
Sensible heat ratio			Resulting RH	59	%
CFM/Ton			Design supply temp	58.0	°F
ft²/Ton				0 of 1	
BTU/(hr-ft²)			Max zone temperature d	leviation 0.0	°F
Water flow @ 10.0 °F rise	N/A				
Central Heating Coil Sizing Data					
Max coil load	11.7	MBH		Des Htg	
Coil CFM at Des Htg	2506	CFM	BTU/(hr·ft²)	5.6	
Max coil CFM		CFM	Ent. DB / Lvg DB	64.7 / 69.0	°F
Water flow @ 20.0 °F drop	N/A				
Supply Fan Sizing Data					
Actual max CFM	2506	CFM	Fan motor BHP	n/a	
Standard CFM				1.96	kW
Actual max CFM/ft ²	1.21	CFM/ft ²			
Outdoor Ventilation Air Data					
Design airflow CFM	194	CFM	CFM/person	5.18	CFM/pers
CFM/ft ²	0.09	CFM/ft2	·		•

Hourly Analysis Program 5.10 Page 1 of 2

Air System Sizing Summary for AHU-2 CU-2

Project Name: Dr Ukaegba Office Prepared by: FloridaEnergyCalcs.com 04/24/2022 06:52PM

Air System Information Air System Name Equipment Class Air System Type	SPLT AHU		Floor Area	1 2430.0 Lake City, Florida	ft²
Sizing Calculation Information Calculation Months Sizing Data				Sum of space airflow rates Individual peak space loads	
Central Cooling Coil Sizing Data Total coil load Total coil load Sensible coil load Coil CFM at Jul 1500 Max block CFM Sum of peak zone CFM Sensible heat ratio CFM/Ton ft²/Ton BTU/(hr·ft²) Water flow @ 10.0 °F rise	58.3 47.3 2435 2435 2435 0.812 501.5 500.4 24.0	MBH MBH CFM CFM	OA DB / WB	Jul 1500 94.0 / 77.0 74.5 / 63.6 56.5 / 55.5 54.5 0.100 56 58.0 1 of 1 eviation 0.0	°F °F % °F OK
Central Heating Coil Sizing Data Max coil load Coil CFM at Des Htg Max coil CFM Water flow @ 20.0 °F drop Supply Fan Sizing Data Actual max CFM	2435 2435 N/A	CFM CFM	BTU/(hr·ft²)Ent. DB / Lvg DB	Des Htg 5.0 64.9 / 69.5	
Standard CFM	1.00 196 0.08	CFM/ft²		9.11	

Hourly Analysis Program 5.10 Page 2 of 2

Project Name: Dr Ukaegba Office Prepared by: FloridaEnergyCalcs.com

1. General Details:

Air System Name	AHU-1 CU-1	
	Split AHU	
	Single Zone CAV	
	1	
2. Ventilation System Compone	nts:	
Ventilation Air Data:		
	Constant Ventilation Airflow	
	Sum of Space OA Airflows	
	Closed	
Damper Look Pate	0	0/.
	400	
Outdoor Air CO2 Level	400	ppm
Central Cooling Data:		
Supply Air Temperature	58.0	°F
	0.100	
	Air-Cooled DX	
S .	JFMAMJJASOND	
	Cycled or Staged Capacity - Fan On	
Central Heating Data:		_
	95.0	°F
Heating Source	Electric Resistance	
Schedule	JFMAMJJASOND	
Capacity Control	Cycled or Staged Capacity - Fan On	
Supply Fan Data:		
	ASHRAE 90.1 App G Fan Curve	
	Draw-thru	
Fan Performance	ASHRAE Std 90.1-2010 Appendix G Fan kW	
	ine Fan Adjustment Factor Components:	

Duct System Data:

None

Supply Duct Data:

Duct Heat Gain 0 9

Fan Control ______ 1-speed fan, cooling and heating

Return Duct or Plenum Data:

Return Air Via ______ Ducted Return

3. Zone Components:

Space Assignments:

Zone 1: Medical Offices	
12 Exam Room	x1
13 Business Office	x1
14 Waiting	x1
16 RR	x1
17 Private RR	x1
18 Doctors Office	x1
19 RR	x1
20 Nurse Station	x1
21 Breakroom	x1
22 Staff RR	x1
23 Procedure	x1
24 AHU Closet	x1

Thermostats and Zone Data:

Zone	Cooling T-Stat Occ. (°F)	Cooling T-Stat Unocc. (°F)	Heating T-Stat Occ. (°F)	Heating T-Stat Unocc. (°F)	T-Stat Throttling Range (°F)	Diversity Factor (%)	Direct Exhaust Airflow (CFM)	Direct Exhaust Fan (kW)
1	72.0	72.0	68.0	68.0	1.00	100	0.0	0.0

Hourly Analysis Program 5.10 Page 1 of 4

AHU-1 CU-1 Input Data

Project Name: Dr Ukaegba Office Prepared by: FloridaEnergyCalcs.com 04/24/2022 06:53PM

Thermostat Schedule T-stat Unoccupied Cooling is ______ Available

Supply Terminals Data:

