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**Interior Lighting Compliance Certificate**

**Section 1: Project Information**

Energy Code: 2009 IECC  
 Project Title: 502 Deering Center  
 Project Type: New Construction

Construction Site:  
 502 Stevens Ave  
 Portland, Maine 04103

Owner/Agent:  
 Denis Lachman  
 502 Deering Center LLC  
 55 Hamblet Ave  
 Portland, Maine 04103  
 207-831-8585  
 denis@lachmanarchitects.com

Designer/Contractor:  
 Denis Lachman  
 Lachman Architects & Planners  
 55 Hamblet Ave  
 Portland, Maine 04103  
 207-831-8585  
 denis@lachmanarchitects.com

**Section 2: Interior Lighting and Power Calculation**

A Area Category	B Floor Area (ft <sup>2</sup> )	C Allowed Watts / ft <sup>2</sup>	D Allowed Watts (B x C)
Multifamily	5010	0.7	3507
Retail	2640	1.5	3960
Total Allowed Watts =			7467

**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)
<b>Multifamily (5010 sq.ft.)</b>				
LED: TYPE F: 12" SURFACE MOUNTED: LED A Lamp 12W:	1	22	12	264
LED: TYPE G: 16" SURFACE MOUNT LED: LED PAR 16W:	1	14	16	224
LED: TYPE H: 5" ROUND SURFACE MOUNTED LED: LED PAR 13W:	1	40	13	520
LED: TYPE J: 24" UNDERCABINET LED: LED Undercabinet Unit 12W:	1	12	12	144
LED: TYPE B: 3 LAMP VANITY LIGHT: LED A Lamp 9W:	3	8	27	216
<b>Retail (2640 sq.ft.)</b>				
LED: TYPE A: 4' WRAP AROUND: Other:	1	19	48	912
LED: TYPE EF-2: BATHROOM FAN-LIGHT: LED PAR 7W:	2	2	14	28
LED: TYPE C: SURFACE MOUNT LED: LED Other Fixture Unit 36W:	1	3	36	108
LED: TYPE D: WALL SCONCE LED: LED Linear 17W:	1	5	17	85
LED: TYPE B: 3 LAMP VANITY LIGHT: LED A Lamp 9W:	3	2	27	54
Total Proposed Watts =				2555

**Section 4: Requirements Checklist**

Interior Lighting PASSES: Design 66% better than code.

**Lighting Wattage:**

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

Allowed Watts	Proposed Watts	Complies
7467	2555	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.

N/A

3. Daylight zones have individual lighting controls independent from that of the general area lighting.

N/A 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.

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

6. Individual dwelling units separately metered.

- N/A  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.

N/A 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.

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

Steven Jonason Senior Elec. Eng.  
Name - Title

Steven Jonason  
Signature

4/19/17  
Date