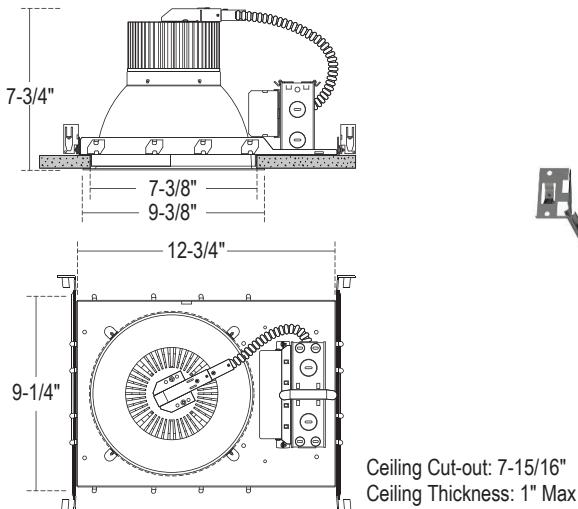


# CH8C - 8" C-SERIES

(COB) CHIP ON BOARD BEAM CONTROL LED, NEW CONSTRUCTION  
1000LM - 4000LM (10W-40W)



- Assorted dimming options.
- COB LED design allows for concentrated high CBCP beam
- Multiple Beam Spreads for flexible beam control
- Quick connector power adapter and twist-and-lock reflector for quick access and easy maintenance

## ORDERING : CH810UE-D10-EM/CR8LC40SW-B30-T27

### CH8C10

| Housing                 | Insulation Contact        | Driver Options                      | Emergency Options | J-Box                   | / | Reflector Finish              | Beam Spread              | CCT                                |
|-------------------------|---------------------------|-------------------------------------|-------------------|-------------------------|---|-------------------------------|--------------------------|------------------------------------|
| Housing                 |                           | Driver Options <sup>1</sup>         |                   |                         |   | Emergency Options             |                          | Reflector Finish                   |
| 1000lm (10W)            | <b>CH8C10<sup>4</sup></b> | 0-10V Dimming                       | <b>UE-D10</b>     |                         |   | None                          | <b>Blank</b>             | Satin Haze Reflector/ White Finish |
| 1500lm (15W)            | <b>CH8C15<sup>4</sup></b> | UniDim™ 0-10V ELV and Triac Dimming | <b>UE-DUN</b>     |                         |   | 12W Emerg. Back-Up            | <b>-EM</b>               | /CR8LC40SW                         |
| 2000lm (20W)            | <b>CH8C20<sup>4</sup></b> | 120V ELV and Triac Dimming          |                   | <b>-DIN</b>             |   | Remote Locator                | <b>-EMAC<sup>5</sup></b> | /CR8LC40WW                         |
| 2800lm (30W)            | <b>CH8C30</b>             | Lutron HighLume                     | <b>UE-DHL</b>     |                         |   | Emergency System              |                          | /CR8LC40BB                         |
| 4000lm (40W)            | <b>CH8C40<sup>6</sup></b> | Lutron EcoSystem                    | <b>UE-ECO</b>     |                         |   | Generator Transfer Device     | <b>-GTD</b>              | /CR8LC40CW <sup>3</sup>            |
| Insulation Contact      |                           | 347V                                |                   | <b>-347<sup>2</sup></b> |   | J-Box                         |                          | All Satin Haze                     |
| Non-IC                  | <b>Blank</b>              | 0-10V Dimming (1%)                  |                   | <b>UE-D10P1</b>         |   | None                          | <b>Blank</b>             | /CR8LC40SS                         |
| IC Rated/ Airtight      | <b>ICA<sup>7</sup></b>    |                                     |                   |                         |   | Junction Box (Chicago Plenum) | <b>-CHP</b>              |                                    |
| Beam Spread             |                           |                                     |                   |                         |   |                               |                          |                                    |
| 20° Spot                |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-B20<sup>6</sup></b> |                           |                                     |                   |                         |   |                               |                          |                                    |
| 30° Narrow Flood        |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-B30<sup>6</sup></b> |                           |                                     |                   |                         |   |                               |                          |                                    |
| 40° Wide Flood          |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-B40</b>             |                           |                                     |                   |                         |   |                               |                          |                                    |
| 60° Wide Flood          |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-B60</b>             |                           |                                     |                   |                         |   |                               |                          |                                    |
| 75° Very Wide Flood     |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-B75<sup>6</sup></b> |                           |                                     |                   |                         |   |                               |                          |                                    |
| CCT                     |                           |                                     |                   |                         |   |                               |                          |                                    |
| 2700K (90 CRI)          |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-T27</b>             |                           |                                     |                   |                         |   |                               |                          |                                    |
| 2700K (97 CRI)          |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-T27-C97</b>         |                           |                                     |                   |                         |   |                               |                          |                                    |
| 3000K (90 CRI)          |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-T30</b>             |                           |                                     |                   |                         |   |                               |                          |                                    |
| 3000K (97 CRI)          |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-T30-C97</b>         |                           |                                     |                   |                         |   |                               |                          |                                    |
| 3500K (90 CRI)          |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-T35</b>             |                           |                                     |                   |                         |   |                               |                          |                                    |
| 4000K (90 CRI)          |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-T40</b>             |                           |                                     |                   |                         |   |                               |                          |                                    |
| 5000K (80 CRI)          |                           |                                     |                   |                         |   |                               |                          |                                    |
| <b>-T50</b>             |                           |                                     |                   |                         |   |                               |                          |                                    |

