

## **Section 1: Project Information**

Energy Code: 2009 IECC

Project Title: Kustom Krust Pizza- Greer, SC

Project Type: New Construction

Construction Site:

Riverside Crossing

755 Hammet Bridge road

Greer, SC

Owner/Agent:

Elevation Real Estate Group

16740 Birkdale Commons Parkway

Suite 306

Huntersville, NC 28078

Designer/Contractor:

Ray Group Consulting Engineers, Inc.

1827 Powers Ferry Rd Building 20, Suite 100 Atlanta, GA 30339

770-953-1443

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

|                | A<br>Area Category | B<br>Floor Area<br>(ft2) | C<br>Allowed<br>Watts / ft2 | D<br>Allowed Watts<br>(B x C) |
|----------------|--------------------|--------------------------|-----------------------------|-------------------------------|
| Dining: Family |                    | 3109                     | 1.6                         | 4974                          |
|                |                    | То                       | tal Allowed Watts =         | 4974                          |

## **Section 3: Interior Lighting Fixture Schedule**

| A Fixture ID: Description / Lamp / Wattage Per Lamp / Ballast          | B<br>Lamps/<br>Fixture | C<br># of<br>Fixtures  | D<br>Fixture<br>Watt. | (C X D) |
|--|------------------------|------------------------|-----------------------|---------|
| Dining: Family (3109 sq.ft.)   |                        |                        |                       |         |
| LED 1: A: 2'x4' Prismatic lens: Other:                                 | 1                      | 22                     | 48                    | 1056    |
| LED 2: B: 2'x2' Prismatic lens: Other:                                 | 1                      | 13                     | 37                    | 481     |
| LED 3: R: Recessed can light: Other:                                   | 1                      | 15                     | 9.5                   | 142.5   |
| LED 4: W: Gooseneck lamp: Other:                                       | 1                      | 8                      | 9.5                   | 76      |
| Incandescent 1: C: Farmhouse pendant light: Incandescent 40W:          | 8                      | 2                      | 400                   | 800     |
| Track lighting 1: T: Wattage based on current limiting device capacity | 0                      | 0                      | 540                   | 540     |
|  | То                     | Total Proposed Watts = |                       | 3096    |

## **Section 4: Requirements Checklist**

Interior Lighting PASSES: Design 38% better than code

### **Lighting Wattage:**

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

| Allowed Watts | Proposed Watts | Complies |  |
|---------------|----------------|----------|--|
| 4974          | 3096           | YES      |  |

### Controls, Switching, and Wiring:

| <b>V</b> 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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| 4.                       | Independent controls for each space (switch/occupancy sensor).   |
|--------------------------|--|
| _                        | Exceptions:  |
|                          | ☐ Areas designated as security or emergency areas that must be continuously illuminated.   |
| 5.<br>12.1 6.<br>12.1 7. | 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.                            |
| <b>¼</b> 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.  |
| <b>M</b> 9.              | ☐ Areas that use less than 0.6 Watts/sq.ft.  Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.  |
|                          | Exceptions:  |
| <b>AZA</b> 10            | ☐ Sleeping units, patient care areas; and spaces where automatic shutoff would endanger safety or security.  Description Photocell/astronomical time switch on exterior lights.  |
|                          | Exceptions:  |
|                          | ☐ Lighting intended for 24 hour use.   |
| N/A 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.  |
| Sec                      | tion 5: Compliance Statement   |
| and o                    | coliance Statement: The proposed lighting design represented in this document is consistent with the building plans, specifications other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2009 IECC rements in COM check Version 4.0.8.0 and to comply with the proposed lighting in the Requirements Checklist. |
| /-                       | SHIM K. RAY - ELEC_ ENGR. 2 06-11-2018   |
| Nam                      | ne - Title Signature No. 18552 Date  |
|                          | KUMAR OG-11-2018   |

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