			Air					
			Distribution	Air				Design
		Air	Effectiveness	Distribution			Fan	Supply
Zone	Terminal Type	Distribution	Specification	Effectiveness	Minimum Airflow	Fan Performance	Efficiency	Temp.
	Diffuser (no	Ceiling supply /						

Zone Heating Units:

Zone Unit Heat Source ______Electric Resistance

4. Sizing Data (Computer-Generated): System Sizing Data:

Sizing Data:

Cooling Supply Temperature	58.0	°F
Supply Fan Airflow	2505.7	CFM
Ventilation Airflow	194.3	CFM
Heating Supply Temperature	95.0	°F

Hydronic Sizing Specifications:

Chilled Water Delta-T	10.0	°F
Hot Water Delta-T	20.0	°F

Safety Factors:

Cooling Sensible1	10	%
Cooling Latent1	10	%
Heating1	10	%

Zone Sizing Data:

Zone Airflow Sizing Method	Sum of space airflow rates
Space Airflow Sizing Method	Individual peak space loads

Zone	Supply Airflow	Zone Htg Unit	Reheat Coil	-
	(CFM)	(MBH)	(MBH)	(CFM)
1	2505.7	-	-	

5. Equipment Data

Central Cooling Unit - Air-Cooled DX

entral Cooling Onit - All-Cooled DX		
Estimated Maximum Load	58.8	MBH
Design OAT	95.0	°F
Equipment Sizing	Auto-Sized	
Capacity Oversizing Factor	0	%
ARI Performance Rating	11.000	EER
DX System Configuration	1-stage compression, 1 circuit	
Conventional Cutoff OAT	55.0	°F
Low Temperature Operation	Used	
Low Temperature Cutoff OAT		°F

Hourly Analysis Program 5.10 Page 2 of 4 Project Name: Dr Ukaegba Office Prepared by: FloridaEnergyCalcs.com

1. General Details:

Air System Name	AHU-2 CU-2	
Equipment Type		
Air System Type		
Number of zones	1	
2. Ventilation System Components:		
Ventilation Air Data:		
Airflow Control	Constant Ventilation Airflow	
Ventilation Sizing Method	Sum of Space OA Airflows	
Unocc. Damper Position	Closed	
Damper Leak Rate	0 %	6
Outdoor Air CO2 Level	400 p	pm
Central Cooling Data:		
Supply Air Temperature		F
Coil Bypass Factor		
Cooling Source		
Schedule		
Capacity Control	Cycled or Staged Capacity - Fan On	
Central Heating Data:		
Supply Temperature		F
Heating Source		
Schedule		
Capacity Control	Cycled or Staged Capacity - Fan On	
Supply Fan Data:		
Fan Type		
Configuration		
Fan PerformanceASHRAE		
ASHRAE Std 90.1-2010 Baseline Fan A None	Adjustment Factor Components:	
Fan Control	1-speed fan, cooling and heating	
Duct System Data:		
Supply Duct Data:		
Duct Heat Gain		-
Duct Leakage	0 %	6
Return Duct or Plenum Data:		
Return Air Via	Ducted Return	
3. Zone Components:		
Space Assignments:		
Zone 1: Backside		

1 Exam Room x1 2 Exam Room Corner x1 3 Exam Room x1 4 Exam Room x1 5 Exam Room x1 6 Exam Room x1 7 Exam Room x1 8 Exam Room x1		
2 Exam Room Corner x1 3 Exam Room x1 4 Exam Room x1 5 Exam Room x1 6 Exam Room x1 7 Exam Room x1 8 Exam Room x1 9 Exam Room x1	15 Check In Office	x1
3 Exam Room x1 4 Exam Room x1 5 Exam Room x1 6 Exam Room x1 7 Exam Room x1 8 Exam Room x1 9 Exam Room x1	1 Exam Room	x1
4 Exam Room x1 5 Exam Room x1 6 Exam Room x1 7 Exam Room x1 8 Exam Room x1 9 Exam Room x1	2 Exam Room Corner	x1
5 Exam Room x1 6 Exam Room x1 7 Exam Room x1 8 Exam Room x1 9 Exam Room x1	3 Exam Room	x1
6 Exam Room x1 7 Exam Room x1 8 Exam Room x1 9 Exam Room x1	4 Exam Room	x1
7 Exam Room x1 8 Exam Room x1 9 Exam Room x1	5 Exam Room	x1
8 Exam Room x1 9 Exam Room x1	6 Exam Room	x1
9 Exam Room x1	7 Exam Room	x1
	8 Exam Room	x1
10 Exam Room x1	9 Exam Room	x1
	10 Exam Room	x1

Thermostats and Zone Data:

11 Exam Room

25 Hallways

Zone	Cooling T-Stat	Cooling T-Stat	Heating T-Stat	Heating T-Stat	T-Stat Throttling Range	Diversity Factor	Direct Exhaust Airflow	Direct Exhaust Fan
20110	(°F)	(°F)	(°F)	(°F)	(°F)	(%)	(CFM)	(kW)

x1

x1

Hourly Analysis Program 5.10 Page 3 of 4

AHU-2 CU-2 Input Data

Project Name: Dr Ukaegba Office Prepared by: FloridaEnergyCalcs.com 04/24/2022 06:53PM

