

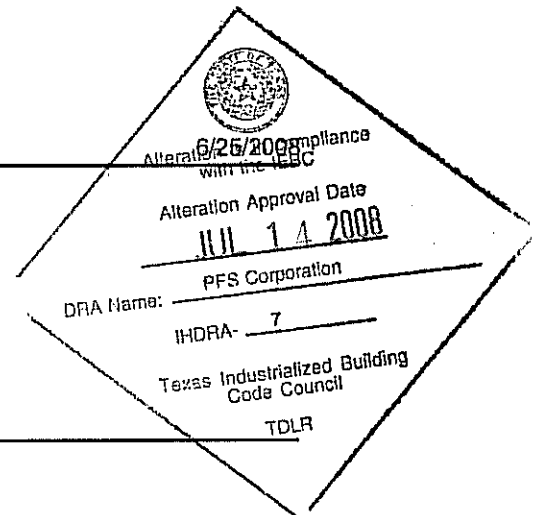
Report Prepared By:

Nortex Modular Space

For:

5656 RECERTIFIED OFFICE

MULTI-LOCATIONS, TEXAS



Design Conditions: Dallas; Latitude: 32; Time 1:00 PM

Indoor:

Summer temperature: 70

Winter temperature: 75

Relative humidity: 55

Outdoor:

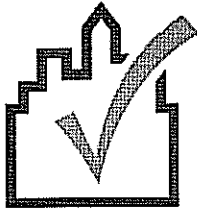
Summer temperature: 100

Winter temperature: 22

Summer grains of moisture: 93

Daily temperature range: 20

Building Component		Sensible Gain (BTUH)	Latent Gain (BTUH)	Total Heat Gain (BTUH)	Total Heat Loss (BTUH)
Floor	3,136 sq.ft.	3,136	0	3,136	1,882
W Wall	650 sq.ft.	716	0	716	2,653
Window	18 sq.ft. ✓	546	0	546	286
E Wall	632 sq.ft.	1,265	0	1,265	2,579
Window	36 sq.ft. ✓	1,544	0	1,544	572
N Wall	588 sq.ft.	589	0	589	2,400
Window	27 sq.ft. ✓	758	0	758	429
Door	20 sq.ft.	180	0	180	382
Leakage Summer	30 cfm	825	673	1,498	0
Leakage Winter	55 cfm	0	0	0	3,207
S Wall	653 sq.ft.	719	0	719	2,665
Window	27 sq.ft. ✓	1,666	0	1,666	429
Door	20 sq.ft.	180	0	180	382
Leakage Summer	30 cfm	825	673	1,498	0
Leakage Winter	55 cfm	0	0	0	3,207
Ceiling	3,136 sq.ft.	6,115	0	6,115	6,648
Duct		8,337	0	8,337	12,676
People/Vent	31 people	7,595	4,805	12,400	0
Ventilation	1,000 cfm	27,500	22,440	49,940	58,300
Infiltration Summer	0 cfm	0	0	0	0
Infiltration Winter	196.97 cfm	0	0	0	11,483
Lights	2,802 watts	11,488	0	11,488	0
Miscellaneous		38,560	0	38,560	0
Whole Building - All Components		112,544	28,591	141,135 ( 12 tons )	110,180 ✓



COMcheck Software Version 3.5.2

# Envelope Compliance Certificate

## 2003 IECC

Report Date: 07/08/08

Data filename: Z:\2007CODES\CUSTOM\Texas\DFW\5656NORTEX\Complete.cck

### Section 1: Project Information

Project Type: **New Construction**

Project Title : 5656 Recertification Office

Construction Site:

various sites  
TX 75055

Owner/Agent:

Jim Atrell  
Nortex Modular Space  
555 Jubilee lane  
Lewisville, TX 75056  
972-492-4040 ext 101  
jim.atrell@nortexmodular.com

Designer/Contractor:

John White  
Nortex Modular Space  
500 Huffines Blvd.  
Lewisville, TX 75056  
972-492-4040 ext 1115  
john.white@nortexmodular.com

### Section 2: General Information

Building Location (for weather data):

Dallas, Texas

Climate Zone:

5b

Heating Degree Days (base 65 degrees F):

2259

Cooling Degree Days (base 65 degrees F):

2763

Vertical Glazing / Wall Area Pct.:

