

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
ASHRAE 90.1-2010 - Energy Cost Budget Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- An Input report generated from the software just after completing compliance calculations without any further changes
- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports
- Boxes appropriately checked in the Miscellaneous report generated by the software at the end of the compliance report

PROJECT SUMMARY

Short Desc: TAM A1

Description: TAM Prototype Building A1

Owner: Florida Solar Energy Center

Address1: Enter Address here

City: Cocoa

Address2: Enter Address here

State: FL

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: MIAMI, MIAMI-DADE COUNTY, FL (232400)

Conditioned Area: 22500 SF

Conditioned & UnConditioned Area: 22500 SF

No of Stories: 1

Area entered from Plans 22500 SF

Permit No: 0

Max Tonnage 77.5

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	29,207.0	20,279.0	FAILED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			FAILS
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	1,852.80	1,300.90
	\$29,207	\$20,279
ELECTRICITY(MBtu/kWh/\$)	1,852.80	1,300.90
	542878	381187
	\$29,207	\$20,279
AREA LIGHTS	176.40	211.60
	51679	62012
	\$2,780	\$3,299
MISC EQUIPMT	337.50	337.50
	98896	98896
	\$5,321	\$5,261
PUMPS & MISC	0.00	0.00
	10	6
	\$1	\$0
SPACE COOL	639.40	473.00
	187335	138582
	\$10,079	\$7,373
SPACE HEAT	1.20	0.00
	349	9
	\$19	\$0
VENT FANS	698.30	278.80
	204609	81682
	\$11,008	\$4,345

Credits Applied: None

Passing Criteria = 20279

Design (including any credits) = 29207

Passing requires Proposed Building cost to be at most 100% of Baseline cost. This Proposed Building is at 144%

FAILS

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 2	Walk way less than 10 feet wide	Yes	1.00	150.0	150	846

Tradable Surfaces: 846 (W) Allowance for Tradable: 157.5 (W)

FAILS

All External Lighting: 846 (W)

Compliance check includes a excess/Base allowance of 7.50(W)

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compli- ance
Pr0Zo2Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES

PASSES

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

System Report Compliance

Pr0Sy1 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled > 760000 Btu/h Cooling Capacity	930326	12.80	9.70	12.90	9.80	PASSES
Heating System	Electric Furnace	1712720	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	31717	0.80	0.82			PASSES

Pr0Sy3 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	144292	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	270450	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5008	0.80	0.82			PASSES

Pr0Sy4 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	146944	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	271640	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5030	0.80	0.82			PASSES

Pr0Sy5 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
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Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	142287	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	261750	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4847	0.80	0.82			PASSES
Pr0Sy2	System 1				Constant Volume Packaged System--902		No. of Units 1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	130748	12.80	11.20	12.90	11.40	PASSES
Heating System	Electric Furnace	241140	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4465	0.80	0.82			PASSES
							PASSES

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Comp liance
								None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	<= 12 [kW]	0.89	0.86	290.00		PASSES
							PASSES

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
							None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: TAM A1

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
IECC 2012 - Total Building Performance Compliance Option

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Conditioned Area: 22500 SF

Conditioned & UnConditioned Area: 22500 SF

No of Stories: 1

Area entered from Plans 22500 SF

Permit No: 0

Max Tonnage 77.5

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	27,021.0	17,035.0	FAILED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			FAILS
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

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CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

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Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

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Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	1,717.30	1,288.00
	\$27,021	\$20,041
ELECTRICITY(MBtu/kWh/\$)	1,717.30	1,288.00
	503192	377424
	\$27,021	\$20,041
AREA LIGHTS	176.40	211.60
	51679	62012
	\$2,775	\$3,293
MISC EQUIPMT	337.50	337.50
	98896	98896
	\$5,311	\$5,251
PUMPS & MISC	0.00	0.00
	10	3
	\$1	\$0
SPACE COOL	576.50	472.10
	168921	138329
	\$9,071	\$7,345
SPACE HEAT	1.70	0.00
	507	6
	\$27	\$0
VENT FANS	625.20	266.80
	183179	78178
	\$9,837	\$4,151

Credits Applied: None
 Passing Criteria = 17035
 Design (including any credits) = 27021
 Passing requires Proposed Building cost to be at most 85% of
 Baseline cost. This Proposed Building is at 134.8%

FAILS

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 2	Walk way less than 10 feet wide	Yes	1.00	150.0	150	846

Tradable Surfaces: 846 (W) Allowance for Tradable: 157.5 (W)

FAILS

All External Lighting: 846 (W)

Compliance check includes a excess/Base allowance of 7.50(W)

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compli- ance
Pr0Zo2Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES

PASSES

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

System Report Compliance

Pr0Sy1 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled > 760000 Btu/h Cooling Capacity	930326	12.80	9.70	12.90	9.80	PASSES
Heating System	Electric Furnace	1712720	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	31717	0.80	0.82			PASSES

Pr0Sy3 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	144292	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	270450	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5008	0.80	0.82			PASSES

Pr0Sy4 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	146944	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	271640	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5030	0.80	0.82			PASSES

Pr0Sy5 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
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Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	142287	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	261750	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4847	0.80	0.82			PASSES
Pr0Sy2	System 1	Constant Volume Packaged System--902				No. of Units 1	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	130748	12.80	11.20	12.90	11.40	PASSES
Heating System	Electric Furnace	241140	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4465	0.80	0.82			PASSES
PASSES							

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Comp liance
None								

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	<= 12 [kW]	0.89	0.86	290.00		PASSES

PASSES

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance

None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: TAM A1

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
ASHRAE 90.1-2010 - Prescriptive Compliance Option

Check List

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Description: TAM Prototype Building A1

