



# COMcheck Software Version 4.0.4.0 Interior Lighting Compliance Certificate

### Section 1: Project Information

Energy Code: 2009 IECC  
 Project Title: West Elm - Downtown Portland  
 Project Type: New Construction

Construction Site: 164 Middle Street, Portland, ME 04101  
 Owner/Agent:  
 Designer/Contractor: Bryan Wilkerson, EEA Consulting Engineers, 6615 Vaught Ranch Road, Suite 100, Austin, TX 78730, 512-744-4400, bryanwilkerson@eeace.com

### Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (sq. ft.)	C Allowed Watts / sq. ft.	D Allowed Watts (B x C)
Retail	10100	1.5	15150
Allowance: Furniture, clothing, cosmetics highlighting / Fix. ID: F1A / F1B	6100(a)	1.4	8540(b)
Supplemental Allowed Watts(c) =			1000
Total Allowed Watts =			24690

(a) Area claimed must not exceed the illuminated area permitted for this allowance type.  
 (b) Allowance is (B x C) or the actual wattage of the fixtures given in Section 2, whichever is less.  
 (c) Supplemental watts must be associated with retail merchandise highlighting fixtures. Supplemental watts are not included in calculation of lighting compliance percentage.

### Section 3: Interior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Watt. (C X D)	E (C X D)
Retail (10100 sq.ft.)				
Track lighting 1: Lighting for Sale: Wattage based on circuit breaker capacity (40 amps x 120 volts)	0	0	4800	Exempt
Exemption: Lighting Sales or Education				
Track lighting 2: F1A / F1B: Track: Wattage based on circuit breaker capacity (120 amps x 120 volts)	0	0	14400	14400
LED 1: F11: 27w LED Downlight: LED Other Fixture Unit 28W:	1	8	27	216
Linear Fluorescent 1: F10: 8' Linear Fluor.: 48" T8 32W (Super T8): Electronic:	2	41	62	2542
Linear Fluorescent 2: F10A: 4' Linear Fluor.: 48" T8 32W (Super T8): Electronic:	1	2	32	64
Incandescent 1: A2: 60w Incan Pendant: Incandescent 60W:	1	4	60	240
Incandescent 2: A1: 60w Incan Sconce: Incandescent 60W:	1	6	60	360
Linear Fluorescent 3: F13: 1'x4' Surface Mount Fluor.: 48" T8 32W (Super T8): Electronic:	2	1	62	62
Incandescent 3: A3: 150W Incan Pendant: Incandescent 150W:	1	2	150	300
Total Proposed Watts =			18184	

### Section 4: Requirements Checklist

Interior Lighting PASSES: Design 23% better than code.

**Lighting Wattage:**  
 1. Total proposed watts must be less than or equal to total allowed watts.

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Allowed Watts	Proposed Watts	Complies
24690	18184	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/astromonical 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.

### 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 4.0.4.0 and to comply with the mandatory requirements in the Requirements Checklist.

Name - Title Signature Date

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State of Registration: MAINE  
 Firm Registration No. N/A  
 EEA Project No. 20166538

DRAWN BY: BMW  
 CHECKED BY: SMR

**west elm**  
 Downtown Portland  
 164 Middle Street  
 Portland, ME 04101  
 PROJECT #006-160335-00

ISSUED / REVISED	DATE
PRELIMINARY SET	09/08/16
LL COORDINATION SET	11/08/16
LL/PERMIT SET	11/21/16

ENERGY CODE CALCULATIONS

E-006

OWNER:  
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