

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 A20

Description: TAM Building A20

Owner: Enter Owner's name here

Address1: Enter Address here

City: Enter city here

Address2: Enter Address here

State: Enter state here

Zip: 0

Type: Office

Class: New Finished building

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

Conditioned Area: 312300 SF

Conditioned & UnConditioned Area: 379800 SF

No of Stories: 20

Area entered from Plans 67500 SF

Permit No: 0

Max Tonnage 566.5

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	264,326.0	372,490.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			FAILS
PLANT			FAILS
WATER HEATING SYSTEMS			No Entry
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 A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>17,053.60</i>	<i>23,762.50</i>
	\$264,326	\$372,490
ELECTRICITY(MBtu/kWh/\$)	17,053.60	23,762.50
	4996716	6962426
	\$264,326	\$372,490
AREA LIGHTS	2,977.40	3,572.70
	872380	1046803
	\$46,149	\$56,004
HEAT REJECT	894.80	1,155.50
	262185	338572
	\$13,870	\$18,114
MISC EQUIPMT	5,697.70	5,697.70
	1669423	1669423
	\$88,312	\$89,314
PUMPS & MISC	328.80	538.90
	96353	157907
	\$5,097	\$8,448
SPACE COOL	4,474.60	10,536.20
	1311051	3087092
	\$69,355	\$165,159
VENT FANS	2,680.30	2,261.50
	785324	662629
	\$41,544	\$35,451

Credits Applied: None

Passing Criteria = 372490

Design (including any credits) = 264326

Passing requires Proposed Building cost to be at most 100% of Baseline cost. This Proposed Building is at 71%

PASSES

Project: TAM A20
 Title: TAM Building A20
 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 1	Walk way less than 10 feet wide	Yes	1.00	150.0	150	

Tradable Surfaces: 0 (W) Allowance for Tradable: 157.5 (W)

PASSES

All External Lighting: 0 (W)

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

Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo2Sp1	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
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES
Pr0Zo7Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES
Pr0Zo13Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES

PASSES

Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

System Report Compliance

Pr0Sy2	System 2	Variable Air Volume Built-up System--904	No. of Units
			1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	1690448					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	40955	1.25	1.12			FAILS

Pr0Sy3	System 3	Variable Air Volume Built-up System--904	No. of Units
			18

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	211431					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	4247	1.25	1.12			FAILS

Pr0Sy4	System 4	Variable Air Volume Built-up System--904	No. of Units
			1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	548992					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	11760	1.25	1.12			FAILS

FAILS

Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
Open centrifugal, chiller	1	567	5.860	6.104	5.900	6.404	Water Chilling Pkg (Centrifugal) Elec. Operated Water Cooled 300-600 Tons	FAILS
Cooling Tower	1	0	14.000	7.000			Closed Cooling Tower - Centrifugal Fan	PASSES
Hot Water Boiler (Fuel)	1	2	90.000	82.000			Oil Fired >=300,000 and < 2,500,000 Btu/h	PASSES

FAILS

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance

None

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 A20
Title: TAM Building A20
Type: Office
(WEA File: FL_MIAMI_INTL_AP.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
Project: TAM A20			<input type="checkbox"/>

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

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Zip: 0

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Conditioned Area: 312300 SF

Conditioned & UnConditioned Area: 379800 SF

No of Stories: 20

Area entered from Plans 67500 SF

Permit No: 0

Max Tonnage 566.5

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	266,023.0	314,686.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			FAILS
PLANT			FAILS
WATER HEATING SYSTEMS			No Entry
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

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: _____

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Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>17,130.80</i>	<i>23,661.90</i>
	<i>\$266,023</i>	<i>\$370,219</i>
ELECTRICITY(MBtu/kWh/\$)	17,130.80	23,661.90
	5019301	6932935
	<i>\$266,023</i>	<i>\$370,219</i>
AREA LIGHTS	2,977.40	3,572.70
	872380	1046803
	<i>\$46,236</i>	<i>\$55,899</i>
HEAT REJECT	900.00	1,168.30
	263706	342317
	<i>\$13,976</i>	<i>\$18,280</i>
MISC EQUIPMT	5,697.70	5,697.70
	1669423	1669423
	<i>\$88,479</i>	<i>\$89,147</i>
PUMPS & MISC	333.60	529.60
	97731	155176
	<i>\$5,180</i>	<i>\$8,286</i>
SPACE COOL	4,544.00	10,458.40
	1331381	3064306
	<i>\$70,563</i>	<i>\$163,634</i>
VENT FANS	2,678.10	2,235.20
	784680	654910
	<i>\$41,588</i>	<i>\$34,972</i>

