

Curvilinear

**FEATURES**

- TIR Optics
- Available in 595nm, 3000K, 4000K and 5000K standard CCT
- Type 1, 2, 3, 4, 4W, 5QM, 5QN, 5R, 5W distributions
- 0 - 10V dimming drivers standard
- IP66 optic assembly



**RELATED PRODUCTS**

[Ouro](#)

[Pavilion](#)

[PGL8](#)

**SPECIFICATIONS**

**CONSTRUCTION**

- All hardware is stainless steel or electro-zinc plated steel

**OPTICS**

- Molded silicone gasket ensures a weather-proof seal around each individual LED
- Features revolutionary individual LED optical control based on high performance TIR optical designs
- Optional BackLight Control for complete control of unwanted backlight
- Type 1, 2, 3, 4, 4W, 5QM, 5QN, 5R, and 5W standard distributions Custom available

**INSTALLATION**

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury

**ELECTRICAL**

- Dimming range from 10% to 100% through the use of standard 0-10V interface on the programmable driver
- Modular wiring harness in the service area provides user access to the dimming circuitry
- Optional factory programmed dimming profile
- Surge protection: 10kV surge suppression

**ELECTRICAL (CONTINUED)**

- SF for 120, 277, 347 Line volts  
DF for 208, 240, 480 Line volts
- Wiring: 14GA wires rated 150°C

**CERTIFICATIONS AND LISTINGS**

- Listed to UL1598 and CSA C22.2#250.0-24 for wet locations
- RoHS compliant
- IDA approved, 3000K and warmer CCTs only

**WARRANTY**

- 5 year warranty
- See [HLI Standard Warranty](#) for additional information

|            |           |
|------------|-----------|
| DATE:      | LOCATION: |
| TYPE:      | PROJECT:  |
| CATALOG #: |           |

**HOUSING**

| Housing                        | Current                                 | CCT/CRI                                 | Distribution                            | Fixture Finish                       | Voltage             | Options                               |                 |
|--------------------------------|---|---|---|--------------------------------------|---------------------|---------------------------------------|-----------------|
| <b>CC21K2</b> For CC21 Fixture | <b>72L - 330</b> 9,000lm                | <b>AM</b> Amber-595nm Peak <sup>1</sup> | <b>FR</b> Type I/Front Row              | <b>BLS</b> Black Gloss Smooth        | <b>UNV</b> 120-277V | <b>SF</b> Single Fuse                 |                 |
|                                | <b>72L - 465</b> 12,000lm               |   | <b>2</b> Type II                        |                                      |                     | <b>BLT</b> Black Matte Textured       | <b>347</b> 347V |
|                                | <b>72L - 570</b> 15,000lm               |   | <b>3</b> Type III                       | <b>DBS</b> Dark Bronze Gloss Smooth  |                     |                                       | <b>480</b> 480V |
|                                | <b>72L - 700</b> 18,000lm               |   | <b>4</b> Type IV                        |                                      |                     | <b>DBT</b> Dark Bronze Matte Textured |                 |
|                                | <b>72L - 900</b> 22,000lm <sup>1</sup>  |   | <b>4W</b> Type IV Wide                  | <b>GTT</b> Graphite Matte Textured   |                     |                                       |                 |
|                                | <i>Equivalent</i><br>CC21-E35 = 72L-465 | <b>5QM</b> Type V Square Medium         | <b>LGS</b> Light Grey Gloss Smooth      |                                      |                     |                                       |                 |
|                                |   | <b>5QN</b> Type V Square Narrow         |   | <b>LGT</b> Light Grey Matte Textured |                     |                                       |                 |
|                                |   | <b>5R</b> Type V Rectangular            | <b>PSS</b> Platinum Silver Gloss Smooth |                                      |                     |                                       |                 |
|                                |   | <b>5W</b> Type V Wide (Round)           |   | <b>VG</b> Verde Green Matte Textured |                     |                                       |                 |
|                                |   |   | <b>WHS</b> White Gloss Smooth           |                                      |                     |                                       |                 |
|                                |   | <b>WHT</b> White Matte Textured         |   |                                      |                     |                                       |                 |
|                                |   | <b>Color Option</b>                     |   |                                      |                     |                                       |                 |
|                                |   | <b>CC</b> <sup>2</sup> Custom Color     |   |                                      |                     |                                       |                 |

Notes:  
 1 Turtle friendly  
 2 Consult factory for custom color, marine and corrosive finish options  
 3 Not available for Type 5

**PRODUCT EXCEPTIONS & DETAILS (CONTINUED)**

**CONTROLS**

**DIMMING:**

- Dimming range from 100% to 10% through the use of the standard 0-10V interface on the programmable driver.
- Modular wiring harness in the service area provides user access to the dimming circuitry.
- Dimming circuitry compatible with 0-10V, user-defined control devices.
- Optional factory programmed dimming profile.

**ASTRODIM**

- AstroDIM provides multi-stage night-time power reduction based on an internal timer referenced to the power on/off time. There is no need for an external control infrastructure. The unit automatically performs a dimming profile based on the predefined scheduled reference to the midpoint, which is calculated based on the power on/off times. Please contact factory for feasibility. <sup>1</sup>

**OPTIONAL FUSING:**

- SF for 120, 277, and 347 Line volts
- DF for 208, 240, and 480 Line volts
- High temperature fuse holders factory installed inside the fixture housing.
- Fuse is included.