<sup>1</sup> All drivers are 120V/277V unless otherwise noted.

<sup>2</sup> -347 is not available for CH8C10.

<sup>3</sup> Clear finish reflector not recommended for placing close to vertical surfaces. Uneven striations may be visible.

<sup>4</sup> CH8C10, CH8C15, and CH8C20 are IC rated for direct insulation contact.

<sup>5</sup> Check wiring diagrams.

<sup>6</sup> -B20, -B30, and -B75 are not compatible with CH8C40.

<sup>7</sup> ICA is only available for CH8C10 and CH8C15.

## COMPATABILITY



**VR800**

Round Vandal Resistant Kit for 8"



**P-CR872SW**

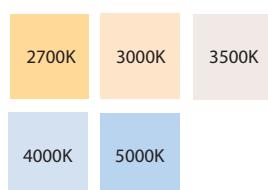
Wall Wash for 8"

**SPECIFICATION****Application**

Architectural/Commercial-grade recessed (COB) Chip on Board Beam Control LED allows for concentrated high center beam candlepower. Twist and lock beam control optic is designed for easy field replacement of 20°, 30°, 40°, 60° and 75° beam spread options.

**Mounting**

Housing suitable for new construction installations only, supplied with (2) 24" adjustable hanger bars with 90° repositioning ability. Suitable for wood & metal joist support systems, and also drywall & T-bar ceilings. Hanger bars equipped with nail-less install 3/4" serrated barbed studs and captive nails, for faster and easier secure mounting in wood joists. Set-screws lock into position and prevent shifting after installation. Earthquake structural cable compatible for drop panel ceiling or any other mounting that requires direct support from structural ceilings.

**Color Temperature (CCT)**

Available in 2700K, 3000K, 3500K, 4000K, 90 CRI; 5000K 80 CRI; 2700K and 3000K, 97 CRI.

| COLOR TEMP: | 2700K | 3000K | 3500K | 4000K | 5000K |
|-------------|-------|-------|-------|-------|-------|
|-------------|-------|-------|-------|-------|-------|

|      |        |        |    |    |    |
|------|--------|--------|----|----|----|
| CRI: | 90, 97 | 90, 97 | 90 | 90 | 80 |
|------|--------|--------|----|----|----|

**Insulation Contact**

(CH8C10), (CH8C15), and (CH8C20) are inherently thermally protected for direct insulation contact without the need for an enclosure. Non-IC rated housings must be kept 3" from loose-fill insulation.

**Power Connection**

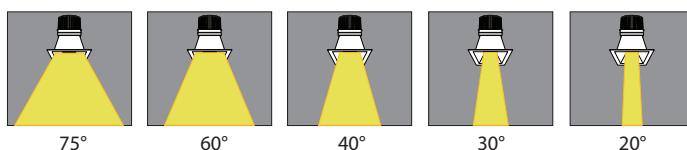
Our LED lamp array is replaceable via our on board quick disconnect terminal. Meets CA Title 24 Requirements and other standards restricting the use of Medium Base or Bi-Pin Sockets.