Credits Applied: None
 Passing Criteria = 314686

PASSES

Design (including any credits) = 266023
 Passing requires Proposed Building cost to be at most 85% of
 Baseline cost. This Proposed Building is at 71.9%

Project: TAM A20
 Title: TAM Building A20
 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 1	Walk way less than 10 feet wide	Yes	1.00	150.0	150	

Tradable Surfaces: 0 (W) Allowance for Tradable: 157.5 (W)

PASSES

All External Lighting: 0 (W)

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

Project: TAM A20
 Title: TAM Building A20
 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
Pr0Zo1Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo2Sp1	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
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES
Pr0Zo7Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
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Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
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Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES

PASSES

Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

System Report Compliance

Pr0Sy2	System 2	Variable Air Volume Built-up System--904	No. of Units
			1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	1690448					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	40955	1.25	1.12			FAILS

Pr0Sy3	System 3	Variable Air Volume Built-up System--904	No. of Units
			18

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	211431					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	4247	1.25	1.12			FAILS

Pr0Sy4	System 4	Variable Air Volume Built-up System--904	No. of Units
			1

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	548992					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	11760	1.25	1.12			FAILS

FAILS

Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_MIAMI_INTL_AP.tm3)

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
Open centrifugal, chiller	1	567	5.860	6.104	5.900	6.404	Water Chilling Pkg (Centrifugal) Elec. Operated Water Cooled 300-600 Tons	FAILS
Cooling Tower	1	0	14.000	7.000			Closed Cooling Tower - Centrifugal Fan	PASSES
Hot Water Boiler (Fuel)	1	2	90.000	82.000			Oil Fired >=300,000 and < 2,500,000 Btu/h	PASSES

FAILS

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance

None

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 A20
Title: TAM Building A20
Type: Office
(WEA File: FL_MIAMI_INTL_AP.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
Project: TAM A20			<input type="checkbox"/>

DOE Based Sizing

PROJECT SUMMARY

Short Desc: TAM A20

Owner: Enter Owner's name here

Address1: Enter Address here

Address2: Enter Address here

Type: Office

Weather File: FL_MIAMI_INTL_AP.tm3

Conditioned Area: 312300 SF

No of Stories: 20

Permit No: 0

Description: TAM Building A20

City: Enter city here

State: Enter state here

Zip: 0

Class: New Finished building

Conditioned & UnConditioned Area: 379800 SF

Area entered from Plans 67500 SF

Max Tonnage 10

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: _____

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DOE 2.1 E Based Sized Parameters (Beta Feature)

<u>IdSystem</u>	<u>System Name</u>	<u>System Type</u>		
1	Pr0Sy2	System 2		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	1690448	BTU/HR	
	Air Handling System -Supply	40955	CFM	
2	Pr0Sy3	System 3		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	211431	BTU/HR	
	Air Handling System -Supply	4247	CFM	
3	Pr0Sy4	System 4		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	548992	BTU/HR	
	Air Handling System -Supply	11760	CFM	
7	Open centrifugal, chiller	Open centrifugal, chiller		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Open centrifugal, chiller	566.5	[Tons]	
8	Cooling Tower	Cooling Tower		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling Tower	8.045		
9	Hot Water Boiler (Fuel)	Hot Water Boiler (Fuel)		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Hot Water Boiler (Fuel)	0	[Million Btu/t]	

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ASHRAE 90.1-2010 - Energy Cost Budget Option

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PROJECT SUMMARY

Short Desc: TAM A20

Description: TAM Building A20

Owner: Enter Owner's name here

Address1: Enter Address here

City: Enter city here

Address2: Enter Address here

State: Enter state here

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: ORLANDO, ORANGE COUNTY, FL (582100)

Conditioned Area: 312300 SF

Conditioned & UnConditioned Area: 379800 SF

No of Stories: 20

Area entered from Plans 67500 SF

Permit No: 0

Max Tonnage 507

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	251,064.0	346,792.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			FAILS
PLANT			FAILS
WATER HEATING SYSTEMS			No Entry
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