4%

Building Type

Office

Floor Area

3116

### Section 3: Requirements Checklist

Envelope Passes Based on Calculated Results

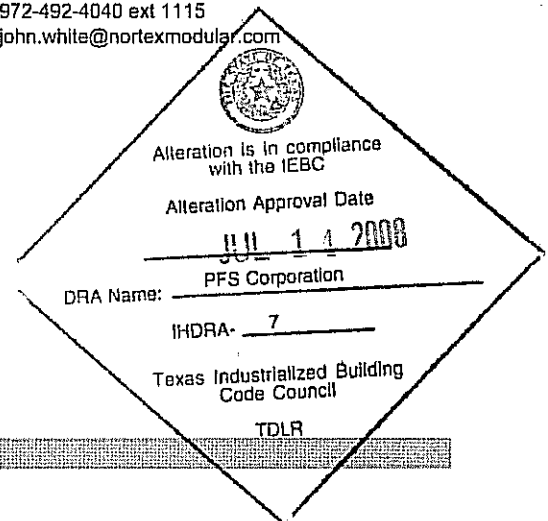
#### Climate-Specific Requirements:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor
Roof 1: Attic Roof with Wood Joists	3136	19.0	0.0	0.054	0.057
Exterior Wall 1: Wood-Framed, 16" o.c.	2671	11.0	0.0	0.103	0.175
Window 1: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.34	108	—	—	0.510	1.230
Door 1: Solid	40	—	—	0.700	0.279
Floor 1: Wood-Framed	3136	19.0	0.0	0.049	0.131

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

#### Air Leakage, Component Certification, and Vapor Retarder Requirements:

- ☐ 1. All joints and penetrations are caulked, gasketed or covered with a moisture vapor-permeable wrapping material installed in accordance with the manufacturer's installation instructions.
- ☐ 2. Windows, doors, and skylights certified as meeting leakage requirements.
- ☐ 3. Component R-values & U-factors labeled as certified.
- ☐ 4. Insulation installed according to manufacturer's instructions, in substantial contact with the surface being insulated, and in a manner that achieves the rated R-value without compressing the insulation.
- ☐ 5. Stair, elevator shaft vents, and other dampers integral to the building envelope are equipped with motorized dampers.
- ☐ 6. Cargo doors and loading dock doors are weather sealed.



- ☐ 7. Recessed lighting fixtures are: (i) Type IC rated and sealed or gasketed; or (ii) installed inside an appropriate air-tight assembly with a 0.5 inch clearance from combustible materials and with 3 inches clearance from insulation material.
- ☐ 8. Building entrance doors have a vestibule and equipped with closing devices.

*Exceptions:*

Building entrances with revolving doors.

Doors that open directly from a space less than 3000 sq. ft. in area.

Note: Vapor retarder not required in this location.

## Section 4: Compliance Statement

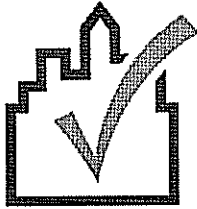
**Compliance Statement:** The proposed envelope design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 2003 IECC requirements in COMcheck Version 3.5.2 and to comply with the mandatory requirements in the Requirements Checklist.

John White - Design and Eng  
Name - Title

Signature

07-08-2008  
Date





# COMcheck Software Version 3.5.2

## Interior Lighting Compliance Certificate

### 2003 IECC

Report Date: 07/08/08

Data filename: Z:\2007CODES\CUSTOM\Texas\DFW\5656NORTEX\Complete.cck

### Section 1: Project Information

Project Type: New Construction

Project Title : 5656 Recertification Office

Construction Site:

various sites  
TX 75055

Owner/Agent:

Jim Atrell  
Nortex Modular Space  
555 Jubilee lane  
Lewisville, TX 75056  
972-492-4040 ext 101  
jim.atrell@nortexmodular.com

Designer/Contractor:

John White  
Nortex Modular Space  
500 Huffines Blvd.  
Lewisville, TX 75056  
972-492-4040 ext 1115  
john.white@nortexmodular.com

### Section 2: General Information

Building Use Description by:

Building Type  
Office

Floor Area  
3116

### Section 3: Requirements Checklist

#### Interior Lighting:

- ☐ 1. Total proposed watts must be less than or equal to total allowed watts.

Allowed Watts	Proposed Watts	Complies
3116	2690	YES

- ☐ 2. Exit signs 5 Watts or less per side.

#### Exterior Lighting:

- ☐ 3. Efficacy greater than 45 lumens/W.

*Exceptions:*

Specialized lighting highlighting features of historic buildings; signage; safety or security lighting; low-voltage landscape lighting.

#### Controls, Switching, and Wiring:

- ☐ 4. Independent controls for each space (switch/occupancy sensor).