Owner: Florida Solar Energy Center

Address1: Enter Address here

City: Cocoa

Address2: Enter Address here

State: FL

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: MIAMI, MIAMI-DADE COUNTY, FL (232400)

Conditioned Area: 22500 SF

Conditioned & UnConditioned Area: 22500 SF

No of Stories: 1

Area entered from Plans 22500 SF

Permit No: 0

Max Tonnage 77.5

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
ENVELOPE PRESCRIPTIVE			FAILS
LIGHTING POWER	16,875.0	20,250.0	PASSES
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			FAILS
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Prescriptive Envelope Compliance

Item	Zone	Description	Design	Criteria	Meet Req.
Glass	TAM A1	East glass area must be less than or equal to South glass area	550.000	550.000	Yes
Glass	TAM A1	West glass area must be less than or equal to South glass area	550.000	550.000	Yes
Glass	Interior	Percent glass Max allowed (%)	.000	40.000	Yes
Skylights	Interior	Percent Skylight Max allowed (%)	15.624	5.000	No
Pr0Zo2Rf1	Interior	Exterior Roof UValue Max allowed	.370	0.063	No
Pr0Zo2Rf1Sk2	Pr0Zo2Rf1	Skylight: SHGC Max allowed	.250	0.190	No
Pr0Zo2Rf1Sk2	Pr0Zo2Rf1Sk2	Skylight: UValue Max allowed	1.000	1.360	Yes
Glass	Perimeter A	Percent glass Max allowed (%)	30.556	40.000	Yes
Pr0Zo3Wa2	Perimeter A	Exterior Wall: UValue Max allowed	.460	0.089	No
Pr0Zo3Wa2Wi1	Pr0Zo3Wa2	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo3Wa2Wi1	Pr0Zo3Wa2	Exterior Window: UValue Max allowed	.900	1.200	Yes
Skylights	Perimeter A	Percent Skylight Max allowed (%)	.000	5.000	Yes
Pr0Zo3Rf1	Perimeter A	Exterior Roof UValue Max allowed	.370	0.063	No
Glass	Perimeter B	Percent glass Max allowed (%)	30.556	40.000	Yes
Pr0Zo5Wa2	Perimeter B	Exterior Wall: UValue Max allowed	.460	0.089	No
Pr0Zo5Wa2Wi1	Pr0Zo5Wa2	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo5Wa2Wi1	Pr0Zo5Wa2	Exterior Window: UValue Max allowed	.900	1.200	Yes
Skylights	Perimeter B	Percent Skylight Max allowed (%)	.000	5.000	Yes
Pr0Zo5Rf1	Perimeter B	Exterior Roof UValue Max allowed	.370	0.063	No
Glass	Perimeter C	Percent glass Max allowed (%)	26.772	40.000	Yes
Pr0Zo6Wa1	Perimeter C	Exterior Wall: UValue Max allowed	.460	0.089	No
Pr0Zo6Wa1Wi1	Pr0Zo6Wa1	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo6Wa1Wi1	Pr0Zo6Wa1	Exterior Window: UValue Max allowed	.900	1.200	Yes
Pr0Zo6Wa3	Perimeter C	Exterior Wall: UValue Max allowed	1.110	0.089	No
Skylights	Perimeter C	Percent Skylight Max allowed (%)	.000	5.000	Yes
Pr0Zo6Rf1	Perimeter C	Exterior Roof UValue Max allowed	.370	0.063	No
Glass	Perimeter D	Percent glass Max allowed (%)	30.556	40.000	Yes
Pr0Zo7Wa1	Perimeter D	Exterior Wall: UValue Max allowed	.460	0.089	No
Pr0Zo7Wa1Wi1	Pr0Zo7Wa1	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo7Wa1Wi1	Pr0Zo7Wa1	Exterior Window: UValue Max allowed	.900	1.200	Yes
Skylights	Perimeter D	Percent Skylight Max allowed (%)	.000	5.000	Yes
Pr0Zo7Rf1	Perimeter D	Exterior Roof UValue Max allowed	.370	0.063	No

DOES NOT meet Prescriptive Envelope Requirements -- FAILS

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External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 2	Walk way less than 10 feet wide	Yes	1.00	150.0	150	846

Tradable Surfaces: 846 (W) Allowance for Tradable: 157.5 (W)
 All External Lighting: 846 (W)
 Compliance check includes a excess/Base allowance of 7.50(W)

FAILS

Project: TAM A1
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 (WEA File: FL_MIAMI_INTL_AP.tm3)

Lighting Power Compliance

Space	Ashrae ID	Description	Area (sq.ft)	Height (ft)	No. of Spaces	Design (W)	Effective (W)	Allowance (W)
Pr0Zo2Sp1	16	Office - Open Plan	14,400	12.0	1	10800	10800	12,960
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,823
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,823
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,823
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,823

Design : 16875 (W)
 Effective: 16875 (W)
 Allowance: 20250 (W)

Passing requires Design to be at most 100% of Criteria

PASSES

Project: TAM A1
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Type: Office
(WEA File: FL_MIAMI_INTL_AP.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
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Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES

PASSES

Project: TAM A1
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System Report Compliance

Pr0Sy1 System 1 Constant Volume Packaged System--902 No. of Units 1

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Heating System	Electric Furnace	270450	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5008	0.80	0.82			PASSES

Pr0Sy4 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	146944	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	271640	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5030	0.80	0.82			PASSES

Pr0Sy5 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
-----------	----------	----------	------------	--------------	-------------	---------------	------------

Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	142287	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	261750	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4847	0.80	0.82			PASSES
Pr0Sy2	System 1				Constant Volume Packaged System--902		No. of Units 1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	130748	12.80	11.20	12.90	11.40	PASSES
Heating System	Electric Furnace	241140	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4465	0.80	0.82			PASSES
PASSES							

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Comp liance
None								

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	<= 12 [kW]	0.89	0.86	290.00		PASSES