**Thermal Management**

Heat dissipation facilitated by a large exposed integral aluminum heat sink to maximize heat dissipation in an open-air environment. IC Option thermally engineered to ensure stated L70 LED life without the need for external box. The recommended ambient temperature should be below 35°C to achieve a minimum L70 life of 50,000 hours according to the LM80 standard.

**Optics**

Multifaceted aluminum reflectors produces low glare illumination with multiple light control options.

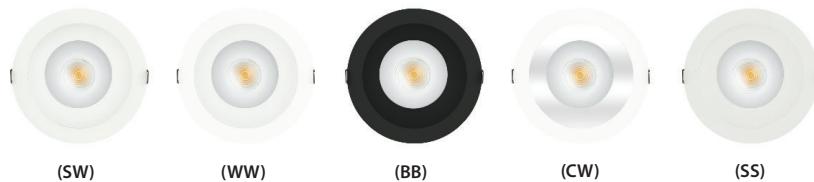


**SPECIFICATION (Continued)****Reflector**

Field adjustable twist and lock reflector is easily removable to provide quick access to LED lamp array. Frosted polycarbonate lens pre-installed on reflector unifies diode sources and protects diodes from dust and particles from front of aperture. Optional reflector (-EMA) features integral EM switch for 12W emergency backup (UE-D10-EM).

**Reflector Finish**

The 1-piece, self-flanged, LED design enables a clean trim finish without a secondary trim ring. Heavy gauge aluminum reflector prevents ugly dents during shipping & installation. Deeply mounted singular LED provides 50° visual cutoff. Available in Satin Haze Reflector/White Finish, White Reflector/White Finish, All Black, and All Satin Haze.

**Junction Box**

16-gauge pre-wired galvanized steel Junction Box, 26 cubic-inch for a maximum of (8) #12 AWG wires. Furnished with (7) 1/2" knockouts. Strain clamps are included to install or remove covers for an easily accessed ground wire. (-CHP) option is Chicago Plenum, air-tight Junction Box.

**Certifications and Listings**

cETLus listed to UL1598 and UL8750. Suitable for dry locations.

NYC approved: Calendar #41937.

**Caution**

LITON recommends use of surge protectors on the power entering LED Housings. Surge damage is not covered by warranty. (+1KV). Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

**SPECIFICATION (Continued)****Dimming Options****ELV and TRIAC Driver 120V (-DIN):**

Compatible with electronic low voltage, and 2-Wire incandescent dimmers. Also known as leading edge, Reverse Phase, Forward Phase dimming. Allows smooth dimming down to 5% depending upon the dimmer's limitations.

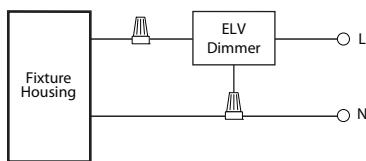
**0-10V Driver 120V/277V (UE-D10):**

Compatible with most existing 0-10V systems. Also known as fluorescent or 5-Wire dimming. Allows smooth dimming down to 5% depending upon the dimmer's limitations. Compatible with daylight harvesting controls.

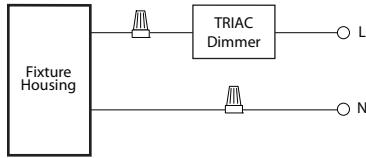
**UniDim™ Driver 120V/277V (UE-DUN):**

All in one ELV and TRIAC phase dimming (120V only), and 0-10V dimming (120V/277V). Works with most 3-Wire ELV, 2-Wire incandescent and 120V/277V 5-Wire 0-10V fluorescent dimmers.