Thermostat Schedule Unoccupied Cooling is ______Available

Supply Terminals Data:

			Air					
			Distribution	Air				Design
		Air	Effectiveness	Distribution			Fan	Supply
Zone	Terminal Type	Distribution	Specification	Effectiveness	Minimum Airflow	Fan Performance	Efficiency	Temp.
1	Diffuser (no reheat)	Ceiling supply / ceiling return	Not Used	-	0.00 CFM/person	-	-	-

Zone Heating Units:

Electric Resistance Zone Unit Heat Source Zone Heating Unit ScheduleJFMAMJJASOND

4. Sizing Data (Computer-Generated): System Sizing Data:

Sizing Data:

Cooling Supply Temperature	58.0	°F
Supply Fan Airflow	2435.0	CFM
Ventilation Airflow	195.9	CFM
Heating Supply Temperature	95.0	°F

Hydronic Sizing Specifications:

Chilled Water Delta- I		۰F
Hot Water Delta-T	20.0	°F

Safety Factors:

Cooling Sensible	10	%
Cooling Latent	10	%
Heating	10	%

Zone Sizing Data:

Zone Airflow Sizing Method	Sum of space airflow rates
Space Airflow Sizing Method	Individual peak space loads

Zone	Supply Airflow	Zone Htg Unit	Reheat Coil	-
	(CFM)	(MBH)	(MBH)	(CFM)
1	2435.0	=	=	

5. Equipment Data Central Cooling Un

58.3	MBH
95.0	°F
Auto-Sized	
0	%
11.000	EER
1-stage compression, 1 circuit	
55.0	°F
Used	
	°F
	95.0 Auto-Sized 0 11.000 1-stage compression, 1 circuit 55.0 Used

Hourly Analysis Program 5.10 Page 4 of 4

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 Floor Area
 115.0 ft²

 Avg. Ceiling Height
 9.0 ft

 Building Weight
 70.0 lb/ft²

1.1. OA Ventilation Requirements:

 Space Usage
 User-Defined

 OA Requirement 1
 5.0
 CFM/person

 OA Requirement 2
 0.06
 CFM/ft²

 Space Usage Defaults
 ASHRAE Standard 62.1-2010

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft²
Schedule	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
W	100.0	1	0	0

3.1. Construction Types for Exposure W

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

Ехр.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	115.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling 0.00	CFM
Design Heating0.00	CFM
	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	115.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value		(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
Activity Level	Office Work	·
Sensible	245.0	BTU/hr/person
Latent		BTU/hr/person
	Office Schedule	

Sensible	0 BTU/hr
Schedule	None
Latent	0 BTU/hr
Schedule	None

1. General Details:

1.1. OA Ventilation Requirements:

 Space Usage
 User-Defined

 OA Requirement 1
 5.0
 CFM/person

 OA Requirement 2
 0.06
 CFM/ft²

 Space Usage Defaults
 ASHRAE Standard 62.1-2010

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier		
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage) W/ft ²
Schedule)

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

(No Wall, Window, Door data).

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	105.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling	0.00	CFIM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	105.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value		(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	·

Sensible	0 BTU/hr
Schedule	None
Latent	□ DTII/br
Schedule	None

1. General Details:

1.1. OA Ventilation Requirements:

 Space Usage
 User-Defined

 OA Requirement 1
 5.0
 CFM/person

 OA Requirement 2
 0.06
 CFM/ft²

 Space Usage Defaults
 ASHRAE Standard 62.1-2010

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier		
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft²
Schedule	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

(No Wall, Window, Door data).

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	105.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling	U.UU	CFIM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	105.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value		(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
Activity Level	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	•

iio. Miloccharicous Ecaus.	
Sensible	0 BTU/hr
Schedule	
Latent	0 BTU/hr
Schedule	

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1.1. OA Ventilation Requirements:

 Space Usage
 User-Defined

 OA Requirement 1
 5.0
 CFM/person

 OA Requirement 2
 0.06
 CFM/ft²

 Space Usage Defaults
 ASHRAE Standard 62.1-2010

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage) W/ft ²
Schedule)

2.3. Electrical Equipment:

Wattage	0.15	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

(No Wall, Window, Door data).

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	105.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling	0.00	CFIVI
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	105.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value		(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
	Office Work	·
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	·

Sensible	0	BTU/hr
Schedule	None	
Latent	0	BTU/hr
Schedule	None	

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Floor Area	ft²
Avg. Ceiling Height	ft
	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/person
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults	ASHRAE Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft²
Schedule	

2.3. Electrical Equipment:

Wattage	0.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
9	180.0	1	1	0

3.1. Construction Types for Exposure S

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	
2nd Window Type	Store Front
2nd Window Shade Type	

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	275.0	0	0

4.1. Construction Types for Exposure H

Roof	Type	 Ro	ooi

5. Infiltration:

Design Cooling	0.00	CHM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM
Inditional and another colored the feet in off		

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	275.0	ft²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr.ft2.°F)/RTII

7. Partitions:

(No partition data).