**CAUTION:**

- Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

Notes:  
 1 Available upon request

**CC21K2**  
LED UPGRADE KIT

**DELIVERED LUMENS**

**NO LENS**

| LED # | Nominal Lumen Package | Drive Current | Distribution | 3000K 70CRI |            |       |       |       | 4000K 70CRI |            |       |       |       | 5000K 70CRI |            |       |       |       |
|-------|-----------------------|---------------|--------------|-------------|------------|-------|-------|-------|-------------|------------|-------|-------|-------|-------------|------------|-------|-------|-------|
|       |                       |               |              | Lumen       | BUG Rating |       |       | lm/w  | Lumen       | BUG Rating |       |       | lm/w  | Lumen       | BUG Rating |       |       | lm/w  |
|       |                       |               |              |             | B          | U     | G     |       |             | B          | U     | G     |       |             | B          | U     | G     |       |
| 72L   | 9,000                 | 330           | FR           | 9670        | 1          | 0     | 1     | 130.5 | 9872        | 1          | 0     | 1     | 133.2 | 10310       | 1          | 0     | 1     | 139.1 |
|       |                       |               | FR-BC        | 6048        | 0          | 0     | 0     | 81.6  | 6174        | 0          | 0     | 0     | 83.3  | 6448        | 0          | 0     | 0     | 87.0  |
|       |                       |               | 2            | 9152        | 1          | 0     | 2     | 123.5 | 9343        | 1          | 0     | 2     | 126.1 | 9757        | 2          | 0     | 2     | 131.6 |
|       |                       |               | 2-BC         | 5217        | 0          | 0     | 1     | 70.4  | 5326        | 0          | 0     | 1     | 71.9  | 5562        | 0          | 0     | 1     | 75.0  |
|       |                       |               | 3            | 8827        | 1          | 0     | 2     | 119.1 | 9011        | 1          | 0     | 2     | 121.6 | 9411        | 1          | 0     | 2     | 127.0 |
|       |                       |               | 3-BC         | 5081        | 0          | 0     | 2     | 68.5  | 5187        | 0          | 0     | 2     | 70.0  | 5417        | 0          | 0     | 2     | 73.1  |
|       |                       |               | 4            | 8787        | 1          | 0     | 2     | 118.6 | 8971        | 1          | 0     | 2     | 121.0 | 9369        | 1          | 0     | 2     | 126.4 |
|       |                       |               | 4-BC         | 6065        | 0          | 0     | 2     | 81.8  | 6192        | 0          | 0     | 2     | 83.5  | 6467        | 0          | 0     | 2     | 87.2  |
|       |                       |               | 4W           | 9218        | 1          | 0     | 2     | 124.4 | 9411        | 1          | 0     | 2     | 127.0 | 9828        | 1          | 0     | 3     | 132.6 |
|       |                       |               | 4W-BC        | 5268        | 0          | 0     | 2     | 71.1  | 5378        | 0          | 0     | 2     | 72.6  | 5617        | 0          | 0     | 2     | 75.8  |
|       |                       |               | 5R           | 9161        | 3          | 0     | 3     | 123.6 | 9352        | 3          | 0     | 3     | 126.2 | 9767        | 3          | 0     | 3     | 131.8 |
|       |                       |               | 5QM          | 9147        | 3          | 0     | 1     | 123.4 | 9338        | 3          | 0     | 1     | 126.0 | 9753        | 3          | 0     | 1     | 131.6 |
|       | 5QN                   | 9639          | 3            | 0           | 0          | 130.1 | 9841  | 3     | 0           | 0          | 132.8 | 10277 | 3     | 0           | 0          | 138.7 |       |       |
|       | 5W                    | 8146          | 3            | 0           | 2          | 109.9 | 8316  | 3     | 0           | 2          | 112.2 | 8685  | 3     | 0           | 2          | 117.2 |       |       |
|       | 12,000                | 465           | FR           | 13285       | 1          | 0     | 1     | 125.3 | 13563       | 1          | 0     | 1     | 128.0 | 14164       | 2          | 0     | 1     | 133.6 |
|       |                       |               | FR-BC        | 8308        | 0          | 0     | 1     | 78.4  | 8482        | 0          | 0     | 1     | 80.0  | 8858        | 0          | 0     | 1     | 83.6  |
|       |                       |               | 2            | 12573       | 2          | 0     | 2     | 118.6 | 12835       | 2          | 0     | 2     | 121.1 | 13405       | 2          | 0     | 2     | 126.5 |
|       |                       |               | 2-BC         | 7167        | 0          | 0     | 1     | 67.6  | 7317        | 0          | 0     | 1     | 69.0  | 7642        | 0          | 0     | 1     | 72.1  |
|       |                       |               | 3            | 12126       | 2          | 0     | 2     | 114.4 | 12380       | 2          | 0     | 2     | 116.8 | 12929       | 2          | 0     | 2     | 122.0 |