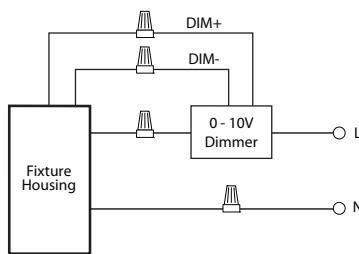
Incandescent/Phase Wiring  
ELV



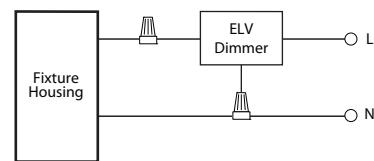
TRIAC



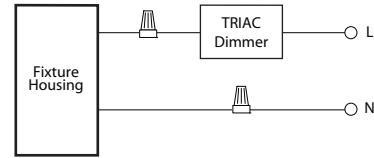
0 - 10V Wiring



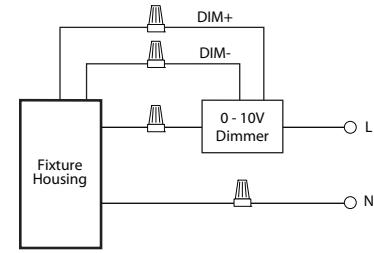
Incandescent/Phase Wiring  
ELV



TRIAC



0 - 10V Wiring

**Warranty**

Covered by a 5-Year Warranty to be free of defects in materials and craftsmanship.

Recommended for applications where ambient temperatures do not exceed 35°C, installations exceeding this temperature will result in reduced LED lamp life and a voided warranty.

**Emergency Options**

Emergency LED Battery Back-up available, remotely mounted adjacently by the installer. When AC power fails, the device immediately switches to the emergency mode, operating the LEDs for a minimum of 90 minutes. Remote test switch and plate cover included. Optional Generator Transfer Device switches the driver to auxiliary generator power during the loss of normal AC power, (recommended for applications requiring individual circuit switching).

**SPECIFICATION (Continued)**
**Emergency Options**

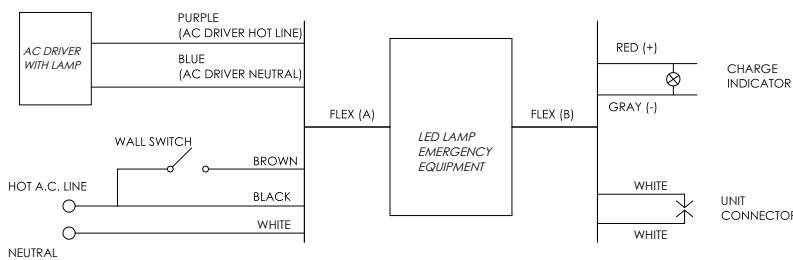
When AC power fails, provides 90 minutes of power to the luminaire. In the event of a power failure, the LED Emergency backup switches to the emergency mode and operates the existing fixture for 90 minutes.

**Remote Emergency Back Up (-EMAC):**

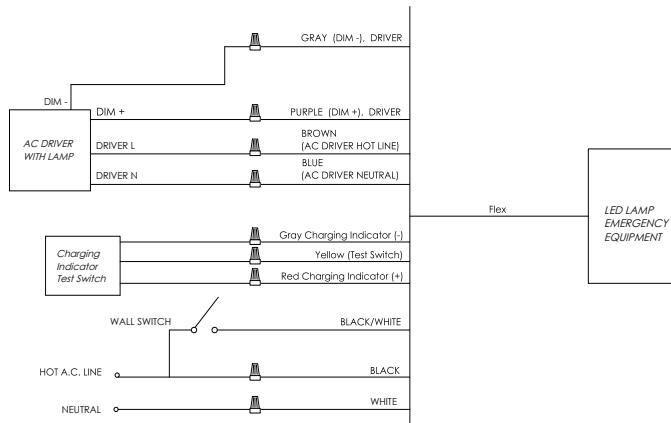
For installation away from the surface of the building in remote hidden location.