2.4. People:

Occupancy	5.0	People
	Office Work	·
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	

J. Milocellalieous Loaus.	
Sensible	0 BTU/hr
Schedule	
Latent	0 BTU/hr
Schadula	None

14 Waiting

	_			_		
- 1	\mathbf{c}	nai	rol	п	etai	ıe.

Floor Area	ft²
Avg. Ceiling Height9.0	ft
	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	0.0	CFM
OA Requirement 2	0.06	CFM/ft ²
Snace Usage Defaults	ASHRAF Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage) W/ft ²
Schedule)

2.3. Electrical Equipment:

Wattage	0.00	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
9	320.0	3	1	0

3.1. Construction Types for Exposure S

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	
2nd Window Type	Store Front
2nd Window Shade Type	

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	700.0	0	0

4.1. Construction Types for Exposure H

Roof	Туре	 Roo

5. Infiltration:

Design Cooling	0.00	CFM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM
Inditional and a service and a value of the few in off		

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	700.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation P-Value		(hr.ft2.°F\/RTII

7. Partitions:

(No partition data).

2.4. People:

Occupancy	20.0	People
	Office Work	·
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	•

Sensible	0 BTU/hr
Schedule	
Latent	0 BTU/hr
Schedule	None

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1. General Details:

 Floor Area
 290.0 ft²

 Avg. Ceiling Height
 9.0 ft

 Building Weight
 70.0 lb/ft²

1.1. OA Ventilation Requirements:

 Space Usage
 User-Defined

 OA Requirement 1
 5.0
 CFM/person

 OA Requirement 2
 0.06
 CFM/ft²

 Space Usage Defaults
 ASHRAE Standard 62.1-2010

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier		
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage	0	W/ft ²
Schedule None	е	

2.3. Electrical Equipment:

Wattage	3.00	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

(No Wall, Window, Door data).

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	290.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

	IVI
Design Heating	Μ
Energy Analysis	Μ

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	290.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	3.0	People
	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	

Sensible	0	BTU/hr
Schedule	None	
Latent	0	BTU/hr
Schedule	None	

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1. General Details:

 Floor Area
 60.0 ft²

 Avg. Ceiling Height
 9.0 ft

 Building Weight
 70.0 lb/ft²

1.1. OA Ventilation Requirements:

Space Usage User-Defined
OA Requirement 1 0.0 CFM
OA Requirement 2 0.0 CFM
Space Usage Defaults ASHRAE Standard 62.1-2010

2. Internals:

2.1. Overhead Lighting:

Recessed (Unvented)	
0.65	W/ft ²
Office Schedule	
	0.65

2.2. Task Lighting:

Wattage 0.00	W/ft ²
Schedule None	

2.3. Electrical Equipment:

Wattage	0.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

(No Wall, Window, Door data).

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	60.0	0	0

4.1. Construction Types for Exposure H

5. Infiltration:

Design Cooling	U.UU	CFIM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	60.0	ft²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	0.0	Person
	Office Work	
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	•

J. Miscellarieous Loaus.	
Sensible	0 BTU/hr
Schedule	
Latent	0 BTU/hr
Schadula	None

17 Private RR

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Floor Area 60.0	ft²
Avg. Ceiling Height	ft
Building Weight	

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	0.0	CFM
OA Requirement 2	0.0	CFM
Space Lleage Defaulte	ASUBAE Standard 62 1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type Recessed (Unvented)	
Wattage	ft²
Ballast Multiplier1.00	
Schedule Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft ²
Schedule	

2.3. Electrical Equipment:

Wattage	0.50	W/ft
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp. Wall Gross Area (ft²)		Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
S	60.0	0	0	0

3.1. Construction Types for Exposure S

Wall Type Stucco + Sheathing + R-11 Batt

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	60.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoo

5. Infiltration:

Design Cooling	0.00	CFM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM
Infiltration occurs only when the fan is off.		

6. Floors:

Type	Slab Floor On Grade	
Floor Area	60.0	ft²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr.ft2.°F)/RTH

7. Partitions:

(No partition data).

2.4. People:

Occupancy	0.0	Person
	Office Work	
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	•

Sensible	0	BTU/hr
ScheduleNon	е	
Latent	0	BTU/hr
ScheduleNon	е	

18 Doctors Office

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Floor Area	ft²
Avg. Ceiling Height9.0	ft
	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/person
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults	ASHRAF Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier		
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.	.00	W/ft ²
Schedule	ne	

2.3. Electrical Equipment:

Wattage	0.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
9	135.0	1	0	0

3.1. Construction Types for Exposure S

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	225.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling	CFM
Design Heating	CFM
Energy Analysis	CFM
Infiltration occurs only when the fan is off.	

