# COMcheck Software Version COMcheckWeb Interior Lighting Compliance Certificate

#### **Project Information**

Energy Code: 2021 IECC

Project Title: DSC Stores Building Project Type: New Construction

Construction Site: 3505 MONTOPOLIS AUSTIN, Texas 78744 Owner/Agent: Designer/Contractor:

#### Additional Efficiency Package(s)

Credits: 10.0 Required 0.0 Proposed

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

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Battery Storage & Charging (Warehouse)	10000	0.45	4500
	To	tal Allowed Watts =	4500

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

A  Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture		D Fixture Watt.	(C X D)
1-Battery Storage & Charging (Warehouse)				
LED: A: HI-BAY PENDANT: Other:	1	16	235	3760
LED: D: BUG EYES: Other:	1	4	6	24
	Tot	al Propose	ed Watts =	3784

#### Interior Lighting PASSES: Design 16% better than code

### Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design 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 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Sharon S. Bickford, P.E.

Name - Title



2-23-24

Date

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## COMcheck Software Version COMcheckWeb Exterior Lighting Compliance Certificate

#### **Project Information**

Energy Code: 2021 IECC

Project Title: DSC Stores Building Project Type: New Construction

Exterior Lighting Zone 2 (Light industrial area with limited nighttime use (LZ2))

Construction Site: 3505 MONTOPOLIS AUSTIN, Texas 78744 Owner/Agent: Designer/Contractor:

#### **Allowed Exterior Lighting Power**

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
Illuminated area of facade wall or surface	10000 ft2	0.07	No	750
		Total Tradable	e Watts (a) =	0
		Total Allowed Watts =		750
	Total Allowed Supplemental Watts (b) =		400	

- (a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
- (b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

#### **Proposed Exterior Lighting Power**

A  Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture		D Fixture Watt.	(C X D)
Illuminated area of facade wall or surface (10000 ft2): Non-tradable Wattag	<u>ie</u>			
LED: B: EXT. WALL PACK: Other:	1	8	69	552
LED: C: OVERHEAD LTG: Other:	1	2	14	28
	Total Tradab	le Propose	d Watts =	0

#### Exterior Lighting PASSES: Design 0.0% better than code

#### Exterior Lighting 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 exterior lighting systems have been designed to meet the 2021 IECC requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Sharon S. Bickford, P.E.

Name - Title



2-23-24 Date

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## COMcheck Software Version COMcheckWeb Inspection Checklist Energy Code: 2021 IECC

Requirements: 0.0% 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.

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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	
C103.2 [PR8] <sup>1</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	□Complies □Does Not □Not Observable □Not Applicable	
C406 [PR9] <sup>1</sup>	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	□Complies □Does Not □Not Observable □Not Applicable	

**Additional Comments/Assumptions:** 

	1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section	Dough in Flockwish Inspection	Compliana	Commonte (Accountions
# & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3. 1 [EL22] <sup>1</sup>	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	□Complies □Does Not □Not Observable □Not Applicable	
C405.2.1, C405.2.1. 1 [EL18] <sup>1</sup>	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, corridors, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-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.	□Complies □Does Not □Not Observable □Not Applicable	
C405.2.1. 2 [EL19] <sup>1</sup>	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more within 20 minutes of when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor. Lights not turned off by occupant sensors is done so by timeswitch.	□Complies □Does Not □Not Observable □Not Applicable	
C405.2.1. 3 [EL20] <sup>1</sup>	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) general lighting in each zone permitted to turn on upon occupancy in control zone, 3) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 4) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone.	□Complies □Does Not □Not Observable □Not Applicable	
C405.2.2, C405.2.2. 1 [EL21] <sup>2</sup>	Each area not served by occupancy sensors (per C405.2.1.1) have timeswitch controls and functions detailed in sections C405.2.2.1.	□Complies □Does Not □Not Observable □Not Applicable	

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

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Section			
# & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.4.	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	
C405.2.5 [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	
C405.2.7 [EL28] <sup>1</sup>	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	□Complies □Does Not □Not Observable □Not Applicable	
C405.7 [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	
C405.8 [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).	□Complies □Does Not □Not Observable □Not Applicable	
C405.9.1, C405.9.2 [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	
C405.10 [EL29] <sup>2</sup>	Total voltage drop across the combination of feeders and branch circuits <= 5%.	□Complies □Does Not □Not Observable □Not Applicable	
C405.1.1 [EL30] <sup>2</sup>	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	□Complies □Does Not □Not Observable □Not Applicable	
C405.11, C405.11.1 [EL31] <sup>2</sup>	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	□Complies □Does Not □Not Observable □Not Applicable	

#### Additional Comments/Assumptions:

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

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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	
C405.5.1 [FI19] <sup>1</sup>	Exterior 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.
C408.1.1 [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	
C408.2.5 [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	
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	

Additional Comments/Assumptions:

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

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