LIGHTING CONTROL FUNCTIONAL TESTING:

LIGHTING CONTROL DEVICES AND SYSTEMS SHALL BE TESTED TO ENSURE THE HARDWARE AND SOFTWARE IS CALIBRATED, PROGRAMMED, AND IN PROPER WORKING ORDER. INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY/ALL REQUIRED INSTALLATION CERTIFICATES AND SHALL PROVIDE MANUALS FOR LIGHTING CONTROL DEVICES TO OWNER PRIOR TO PROJECT CLOSE-OUT. INSTALLING CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACTING WITH APPROPRIATE PARTIES TO ARRANGE FOR TESTING/COMMISSIONING OF THE LIGHTING CONTROL SYSTEMS AND SHALL BE RESPONSIBLE FOR ENSURING ANY/ALL REQUIRED FUNCTIONAL TESTING FORMS ARE COMPLETED AND SUBMITTED TO THE OWNER AND LOCAL AHJ PRIOR TO PROJECT CLOSE-OUT.

COMcheck Software Version 4.1.1.0

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2012 IECC
Project Title: MSS - Murfreesboro, TN
Project Type: Alteration

Construction Site:
1948 Old Fort Pkwy
Murfreesboro, TN 37129

Owner/Agent:

Designer/Contractor:
KLH Engineers
1930 Alexandria Pike
Fort Thomas, KY 41075

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-LOBBY 100 (Common Space Types:Corridor / Transition)	106	0.70	70
19-SUITE 101 (Retail:Sales area)	108	1.60	169
16-SUITE 102 (Retail:Sales area)	118	1.60	181
17-SUITE 103 (Retail:Sales area)	102	1.60	163
15-SUITE 104 (Retail:Sales area)	108	1.60	173
18-SUITE 105 (Retail:Sales area)	107	1.60	171
22-SUITE 201 (Retail:Sales area)	105	1.60	168
23-SUITE 202 (Retail:Sales area)	107	1.60	171
26-SUITE 203 (Retail:Sales area)	107	1.60	171
25-SUITE 204 (Retail:Sales area)	147	1.60	235
11-SUITE 205 (Retail:Sales area)	121	1.60	194
21-SUITE 206 (Retail:Sales area)	117	1.60	187
10-SUITE 207 (Retail:Sales area)	118	1.60	194
34-SUITE 208 (Common Space Types:Atrium) (Ceiling Height 10 ft.)	139	0.30	42
30-SUITE 209 (Retail:Sales area)	102	1.60	163
6-SUITE 210 (Retail:Sales area)	143	1.60	229
28-SUITE 301 (Common Space Types:Atrium) (Ceiling Height 10 ft.)	122	0.30	37
14-SUITE 302 (Retail:Sales area)	123	1.60	197
13-SUITE 303 (Retail:Sales area)	120	1.60	192
12-SUITE 304 (Retail:Sales area)	119	1.60	190
27-SUITE 305 (Retail:Sales area)	129	1.60	206
29-SUITE 401 (Common Space Types:Atrium) (Ceiling Height 10 ft.)	119	0.30	36
20-SUITE 402 (Retail:Sales area)	113	1.60	181
32-SUITE 403 (Common Space Types:Atrium) (Ceiling Height 10 ft.)	117	0.30	35
31-SUITE 404 (Common Space Types:Atrium) (Ceiling Height 10 ft.)	125	0.30	38
24-SUITE 405 (Retail:Sales area)	136	1.60	218
7-HALLWAY 500 (Common Space Types:Corridor / Transition)	187	0.70	131
5-HALLWAY 501 (Common Space Types:Corridor / Transition)	98	0.70	69
9-HALLWAY 502 (Common Space Types:Corridor / Transition)	256	0.70	179
8-HALLWAY 503 (Common Space Types:Corridor / Transition)	102	0.70	71
33-SECURITY CLOSET 505 (Common Space Types:Atrium) (Ceiling Height 10 ft.)	19	0.30	6
2-LAUNDRY 506 (Common Space Types:Electrical/mechanical)	97	1.10	107
3-WOMENS 507 (Common Space Types:Restroom)	111	1.00	111
4-MENS 508 (Common Space Types:Restroom)	86	1.00	86

(a) Allowed watts per sq. ft. adjusted for ceiling height.