6. Floors:

Type	Slab Floor On Grade	
Floor Area	225.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.0	Person
Activity Level	Office Work	
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	

Sensible	0	BTU/hr
Schedule	None	
Latent		BTU/hr
Schedule	None	

19 RR

1. General Details:	1.	Ger	neral	Detai	ls:
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 Floor Area
 60.0 ft²

 Avg. Ceiling Height
 9.0 ft

 Building Weight
 70.0 lb/ft²

1.1. OA Ventilation Requirements:

Space Usage ______User-Defined
OA Requirement 1 ______0.0 CFM
OA Requirement 2 ______0.0 CFM
Space Usage Defaults _ ASHRAE Standard 62.1-2010

2. Internals:

2.1. Overhead Lighting:

Recessed (Unvented)	
0.65	W/ft ²
1.00	
Office Schedule	
	0.65 1.00

2.2. Task Lighting:

Wattage 0.	.00	W/ft ²
Schedule	ne	

2.3. Electrical Equipment:

Wattage	0.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

(No Wall, Window, Door data).

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	60.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling	0.00	CFIM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	60.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	0.0	Person
	Office Work	
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	•

Sensible	0	BTU/hr
Schedule	None	
Latent	0	BTU/hr
Schedule	None	

2 Exam Room Corner

1. General Details:

Floor Area 125.0	ft²
Avg. Ceiling Height	ft
Building Weight70.0	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/person
OA Requirement 2	0.06	CFM/ft ²
Snace Usage Defaults	ASHRAF Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier		
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft ²
Schedule	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
W	140.0	0	0	0
N	100.0	1	0	0

3.1. Construction Types for Exposure W

Wall Type Stucco + Sheathing + R-11 Batt

3.2. Construction Types for Exposure N

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Η	115.0	0	0

4.1. Construction Types for Exposure H

Roof Type	Roo	f
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5. Infiltration:

Design Cooling	0.00	CFM
	0.00	CFM
Energy Analysis	0.00	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	115.0	ft²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value		(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
Activity Level	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	,

Sensible	0	BTU/hr
Schedule	None	
Latent		BTU/hr
Schedule	None	

20 Nurse Station

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1.1. OA Ventilation Requirements:

 Space Usage
 User-Defined

 OA Requirement 1
 5.0
 CFM/person

 OA Requirement 2
 0.06
 CFM/ft²

 Space Usage Defaults
 ASHRAE Standard 62.1-2010

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage) W/ft ²
Schedule)

2.3. Electrical Equipment:

Wattage	0.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

(No Wall, Window, Door data).

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	115.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling	0.00	CFIVI
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	115.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	3.0	People
	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	•

J. Milocellalieous Loaus.	
Sensible	0 BTU/hr
Schedule	
Latent	0 BTU/hr
Schadula	None

21 Breakroom

1. General Details:

Floor Area 160.0	ft²
Avg. Ceiling Height	ft
	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/persor
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults ASHRAE St	andard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier		
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.	.00	W/ft ²
Schedule	ne	

2.3. Electrical Equipment:

Wattage	0.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
S	85.0	1	0	0

3.1. Construction Types for Exposure S

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	225.0	0	0

4.1. Construction Types for Exposure H

Roof Type	Roof
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5. Infiltration:

Design Cooling	0.00	
Energy Analysis	0.00	CFM
Infiltration occurs only when the fan is off.		

6. Floors:		
Type	Slab Floor On Grade	
Floor Area	160.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.0	Person
Activity Level	Office Work	
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	,

Sensible	0	BTU/hr
Schedule No	one	
Latent	0	BTU/hr
Schedule	one	

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1. General Details:

Floor Area	70.0	ft²
Avg. Ceiling Height	9.0	ft
Building Weight	70.0	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	0.0	CFM
OA Requirement 2	0.0	CFM
Space Usage Defaults	ASHRAF Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.65	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage	0	W/ft ²
Schedule None	е	

2.3. Electrical Equipment:

Wattage	0.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
S	120.0	0	0	0
W	60.0	0	0	0

3.1. Construction Types for Exposure S

Wall Type Stucco + Sheathing + R-11 Batt

3.2. Construction Types for Exposure W

Wall Type Stucco + Sheathing + R-11 Batt

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	70.0	0	0

4.1. Construction Types for Exposure H

Doof Type	Daaf
Roof Type	ROOI

5. Infiltration:

Design Cooling	0.00	CFM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM
Infiltration occurs only when the fan is off.		

6. Floors:

Type	Slab Floor On Grade	
Floor Area	70.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	0.0	Person
Activity Level	Office Work	
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	

Sensible	0	BTU/hr
ScheduleNon	е	
Latent	0	BTU/hr
ScheduleNon	е	

23 Procedure

1. General Details:

Floor Area 200.0	ft²
Avg. Ceiling Height	ft
	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/person
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults	ASHRAE Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft²
Schedule	

2.3. Electrical Equipment:

Wattage	0.15	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
W	150.0	0	0	0

3.1. Construction Types for Exposure W

Wall Type Stucco + Sheathing + R-11 Batt

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	200.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

· · · · · · · · · · · · · · · · · · ·		
Design Cooling	0.00	CFM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM
Infiltration occurs only when the fan is off.		

