

CIRCLE K STOREWEST PROTOTYPE 4400 - 08/17/2015

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B

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Project Name: P:\2013\201307910520 Electrical Construction Documents AT EE\Conv. Store\Produced\ComCheck\CK SW - 4400 - 10/09/15 by gawm



Interior Lighting Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : Circle K Store

Construction Site: Albuquerque, NM
Permit No. TBD
Permit Date: TBD

Owner/Agent: CK Stores, Inc.

Designer/Contractor: GreenbergFarrow
1430 W. Peachtree St. NW
Suite 200
Atlanta, GA 30309

Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts (B x C)
Convenience Store (Retail)	4480	1.5	6720
Total Allowed Watts =			6720

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)
Convenience Store (Retail 4480 sq.ft.)				
LED 2: A/AE: 2'x4' Troffer: LED Linear 33W:	1	42	33	1386
LED 2 copy 1: B/BE: 2'x4' Troffer: LED Linear 33W:	1	11	33	363
LED 1: C: LED Downlight: LED Panel 19W:	1	8	11	88
Linear Fluorescent 3: F: Cooler Fixture: 48" T8 32W (Super T8): Electronic:	2	11	63	693
Track lighting 1: H: LED Track Lights: Wattage based on 63 feet of track	0	0	1890	1890
Total Proposed Watts =			4420	

Section 4: Requirements Checklist

Interior Lighting PASSES: Design 34% better than code.

Lighting Wattage:

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

Allowed Watts	Proposed Watts	Complies
6720	4420	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.

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Exterior Lighting Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : Circle K Store
Exterior Lighting Zone: **2 (Residential mixed use area)**

Construction Site: Albuquerque, NM
Permit No. TBD
Permit Date: TBD

Owner/Agent: CK Stores, Inc.

Designer/Contractor: GreenbergFarrow
1430 W. Peachtree St. NW
Suite 200
Atlanta, GA 30309

Section 2: Exterior Lighting Area/Surface Power Calculation

A Exterior Area/Surface	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B x C)	F Proposed Watts
Fuel Dispenser Canopy (Free standing/attached sales canopy)	5117 ft ²	0.6	Yes	3070	1632
Parking/Site (Parking area)	63401 ft ²	0.06	Yes	3804	695
Bldg. perimeter walkway (Walkway < 10 feet wide)	329 ft of walkway length	0.7	Yes	230	123
Total Tradable Watts*			7105		
Total Allowed Watts =			7105		
Total Allowed Supplemental Watts** =			600		

* Wattage tradeoffs are only allowed between tradable areas/surfaces.

** A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Section 3: Exterior 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)
Fuel Dispenser Canopy (Free standing/attached sales canopy 5117 ft ²): Tradable Wattage				
LED 1: A40-SL: Canopy LED: LED Roadway-Parking Unit 67W:	1	24	68	1632
Parking/Site (Parking area 63401 ft ²): Tradable Wattage				
LED 2: B06: LED Pole Lt. 60: LED Roadway-Parking Unit 88W:	1	3	139	417
LED 3: B08: LED Pole Lt. 80: LED Roadway-Parking Unit 94W:	1	1	278	278
Bldg. perimeter walkway (Walkway < 10 feet wide 329 ft of walkway length): Tradable Wattage				
LED 4: SEC: LED Exterior Wall Sconce: Other:	1	4	17	68
LED 5: L: Exterior Bldg. Downlight: LED Other Fixture Unit 25W:	1	5	11	55
Total Tradable Proposed Watts =			2450	

Section 4: Requirements Checklist

Lighting Wattage:

- ☐ 1. Within each non-tradable area/surface, total proposed watts must be less than or equal to total allowed watts. Across all tradable areas/surfaces, total proposed watts must be less than or equal to total allowed watts.
- Compliance: Passes.

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- ☐ 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.
- ☐ Master switch at entry to hotel/motel guest room.
- ☐ Individual dwelling units separately metered.
- ☐ 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/astromical 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 3.9.4 and to comply with the mandatory requirements in the Requirements Checklist.

Name - Title _____ Signature _____ Date _____

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Controls, Switching, and Wiring:

- ☐ 2. All exemption claims are associated with fixtures that have a control device independent of the control of the nonexempt lighting.
- ☐ 3. Lighting not designated for dusk-to-dawn operation is controlled by either a a photosensor (with time switch), or an astronomical time switch.
- ☐ 4. Lighting designated for dusk-to-dawn operation is controlled by an astronomical time switch or photosensor.
- ☐ 5. All time switches are capable of retaining programming and the time setting during loss of power for a period of at least 10 hours.

Exterior Lighting Efficacy:

- ☐ 6. All exterior building grounds luminaires that operate at greater than 100W have minimum efficacy of 60 lumen/watt.

Exceptions:

- ☐ Lighting that has been claimed as exempt and is identified as such in Section 3 table above.
- ☐ Lighting that is specifically designated as required by a health or life safety statute, ordinance, or regulation.
- ☐ Emergency lighting that is automatically off during normal building operation.
- ☐ Lighting that is controlled by motion sensor.

Section 5: 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 lighting system has been designed to meet the 2009 IECC requirements in COMcheck Version 3.9.4 and to comply with the mandatory requirements in the Requirements Checklist.

Name - Title _____ Signature _____ Date _____

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ISSUE/REVISION RECORD

DATE	DESCRIPTION
02/13/15	PERMIT SET

PROFESSIONAL SEAL



2/16/15

PROFESSIONAL IN CHARGE

GUIDO INOA ALVAREZ

PROJECT MANAGER

GUIDO INOA ALVAREZ

QUALITY CONTROL

GUIDO INOA ALVAREZ

DRAWN BY

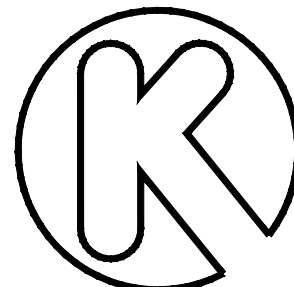
GUIDO INOA ALVAREZ

PROJECT NAME

**CIRCLE K
STORES, INC.**

**ALBUQUERQUE
NEW MEXICO**

**4400 COORS BLVD. SW
ALBUQUERQUE, NM 87121**



CIRCLE K STORES INC.

PROJECT NUMBER

20130791

SHEET TITLE

2009 IECC
ENERGY COMPLIANCE
FORMS

SHEET NUMBER

E5.0