PASSES

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance

None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: TAM A1

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
IECC 2012 - Prescriptive Compliance Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- An Input report generated from the software just after completing compliance calculations without any further changes
- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports
- Boxes appropriately checked in the Miscellaneous report generated by the software at the end of the compliance report

PROJECT SUMMARY

Short Desc: TAM A1

Description: TAM Prototype Building A1

Owner: Florida Solar Energy Center

Address1: Enter Address here

City: Cocoa

Address2: Enter Address here

State: FL

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: MIAMI, MIAMI-DADE COUNTY, FL (232400)

Conditioned Area: 22500 SF

Conditioned & UnConditioned Area: 22500 SF

No of Stories: 1

Area entered from Plans 22500 SF

Permit No: 0

Max Tonnage 77.5

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
ENVELOPE PRESCRIPTIVE			FAILS
Additional Efficiency Prescriptive Option			Failed
LIGHTING POWER	16,875.0	20,250.0	PASSES
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			FAILS
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA
IMPORTANT MESSAGE			
Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report			

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Prescriptive Envelope Compliance

Item	Zone	Description	Design	Criteria	Meet Req.
Glass	Interior	Percent glass Max allowed (%)	.000	30.000	Yes
Skylights	Interior	Percent Skylight Max allowed (%)	15.624	3.000	No
Pr0Zo2Rf1	Interior	Exterior Roof UValue Max allowed	.370	0.048	No
Pr0Zo2Rf1	Interior	Exterior Roof Absorptance (3-year aged) Max allowed	.400	0.450	Yes
Pr0Zo2Rf1	Interior	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
Pr0Zo2Rf1Sk2	Pr0Zo2Rf1	Skylight: SHGC Max allowed	.250	0.350	Yes
Pr0Zo2Rf1Sk2	Pr0Zo2Rf1Sk2	Skylight: UValue Max allowed	1.000	0.750	No
Glass	Perimeter A	Percent glass Max allowed (%)	30.556	30.000	No
Pr0Zo3Wa2	Perimeter A	Exterior Wall: UValue Max allowed	.460	0.064	No
Pr0Zo3Wa2Wi1	Pr0Zo3Wa2	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo3Wa2Wi1	Pr0Zo3Wa2	Exterior Window: UValue Max allowed	.900	0.500	No
Skylights	Perimeter A	Percent Skylight Max allowed (%)	.000	3.000	Yes
Pr0Zo3Rf1	Perimeter A	Exterior Roof UValue Max allowed	.370	0.048	No
Pr0Zo3Rf1	Perimeter A	Exterior Roof Absorptance (3-year aged) Max allowed	.400	0.450	Yes
Pr0Zo3Rf1	Perimeter A	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
Glass	Perimeter B	Percent glass Max allowed (%)	30.556	30.000	No
Pr0Zo5Wa2	Perimeter B	Exterior Wall: UValue Max allowed	.460	0.064	No
Pr0Zo5Wa2Wi1	Pr0Zo5Wa2	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo5Wa2Wi1	Pr0Zo5Wa2	Exterior Window: UValue Max allowed	.900	0.500	No
Skylights	Perimeter B	Percent Skylight Max allowed (%)	.000	3.000	Yes
Pr0Zo5Rf1	Perimeter B	Exterior Roof UValue Max allowed	.370	0.048	No
Pr0Zo5Rf1	Perimeter B	Exterior Roof Absorptance (3-year aged) Max allowed	.400	0.450	Yes
Pr0Zo5Rf1	Perimeter B	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
Glass	Perimeter C	Percent glass Max allowed (%)	26.772	30.000	Yes
Pr0Zo6Wa1	Perimeter C	Exterior Wall: UValue Max allowed	.460	0.064	No
Pr0Zo6Wa1Wi1	Pr0Zo6Wa1	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo6Wa1Wi1	Pr0Zo6Wa1	Exterior Window: UValue Max allowed	.900	0.500	No
Pr0Zo6Wa3	Perimeter C	Exterior Wall: UValue Max allowed	1.110	0.064	No
Skylights	Perimeter C	Percent Skylight Max allowed (%)	.000	3.000	Yes
Pr0Zo6Rf1	Perimeter C	Exterior Roof UValue Max allowed	.370	0.048	No
Pr0Zo6Rf1	Perimeter C	Exterior Roof Absorptance (3-year aged) Max allowed	.400	0.450	Yes
Pr0Zo6Rf1	Perimeter C	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
Glass	Perimeter D	Percent glass Max allowed (%)	30.556	30.000	No
Pr0Zo7Wa1	Perimeter D	Exterior Wall: UValue Max allowed	.460	0.064	No
Pr0Zo7Wa1Wi1	Pr0Zo7Wa1	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo7Wa1Wi1	Pr0Zo7Wa1	Exterior Window: UValue Max allowed	.900	0.500	No
Skylights	Perimeter D	Percent Skylight Max allowed (%)	.000	3.000	Yes
Pr0Zo7Rf1	Perimeter D	Exterior Roof UValue Max allowed	.370	0.048	No

Pr0Zo7Rf1	Perimeter D	Exterior Roof Absorptance (3-year aged) Max allowed	.400	0.450	Yes
Pr0Zo7Rf1	Perimeter D	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
DOES NOT meet Prescriptive Envelope Requirements -- FAILS					

Project: TAM A1						
Title: TAM Prototype Building A1						
Type: Office						
(WEA File: FL_MIAMI_INTL_AP.tm3)						
External Lighting Compliance						
Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 2	Walk way less than 10 feet wide	Yes	1.00	150.0	150	846
Tradable Surfaces: 846 (W) Allowance for Tradable: 157.5 (W)					FAILS	
All External Lighting: 846 (W)						
Compliance check includes a excess/Base allowance of 7.50(W)						