6. Floors:

Type	Slab Floor On Grade	
Floor Area	200.0	ft²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	6.0	People
	Office Work	·
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	·

Sensible0	BTU/hr
Schedule	
Latent0	BTU/hr
Schedule	

24 AHU Closet

1. Genera	I Detail	ls:
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Floor Area 40.	0	ft²
Avg. Ceiling Height9.	0	ft
		lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	0.0	CFM
OA Requirement 2	0.0	CFM
Share Lleane Defaulte	ASHRAF Standard 62 1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.65	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft²
Schedule None	

2.3. Electrical Equipment:

Wattage	0.00	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

(No Wall, Window, Door data).

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	40.0	0	0

4.1. Construction Types for Exposure H

Roof Type	Roo	f
rooi iype	 NUU	,

5. Infiltration:

Design Cooling	U.UU	CFIM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	40.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	0.0	Person
Activity Level	Office Work	
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	

Miscellancous Loads.		
Sensible	0	BTU/hr
Schedule	None	
Latent	0	BTU/hr
Schedule		

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25 Hallways

1	. G	er	ei	ral	D	et	ail	s.

Floor Area	790.0	ft²
Avg. Ceiling Height	9.0	ft
Building Weight	70.0	lb/ft²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	0.0	CFM
OA Requirement 2	0.0	CFM
Space Usage Defaults	ASHRAF Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.65	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.	.00	W/ft ²
Schedule	ne	

2.3. Electrical Equipment:

Wattage	0.00	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
Е	50.0	0	0	1
N	50.0	0	0	1

3.1. Construction Types for Exposure E

Wall Type	Stucco + Sheathing + R-11	Batt
Door Type	Metal D	Ooor

3.2. Construction Types for Exposure N

Wall Type	Stucco + Sheathing + R-11 Batt
Door Type	Metal Door

4. Roofs, Skylights:

Ехр.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Ι	790.0	0	0

4.1. Construction Types for Exposure H

Roof Type Ro	0	f
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5. Infiltration:

Design Cooling	 		 	 0.00	CFM
Design Heating	 		 	 0.00	CFM
Energy Analysis				0.00	CFM
1. 400	 	4.4			

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	790.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	2.0	People
Activity Level	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	.,

Sensible	0 BTU/hr	
Schedule		
Latent	0 BTU/hr	
Schedule	None	

1	. G	er	ei	ral	D	et	ail	s.

Floor Area 105.0	ft²
Avg. Ceiling Height	ft
Building Weight 70.0	

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/person
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults	ASHRAE Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule		

2.2. Task Lighting:

Wattage 0.00	W/ft ²
Schedule	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.	
N	90.0	1	0	0	

3.1. Construction Types for Exposure N

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

	Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
ĺ	Н	105.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling	O CFM
Design Heating	0 CFM
Energy Analysis	0 CFM
Infiltration occurs only when the fan is off.	

6. Floors:

Type	Slab Floor On Grade	
Floor Area	105.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr·ft²·°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
Activity Level	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	,

Sensible	0	BTU/hr
Schedule No	one	
Latent	0	BTU/hr
Schedule	one	

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Floor Area 120.0	ft²
Avg. Ceiling Height	ft
Building Weight 70.0	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/persor
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults ASHRAE St	andard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type Recessed (Unvented	,
Wattage 0.8	W/ft ²
Ballast Multiplier1.0)
Schedule Office Schedul	•

2.2. Task Lighting:

Wattage 0.00	W/ft²
Schedule	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
N	90.0	1	0	0

3.1. Construction Types for Exposure N

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	120.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling	CFM
	CFM
Energy Analysis	CFM
Infiltration occurs only when the fan is off	

6. Floors:

Type	Slab Floor On Grade	
Floor Area	120.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
Activity Level	Office Work	·
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	

Miscellancous Loads.		
Sensible	0	BTU/hr
Schedule	None	
Latent	0	BTU/hr
Schedule		

1. General Details:

Floor Area 120.0	ft²
Avg. Ceiling Height	ft
Building Weight70.0	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/person
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults	ASHRAE Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type Recessed (Unvented	,
Wattage 0.8	W/ft ²
Ballast Multiplier1.0)
Schedule Office Schedul	•

2.2. Task Lighting:

Wattage 0.00	W/ft ²
Schedule	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
N	90.0	1	0	0

3.1. Construction Types for Exposure N

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	120.0	0	0

4.1. Construction Types for Exposure H

Roof Type	Roof
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5. Infiltration:

Design Cooling	CFM
Design Heating	CFM
Energy Analysis	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	120.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
Activity Level	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	

.J. Miscenaneous Loaus.	
Sensible	0 BTU/hr
Schedule	
Latent	0 BTU/hr
Schadula	None

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Floor Area	ft²
Avg. Ceiling Height	ft
	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/persor
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults	ASHRAE Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Recessed (Unvented)	
0.80	W/ft ²
1.00	
Office Schedule	
	0.8Ó 1.00

2.2. Task Lighting:

Wattage	0.00	W/ft ²
Schedule	None	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Ехр.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.	
N	110.0	1	0	0	

3.1. Construction Types for Exposure N

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

Ехр.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	150.0	0	0

4.1. Construction Types for Exposure H

Roof Type	Roof
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5. Infiltration:

Design Cooling	0.00	CFM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM
Infiltration occurs only when the fan is off.		