|       |                       |               | 3-BC         | 6980        | 0          | 0     | 2     | 65.9  | 7126        | 0          | 0     | 2     | 67.2  | 7442        | 0          | 0     | 2     | 70.2  |
|       |                       |               | 4            | 12072       | 1          | 0     | 2     | 113.9 | 12325       | 1          | 0     | 2     | 116.3 | 12871       | 1          | 0     | 3     | 121.4 |
|       |                       |               | 4-BC         | 8333        | 0          | 0     | 2     | 78.6  | 8507        | 0          | 0     | 2     | 80.3  | 8884        | 0          | 0     | 2     | 83.8  |
|       |                       |               | 4W           | 12664       | 2          | 0     | 3     | 119.5 | 12929       | 2          | 0     | 3     | 122.0 | 13502       | 2          | 0     | 3     | 127.4 |
|       |                       |               | 4W-BC        | 7238        | 1          | 0     | 2     | 68.3  | 7389        | 1          | 0     | 2     | 69.7  | 7717        | 1          | 0     | 2     | 72.8  |
|       |                       |               | 5R           | 12585       | 3          | 0     | 3     | 118.7 | 12848       | 3          | 0     | 3     | 121.2 | 13418       | 4          | 0     | 4     | 126.6 |
|       |                       |               | 5QM          | 12566       | 3          | 0     | 1     | 118.6 | 12829       | 3          | 0     | 1     | 121.0 | 13398       | 3          | 0     | 1     | 126.4 |
|       | 5QN                   | 13243         | 3            | 0           | 0          | 124.9 | 13520 | 4     | 0           | 0          | 127.6 | 14119 | 4     | 0           | 1          | 133.2 |       |       |
|       | 5W                    | 11191         | 4            | 0           | 2          | 105.6 | 11425 | 4     | 0           | 2          | 107.8 | 11932 | 4     | 0           | 2          | 112.6 |       |       |
|       | 15,000                | 570           | FR           | 15708       | 2          | 0     | 1     | 121.5 | 16036       | 2          | 0     | 0     | 124.1 | 16748       | 2          | 0     | 1     | 129.6 |
|       |                       |               | FR-BC        | 9824        | 0          | 0     | 1     | 76.0  | 10029       | 0          | 0     | 1     | 77.6  | 10474       | 0          | 0     | 1     | 81.0  |
|       |                       |               | 2            | 14866       | 2          | 0     | 2     | 115.0 | 15176       | 2          | 0     | 2     | 117.4 | 15850       | 2          | 0     | 2     | 122.6 |
|       |                       |               | 2-BC         | 8474        | 0          | 0     | 1     | 65.6  | 8652        | 0          | 0     | 2     | 66.9  | 9035        | 0          | 0     | 2     | 69.9  |
|       |                       |               | 3            | 14338       | 2          | 0     | 3     | 110.9 | 14638       | 2          | 0     | 3     | 113.2 | 15287       | 2          | 0     | 3     | 118.3 |
|       |                       |               | 3-BC         | 8253        | 1          | 0     | 2     | 63.8  | 8426        | 1          | 0     | 2     | 65.2  | 8799        | 1          | 0     | 2     | 68.1  |
|       |                       |               | 4            | 14274       | 1          | 0     | 3     | 110.4 | 14572       | 1          | 0     | 3     | 112.7 | 15219       | 1          | 0     | 3     | 117.7 |
|       |                       |               | 4-BC         | 9852        | 0          | 0     | 2     | 76.2  | 10058       | 0          | 0     | 2     | 77.8  | 10505       | 1          | 0     | 2     | 81.3  |
| 4W    |                       |               | 14974        | 2           | 0          | 4     | 115.8 | 15287 | 2           | 0          | 4     | 118.3 | 15965 | 2           | 0          | 4     | 123.5 |       |
| 4W-BC |                       |               | 8558         | 1           | 0          | 2     | 66.2  | 8737  | 1           | 0          | 2     | 67.6  | 9124  | 1           | 0          | 2     | 70.6  |       |
| 5R    |                       |               | 14880        | 4           | 0          | 4     | 115.1 | 15191 | 4           | 0          | 4     | 117.5 | 15865 | 4           | 0          | 4     | 122.7 |       |
| 5QM   |                       |               | 14858        | 3           | 0          | 2     | 114.9 | 15169 | 4           | 0          | 2     | 117.3 | 15842 | 4           | 0          | 2     | 122.5 |       |
| 5QN   | 15658                 | 4             | 0            | 1           | 121.1      | 15985 | 4     | 0     | 1           | 123.7      | 16694 | 4     | 0     | 1           | 129.1      |       |       |       |
| 5W    | 13232                 | 4             | 0            | 2           | 102.4      | 13509 | 4     | 0     | 2           | 104.5      | 14108 | 4     | 0     | 2           | 109.1      |       |       |       |