Project: TAM A1								
Title: TAM Prototype Building A1								
Type: Office								
(WEA File: FL_MIAMI_INTL_AP.tm3)								
Lighting Power Compliance								
Space	Ashrae ID	Description	Area (sq.ft)	Height (ft)	No. of Spaces	Design (W)	Effective (W)	Allowance (W)
Pr0Zo2Sp1	16	Office - Open Plan	14,400	12.0	1	10800	10800	12,960
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,823
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,823
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,823
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,823
Design : 16875 (W)						PASSES		
Effective: 16875 (W)								
Allowance: 20250 (W)								
Passing requires Design to be at most 100% of Criteria								

Project: TAM A1
Title: TAM Prototype Building A1
Type: Office
(WEA File: FL_MIAMI_INTL_AP.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo2Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES

PASSES

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

System Report Compliance

Pr0Sy1 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled > 760000 Btu/h Cooling Capacity	930326	12.80	9.70	12.90	9.80	PASSES
Heating System	Electric Furnace	1712720	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	31717	0.80	0.82			PASSES

Pr0Sy3 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	144292	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	270450	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5008	0.80	0.82			PASSES

Pr0Sy4 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	146944	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	271640	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5030	0.80	0.82			PASSES

Pr0Sy5 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
-----------	----------	----------	------------	--------------	-------------	---------------	------------

Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	142287	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	261750	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4847	0.80	0.82			PASSES
Pr0Sy2	System 1				Constant Volume Packaged System--902		No. of Units 1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	130748	12.80	11.20	12.90	11.40	PASSES
Heating System	Electric Furnace	241140	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4465	0.80	0.82			PASSES
PASSES							

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Comp liance
None								

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	<= 12 [kW]	0.89	0.86	290.00		PASSES

PASSES

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance

None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: TAM A1

DOE Based Sizing

PROJECT SUMMARY

Short Desc: TAM A1

Owner: Florida Solar Energy Center

Address1: Enter Address here

Address2: Enter Address here

Type: Office

Weather File: FL_MIAMI_INTL_AP.tm3

Conditioned Area: 22500 SF

No of Stories: 1

Permit No: 0

Description: TAM Prototype Building A1

City: Cocoa

State: FL

Zip: 0

Class: New Finished building

Conditioned & UnConditioned Area: 22500 SF

Area entered from Plans 22500 SF

Max Tonnage 89.7

If different, write in: _____

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance as required by the authority of jurisdiction

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance as required by the authority of jurisdiction

Owner Agent: _____

Date: _____

If required by law, I hereby certify (*) that the system design is in compliance as required by the authority of jurisdiction

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature may be required when law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

DOE 2.1 E Based Sized Parameters (Beta Feature)

<u>IdSystem</u>	<u>System Name</u>	<u>System Type</u>		
1	Pr0Sy1	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	930326	BTU/HR	
	Heating System	1712720	Btu/h	
	Air Handling System -Supply	31717	CFM	
2	Pr0Sy3	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	144292	BTU/HR	
	Heating System	270450	Btu/h	
	Air Handling System -Supply	5008	CFM	
3	Pr0Sy4	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	146944	BTU/HR	
	Heating System	271640	Btu/h	
	Air Handling System -Supply	5030	CFM	
4	Pr0Sy5	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	142287	BTU/HR	
	Heating System	261750	Btu/h	
	Air Handling System -Supply	4847	CFM	
5	Pr0Sy2	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	130748	BTU/HR	
	Heating System	241140	Btu/h	
	Air Handling System -Supply	4465	CFM	

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
ASHRAE 90.1-2010 - Energy Cost Budget Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- An Input report generated from the software just after completing compliance calculations without any further changes
- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports
- Boxes appropriately checked in the Miscellaneous report generated by the software at the end of the compliance report

PROJECT SUMMARY

Short Desc: TAM A1

Description: TAM Prototype Building A1

Owner: Florida Solar Energy Center

Address1: Enter Address here

City: Cocoa

Address2: Enter Address here

State: FL

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: ORLANDO, ORANGE COUNTY, FL (582100)

Conditioned Area: 22500 SF

Conditioned & UnConditioned Area: 22500 SF

No of Stories: 1

Area entered from Plans 22500 SF

Permit No: 0

Max Tonnage 82.6

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	28,054.0	18,308.0	FAILED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			FAILS
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	1,766.60	1,174.40
	\$28,054	\$18,308
ELECTRICITY(MBtu/kWh/\$)	1,766.60	1,174.40
	517603	344130
	\$28,054	\$18,308
AREA LIGHTS	176.40	211.60
	51679	62012
	\$2,801	\$3,299
MISC EQUIPMT	337.50	337.50
	98896	98896
	\$5,360	\$5,261
PUMPS & MISC	0.30	0.20
	84	72
	\$5	\$4
SPACE COOL	438.30	332.10
	128420	97293
	\$6,960	\$5,176
SPACE HEAT	67.40	7.60
	19737	2230
	\$1,070	\$119
VENT FANS	746.70	285.40
	218787	83627
	\$11,858	\$4,449

Credits Applied: None
 Passing Criteria = 18308
 Design (including any credits) = 28054
 Passing requires Proposed Building cost to be at most 100% of
 Baseline cost. This Proposed Building is at 153.2%

FAILS

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 2	Walk way less than 10 feet wide	Yes	1.00	150.0	150	846

Tradable Surfaces: 846 (W) Allowance for Tradable: 157.5 (W)

FAILS

All External Lighting: 846 (W)

Compliance check includes a excess/Base allowance of 7.50(W)

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compli- ance
Pr0Zo2Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES

PASSES

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

System Report Compliance

Pr0Sy1 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled > 760000 Btu/h Cooling Capacity	990759	12.80	9.70	12.90	9.80	PASSES
Heating System	Electric Furnace	1847200	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	34207	0.80	0.82			PASSES