6. Floors:

Type	Slab Floor On Grade	
Floor Area	150.0	ft²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft `
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
Activity Level	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	,

Sensible	0 BTU/hr
Schedule	None
Latent	0 BTU/hr
Schedule	None

1	. G	er	ei	ral	D	et	ail	s.

 Floor Area
 140.0 ft²

 Avg. Ceiling Height
 9.0 ft

 Building Weight
 70.0 lb/ft²

1.1. OA Ventilation Requirements:

 Space Usage
 User-Defined

 OA Requirement 1
 5.0
 CFM/person

 OA Requirement 2
 0.06
 CFM/ft²

 Space Usage Defaults
 ASHRAE Standard 62.1-2010

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft²
Schedule	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.	
N	120.0	1	0	0	

3.1. Construction Types for Exposure N

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	140.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoof

5. Infiltration:

Design Cooling	0.00	CFM
Design Heating	0.00	CFM
	0.00	CFM
Infiltration occurs only when the fan is off.		

6. Floors:

Type	Slab Floor On Grade	
Floor Area	140.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy		People
Activity Level	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	

J. Milocellalieous Loaus.	
Sensible	0 BTU/hr
Schedule	
Latent	0 BTU/hr
Schadula	None

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Floor Area 160.0	ft²
Avg. Ceiling Height	ft
	lb/ft ²

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/person
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults	ASHRAE Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft ²
Schedule	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Ехр.	Wall Gross Area (ft²)	Window 1 Qty.	Window 2 Qty.	Door 1 Qty.
N	120.0	1	0	0

3.1. Construction Types for Exposure N

Wall Type	Stucco + Sheathing + R-11 Batt
1st Window Type	3x5 Window
1st Window Shade Type	Reveal

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	160.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoo	of
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5. Infiltration:

Design Cooling	CFM
	CFM
	CFM

Infiltration occurs only when the fan is off.

6. Floors:

Type	Slab Floor On Grade	
Floor Area	160.0	ft²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft `
Edge Insulation R-Value	0.00	(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
Activity Level	Office Work	•
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	

Sensible	0	BTU/hr
Schedule		2 . 0,
Latent	0	BTU/hr
Schedule		

1. General Details:

Floor Area 105.0	ft²
Avg. Ceiling Height	ft
Building Weight 70.0	

1.1. OA Ventilation Requirements:

Space Usage	User-Defined	
OA Requirement 1	5.0	CFM/persor
OA Requirement 2	0.06	CFM/ft ²
Space Usage Defaults	ASHRAE Standard 62.1-2010	

2. Internals:

2.1. Overhead Lighting:

Fixture Type	Recessed (Unvented)	
Wattage	0.80	W/ft ²
Ballast Multiplier	1.00	
Schedule	Office Schedule	

2.2. Task Lighting:

Wattage 0.00	W/ft²
ScheduleNone	

2.3. Electrical Equipment:

Wattage	1.50	W/ft ²
Schedule	Office Schedule	

3. Walls, Windows, Doors:

Exp. Wall Gross Area (ft²) Window 1 Qty		Window 1 Qty.	Window 2 Qty. Door 1 Qty.			
N	120.0	0	0	0		

3.1. Construction Types for Exposure N

Wall Type Stucco + Sheathing + R-11 Batt

4. Roofs, Skylights:

Exp.	Roof Gross Area (ft²)	Roof Slope (deg.)	Skylight Qty.
Н	105.0	0	0

4.1. Construction Types for Exposure H

Roof TypeRoo

5. Infiltration:

Design Cooling	0.00	CFM
Design Heating	0.00	CFM
Energy Analysis	0.00	CFM
Infiltration occurs only when the fan is off.		

6. Floors:

Type	Slab Floor On Grade	
Floor Area	105.0	ft ²
Total Floor U-Value	0.100	BTU/(hr-ft2-°F)
Exposed Perimeter	0.0	ft
Edge Insulation R-Value		(hr-ft2-°F)/BTU

7. Partitions:

(No partition data).

2.4. People:

Occupancy	1.5	People
	Office Work	·
Sensible	245.0	BTU/hr/person
Latent	205.0	BTU/hr/person
Schedule	Office Schedule	·

.J. Miscenaneous Loaus.	
Sensible	0 BTU/hr
Schedule	
Latent	0 BTU/hr
Schadula	None

Wall Constructions

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Stucco + Sheathing + R-11 Batt

Wall Details

Absorptivity 0.900
Overall U-Value 0.070 BTU/(hr·ft²-°F)

Wall Layers Details (Inside to Outside)

	Thickness	Density	Specific Ht.	R-Value	Weight
Layers	in	lb/ft³	BTU / (lb⋅°F)	(hr∙ft²∙°F)/BTU	lb/ft²
Inside surface resistance	0.000	0.0	0.00	0.68500	0.0
1/2-in gypsum board	0.500	50.0	0.26	0.44803	2.1
R-11 batt insulation	3.500	0.5	0.20	11.21795	0.1
Sheathing	0.500	70.0	0.35	1.43678	2.9
1-in stucco	1.000	116.0	0.20	0.19984	9.7
Outside surface resistance	0.000	0.0	0.00	0.33300	0.0
Totals	5.500	-		14.32060	14.8