Prepared By: _____

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Owner Agent: _____

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

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Reg No: _____

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Reg No: _____

Plumbing Designer: _____

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 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>16,197.90</i>	<i>22,123.50</i>
	<i>\$251,064</i>	<i>\$346,792</i>
ELECTRICITY(MBtu/kWh/\$)	16,197.90	22,123.00
	4746009	6482051
	<i>\$251,064</i>	<i>\$346,790</i>
AREA LIGHTS	2,977.40	3,572.70
	872380	1046803
	<i>\$46,149</i>	<i>\$56,004</i>
HEAT REJECT	773.90	1,030.80
	226751	302016
	<i>\$11,995</i>	<i>\$16,158</i>
MISC EQUIPMT	5,697.70	5,697.70
	1669423	1669423
	<i>\$88,312</i>	<i>\$89,314</i>
PUMPS & MISC	314.00	591.60
	92016	173348
	<i>\$4,868</i>	<i>\$9,274</i>
SPACE COOL	3,865.60	8,960.90
	1132628	2625544
	<i>\$59,916</i>	<i>\$140,467</i>
SPACE HEAT	0.00	0.00
	0	9
	<i>\$0</i>	<i>\$0</i>
VENT FANS	2,569.30	2,269.30
	752811	664908
	<i>\$39,824</i>	<i>\$35,573</i>
NATURAL-GAS(MBtu/therm/\$)		0.50
	0	5
	<i>\$0</i>	<i>\$3</i>

	1) Proposed	2) Baseline
SPACE HEAT	0.00	0.50
	0	5
	\$0	\$3

Credits Applied: None

Passing Criteria = 346792

Design (including any credits) = 251064

Passing requires Proposed Building cost to be at most 100% of Baseline cost. This Proposed Building is at 72.4%

PASSES

Project: TAM A20
Title: TAM Building A20
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 1	Walk way less than 10 feet wide	Yes	1.00	150.0	150	

Tradable Surfaces: 0 (W) Allowance for Tradable: 157.5 (W)

All External Lighting: 0 (W)

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

PASSES

Project: TAM A20
Title: TAM Building A20
Type: Office
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Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	16	Office - Open Plan	14,400	2	2	PASSES
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Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo3Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES
Pr0Zo7Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES
Pr0Zo13Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES

PASSES

Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

System Report Compliance

Pr0Sy2	System 2	Variable Air Volume Built-up System--904	No. of Units 1
---------------	-----------------	---	---------------------------

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	1799592					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	44489	1.25	1.12			FAILS

Pr0Sy3	System 3	Variable Air Volume Built-up System--904	No. of Units 18
---------------	-----------------	---	----------------------------

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	207010					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	4243	1.25	1.12			FAILS

Pr0Sy4	System 4	Variable Air Volume Built-up System--904	No. of Units 1
---------------	-----------------	---	---------------------------

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	533951					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	11695	1.25	1.12			FAILS

FAILS

Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
Open centrifugal, chiller	1	507	5.860	6.104	5.900	6.404	Water Chilling Pkg (Centrifugal) Elec. Operated Water Cooled 300-600 Tons	FAILS
Cooling Tower	1	0	14.000	7.000			Closed Cooling Tower - Centrifugal Fan	PASSES
Hot Water Boiler (Fuel)	1	3	90.000	84.000			Oil Fired >= 2,500,000 Btu/h	PASSES

FAILS

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance

None

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 A20
Title: TAM Building A20
Type: Office
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
Project: TAM A20			<input type="checkbox"/>

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 A20

Description: TAM Building A20

Owner: Enter Owner's name here

Address1: Enter Address here

City: Enter city here

Address2: Enter Address here

State: Enter state here

Zip: 0

Type: Office

Class: New Finished building

Jurisdiction: ORLANDO, ORANGE COUNTY, FL (582100)

Conditioned Area: 312300 SF

Conditioned & UnConditioned Area: 379800 SF

No of Stories: 20

Area entered from Plans 67500 SF

Permit No: 0

Max Tonnage 507

If different, write in: _____

Compliance Summary

Component	Design	Criteria	Result
Gross Energy Cost (in \$)	252,396.0	293,579.0	PASSED
LIGHTING CONTROLS			PASSES
EXTERNAL LIGHTING			PASSES
HVAC SYSTEM			FAILS
PLANT			FAILS
WATER HEATING SYSTEMS			No Entry
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 A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Building End Uses

	1) Proposed	2) Baseline
Total	<i>16,253.20</i>	<i>22,033.80</i>
	<i>\$252,396</i>	<i>\$345,387</i>
ELECTRICITY(MBtu/kWh/\$)	16,253.20	22,033.40
	4762193	6455790
	<i>\$252,396</i>	<i>\$345,385</i>
AREA LIGHTS	2,977.40	3,572.70
	872380	1046803
	<i>\$46,236</i>	<i>\$56,004</i>
HEAT REJECT	779.40	1,023.10
	228375	299773
	<i>\$12,104</i>	<i>\$16,038</i>
MISC EQUIPMT	5,697.70	5,697.70
	1669423	1669423
	<i>\$88,479</i>	<i>\$89,314</i>
PUMPS & MISC	318.40	586.30
	93283	171800
	<i>\$4,944</i>	<i>\$9,191</i>
SPACE COOL	3,914.70	8,901.20
	1147014	2608038
	<i>\$60,792</i>	<i>\$139,530</i>
SPACE HEAT	0.00	0.00
	0	6
	<i>\$0</i>	<i>\$0</i>
VENT FANS	2,565.60	2,252.40
	751718	659947
	<i>\$39,841</i>	<i>\$35,307</i>
NATURAL-GAS(MBtu/therm/\$)		0.40
	0	4
	<i>\$0</i>	<i>\$2</i>