Pr0Sy3 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	155641	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	291730	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5402	0.80	0.82			PASSES

Pr0Sy4 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	158878	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	300660	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5568	0.80	0.82			PASSES

Pr0Sy5 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
-----------	----------	----------	------------	--------------	-------------	---------------	------------

Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	148516	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	279160	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5170	0.80	0.82			PASSES
Pr0Sy2	System 1				Constant Volume Packaged System--902		No. of Units 1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	138439	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	257890	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4776	0.80	0.82			PASSES
							PASSES

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Comp liance
								None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	> 12 [kW]	0.89		290.00	293.40	PASSES

PASSES

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance

None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: TAM A1

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
IECC 2012 - Total Building Performance Compliance Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- An Input report generated from the software just after completing compliance calculations without any further changes
- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports
- Boxes appropriately checked in the Miscellaneous report generated by the software at the end of the compliance report

PROJECT SUMMARY

Short Desc: TAM A1

Description: TAM Prototype Building A1

Owner: Florida Solar Energy Center

Address1: Enter Address here

City: Cocoa

Address2: Enter Address here

State: FL

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: ORLANDO, ORANGE COUNTY, FL (582100)

Conditioned Area: 22500 SF

Conditioned & UnConditioned Area: 22500 SF

No of Stories: 1

Area entered from Plans 22500 SF

Permit No: 0

Max Tonnage 82.6

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	26,140.0	15,612.0	FAILED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			FAILS
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>1,649.10</i>	<i>1,178.20</i>
	<i>\$26,140</i>	<i>\$18,367</i>
ELECTRICITY(MBtu/kWh/\$)	1,649.10 483176 <i>\$26,140</i>	1,178.20 345238 <i>\$18,367</i>
AREA LIGHTS	176.40 51679 <i>\$2,796</i>	211.60 62012 <i>\$3,299</i>
MISC EQUIPMT	337.50 98896 <i>\$5,350</i>	337.50 98896 <i>\$5,261</i>
PUMPS & MISC	0.30 90 <i>\$5</i>	0.20 69 <i>\$4</i>
SPACE COOL	382.20 111979 <i>\$6,058</i>	340.10 99663 <i>\$5,302</i>
SPACE HEAT	82.80 24247 <i>\$1,312</i>	4.80 1398 <i>\$74</i>
VENT FANS	669.90 196285 <i>\$10,619</i>	284.00 83200 <i>\$4,426</i>

Credits Applied: None
 Passing Criteria = 15612
 Design (including any credits) = 26140
 Passing requires Proposed Building cost to be at most 85% of
 Baseline cost. This Proposed Building is at 142.3%

FAILS

Project: TAM A1
Title: TAM Prototype Building A1
Type: Office
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 2	Walk way less than 10 feet wide	Yes	1.00	150.0	150	846

Tradable Surfaces: 846 (W) Allowance for Tradable: 157.5 (W)

FAILS

All External Lighting: 846 (W)

Compliance check includes a excess/Base allowance of 7.50(W)

Project: TAM A1
Title: TAM Prototype Building A1
Type: Office
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compli- ance
Pr0Zo2Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES

PASSES

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

System Report Compliance

Pr0Sy1 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled > 760000 Btu/h Cooling Capacity	990759	12.80	9.70	12.90	9.80	PASSES
Heating System	Electric Furnace	1847200	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	34207	0.80	0.82			PASSES

Pr0Sy3 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	155641	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	291730	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5402	0.80	0.82			PASSES

Pr0Sy4 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	158878	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	300660	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5568	0.80	0.82			PASSES

Pr0Sy5 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
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Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	148516	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	279160	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5170	0.80	0.82			PASSES
Pr0Sy2	System 1				Constant Volume Packaged System--902		No. of Units 1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	138439	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	257890	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4776	0.80	0.82			PASSES
							PASSES

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Comp liance
								None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	> 12 [kW]	0.89		290.00	293.40	PASSES

PASSES

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance

None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: TAM A1

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
ASHRAE 90.1-2010 - Prescriptive Compliance Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- An Input report generated from the software just after completing compliance calculations without any further changes
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- Boxes appropriately checked in the Miscellaneous report generated by the software at the end of the compliance report

PROJECT SUMMARY

Short Desc: TAM A1

Description: TAM Prototype Building A1

Owner: Florida Solar Energy Center

Address1: Enter Address here

City: Cocoa

Address2: Enter Address here

State: FL

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: ORLANDO, ORANGE COUNTY, FL (582100)

Conditioned Area: 22500 SF

Conditioned & UnConditioned Area: 22500 SF

No of Stories: 1

Area entered from Plans 22500 SF

Permit No: 0

Max Tonnage 82.6

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
ENVELOPE PRESCRIPTIVE			FAILS
LIGHTING POWER	16,875.0	22,050.0	PASSES
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			FAILS
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA

IMPORTANT MESSAGE

Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Prescriptive Envelope Compliance