| CRI Lumen Multiplier |        |        |
|----------------------|--------|--------|
| CCT                  | 80 CRI | 90 CRI |
| 3000K                | 0.9119 | 0.7033 |
| 4000K                | 0.8941 | N/A    |

| Amber |            |
|-------|------------|
| CCT   | Multiplier |
| 5000K | 1          |
| AM    | 0.1727     |

**DELIVERED LUMENS (CONTINUED)**

**NO LENS**

| LED # | Nominal Lumen Package | Drive Current | Distribution | 3000K 70CRI |            |       |       |       | 4000K 70CRI |            |       |       |       | 5000K 70CRI |            |       |       |       |
|-------|-----------------------|---------------|--------------|-------------|------------|-------|-------|-------|-------------|------------|-------|-------|-------|-------------|------------|-------|-------|-------|
|       |                       |               |              | Lumen       | BUG Rating |       |       | lm/w  | Lumen       | BUG Rating |       |       | lm/w  | Lumen       | BUG Rating |       |       | lm/w  |
|       |                       |               |              |             | B          | U     | G     |       |             | B          | U     | G     |       |             | B          | U     | G     |       |
| 72L   | 18,000                | 700           | FR           | 18363       | 2          | 0     | 2     | 115.8 | 18747       | 2          | 0     | 2     | 118.2 | 19579       | 2          | 0     | 2     | 123.5 |
|       |                       |               | FR-BC        | 11484       | 0          | 0     | 1     | 72.4  | 11724       | 1          | 0     | 1     | 73.9  | 12245       | 1          | 0     | 1     | 77.2  |
|       |                       |               | 2            | 17378       | 2          | 0     | 2     | 109.6 | 17742       | 2          | 0     | 2     | 111.9 | 18529       | 2          | 0     | 2     | 116.9 |
|       |                       |               | 2-BC         | 9907        | 1          | 0     | 2     | 62.5  | 10114       | 1          | 0     | 2     | 63.8  | 10563       | 1          | 0     | 2     | 66.6  |
|       |                       |               | 3            | 16761       | 2          | 0     | 3     | 105.7 | 17112       | 2          | 0     | 3     | 107.9 | 17871       | 2          | 0     | 3     | 112.7 |
|       |                       |               | 3-BC         | 9648        | 1          | 0     | 2     | 60.8  | 9850        | 1          | 0     | 2     | 62.1  | 10287       | 1          | 0     | 2     | 64.9  |
|       |                       |               | 4            | 16687       | 2          | 0     | 3     | 105.2 | 17035       | 2          | 0     | 3     | 107.4 | 17791       | 2          | 0     | 3     | 112.2 |
|       |                       |               | 4-BC         | 11518       | 1          | 0     | 2     | 72.6  | 11759       | 1          | 0     | 2     | 74.2  | 12280       | 1          | 0     | 3     | 77.4  |
|       |                       |               | 4W           | 17505       | 4          | 0     | 4     | 110.4 | 17871       | 2          | 0     | 4     | 112.7 | 18663       | 2          | 0     | 4     | 117.7 |
|       |                       |               | 4W-BC        | 10004       | 1          | 0     | 2     | 63.1  | 10213       | 1          | 0     | 2     | 64.4  | 10666       | 1          | 0     | 2     | 67.3  |
|       |                       |               | 5R           | 17395       | 4          | 0     | 4     | 109.7 | 17759       | 4          | 0     | 4     | 112.0 | 18547       | 4          | 0     | 4     | 117.0 |
|       |                       |               | 5QM          | 17370       | 4          | 0     | 2     | 109.5 | 17733       | 4          | 0     | 2     | 111.8 | 18520       | 4          | 0     | 2     | 116.8 |
|       | 5QN                   | 18305         | 4            | 0           | 1          | 115.4 | 18687 | 4     | 0           | 1          | 117.9 | 19516 | 4     | 0           | 1          | 123.1 |       |       |
|       | 5W                    | 15469         | 4            | 0           | 2          | 97.6  | 15792 | 4     | 0           | 2          | 99.6  | 16493 | 4     | 0           | 2          | 104.0 |       |       |
|       | 22,000                | 900           | FR           | 22108       | 2          | 0     | 2     | 106.1 | 22571       | 2          | 0     | 2     | 108.3 | 23572       | 2          | 0     | 2     | 113.1 |
|       |                       |               | FR-BC        | 13827       | 1          | 0     | 1     | 66.4  | 14116       | 1          | 0     | 1     | 67.8  | 14742       | 1          | 0     | 1     | 70.9  |
|       |                       |               | 2            | 20923       | 3          | 0     | 3     | 100.4 | 21360       | 3          | 0     | 3     | 102.5 | 22308       | 3          | 0     | 3     | 106.8 |
|       |                       |               | 2-BC         | 11927       | 1          | 0     | 2     | 57.3  | 12177       | 1          | 0     | 2     | 58.5  | 12717       | 1          | 0     | 2     | 61.1  |
|       |                       |               | 3            | 20180       | 2          | 0     | 4     | 96.9  | 20602       | 2          | 0     | 4     | 99.6  | 21516       | 3          | 0     | 4     | 103.3 |
|       |                       |               | 3-BC         | 11616       | 1          | 0     | 2     | 55.8  | 11859       | 1          | 0     | 2     | 56.9  | 12385       | 1          | 0     | 2     | 59.3  |
|       |                       |               | 4            | 20090       | 2          | 0     | 4     | 96.4  | 20510       | 2          | 0     | 4     | 98.5  | 21420       | 2          | 0     | 4     | 102.8 |
|       |                       |               | 4-BC         | 13867       | 1          | 0     | 3     | 66.6  | 14157       | 1          | 0     | 3     | 68.0  | 14785       | 1          | 0     | 3     | 71.1  |
|       |                       |               | 4W           | 21075       | 2          | 0     | 4     | 101.2 | 21515       | 2          | 0     | 4     | 103.3 | 22470       | 2          | 0     | 4     | 107.4 |
|       |                       |               | 4W-BC        | 12045       | 1          | 0     | 3     | 57.8  | 12296       | 1          | 0     | 3     | 59.0  | 12842       | 1          | 0     | 3     | 61.7  |
| 5R    |                       |               | 20943        | 4           | 0          | 4     | 100.5 | 21381 | 4           | 0          | 4     | 102.6 | 22330 | 4           | 0          | 4     | 107.3 |       |
| 5QM   |                       |               | 20913        | 4           | 0          | 2     | 100.4 | 21350 | 4           | 0          | 2     | 102.5 | 22297 | 4           | 0          | 2     | 106.8 |       |
| 5QN   | 22038                 | 4             | 0            | 1           | 105.8      | 22499 | 4     | 0     | 1           | 108.0      | 23497 | 5     | 0     | 1           | 112.5      |       |       |       |
| 5W    | 18624                 | 4             | 0            | 2           | 89.4       | 19013 | 4     | 0     | 2           | 91.3       | 19857 | 4     | 0     | 2           | 95.2       |       |       |       |