- Hidden Emergency Equipment
- Must be installed in Dry Locations

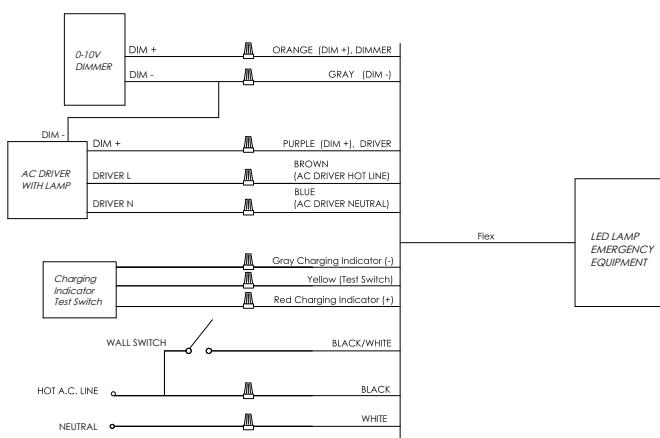
**Not rated for outdoor mounting. Damp location rated.**

**<25W LOAD**


|                      |                            |
|----------------------|----------------------------|
| Input Voltage:       | 120-277VAC/60Hz            |
| Output Voltage:      | 170VDC (120VAC Equivalent) |
| Wattage:             | 25W                        |
| Switching Time:      | <1s                        |
| Charging Time:       | 24h                        |
| Operating Time:      | 90 minutes                 |
| Minimum Temperature: | 0°C                        |
| Maximum Temperature: | 50°C                       |
| Maximum Lumens:      | 2200lm                     |

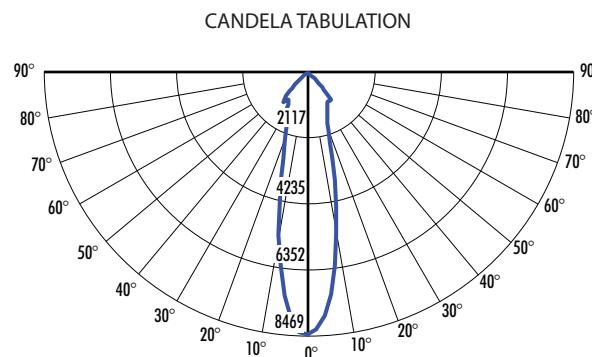
**<40W LOAD**


|                      |                            |
|----------------------|----------------------------|
| Input Voltage:       | 120-277VAC/60Hz            |
| Output Voltage:      | 170VDC (120VAC Equivalent) |
| Wattage:             | 40W                        |
| Switching Time:      | <1s                        |
| Charging Time:       | 24h                        |
| Operating Time:      | 90 minutes                 |
| Minimum Temperature: | 0°C                        |
| Maximum Temperature: | 50°C                       |
| Maximum Lumens:      | 3500lm                     |

**>40W LOAD**


**PHOTOMETRY**
**CH8C40UE-D10\_CR8LC40CW-B20-T35** (4000lm, 40W, 20° Spot, 3500K)

| System Power:      | 44W     | MULTIPLIERS      |             |
|--------------------|---------|------------------|-------------|
| Test Date:         | 10/2023 | REFLECTOR FINISH |             |
| Beam Angle 50%:    | 24.9°   | CW:              | 1.01        |
| Field Angle 10%:   | 87.3°   | SS:              | 0.99        |
| Color Temperature: | 3399K   | <b>SW:</b>       | <b>1.00</b> |
| CRI:               | 94.2    | WW:              | 0.968       |
| Lumens Delivered:  | 3700    | CCT              |             |
| CBCP:              | 8469.3  | 2700K:           | 0.91        |
| Power Factor:      | 0.99    | 3000K:           | 0.97        |
|                    |         | <b>3500K:</b>    | <b>1.00</b> |
|                    |         | 4000K:           | 1.04        |
|                    |         | Lumens           |             |
|                    |         | 1000lm:          | 0.27        |
|                    |         | 1500lm:          | 0.37        |
|                    |         | 2000lm:          | 0.53        |
|                    |         | 2800lm:          | 0.71        |
|                    |         | <b>4000lm:</b>   | <b>1.00</b> |

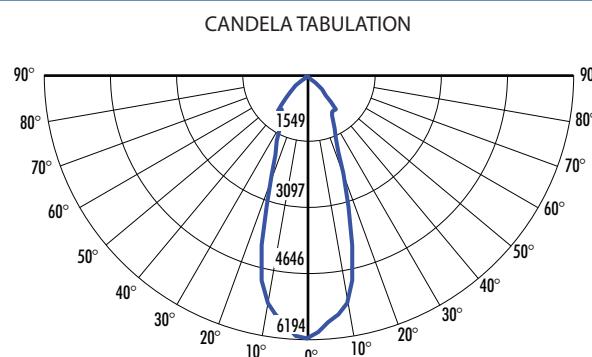


## FOOTCANDLE DISTRIBUTION

| Height | Beam Diameter | FC    |
|--------|---------------|-------|
| 12.0'  | 5.30'         | 58.81 |
| 14.0'  | 6.18'         | 43.21 |
| 16.0'  | 7.06'         | 33.08 |
| 18.0'  | 7.95'         | 26.14 |
| 20.0'  | 8.83'         | 21.17 |