Item	Zone	Description	Design	Criteria	Meet Req.
Glass	TAM A1	East glass area must be less than or equal to South glass area	550.000	550.000	Yes
Glass	TAM A1	West glass area must be less than or equal to South glass area	550.000	550.000	Yes
Glass	Interior	Percent glass Max allowed (%)	.000	40.000	Yes
Skylights	Interior	Percent Skylight Max allowed (%)	15.624	5.000	No
Pr0Zo2Rf1	Interior	Exterior Roof UValue Max allowed	.370	0.048	No
Pr0Zo2Rf1Sk2	Pr0Zo2Rf1	Skylight: SHGC Max allowed	.250	0.190	No
Pr0Zo2Rf1Sk2	Pr0Zo2Rf1Sk2	Skylight: UValue Max allowed	1.000	1.360	Yes
Glass	Perimeter A	Percent glass Max allowed (%)	30.556	40.000	Yes
Pr0Zo3Wa2	Perimeter A	Exterior Wall: UValue Max allowed	.460	0.089	No
Pr0Zo3Wa2Wi1	Pr0Zo3Wa2	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo3Wa2Wi1	Pr0Zo3Wa2	Exterior Window: UValue Max allowed	.600	0.750	Yes
Skylights	Perimeter A	Percent Skylight Max allowed (%)	.000	5.000	Yes
Pr0Zo3Rf1	Perimeter A	Exterior Roof UValue Max allowed	.370	0.048	No
Glass	Perimeter B	Percent glass Max allowed (%)	30.556	40.000	Yes
Pr0Zo5Wa2	Perimeter B	Exterior Wall: UValue Max allowed	.460	0.089	No
Pr0Zo5Wa2Wi1	Pr0Zo5Wa2	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo5Wa2Wi1	Pr0Zo5Wa2	Exterior Window: UValue Max allowed	.600	0.750	Yes
Skylights	Perimeter B	Percent Skylight Max allowed (%)	.000	5.000	Yes
Pr0Zo5Rf1	Perimeter B	Exterior Roof UValue Max allowed	.370	0.048	No
Glass	Perimeter C	Percent glass Max allowed (%)	26.772	40.000	Yes
Pr0Zo6Wa1	Perimeter C	Exterior Wall: UValue Max allowed	.460	0.089	No
Pr0Zo6Wa1Wi1	Pr0Zo6Wa1	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo6Wa1Wi1	Pr0Zo6Wa1	Exterior Window: UValue Max allowed	.600	0.750	Yes
Pr0Zo6Wa3	Perimeter C	Exterior Wall: UValue Max allowed	1.110	0.089	No
Skylights	Perimeter C	Percent Skylight Max allowed (%)	.000	5.000	Yes
Pr0Zo6Rf1	Perimeter C	Exterior Roof UValue Max allowed	.370	0.048	No
Glass	Perimeter D	Percent glass Max allowed (%)	30.556	40.000	Yes
Pr0Zo7Wa1	Perimeter D	Exterior Wall: UValue Max allowed	.460	0.089	No
Pr0Zo7Wa1Wi1	Pr0Zo7Wa1	Exterior Window: SHGC Max allowed	.190	0.250	Yes
Pr0Zo7Wa1Wi1	Pr0Zo7Wa1	Exterior Window: UValue Max allowed	.600	0.750	Yes
Skylights	Perimeter D	Percent Skylight Max allowed (%)	.000	5.000	Yes
Pr0Zo7Rf1	Perimeter D	Exterior Roof UValue Max allowed	.370	0.048	No

DOES NOT meet Prescriptive Envelope Requirements -- FAILS

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

External Lighting Compliance

Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 2	Walk way less than 10 feet wide	Yes	1.00	150.0	150	846

Tradable Surfaces: 846 (W) Allowance for Tradable: 157.5 (W)
All External Lighting: 846 (W)
Compliance check includes a excess/Base allowance of 7.50(W)

FAILS

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Lighting Power Compliance

Space	Ashrae ID	Description	Area (sq.ft)	Height (ft)	No. of Spaces	Design (W)	Effective (W)	Allowance (W)
Pr0Zo2Sp1	16	Office - Open Plan	14,400	12.0	1	10800	10800	14,112
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,985
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,985
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,985
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1519	1519	1,985

Design : 16875 (W)
Effective: 16875 (W)
Allowance: 22050 (W)
Passing requires Design to be at most 100% of Criteria

PASSES

Project: TAM A1
Title: TAM Prototype Building A1
Type: Office
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo2Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES

PASSES

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

System Report Compliance

Pr0Sy1 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled > 760000 Btu/h Cooling Capacity	990759	12.80	9.70	12.90	9.80	PASSES
Heating System	Electric Furnace	1847200	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	34207	0.80	0.82			PASSES

Pr0Sy3 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	155641	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	291730	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5402	0.80	0.82			PASSES

Pr0Sy4 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	158878	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	300660	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5568	0.80	0.82			PASSES

Pr0Sy5 System 1 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
-----------	----------	----------	------------	--------------	-------------	---------------	------------

Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	148516	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	279160	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	5170	0.80	0.82			PASSES
Pr0Sy2	System 1				Constant Volume Packaged System--902		No. of Units 1
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled 135000 to 240000 Btu/h Clg Capacity	138439	12.80	11.00	12.90	11.20	PASSES
Heating System	Electric Furnace	257890	1.00	1.00			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	4776	0.80	0.82			PASSES
							PASSES

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Comp liance
								None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	> 12 [kW]	0.89		290.00	293.40	PASSES

PASSES

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance

None

Project: TAM A1
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: TAM A1

Florida Building Code, Fifth Edition (2014) - Energy Conservation

EnergyGauge Summit® Fla/Com-2015, Effective Date: June 30, 2015 -- Form 506-2014
IECC 2012 - Prescriptive Compliance Option

Check List

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- An Input report generated from the software just after completing compliance calculations without any further changes
- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports
- Boxes appropriately checked in the Miscellaneous report generated by the software at the end of the compliance report

PROJECT SUMMARY

Short Desc: DesProjSizing

Description: TAM Prototype Building A1

Owner: Florida Solar Energy Center

Address1: Enter Address here

City: Cocoa

Address2: Enter Address here

State: FL

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: ORLANDO, ORANGE COUNTY, FL (582100)