Total Allowed Watts = 4784

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
LOBBY 100 (Common Space Types:Corridor / Transition 100 sq.ft.)				
C: C: Other:	1	6	12	72
SUITE 101 (Retail:Sales area 105 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 102 (Retail:Sales area 113 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 103 (Retail:Sales area 102 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 104 (Retail:Sales area 108 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 105 (Retail:Sales area 107 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 201 (Retail:Sales area 105 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 202 (Retail:Sales area 107 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 203 (Retail:Sales area 107 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 204 (Retail:Sales area 147 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	4	13	52
SUITE 205 (Retail:Sales area 121 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 206 (Retail:Sales area 117 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 207 (Retail:Sales area 118 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 208 (Common Space Types:Atrium 139 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	0	2	13	26
SUITE 209 (Retail:Sales area 102 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 210 (Retail:Sales area 143 sq.ft.)				

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
A: A: Other:	1	2	45	90
W: W: Other:	1	4	13	52
SUITE 301 (Common Space Types:Atrium 122 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 302 (Retail:Sales area 123 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 303 (Retail:Sales area 120 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 304 (Retail:Sales area 119 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 305 (Retail:Sales area 129 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 401 (Common Space Types:Atrium 119 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 402 (Retail:Sales area 113 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 403 (Common Space Types:Atrium 117 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 404 (Common Space Types:Atrium 125 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
SUITE 405 (Retail:Sales area 136 sq.ft.)				
A: A: Other:	1	2	45	90
W: W: Other:	1	2	13	26
HALLWAY 500 (Common Space Types:Corridor / Transition 187 sq.ft.)				
B: B: Other:	1	2	35	70
B6: B6: Other:	1	2	35	70
HALLWAY 501 (Common Space Types:Corridor / Transition 98 sq.ft.)				
B: B: Other:	1	1	35	35
B6: B6: Other:	1	1	35	35
HALLWAY 502 (Common Space Types:Corridor / Transition 256 sq.ft.)				
B: B: Other:	1	3	35	105
B6: B6: Other:	1	2	35	70
HALLWAY 503 (Common Space Types:Corridor / Transition 102 sq.ft.)				
B: B: Other:	1	2	35	70
B6: B6: Other:	1	1	35	35
SECURITY CLOSET 505 (Common Space Types:Atrium 19 sq.ft.)				
C: C: Other:	1	1	35	35
LAUNDRY 506 (Common Space Types:Electrical/mechanical 97 sq.ft.)				
A: A: Other:	1	2	45	90
WOMENS 507 (Common Space Types:Restroom 111 sq.ft.)				
F: C: Other:	1	6	18	108
MENS 508 (Common Space Types:Restroom 86 sq.ft.)				
F: C: Other:	1	6	18	108

Total Proposed Watts = 3890

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2012 IECC requirements in COMcheck Software Version 4.1.1.0 and to comply with applicable mandatory requirements noted in the Inspection Checklist.

Name - Title Signature Date

COMcheck Software Version 4.1.1.0

Inspection Checklist

Energy Code: 2012 IECC

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req. ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PA4]*	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req. ID	Rough-in Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3 [EL22]*	Automatic controls to shut off all building lighting installed in all buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1 [EL23]*	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible, visible to occupants.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1.2 [EL15]*	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.2.3 [EL17]*	Daylight zones provided with individual lighting controls for the lighting in each daylight zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.3 [EL18]*	Manual on switch at entry door that controls lighting in daylight zones with luminaires and switches identified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.2.2 [EL18]*	Occupancy sensors installed in required spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.2.1 [EL20]*	Primary sidelighted areas are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.2.2 [EL21]*	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.3 [EL14]*	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.3 [EL19]*	Fluorescent luminaires with odd numbered lamp configurations that are within 10 feet center to center (if recess mounted) or are within 1 foot edge to edge (if pendant or surface mounted) shall be tandem wired.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.4 [EL6]*	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.3 [EL8]*	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req. ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.1.1 [FI36]*	Furnished as-built drawings for electric power systems within 30 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.3, C408.2.2.2 [FI37]*	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.5.2 [FI18]*	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	See the exterior Lighting fixture schedule for values.
C408.3 [FI33]*	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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ISSUE INFORMATION

1.10.2019

REVISIONS

1 _____

FRCH / ARCHITECTURE, INC., P.C.

PROJECT INFORMATION

Marketplace Center
MSS #5158
1948 Old Fort Pkwy
Murfreesboro, TN 37129

PROJECT #:
20994

SHEET INFORMATION

LIGHTING COMPLIANCE

DRAWN BY:
DMT

REVIEWED BY:
LGF

SCALE:
As Noted

AUTHORIZED FOR:
Bid/Permit/LL

E-7.0

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