*Exceptions:*

Areas designated as security or emergency areas that must be continuously illuminated.

Lighting in stairways or corridors that are elements of the means of egress.

- ☐ 5. Master switch at entry to hotel/motel guest room.

- ☐ 6. Individual dwelling units separately metered.

- ☐ 7. Each space provided with a manual control to provide uniform light reduction by at least 50%.

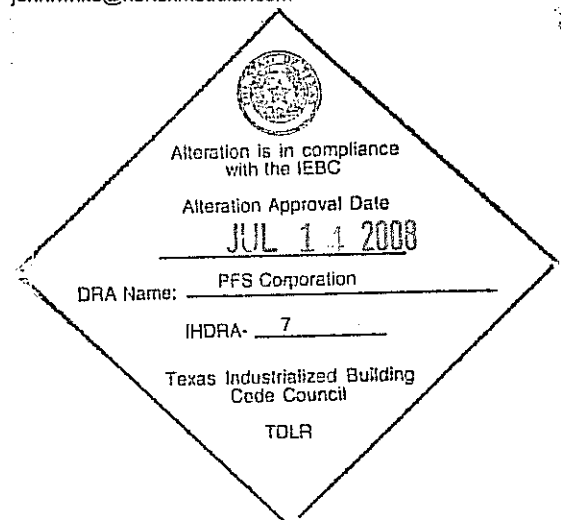
*Exceptions:*

Only one luminaire in space;

An occupant-sensing device controls the area;

The area is a corridor, storeroom, restroom, public lobby or guest room;

Areas that use less than 0.6 Watts/sq.ft.



- ☐ 8. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

*Exceptions:*

Areas with only one luminaire, corridors, storerooms, restrooms, or public lobbies.

- ☐ 9. Photocell/astronomical time switch on exterior lights.

*Exceptions:*

Lighting intended for 24 hour use.

- ☐ 10. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

*Exceptions:*

Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

## Section 4: Compliance Statement

*Compliance Statement:* The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2003 IECC, Chapter 8, requirements in COMcheck Version 3.5.2 and to comply with the mandatory requirements in the Requirements Checklist.

John White - Design and Eng

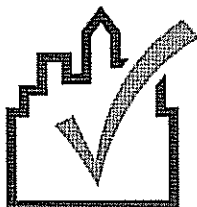
Name - Title

Signature

07-08-2008

Date





COMcheck Software Version 3.5.2

# Interior Lighting Application Worksheet

## 2003 IECC

Report Date:

Data filename: Z:\2007CODES\CUSTOM\Texas\DFW\5656NORTEX\Complete.cck

### Section 1: Allowed Lighting Power Calculation

A	B Floor Area	C Allowed Watts / ft2	D Allowed Watts
Office	3116	1	3116
Total Allowed Watts =			3116

### Section 2: Proposed Lighting Power Calculation

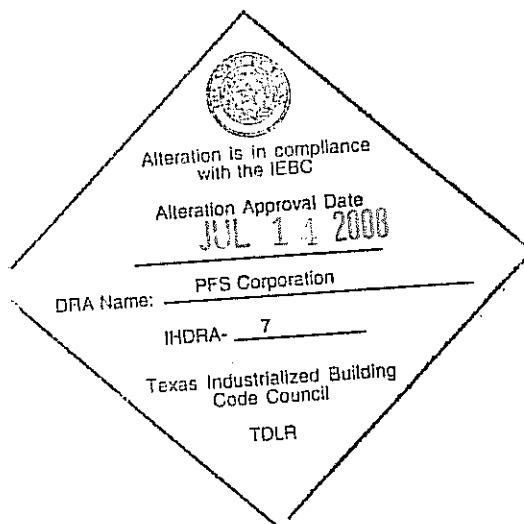
A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Office (3116 sq.ft.)				
Linear Fluorescent 1: 48" T8 32W (Super T8) / Electronic	3	28	92	2576
Linear Fluorescent 2: 24" T8U 32W / Electronic	1	3	38	114
Total Proposed Watts =				2690

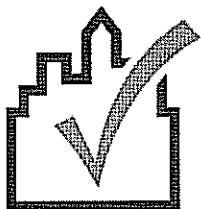
### Section 3: Compliance Calculation

If the Total Allowed Watts minus the Total Proposed Watts is greater than or equal to zero, the building complies.