Conditioned Area: 22500 SF

Conditioned & UnConditioned Area: 22500 SF

No of Stories: 1

Area entered from Plans 22500 SF

Permit No: 0

Max Tonnage 40.2

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
ENVELOPE PRESCRIPTIVE			FAILS
Additional Efficiency Prescriptive Option			Failed
LIGHTING POWER	20,250.0	20,250.0	PASSES
LIGHTING CONTROLS			FAILS
EXTERNAL LIGHTING			FAILS
HVAC SYSTEM			PASSES
PLANT			No Entry
WATER HEATING SYSTEMS			PASSES
PIPING SYSTEMS			No Entry
Met all required compliance from Check List?			Yes/No/NA
IMPORTANT MESSAGE			
Info 5009 -- -- -- An input report of this design building must be submitted along with this Compliance Report			

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance with the Florida Energy Code

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance with the FLorida Energy Efficiency Code

Owner Agent: _____

Date: _____

If Required by Florida law, I hereby certify (*) that the system design is in compliance with the Florida Energy Efficiency Code

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature is required where Florida Law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

Project: DesProjSizing
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Prescriptive Envelope Compliance

Item	Zone	Description	Design	Criteria	Meet Req.
Glass	Interior	Percent glass Max allowed (%)	.000	30.000	Yes
Skylights	Interior	Percent Skylight Max allowed (%)	.576	3.000	Yes
Pr0Zo2Rf1	Interior	Exterior Roof UValue Max allowed	.048	0.048	Yes
Pr0Zo2Rf1	Interior	Exterior Roof Absorptance (3-year aged) Max allowed	.750	0.450	No
Pr0Zo2Rf1	Interior	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
Pr0Zo2Rf1Sk2	Pr0Zo2Rf1	Skylight: SHGC Max allowed	.350	0.350	Yes
Pr0Zo2Rf1Sk2	Pr0Zo2Rf1Sk2	Skylight: UValue Max allowed	.650	0.650	Yes
Glass	Perimeter A	Percent glass Max allowed (%)	30.556	30.000	No
Pr0Zo3Wa2	Perimeter A	Exterior Wall: UValue Max allowed	.064	0.064	Yes
Pr0Zo3Wa2Wi1	Pr0Zo3Wa2	Exterior Window: SHGC Max allowed	.250	0.250	Yes
Pr0Zo3Wa2Wi1	Pr0Zo3Wa2	Exterior Window: UValue Max allowed	.500	0.500	Yes
Skylights	Perimeter A	Percent Skylight Max allowed (%)	.000	3.000	Yes
Pr0Zo3Rf1	Perimeter A	Exterior Roof UValue Max allowed	.048	0.048	Yes
Pr0Zo3Rf1	Perimeter A	Exterior Roof Absorptance (3-year aged) Max allowed	.750	0.450	No
Pr0Zo3Rf1	Perimeter A	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
Glass	Perimeter B	Percent glass Max allowed (%)	30.556	30.000	No
Pr0Zo5Wa2	Perimeter B	Exterior Wall: UValue Max allowed	.064	0.064	Yes
Pr0Zo5Wa2Wi1	Pr0Zo5Wa2	Exterior Window: SHGC Max allowed	.250	0.250	Yes
Pr0Zo5Wa2Wi1	Pr0Zo5Wa2	Exterior Window: UValue Max allowed	.500	0.500	Yes
Skylights	Perimeter B	Percent Skylight Max allowed (%)	.000	3.000	Yes
Pr0Zo5Rf1	Perimeter B	Exterior Roof UValue Max allowed	.048	0.048	Yes
Pr0Zo5Rf1	Perimeter B	Exterior Roof Absorptance (3-year aged) Max allowed	.750	0.450	No
Pr0Zo5Rf1	Perimeter B	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
Glass	Perimeter C	Percent glass Max allowed (%)	26.772	30.000	Yes
Pr0Zo6Wa1	Perimeter C	Exterior Wall: UValue Max allowed	.064	0.064	Yes
Pr0Zo6Wa1Wi1	Pr0Zo6Wa1	Exterior Window: SHGC Max allowed	.250	0.250	Yes
Pr0Zo6Wa1Wi1	Pr0Zo6Wa1	Exterior Window: UValue Max allowed	.500	0.500	Yes
Pr0Zo6Wa3	Perimeter C	Exterior Wall: UValue Max allowed	.064	0.064	Yes
Skylights	Perimeter C	Percent Skylight Max allowed (%)	.000	3.000	Yes
Pr0Zo6Rf1	Perimeter C	Exterior Roof UValue Max allowed	.048	0.048	Yes
Pr0Zo6Rf1	Perimeter C	Exterior Roof Absorptance (3-year aged) Max allowed	.750	0.450	No
Pr0Zo6Rf1	Perimeter C	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
Glass	Perimeter D	Percent glass Max allowed (%)	30.556	30.000	No
Pr0Zo7Wa1	Perimeter D	Exterior Wall: UValue Max allowed	.064	0.064	Yes
Pr0Zo7Wa1Wi1	Pr0Zo7Wa1	Exterior Window: SHGC Max allowed	.250	0.250	Yes
Pr0Zo7Wa1Wi1	Pr0Zo7Wa1	Exterior Window: UValue Max allowed	.500	0.500	Yes
Skylights	Perimeter D	Percent Skylight Max allowed (%)	.000	3.000	Yes
Pr0Zo7Rf1	Perimeter D	Exterior Roof UValue Max allowed	.048	0.048	Yes

Pr0Zo7Rf1	Perimeter D	Exterior Roof Absorptance (3-year aged) Max allowed	.750	0.450	No
Pr0Zo7Rf1	Perimeter D	Exterior Roof Emissivity (3-year aged) Min Required	.900	0.750	Yes
DOES NOT meet Prescriptive Envelope Requirements -- FAILS					

