



COMcheck Software Version 3.9.0

Interior Lighting Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**

Project Title : International Marine Terminal Office

Construction Site:
International Marine Terminal
Congress Street
Portland, ME

Owner/Agent:
City of Portland

Designer/Contractor:
Winton Scott Architects
5 Milk Street
Portland, ME 04101

Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts (B x C)
Office	2882	1	2882
Total Allowed Watts =			2882

Section 3: Interior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Office (2882 sq.ft.)				
Linear Fluorescent 1: A1: 2x4 recessed direct/indirectElectronic	3	11	81	891
Linear Fluorescent 2: A2: 2x2 recessed direct/indirectElectronic	3	4	47	188
Linear Fluorescent 3: A3: 2x2 recessed lensElectronic	3	4	47	188
Compact Fluorescent 1: B1: recessed open downlightElectronic	2	3	57	171
Compact Fluorescent 2: B2: recessed lensed downlightElectronic	1	1	20	20
Compact Fluorescent 3: C1: 13" dia surface, acrylic diffuseElectronic	2	2	30	60
Linear Fluorescent 4: J1: 1x4 surface wrap lensElectronic	2	2	51	102
Linear Fluorescent 5: J2: 1x4 surface bare stripElectronic	1	3	30	90
Linear Fluorescent 6: N1: direct/indirect pendantElectronic	2	3	59	177
Compact Fluorescent 4: R1: 18" dia decorative pendantElectronic	2	9	54	486
Linear Fluorescent 7: U1: 13w T5 undercabinet lightElectronic	1	4	16	Exempt
Exemption:Furniture-mounted Supplemental Task Lighting				
Total Proposed Watts =			2373	

Section 4: Requirements Checklist

Lighting Wattage:

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

Allowed Watts	Proposed Watts	Complies
2882	2373	YES

Controls, Switching, and Wiring:

2. Daylight zones under skylights more than 15 feet from the perimeter have lighting controls separate from daylight zones adjacent to vertical fenestration.
3. Daylight zones have individual lighting controls independent from that of the general area lighting.

Exceptions:

- Contiguous daylight zones spanning no more than two orientations are allowed to be controlled by a single controlling device.
 - Daylight spaces enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.
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. Medical task lighting or art/history display lighting claimed to be exempt from compliance has a control device independent of the control of the nonexempt lighting.
8. Each space required to have a manual control also allows for reducing the connected lighting load by at least 50 percent by either controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle lamp luminaires independently of other lamps, or switching each luminaire or each lamp.

Exceptions:

- Only one luminaire in space.
 - An occupant-sensing device controls the area.
 - The area is a corridor, storeroom, restroom, public lobby or sleeping unit.
 - Areas that use less than 0.6 Watts/sq.ft.
9. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

Exceptions:

- Sleeping units, patient care areas; and spaces where automatic shutoff would endanger safety or security.
10. Photocell/astronomical time switch on exterior lights.

Exceptions:

- Lighting intended for 24 hour use.
11. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

Exceptions:

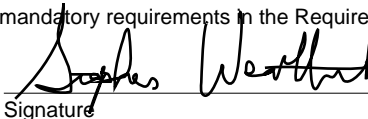
- Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

Interior Lighting PASSES: Design 18% better than code.

Section 5: 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 2009 IECC requirements in COMcheck Version 3.9.0 and to comply with the mandatory requirements in the Requirements Checklist.

Steve Weatherhead, Architect



12/9/11

Name - Title Winton Scott Architects

Signature

Date



Exterior Lighting Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**

Project Title : International Marine Terminal Office

Exterior Lighting Zone: **3 (Other)**

Construction Site:
International Marine Terminal
Congress Street
Portland, ME

Owner/Agent:
City of Portland

Designer/Contractor:
Winton Scott Architects
5 Milk Street
Portland, ME 04101

Section 2: Exterior Lighting Area/Surface Power Calculation

A Exterior Area/Surface	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B x C)	F Proposed Watts
Parking area	4132 ft2	0.1	Yes	413	150
Main entry	3 ft of door width	30	Yes	90	42
Other door (not main entry)	3 ft of door width	20	Yes	60	42
Other door (not main entry)	3 ft of door width	20	Yes	60	42
Illuminated area of facade wall or surface	32 ft2	0.15	No	5	0
Total Tradable Watts* =				623	276
Total Allowed Watts =				628	
Total Allowed Supplemental Watts** =				750	

* Wattage tradeoffs are only allowed between tradable areas/surfaces.

** A supplemental allowance equal to 750 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Section 3: Exterior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
(null): Tradable Wattage				
HID 1: S3A: 20ft pole lightStandard	1	1	150	150
(null): Tradable Wattage				
Compact Fluorescent 1: S5: wall mtdElectronic	1	1	42	42
(null): Tradable Wattage				
Compact Fluorescent 2: S5: wall mtdElectronic	1	1	42	42
(null): Tradable Wattage				
Compact Fluorescent 3: S5: wall mtdElectronic	1	1	42	42
(null): Non-tradable Wattage				
HID 2: S4: Adjustable accent lightPulse start Exemption:Advertising/Directional Signage	1	2	39	Exempt
Total Tradable Proposed Watts =				276

Section 4: Requirements Checklist

Lighting Wattage:

1. Within each non-tradable area/surface, total proposed watts must be less than or equal to total allowed watts. Across all tradable areas/surfaces, total proposed watts must be less than or equal to total allowed watts.

Compliance: Passes.

Controls, Switching, and Wiring:

- 2. All exemption claims are associated with fixtures that have a control device independent of the control of the nonexempt lighting.
- 3. Lighting not designated for dusk-to-dawn operation is controlled by either a a photosensor (with time switch), or an astronomical time switch.
- 4. Lighting designated for dusk-to-dawn operation is controlled by an astronomical time switch or photosensor.
- 5. All time switches are capable of retaining programming and the time setting during loss of power for a period of at least 10 hours.

Exterior Lighting Efficacy:

- 6. All exterior building grounds luminaires that operate at greater than 100W have minimum efficacy of 60 lumen/watt.

Exceptions:

- Lighting that has been claimed as exempt and is identified as such in Section 3 table above.
- Lighting that is specifically designated as required by a health or life safety statute, ordinance, or regulation.
- Emergency lighting that is automatically off during normal building operation.
- Lighting that is controlled by motion sensor.

Exterior Lighting PASSES: Design 80% better than code.

Section 5: Compliance Statement

Compliance Statement: The proposed exterior 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 2009 IECC requirements in COMcheck Version 3.9.0 and to comply with the mandatory requirements in the Requirements Checklist.

Name - Title

Signature

Date