Window Constructions

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3x5 Window

Window Details:

 Detailed Input
 No

 Height
 5.00 ft

 Width
 3.00 ft

 Overall U-Value
 0.500 BTU/(hr·ft²-°F)

 Overall Shade Coefficient
 0.400

Store Front

Window Details:

Detailed InputYes	
Height	ft
Width4.00	ft
Frame Type Aluminum without thermal breaks	
Internal Shade TypeNone	
Overall U-Value1.228	BTU/(hr-ft2-°F)
Overall Shade Coefficient 0.916	

Glass Details:

Glazing	Glass Type	Transmissivity	Reflectivity	Absorptivity
Outer Glazing	1/8" clear	0.841	0.078	0.081
Glazing #2	not used	1.000	0.000	0.000
Glazing #3	not used	1.000	0.000	0.000

Roof Constructions

Dr Ukaegba Office FloridaEnergyCalcs.com

04/24/2022 06:54PM

Roof

Roof Details

Outside Surface Color Absorptivity 0.900
Overall U-Value 0.038 BTU/(hr·ft²-°F)

Roof Layers Details (Inside to Outside)

	Thickness	Density	Specific Ht.	R-Value	Weight
Layers	in	lb/ft³	BTU / (lb·°F)	(hr∙ft²∙°F)/BTU	lb/ft²
Inside surface resistance	0.000	0.0	0.00	0.68500	0.0
Steel deck	0.034	489.0	0.12	0.00011	1.4
R-25 batt insulation	7.800	0.5	0.20	25.00000	0.3
Built-up roofing	0.150	70.0	0.35	0.13298	0.9
Outside surface resistance	0.000	0.0	0.00	0.33300	0.0
Totals	7.984	•		26.15109	2.6

Design Parameters:

City Name	Lake City	
Location	Florida	
Latitude	30.5	Deg.
Longitude	81.7	Deg.
Elevation	30.0	ft
Summer Design Dry-Bulb	94.0	°F
Summer Coincident Wet-Bulb	77.0	°F
Summer Daily Range	17.8	°F
Winter Design Dry-Bulb	29.0	°F
Winter Design Wet-Bulb		°F
Atmospheric Clearness Number		
Average Ground Reflectance	0.20	
Soil Conductivity		BTU/(hr⋅ft⋅°F)
Local Time Zone (GMT +/- N hours)	5.0	hours
Consider Daylight Savings Time		
Simulation Weather Data	N/A	
Current Data is		
Design Cooling Months	January to December	

Design Day Maximum Solar Heat Gains

(The MSHG values are expressed in BTU/(hr·ft²))

Month	N	NNE	NE	ENE	Е	ESE	SE	SSE	S
January	21.8	21.8	29.5	95.1	162.7	208.0	225.4	223.2	219.1
February	25.1	25.1	63.9	135.4	185.2	220.3	221.2	205.4	194.0
March	28.8	34.0	101.2	166.9	205.2	213.7	202.3	171.2	152.0
April	32.2	73.6	134.5	180.9	204.2	196.4	165.2	121.2	96.4
May	35.4	101.3	154.9	186.4	197.0	178.3	134.7	83.3	60.5
June	43.9	110.9	159.4	187.9	192.5	168.6	121.5	69.1	49.8
July	36.3	100.6	150.2	185.7	193.8	173.1	132.1	81.1	59.0
August	33.7	72.8	129.6	176.6	197.2	188.1	159.7	116.9	93.2
September	29.7	32.5	95.0	156.4	195.9	205.6	194.5	166.2	148.2
October	25.8	25.8	58.8	130.0	183.5	208.3	216.2	200.6	188.2
November	22.0	22.0	24.9	99.3	157.1	203.2	223.0	221.9	215.5
December	20.3	20.3	20.3	82.8	148.5	199.7	221.8	226.7	224.8
Month	SSW	SW	WSW	W	WNW	NW	NNW	HOR	Mult
January	224.8	225.4	207.8	157.7	100.6	26.7	21.8	165.3	1.00
February	206.8	223.6	215.8	190.1	136.2	57.2	25.1	200.7	1.00
March	171.3	202.3	214.7	206.1	165.6	99.6	34.3	231.2	1.00
April	121.4	165.8	194.9	204.4	182.7	133.3	73.4	246.2	1.00
May	83.8	136.1	177.1	198.1	189.4	152.6	100.7	250.2	1.00
June	69.2	121.9	168.4	192.8	188.7	158.5	110.8	249.4	1.00
July	80.9	131.5	173.7	193.4	184.5	151.4	101.0	246.8	1.00
August	117.0	159.7	187.9	197.2	176.7	129.9	72.7	241.1	1.00
September	165.6	193.9	206.5	192.1	157.9	98.4	30.1	223.4	1.00
October	198.9	213.7	212.7	181.6	126.0	63.2	25.8	196.2	1.00
November	221.1	223.2	202.8	161.3	92.5	29.5	22.0	163.7	1.00
December	226.4	223.4	198.9	150.4	78.5	20.3	20.3	149.7	1.00

Mult. = User-defined solar multiplier factor.