**DELIVERED LUMENS (CONTINUED)**

**CLR LENS**

| LED # | Nominal Lumen Package | Drive Current | Distribution | 3000K 70CRI |            |       |       |       | 4000K 70CRI |            |       |       |       | 5000K 70CRI |            |       |       |       |
|-------|-----------------------|---------------|--------------|-------------|------------|-------|-------|-------|-------------|------------|-------|-------|-------|-------------|------------|-------|-------|-------|
|       |                       |               |              | Lumen       | BUG Rating |       |       | lm/w  | Lumen       | BUG Rating |       |       | lm/w  | Lumen       | BUG Rating |       |       | lm/w  |
|       |                       |               |              |             | B          | U     | G     |       |             | B          | U     | G     |       |             | B          | U     | G     |       |
| 72L   | 9,000                 | 330           | FR           | 8657        | 1          | 0     | 1     | 116.8 | 8838        | 1          | 0     | 1     | 119.2 | 9230        | 1          | 0     | 1     | 124.5 |
|       |                       |               | FR-BC        | 5414        | 0          | 0     | 0     | 73.0  | 5527        | 0          | 0     | 0     | 74.6  | 5772        | 0          | 0     | 0     | 77.9  |
|       |                       |               | 2            | 8192        | 1          | 0     | 2     | 110.5 | 8364        | 1          | 0     | 2     | 112.8 | 8735        | 1          | 0     | 2     | 117.8 |
|       |                       |               | 2-BC         | 4670        | 0          | 0     | 1     | 63.0  | 4768        | 0          | 0     | 1     | 64.3  | 4979        | 0          | 0     | 1     | 67.2  |
|       |                       |               | 3            | 7902        | 1          | 0     | 2     | 106.6 | 8067        | 1          | 0     | 2     | 108.8 | 8425        | 1          | 0     | 2     | 113.7 |
|       |                       |               | 3-BC         | 4548        | 0          | 0     | 1     | 61.4  | 4643        | 0          | 0     | 1     | 62.6  | 4849        | 0          | 0     | 1     | 65.4  |
|       |                       |               | 4            | 7866        | 1          | 0     | 2     | 106.1 | 8031        | 1          | 0     | 2     | 108.3 | 8387        | 1          | 0     | 2     | 113.2 |
|       |                       |               | 4-BC         | 5430        | 0          | 0     | 2     | 73.3  | 5543        | 0          | 0     | 2     | 74.8  | 5789        | 0          | 0     | 2     | 78.1  |
|       |                       |               | 4W           | 8252        | 1          | 0     | 2     | 111.3 | 8424        | 1          | 0     | 2     | 113.7 | 8798        | 1          | 0     | 2     | 118.7 |
|       |                       |               | 4W-BC        | 4716        | 0          | 0     | 2     | 63.6  | 4815        | 0          | 0     | 2     | 65.0  | 5028        | 0          | 0     | 2     | 67.8  |
|       |                       |               | 5R           | 8200        | 3          | 0     | 3     | 110.6 | 8372        | 3          | 0     | 3     | 113.0 | 8743        | 3          | 0     | 3     | 118.0 |
|       |                       |               | 5QM          | 8188        | 3          | 0     | 1     | 110.5 | 8360        | 3          | 0     | 1     | 112.8 | 8730        | 3          | 0     | 1     | 117.8 |
|       | 5QN                   | 8629          | 3            | 0           | 0          | 116.4 | 8810  | 3     | 0           | 0          | 118.9 | 9200  | 3     | 0           | 0          | 124.1 |       |       |
|       | 5W                    | 7292          | 3            | 0           | 1          | 98.4  | 7445  | 3     | 0           | 1          | 100.4 | 7775  | 3     | 0           | 2          | 104.9 |       |       |
|       | 12,000                | 465           | FR           | 11893       | 1          | 0     | 1     | 112.2 | 12141       | 1          | 0     | 1     | 114.6 | 12680       | 1          | 0     | 1     | 119.6 |
|       |                       |               | FR-BC        | 7438        | 0          | 0     | 0     | 70.2  | 7593        | 0          | 0     | 1     | 71.6  | 7930        | 0          | 0     | 1     | 74.8  |
|       |                       |               | 2            | 11255       | 2          | 0     | 2     | 106.2 | 11490       | 2          | 0     | 2     | 108.4 | 12000       | 2          | 0     | 2     | 113.2 |
|       |                       |               | 2-BC         | 6416        | 0          | 0     | 1     | 60.5  | 6550        | 0          | 0     | 1     | 61.8  | 6841        | 0          | 0     | 1     | 64.5  |
|       |                       |               | 3            | 10855       | 2          | 0     | 2     | 102.4 | 11082       | 2          | 0     | 2     | 104.6 | 11574       | 2          | 0     | 2     | 109.2 |
|       |                       |               | 3-BC         | 6249        | 0          | 0     | 2     | 59.0  | 6379        | 0          | 0     | 2     | 60.2  | 6662        | 0          | 0     | 2     | 62.9  |
|       |                       |               | 4            | 10807       | 1          | 0     | 2     | 102.0 | 11033       | 1          | 0     | 2     | 104.1 | 11522       | 1          | 0     | 2     | 108.7 |
|       |                       |               | 4-BC         | 7459        | 0          | 0     | 2     | 70.4  | 7615        | 0          | 0     | 2     | 71.8  | 7953        | 0          | 0     | 2     | 75.0  |
|       |                       |               | 4W           | 11337       | 2          | 0     | 3     | 107.0 | 11574       | 2          | 0     | 3     | 109.2 | 12087       | 2          | 0     | 3     | 114.0 |
|       |                       |               | 4W-BC        | 6479        | 1          | 0     | 2     | 61.1  | 6615        | 1          | 0     | 2     | 62.4  | 6908        | 1          | 0     | 2     | 65.2  |
|       |                       |               | 5R           | 11266       | 3          | 0     | 3     | 106.3 | 11502       | 3          | 0     | 3     | 108.5 | 12012       | 3          | 0     | 3     | 113.3 |
|       |                       |               | 5QM          | 11249       | 3          | 0     | 1     | 106.1 | 11485       | 3          | 0     | 1     | 108.4 | 11994       | 3          | 0     | 1     | 113.2 |
|       | 5QN                   | 11855         | 3            | 0           | 0          | 111.8 | 12103 | 3     | 0           | 0          | 114.2 | 12640 | 3     | 0           | 0          | 119.3 |       |       |
|       | 5W                    | 10018         | 3            | 0           | 2          | 94.5  | 10228 | 3     | 0           | 2          | 96.5  | 10682 | 4     | 0           | 2          | 100.8 |       |       |
|       | 15,000                | 570           | FR           | 14062       | 2          | 0     | 1     | 108.8 | 14356       | 2          | 0     | 1     | 111.1 | 14993       | 2          | 0     | 1     | 116.0 |
|       |                       |               | FR-BC        | 8794        | 0          | 0     | 1     | 68.0  | 8978        | 0          | 0     | 1     | 69.5  | 9376        | 0          | 0     | 1     | 72.5  |
|       |                       |               | 2            | 13308       | 2          | 0     | 2     | 102.9 | 13586       | 2          | 0     | 2     | 105.1 | 14189       | 2          | 0     | 2     | 109.8 |
|       |                       |               | 2-BC         | 7586        | 0          | 0     | 1     | 58.7  | 7745        | 0          | 0     | 1     | 59.9  | 8088        | 0          | 0     | 1     | 62.6  |
|       |                       |               | 3            | 12835       | 2          | 0     | 2     | 99.3  | 13104       | 2          | 0     | 2     | 101.4 | 13685       | 2          | 0     | 3     | 105.9 |
|       |                       |               | 3-BC         | 7388        | 0          | 0     | 2     | 57.2  | 7543        | 0          | 0     | 2     | 58.3  | 7877        | 1          | 0     | 2     | 60.9  |
|       |                       |               | 4            | 12778       | 1          | 0     | 3     | 98.8  | 13045       | 1          | 0     | 3     | 100.9 | 13624       | 1          | 0     | 3     | 105.4 |
|       |                       |               | 4-BC         | 8820        | 0          | 0     | 2     | 68.2  | 9004        | 0          | 0     | 2     | 69.7  | 9404        | 0          | 0     | 2     | 72.7  |
| 4W    |                       |               | 13404        | 2           | 0          | 3     | 103.7 | 13685 | 2           | 0          | 3     | 105.9 | 14292 | 2           | 0          | 3     | 110.6 |       |
| 4W-BC |                       |               | 7661         | 1           | 0          | 2     | 59.3  | 7821  | 1           | 0          | 2     | 60.5  | 8168  | 1           | 0          | 2     | 63.2  |       |
| 5R    |                       |               | 13321        | 3           | 0          | 3     | 103.0 | 13599 | 4           | 0          | 4     | 105.2 | 14203 | 4           | 0          | 4     | 109.9 |       |
| 5QM   |                       |               | 13301        | 3           | 0          | 1     | 102.9 | 13579 | 3           | 0          | 1     | 105.0 | 14182 | 3           | 0          | 2     | 109.7 |       |
| 5QN   | 14017                 | 4             | 0            | 1           | 108.4      | 14310 | 4     | 0     | 1           | 110.7      | 14945 | 4     | 0     | 1           | 115.6      |       |       |       |
| 5W    | 11845                 | 4             | 0            | 2           | 91.6       | 12093 | 4     | 0     | 2           | 93.5       | 12630 | 4     | 0     | 2           | 97.7       |       |       |       |