**CH8C40UE-D10\_CR8LC40CW-B30-T35** (4000lm, 40W, 30° Narrow Flood, 3500K)

| System Power:      | 43W     | MULTIPLIERS      |             |
|--------------------|---------|------------------|-------------|
| Test Date:         | 10/2023 | REFLECTOR FINISH |             |
| Beam Angle 50%:    | 36.0°   | CW:              | 1.01        |
| Field Angle 10%:   | 91.7°   | SS:              | 0.99        |
| Color Temperature: | 3378K   | <b>SW:</b>       | <b>1.00</b> |
| CRI:               | 94.3    | WW:              | 0.968       |
| Lumens Delivered:  | 3752    | CCT              |             |
| CBCP:              | 6194.1  | 2700K:           | 0.91        |
| Power Factor:      | 0.99    | 3000K:           | 0.97        |
|                    |         | <b>3500K:</b>    | <b>1.00</b> |
|                    |         | 4000K:           | 1.04        |
|                    |         | Lumens           |             |
|                    |         | 1000lm:          | 0.27        |
|                    |         | 1500lm:          | 0.37        |
|                    |         | 2000lm:          | 0.53        |
|                    |         | 2800lm:          | 0.71        |
|                    |         | <b>4000lm:</b>   | <b>1.00</b> |

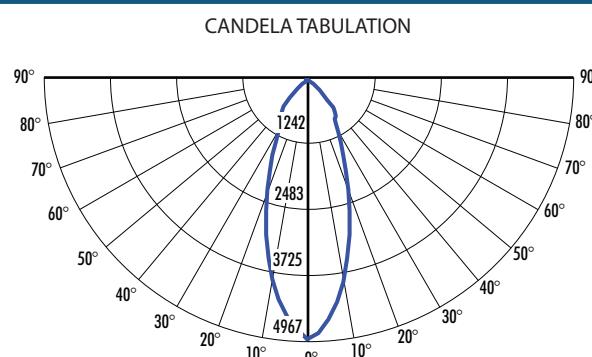


## FOOTCANDLE DISTRIBUTION

| Height | Beam Diameter | FC    |
|--------|---------------|-------|
| 12.0'  | 7.80'         | 43.01 |
| 14.0'  | 9.10'         | 31.60 |
| 16.0'  | 10.40'        | 24.20 |
| 18.0'  | 11.70'        | 19.12 |
| 20.0'  | 13.00'        | 15.49 |

**CH8C40UE-D10\_CR8LC40CW-B40-T35** (4000lm, 40W, 40° Flood, 3500K)

| System Power:      | 43W     | MULTIPLIERS      |             |
|--------------------|---------|------------------|-------------|
| Test Date:         | 10/2023 | REFLECTOR FINISH |             |
| Beam Angle 50%:    | 37.0°   | CW:              | 1.01        |
| Field Angle 10%:   | 90.1°   | SS:              | 0.99        |
| Color Temperature: | 3261K   | <b>SW:</b>       | <b>1.00</b> |
| CRI:               | 93.8    | WW:              | 0.968       |
| Lumens Delivered:  | 3018    | CCT              |             |
| CBCP:              | 4967.0  | 2700K:           | 0.91        |
| Power Factor:      | 0.99    | 3000K:           | 0.97        |
|                    |         | <b>3500K:</b>    | <b>1.00</b> |
|                    |         | 4000K:           | 1.04        |
|                    |         | Lumens           |             |
|                    |         | 1000lm:          | 0.27        |
|                    |         | 1500lm:          | 0.37        |
|                    |         | 2000lm:          | 0.53        |
|                    |         | 2800lm:          | 0.71        |
|                    |         | <b>4000lm:</b>   | <b>1.00</b> |

