# COMcheck Software Version 4.1.5.3 Interior Lighting Compliance Certificate

### **Project Information**

Energy Code: 2018 IECC
Project Title: THE DRIPBAR
Project Type: Alteration

Construction Site: 930-M NW BLUE PKWY LEES SUMMIT, MO 64086 Owner/Agent:

Designer/Contractor: ERIC ENGELL EMR ENGINEERS 4236 HWY 3630 ANNVILLE, 3630, KY 40402

#### **Allowed Interior Lighting Power**

	A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Health Care-Clinic		1274	0.82	1045
			Total Allowed Watts =	1045

#### **Proposed Interior Lighting Power**

A Fixture ID: Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	(C X D)
Health Care-Clinic (1274 sq.ft.)				
LED 1: A: Other:	1	17	10	170
LED 2: B: Other:	1	8	10	80
LED 3: C: Other:	1	2	40	80
LED 4: D: Other:	5	1	50	50
LED 5: F: Other:	1	2	10	20
LED 6: G: Other:	1	6	21	126
LED 7: H: Other:	1	12	13	156
LED 8: I: Other:	1	31	5	155
LED 9: EXISTING TRACK LIGHT: Other:	1	6	20	120
	-	Total Propos	ed Watts =	957

# 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 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection

Checklist.							
ERIC ENGELL		5	2	$\alpha$	08/2	3/21	
Name - Title		Signature	J. H. B. B.	OF MISSI	Date		
			*	ENGELL	*		
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# COMcheck Software Version 4.1.5.3 Inspection Checklist Energy Code: 2018 IECC

Energy Code. 2016 IECC

Requirements: 100.0% were addressed directly in the COM check 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 [PR4] <sup>1</sup>	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.  Location on plans/spec: REFER TO LIGHTING PLAN ON SHEET E-2 IN DWG E-1

**Additional Comments/Assumptions:** 

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

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	■Complies □Does Not □Not Observable □Not Applicable ■Complies □Does Not	Requirement will be met.  Location on plans/spec: REFER TO LIGHTING PLAN ON SHEET E-2 IN DWG E-1  Requirement will be met.
classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas,	□Does Not	Requirement will be met.
warehouse storage areas, and other spaces <= 300 sqft that are enclosed by cloor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	□Not Observable □Not Applicable	<b>Location on plans/spec:</b> REFER TO LIGHTING PLAN ON SHEET E-2 IN DWG E-1
Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce ighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway ndependently and do not control lighting peyond the aisleway being controlled by the sensor.	■Complies □Does Not □Not Observable □Not Applicable	Exception: Requirement does not apply.
Occupant sensor control function in open blan office areas: Occupant sensor controls n open office spaces >= 300 sq.ft. have controls 1) configured so that general ighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general ighting power in each control zone is reduced by >= 80% of the full zone general ighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general ighting only when occupancy for the same area is detected.	■Complies □Does Not □Not Observable □Not Applicable	Exception: Requirement does not apply.
sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	□Does Not □Not Observable	Requirement will be met.  Location on plans/spec: REFER TO LIGHTING PLAN ON SHEET E-2 IN DWG E-1
	cor-to-ceiling height partitions. Reference ection language C405.2.1.2 for control unction in warehouses and section 405.2.1.3 for open plan office spaces.  Cocupancy sensors control function in arehouses: In warehouses, the lighting in isleways and open areas is controlled with ccupant sensors that automatically reduce ghting power by 50% or more when the reas are unoccupied. The occupant ensors control lighting in each aisleway independently and do not control lighting eyond the aisleway being controlled by the ensor.  Cocupant sensor control function in open lan office areas: Occupant sensor controls open office spaces >= 300 sq.ft. have entrols 1) configured so that general ghting can be controlled separately in ontrol zones with floor areas <= 600 sq.ft. eithin the space, 2) automatically turn office eneral lighting in all control zones within 0 minutes after all occupants have left the pace, 3) are configured so that general ghting power in each control zone is educed by >= 80% of the full zone general ghting power within 20 minutes of all cocupants leaving that control zone, and 4) re configured such that any daylight esponsive control will activate space eneral lighting or control zone general ghting only when occupancy for the same rea is detected.	cor-to-ceiling height partitions. Reference ection language C405.2.1.2 for control inction in warehouses and section 405.2.1.3 for open plan office spaces.    Complies   Does Not

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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3, C405.2.3.1, C405.2.3.2 [EL23] <sup>2</sup>	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	□Complies □Does Not □Not Observable ■Not Applicable	Exception: Requirement does not apply.
C405.2.4 [EL26] <sup>1</sup>	Separate lighting control devices for specific uses installed per approved lighting plans.	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.  Location on plans/spec: REFER TO LIGHTING PLAN ON SHEET E-2 IN DWG E-1
C405.2.4 [EL27] <sup>1</sup>	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.  Location on plans/spec: REFER TO LIGHTING PLAN ON SHEET E-2 IN DWG E-1
C405.3 [EL6] <sup>1</sup>	Exit signs do not exceed 5 watts per face.	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.  Location on plans/spec: REFER TO LIGHTING PLAN ON SHEET E-2 IN DWG E-1
C405.6 [EL26] <sup>2</sup>	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	□Complies □Does Not □Not Observable ■Not Applicable	Exception: Requirement does not apply.
C405.7 [EL27] <sup>2</sup>	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	□Not Observable □Not Applicable	Requirement will be met.
C405.8.2, C405.8.2.1 [EL28] <sup>2</sup>	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	□Complies □Does Not □Not Observable ■Not Applicable	Exception: Requirement does not apply.
C405.9 [EL29] <sup>2</sup>	Total voltage drop across the combination of feeders and branch circuits <= 5%.	■Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.

# **Additional Comments/Assumptions:**

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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17] <sup>3</sup>	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.
C405.4.1 [FI18] <sup>1</sup>	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 Interior Lighting fixture schedule for values.
C408.1.1 [FI57] <sup>1</sup>	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	■Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
C408.2.5.1 [FI16] <sup>3</sup>	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	■Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.
C408.3 [FI33] <sup>1</sup>	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	□Complies □Does Not □Not Observable □Not Applicable	Requirement will be met.  Location on plans/spec: REFER TO LIGHTING PLAN ON SHEET E-2 IN DWG E-1

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