**DELIVERED LUMENS (CONTINUED)**

**CLR LENS**

| LED # | Nominal Lumen Package | Drive Current | Distribution | 3000K 70CRI |            |       |   |       | 4000K 70CRI |            |       |   |       | 5000K 70CRI |            |   |   |       |
|-------|-----------------------|---------------|--------------|-------------|------------|-------|---|-------|-------------|------------|-------|---|-------|-------------|------------|---|---|-------|
|       |                       |               |              | Lumen       | BUG Rating |       |   | lm/w  | Lumen       | BUG Rating |       |   | lm/w  | Lumen       | BUG Rating |   |   | lm/w  |
|       |                       |               |              |             | B          | U     | G |       |             | B          | U     | G |       |             | B          | U | G |       |
| 72L   | 18,000                | 700           | FR           | 16438       | 2          | 0     | 1 | 103.7 | 16782       | 2          | 0     | 1 | 105.8 | 17527       | 2          | 0 | 1 | 110.5 |
|       |                       |               | FR-BC        | 10281       | 0          | 0     | 1 | 64.8  | 10496       | 0          | 0     | 1 | 66.2  | 10961       | 0          | 0 | 1 | 69.1  |
|       |                       |               | 2            | 15557       | 2          | 0     | 2 | 98.1  | 15882       | 2          | 0     | 2 | 100.2 | 16587       | 2          | 0 | 2 | 104.6 |
|       |                       |               | 2-BC         | 8868        | 0          | 0     | 2 | 55.9  | 9054        | 0          | 0     | 2 | 57.1  | 9456        | 0          | 0 | 2 | 59.6  |
|       |                       |               | 3            | 15005       | 2          | 0     | 2 | 94.6  | 15318       | 2          | 0     | 2 | 96.6  | 15998       | 2          | 0 | 3 | 100.9 |
|       |                       |               | 3-BC         | 8637        | 1          | 0     | 2 | 54.5  | 8818        | 1          | 0     | 2 | 55.6  | 9209        | 1          | 0 | 2 | 58.1  |
|       |                       |               | 4            | 14938       | 1          | 0     | 3 | 94.2  | 15250       | 1          | 0     | 3 | 96.2  | 15927       | 1          | 0 | 3 | 100.4 |
|       |                       |               | 4-BC         | 10311       | 0          | 0     | 2 | 65.0  | 10526       | 1          | 0     | 2 | 66.4  | 10993       | 1          | 0 | 2 | 69.3  |
|       |                       |               | 4W           | 15670       | 2          | 0     | 4 | 98.8  | 15998       | 2          | 0     | 4 | 100.9 | 16707       | 2          | 0 | 4 | 105.4 |
|       |                       |               | 4W-BC        | 8956        | 1          | 0     | 2 | 56.5  | 9143        | 1          | 0     | 2 | 57.7  | 9549        | 1          | 0 | 2 | 60.2  |
|       |                       |               | 5R           | 15572       | 4          | 0     | 4 | 98.2  | 15898       | 4          | 0     | 4 | 100.3 | 16603       | 4          | 0 | 4 | 104.7 |
|       |                       |               | 5QM          | 15549       | 4          | 0     | 2 | 98.1  | 15874       | 4          | 0     | 2 | 100.1 | 16579       | 4          | 0 | 2 | 104.6 |
|       |                       |               | 5QN          | 16386       | 4          | 0     | 1 | 103.3 | 16729       | 4          | 0     | 1 | 105.5 | 17471       | 4          | 0 | 1 | 110.2 |
| 5W    | 13848                 | 4             | 0            | 2           | 87.3       | 14137 | 4 | 0     | 2           | 89.2       | 14764 | 4 | 0     | 2           | 93.1       |   |   |       |