Project: DesProjSizing						
Title: TAM Prototype Building A1						
Type: Office						
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)						
External Lighting Compliance						
Description	Category	Tradable?	Allowance (W/Unit)	Area or Length or No. of Units (Sqft or ft)	ELPA (W)	CLP (W)
Ext Light 2	Walk way less than 10 feet wide	Yes	1.00	150.0	150	846
Tradable Surfaces: 846 (W) Allowance for Tradable: 157.5 (W)					FAILS	
All External Lighting: 846 (W)						
Compliance check includes a excess/Base allowance of 7.50(W)						

Project: DesProjSizing								
Title: TAM Prototype Building A1								
Type: Office								
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)								
Lighting Power Compliance								
Space	Ashrae ID	Description	Area (sq.ft)	Height (ft)	No. of Spaces	Design (W)	Effective (W)	Allowance (W)
Pr0Zo2Sp1	16	Office - Open Plan	14,400	12.0	1	12960	12960	12,960
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1823	1823	1,823
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1823	1823	1,823
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1823	1823	1,823
Pr0Zo3Sp1	16	Office - Open Plan	2,025	12.0	1	1823	1823	1,823
Design : 20250 (W)							PASSES	
Effective: 20250 (W)								
Allowance: 20250 (W)								
Passing requires Design to be at most 100% of Criteria								

Project: DesProjSizing
Title: TAM Prototype Building A1
Type: Office
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo2Sp1	16	Office - Open Plan	14,400	1	2	FAILS
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES

FAILS

Project: DesProjSizing
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

System Report Compliance

Pr0Sy7 System 7 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 240000 to 760000 Btu/h Cooling Capacity	482649	9.50	9.50	9.60	9.60	PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) > 135000 Btu/h Cooling Capacity	722230	3.20	3.20			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	13375	0.82	0.82			PASSES

Pr0Sy8 System 8 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	93986	11.00	11.00	11.20	11.20	PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) 65000 to 135000 Btu/h Clg Cap	152910	3.30	3.30			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	2832	0.82	0.82			PASSES

Pr0Sy9 System 9 Constant Volume Packaged System--902 No. of Units 1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	85856	11.00	11.00	11.20	11.20	PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) 65000 to 135000 Btu/h Clg Cap	137540	3.30	3.30			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	2547	0.82	0.82			PASSES

Pr0Sy10		System 10		Constant Volume Packaged System--902			No. of Units 1	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance	
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	89128	11.00	11.00	11.20	11.20	PASSES	
Heating System	Heat Pumps Air Cooled (Heating Mode) 65000 to 135000 Btu/h Clg Cap	144600	3.30	3.30			PASSES	
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	2678	0.82	0.82			PASSES	
Pr0Sy11		System 11		Constant Volume Packaged System--902			No. of Units 1	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance	
Cooling System	Air Conditioners Air Cooled 65000 to 135000 Btu/h Cooling Capacity	77715	11.00	11.00	11.20	11.20	PASSES	
Heating System	Heat Pumps Air Cooled (Heating Mode) 65000 to 135000 Btu/h Clg Cap	121350	3.30	3.30			PASSES	
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	2247	0.82	0.82			PASSES	
PASSES								

Plant Compliance								
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
None								

Project: DesProjSizing
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance
Water Heater 1	Electric water heater	> 12 [kW]	0.89		290.00	293.40	PASSES
PASSES							

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?	Operating Temp [F]	Ins Cond [Btu-in/hr .SF.F]	Ins Thick [in]	Req Ins Thick [in]	Compliance
None							

Project: DesProjSizing
 Title: TAM Prototype Building A1
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
			<input type="checkbox"/>

Project: DesProjSizing

DOE Based Sizing

PROJECT SUMMARY

Short Desc: TAM A1

Owner: Florida Solar Energy Center

Address1: Enter Address here

Address2: Enter Address here

Type: Office

Weather File: FL_ORLANDO_INTL_ARPT.tm3

Conditioned Area: 22500 SF

No of Stories: 1

Permit No: 0

Description: TAM Prototype Building A1

City: Cocoa

State: FL

Zip: 0

Class: New Finished building

Conditioned & UnConditioned Area: 22500 SF

Area entered from Plans 22500 SF

Max Tonnage 89.7

If different, write in: _____

CERTIFICATIONS

I hereby certify that the plans and specifications covered by this calculation are in compliance as required by the authority of jurisdiction

Prepared By: _____

Building Official: _____

Date: _____

Date: _____

I certify that this building is in compliance as required by the authority of jurisdiction

Owner Agent: _____

Date: _____

If required by law, I hereby certify (*) that the system design is in compliance as required by the authority of jurisdiction

Architect: _____

Reg No: _____

Electrical Designer: _____

Reg No: _____

Lighting Designer: _____

Reg No: _____

Mechanical Designer: _____

Reg No: _____

Plumbing Designer: _____

Reg No: _____

(*) Signature may be required when law requires design to be performed by registered design professionals. Typed names and registration numbers may be used where all relevant information is contained on signed/sealed plans.

DOE 2.1 E Based Sized Parameters (Beta Feature)

<u>IdSystem</u>	<u>System Name</u>	<u>System Type</u>		
1	Pr0Sy1	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	990759	BTU/HR	
	Heating System	1847200	Btu/h	
	Air Handling System -Supply	34207	CFM	
2	Pr0Sy3	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	155641	BTU/HR	
	Heating System	291730	Btu/h	
	Air Handling System -Supply	5402	CFM	
3	Pr0Sy4	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	158878	BTU/HR	
	Heating System	300660	Btu/h	
	Air Handling System -Supply	5568	CFM	
4	Pr0Sy5	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	148516	BTU/HR	
	Heating System	279160	Btu/h	
	Air Handling System -Supply	5170	CFM	
5	Pr0Sy2	System 1		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	138439	BTU/HR	
	Heating System	257890	Btu/h	
	Air Handling System -Supply	4776	CFM	