	1) Proposed	2) Baseline
SPACE HEAT	0.00	0.40
	0	4
	\$0	\$2

Credits Applied: None **PASSES**
 Passing Criteria = 293579
 Design (including any credits) = 252396
 Passing requires Proposed Building cost to be at most 85% of
 Baseline cost. This Proposed Building is at 73.1%

Project: TAM A20
 Title: TAM Building A20
 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 1	Walk way less than 10 feet wide	Yes	1.00	150.0	150	

Tradable Surfaces: 0 (W) Allowance for Tradable: 157.5 (W) **PASSES**
 All External Lighting: 0 (W)
 Complicance check includes a excess/Base allowance of 7.50(W)

Project: TAM A20
Title: TAM Building A20
Type: Office
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	Description	Area (sq.ft)	Design CP	Min CP	Compliance
Pr0Zo1Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo2Sp1	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
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES
Pr0Zo7Sp1	16	Office - Open Plan	14,400	2	2	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
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Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo2Sp1	16	Office - Open Plan	2,025	1	1	PASSES
Pr0Zo6Sp1	16	Office - Open Plan	22,500	3	3	PASSES

PASSES

Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

System Report Compliance

Pr0Sy2	System 2	Variable Air Volume Built-up System--904	No. of Units 1
---------------	-----------------	---	---------------------------

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	1799592					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	44489	1.25	1.12			FAILS

Pr0Sy3	System 3	Variable Air Volume Built-up System--904	No. of Units 18
---------------	-----------------	---	----------------------------

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	207010					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	4243	1.25	1.12			FAILS

Pr0Sy4	System 4	Variable Air Volume Built-up System--904	No. of Units 1
---------------	-----------------	---	---------------------------

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Compliance
Cooling System	Compliance Not Applicable	533951					PASSES
Air Handling System -Supply	Air Handler (Supply) - Variable Volume	11695	1.25	1.12			FAILS

FAILS

Project: TAM A20
 Title: TAM Building A20
 Type: Office
 (WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Plant Compliance

Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category	Compliance
Open centrifugal, chiller	1	507	5.860	6.104	5.900	6.404	Water Chilling Pkg (Centrifugal) Elec. Operated Water Cooled 300-600 Tons	FAILS
Cooling Tower	1	0	14.000	7.000			Closed Cooling Tower - Centrifugal Fan	PASSES
Hot Water Boiler (Fuel)	1	3	90.000	84.000			Oil Fired >= 2,500,000 Btu/h	PASSES

FAILS

Water Heater Compliance

Description	Type	Category	Design Eff	Min Eff	Design Loss	Max Loss	Compliance

None

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 A20
Title: TAM Building A20
Type: Office
(WEA File: FL_ORLANDO_INTL_ARPT.tm3)

Other Required Compliance

Category	Section	Requirement (write N/A in box if not applicable)	Check
Project: TAM A20			<input type="checkbox"/>

DOE Based Sizing

PROJECT SUMMARY

Short Desc: TAM A20

Description: TAM Building A20

Owner: Enter Owner's name here

Address1: Enter Address here

City: Enter city here

Address2: Enter Address here

State: Enter state here

Zip: 0

Type: Office

Class: New Finished building

Weather File: FL_ORLANDO_INTL_ARPT.tm3

Conditioned Area: 312300 SF

Conditioned & UnConditioned Area: 379800 SF

No of Stories: 20

Area entered from Plans 67500 SF

Permit No: 0

Max Tonnage 566.5

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	Pr0Sy2	System 2		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	1799592	BTU/HR	
	Air Handling System -Supply	44489	CFM	
2	Pr0Sy3	System 3		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	207010	BTU/HR	
	Air Handling System -Supply	4243	CFM	
3	Pr0Sy4	System 4		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling System	533951	BTU/HR	
	Air Handling System -Supply	11695	CFM	
7	Open centrifugal, chiller	Open centrifugal, chiller		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Open centrifugal, chiller	507	[Tons]	
8	Cooling Tower	Cooling Tower		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Cooling Tower	7.2		
9	Hot Water Boiler (Fuel)	Hot Water Boiler (Fuel)		
	<u>Component</u>	<u>Sized Value</u>	<u>Units</u>	
	Hot Water Boiler (Fuel)	0	[Million Btu/t]	