**PL LENS**

| LED # | Nominal Lumen Package | Drive Current | Distribution | 3000K 70CRI |            |       |      |       | 4000K 70CRI |            |       |      |       | 5000K 70CRI |            |      |      |       |
|-------|-----------------------|---------------|--------------|-------------|------------|-------|------|-------|-------------|------------|-------|------|-------|-------------|------------|------|------|-------|
|       |                       |               |              | Lumen       | BUG Rating |       |      | lm/w  | Lumen       | BUG Rating |       |      | lm/w  | Lumen       | BUG Rating |      |      | lm/w  |
|       |                       |               |              |             | B          | U     | G    |       |             | B          | U     | G    |       |             | B          | U    | G    |       |
| 72L   | 9,000                 | 330           | FR           | 8123        | 1          | 0     | 1    | 109.6 | 8293        | 1          | 0     | 1    | 111.9 | 8660        | 1          | 0    | 1    | 116.8 |
|       |                       |               | FR-BC        | 5080        | 0          | 0     | 0    | 68.5  | 5186        | 0          | 0     | 0    | 70.0  | 5416        | 0          | 0    | 0    | 73.1  |
|       |                       |               | 2            | 7687        | 1          | 0     | 2    | 103.7 | 7848        | 1          | 0     | 2    | 105.9 | 8196        | 1          | 0    | 2    | 110.6 |
|       |                       |               | 2-BC         | 4382        | 0          | 0     | 1    | 59.1  | 4474        | 0          | 0     | 1    | 60.4  | 4672        | 0          | 0    | 1    | 63.0  |
|       |                       |               | 3            | 7414        | 1          | 0     | 2    | 100.0 | 7569        | 1          | 0     | 2    | 102.1 | 7905        | 1          | 0    | 2    | 106.7 |
|       |                       |               | 3-BC         | 4268        | 0          | 0     | 1    | 57.6  | 4357        | 0          | 0     | 1    | 58.8  | 4550        | 0          | 0    | 1    | 61.4  |
|       |                       |               | 4            | 7381        | 1          | 0     | 2    | 99.6  | 7535        | 1          | 0     | 2    | 101.7 | 7870        | 1          | 0    | 2    | 106.2 |
|       |                       |               | 4-BC         | 5095        | 0          | 0     | 2    | 68.7  | 5201        | 0          | 0     | 2    | 70.2  | 5432        | 0          | 0    | 2    | 73.3  |
|       |                       |               | 4W           | 7743        | 1          | 0     | 2    | 104.5 | 7905        | 1          | 0     | 2    | 106.6 | 8256        | 1          | 0    | 2    | 111.4 |
|       |                       |               | 4W-BC        | 4425        | 0          | 0     | 2    | 59.7  | 4518        | 0          | 0     | 2    | 61.0  | 4718        | 0          | 0    | 2    | 63.7  |
|       |                       |               | 5R           | 7695        | 3          | 0     | 3    | 103.8 | 7856        | 3          | 0     | 3    | 106.0 | 8204        | 3          | 0    | 3    | 110.7 |
|       |                       |               | 5QM          | 7683        | 3          | 0     | 1    | 103.7 | 7844        | 3          | 0     | 1    | 105.8 | 8192        | 3          | 0    | 1    | 110.5 |
|       |                       |               | 5QN          | 8097        | 3          | 0     | 0    | 109.2 | 8266        | 3          | 0     | 0    | 111.5 | 8633        | 3          | 0    | 0    | 116.5 |
|       | 5W                    | 6843          | 3            | 0           | 1          | 92.3  | 6986 | 3     | 0           | 1          | 94.2  | 7296 | 3     | 0           | 1          | 98.4 |      |       |
|       | 12,000                | 465           | FR           | 11159       | 1          | 0     | 1    | 105.3 | 11392       | 1          | 0     | 1    | 107.5 | 11898       | 1          | 0    | 1    | 112.3 |
|       |                       |               | FR-BC        | 6979        | 0          | 0     | 0    | 65.8  | 7125        | 0          | 0     | 0    | 67.2  | 7441        | 0          | 0    | 0    | 70.2  |
|       |                       |               | 2            | 10561       | 2          | 0     | 2    | 99.6  | 10782       | 2          | 0     | 2    | 101.7 | 11260       | 2          | 0    | 2    | 106.2 |
|       |                       |               | 2-BC         | 6020        | 0          | 0     | 1    | 56.8  | 6146        | 0          | 0     | 1    | 58.0  | 6419        | 0          | 0    | 1    | 60.6  |
|       |                       |               | 3            | 10186       | 2          | 0     | 2    | 96.1  | 10399       | 2          | 0     | 2    | 98.1  | 10860       | 2          | 0    | 2    | 102.5 |
|       |                       |               | 3-BC         | 5863        | 0          | 0     | 2    | 55.3  | 5986        | 0          | 0     | 2    | 56.5  | 6251        | 0          | 0    | 2    | 59.0  |
|       |                       |               | 4            | 10140       | 1          | 0     | 2    | 95.7  | 10352       | 1          | 0     | 2    | 97.7  | 10812       | 1          | 0    | 2    | 102.0 |
|       |                       |               | 4-BC         | 6999        | 0          | 0     | 2    | 66.0  | 7146        | 1          | 0     | 2    | 67.4  | 7463        | 0          | 0    | 2    | 70.4  |
|       |                       |               | 4W           | 10637       | 1          | 0     | 3    | 100.4 | 10860       | 1          | 0     | 3    | 102.5 | 11342       | 2          | 0    | 3    | 107.0 |
| 4W-BC |                       |               | 6079         | 0           | 0          | 2     | 57.4 | 6207  | 0           | 0          | 2     | 58.6 | 6482  | 1           | 0          | 2    | 61.2 |       |
| 5R    | 10571                 | 3             | 0            | 3           | 99.7       | 10792 | 3    | 0     | 3           | 101.8      | 11271 | 3    | 0     | 3           | 106.3      |      |      |       |
| 5QM   | 10555                 | 3             | 0            | 1           | 99.6       | 10776 | 3    | 0     | 1           | 101.7      | 11254 | 3    | 0     | 1           | 106.2      |      |      |       |
| 5QN   | 11124                 | 3             | 0            | 0           | 104.9      | 11356 | 3    | 0     | 0           | 107.1      | 11860 | 3    | 0     | 0           | 111.9      |      |      |       |
| 5W    | 9400                  | 3             | 0            | 2           | 88.7       | 9597  | 3    | 0     | 2           | 90.5       | 10023 | 3    | 0     | 2           | 94.6       |      |      |       |