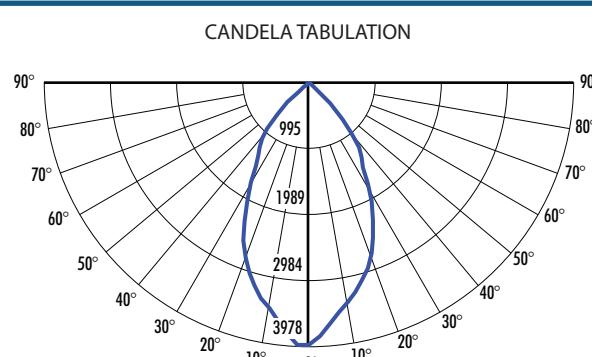


## FOOTCANDLE DISTRIBUTION

| Height | Beam Diameter | FC    |
|--------|---------------|-------|
| 12.0'  | 8.03'         | 34.49 |
| 14.0'  | 9.37'         | 25.34 |
| 16.0'  | 10.71'        | 19.40 |
| 18.0'  | 12.05'        | 15.33 |
| 20.0'  | 13.38'        | 12.42 |

**CH8C40UE-D10\_CR8LC40CW-B60-T35** (4000lm, 40W, 60° Wide Flood, 3500K)

| System Power:      | 43W     | MULTIPLIERS      |             |
|--------------------|---------|------------------|-------------|
| Test Date:         | 10/2023 | REFLECTOR FINISH |             |
| Beam Angle 50%:    | 55.9°   | CW:              | 1.01        |
| Field Angle 10%:   | 93.7°   | SS:              | 0.99        |
| Color Temperature: | 3310K   | <b>SW:</b>       | <b>1.00</b> |
| CRI:               | 93.8    | WW:              | 0.968       |
| Lumens Delivered:  | 2104    | CCT              |             |
| CBCP:              | 3978.1  | 2700K:           | 0.91        |
| Power Factor:      | 0.99    | 3000K:           | 0.97        |
|                    |         | <b>3500K:</b>    | <b>1.00</b> |
|                    |         | 4000K:           | 1.04        |
|                    |         | Lumens           |             |
|                    |         | 1000lm:          | 0.27        |
|                    |         | 1500lm:          | 0.37        |
|                    |         | 2000lm:          | 0.53        |
|                    |         | 2800lm:          | 0.71        |
|                    |         | <b>4000lm:</b>   | <b>1.00</b> |



## FOOTCANDLE DISTRIBUTION

| Height | Beam Diameter | FC    |
|--------|---------------|-------|
| 12.0'  | 12.73'        | 27.63 |
| 14.0'  | 14.86'        | 20.30 |
| 16.0'  | 16.98'        | 15.54 |
| 18.0'  | 19.10'        | 12.28 |
| 20.0'  | 21.22'        | 9.95  |

PHOTOMETRY (Continued)

**CH8C40UE-D10\_CR8LC40CW-B75-T35** (4000lm, 40W, 75° Very Wide Flood, 3500K)

| System Power:      | 43W            | MULTIPLIERS      |             |
|--------------------|----------------|------------------|-------------|
| Test Date:         | 10/2023        | REFLECTOR FINISH |             |
| Beam Angle 50%:    | 74.2°          | CW:              | 1.01        |
| Field Angle 10%:   | 96.2°          | SS:              | 0.99        |
| Color Temperature: | 3351K          | SW:              | <b>1.00</b> |
| CRI:               | 94.0           | WW:              | 0.968       |
| Lumens Delivered:  | 3900           | CCT              |             |
| CBCP:              | 2997.3         | 2700K:           | 0.91        |
| Power Factor:      | 0.99           | 3000K:           | 0.97        |
|                    |                | <b>3500K:</b>    | <b>1.00</b> |
|                    |                | 4000K:           | 1.04        |
|                    | Lumens         |                  |             |
|                    | 1000lm:        | 0.27             |             |
|                    | 1500lm:        | 0.37             |             |
|                    | 2000lm:        | 0.53             |             |
|                    | 2800lm:        | 0.71             |             |
|                    | <b>4000lm:</b> | <b>1.00</b>      |             |