Total Allowed Watts = 3116  
Total Proposed Watts = 2690  
Project Compliance = 426

Interior Lighting PASSES Design (6/16/2008) Code





COMcheck Software Version 3.5.2

# Mechanical Compliance Certificate

## 2003 IECC

Report Date: 07/08/08

Data filename: Z:\2007CODES\CUSTOM\Texas\DFW\5656NORTEX\Complete.cck

## Section 1: Project Information

Project Type: New Construction

Project Title : 5656 Recertification Office

Construction Site:

various sites  
TX 75055

Owner/Agent:

Jim Atrell  
Nortex Modular Space  
555 Jubilee lane  
Lewisville, TX 75056  
972-492-4040 ext 101  
jim.atrell@nortexmodular.com

Designer/Contractor:

John White  
Nortex Modular Space  
500 Huffines Blvd.  
Lewisville, TX 75056  
972-492-4040 ext 1115  
john.white@nortexmodular.com

## Section 2: General Information

Building Location (for weather data):

Dallas, Texas

Climate Zone:

5b

Heating Degree Days (base 65 degrees F):

2259

Cooling Degree Days (base 65 degrees F):

2763

## Section 3: Mechanical Systems List

Quantity   System Type & Description

- |   |  |
|---|--|
| 4 | HVAC System 1: Heating: Other, Electric / Cooling: Rooftop Package Unit, Capacity <54 kBtu/h, Air-Cooled Condenser / Single Zone |
|---|--|

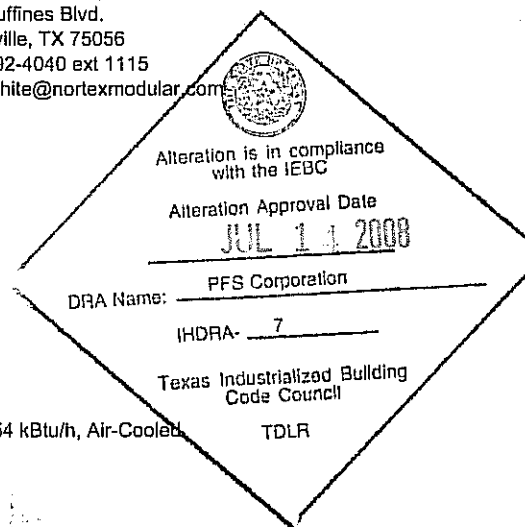
## Section 4: Requirements Checklist

Requirements Specific To: HVAC System 1 :

- ☐ 1. Equipment minimum efficiency: Rooftop Package Unit: 9.7 SEER

**Generic Requirements: Must be met by all systems to which the requirement is applicable:**

- ☐ 1. Load calculations per 2001 ASHRAE Fundamentals
- ☐ 2. Plant equipment and system capacity no greater than needed to meet loads
- Exception: Standby equipment automatically off when primary system is operating
  - Exception: Multiple units controlled to sequence operation as a function of load
- ☐ 3. Minimum one temperature control device per system
- ☐ 4. Minimum one humidity control device per installed humidification/dehumidification system
- ☐ 5. Thermostatic controls has 5 degrees F deadband
- Exception: Thermostats requiring manual changeover between heating and cooling
- ☐ 6. Automatic Controls: Setback to 55 degrees F (heat) and 85 degrees F (cool); 7-day clock, 2-hour occupant override, 10-hour backup
- Exception: Continuously operating zones
  - Exception: 2 kW demand or less, submit calculations
- ☐ 7. Automatic shut-off dampers on exhaust systems and supply systems with airflow >3,000 cfm
- ☐ 8. Outside-air source for ventilation; system capable of reducing OSA to required minimum
- ☐ 9. R-5 supply and return air duct insulation in unconditioned spaces R-8 supply and return air duct insulation outside the building R-8 insulation between ducts and the building exterior when ducts are part of a building assembly



- Exception: Ducts located within equipment
- Exception: Ducts with interior and exterior temperature difference not exceeding 15 degrees F.
- ☐ 10. Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics
  - Exception: Continuously welded and locking-type longitudinal joints and seams on ducts operating at static pressures less than 2 inches w.g. pressure classification
- ☐ 11. Mechanical fasteners and sealants used to connect ducts and air distribution equipment
- ☐ 12. Operation and maintenance manual provided to building owner
- ☐ 13. Balancing devices provided in accordance with IMC 603.15
- ☐ 14. Stair and elevator shaft vents are equipped with motorized dampers

## Section 5: Compliance Statement

**Compliance Statement:** The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2003 IECC requirements in COMcheck Version 3.5.2 and to comply with the mandatory requirements in the Requirements Checklist.

John White - Design and Eng		07-08-2008
Name - Title	Signature	Date