**PL LENS**

| LED # | Nominal Lumen Package | Drive Current | Distribution | 3000K 70CRI |            |   |   |       | 4000K 70CRI |            |   |   |       | 5000K 70CRI |            |   |   |       |
|-------|-----------------------|---------------|--------------|-------------|------------|---|---|-------|-------------|------------|---|---|-------|-------------|------------|---|---|-------|
|       |                       |               |              | Lumen       | BUG Rating |   |   | lm/w  | Lumen       | BUG Rating |   |   | lm/w  | Lumen       | BUG Rating |   |   | lm/w  |
|       |                       |               |              |             | B          | U | G |       |             | B          | U | G |       |             | B          | U | G |       |
| 72L   | 15,000                | 570           | FR           | 13194       | 1          | 0 | 1 | 102.1 | 13470       | 1          | 0 | 1 | 104.2 | 14068       | 2          | 0 | 1 | 108.8 |
|       |                       |               | FR-BC        | 8252        | 0          | 0 | 1 | 63.8  | 8424        | 0          | 0 | 1 | 65.2  | 8798        | 0          | 0 | 1 | 68.1  |
|       |                       |               | 2            | 12487       | 2          | 0 | 2 | 96.6  | 12748       | 2          | 0 | 2 | 98.6  | 13313       | 2          | 0 | 2 | 103.0 |
|       |                       |               | 2-BC         | 7118        | 0          | 0 | 1 | 55.1  | 7267        | 0          | 0 | 1 | 56.2  | 7590        | 0          | 0 | 1 | 58.7  |
|       |                       |               | 3            | 12043       | 2          | 0 | 2 | 93.2  | 12295       | 2          | 0 | 2 | 95.1  | 12841       | 2          | 0 | 2 | 99.3  |
|       |                       |               | 3-BC         | 6932        | 0          | 0 | 2 | 53.6  | 7077        | 0          | 0 | 2 | 54.7  | 7391        | 0          | 0 | 2 | 57.2  |
|       |                       |               | 4            | 11990       | 1          | 0 | 2 | 92.7  | 12240       | 1          | 0 | 2 | 94.7  | 12783       | 1          | 0 | 3 | 98.9  |
|       |                       |               | 4-BC         | 8276        | 0          | 0 | 2 | 64.0  | 8449        | 0          | 0 | 2 | 65.4  | 8824        | 0          | 0 | 2 | 68.3  |
|       |                       |               | 4W           | 12577       | 2          | 0 | 3 | 97.3  | 12840       | 2          | 0 | 3 | 99.3  | 13410       | 2          | 0 | 3 | 103.7 |
|       |                       |               | 4W-BC        | 7188        | 1          | 0 | 2 | 55.6  | 7339        | 1          | 0 | 2 | 56.8  | 7664        | 1          | 0 | 2 | 59.3  |
|       |                       |               | 5R           | 12499       | 3          | 0 | 3 | 96.7  | 12760       | 3          | 0 | 3 | 98.7  | 13327       | 3          | 0 | 3 | 103.1 |
|       |                       |               | 5QM          | 12481       | 3          | 0 | 1 | 96.5  | 12742       | 3          | 0 | 1 | 98.6  | 13307       | 3          | 0 | 1 | 102.9 |
|       |                       |               | 5QN          | 13152       | 3          | 0 | 0 | 101.7 | 13427       | 4          | 0 | 0 | 103.9 | 14023       | 4          | 0 | 1 | 108.5 |
|       |                       |               | 5W           | 11115       | 4          | 0 | 2 | 86.0  | 11347       | 4          | 0 | 2 | 87.8  | 11851       | 4          | 0 | 2 | 91.7  |
|       | 18,000                | 700           | FR           | 15425       | 2          | 0 | 1 | 97.3  | 15747       | 2          | 0 | 1 | 99.3  | 16446       | 2          | 0 | 1 | 103.7 |
|       |                       |               | FR-BC        | 9647        | 0          | 0 | 1 | 60.8  | 9848        | 0          | 0 | 1 | 62.1  | 10285       | 0          | 0 | 1 | 64.9  |
|       |                       |               | 2            | 14597       | 2          | 0 | 2 | 92.1  | 14903       | 2          | 0 | 2 | 94.0  | 15564       | 2          | 0 | 2 | 98.2  |
|       |                       |               | 2-BC         | 8321        | 0          | 0 | 1 | 52.5  | 8495        | 0          | 0 | 1 | 53.6  | 8872        | 0          | 0 | 2 | 56.0  |
|       |                       |               | 3            | 14079       | 2          | 0 | 2 | 88.8  | 14374       | 2          | 0 | 2 | 90.7  | 15011       | 2          | 0 | 2 | 94.7  |
|       |                       |               | 3-BC         | 8104        | 1          | 0 | 2 | 51.1  | 8274        | 1          | 0 | 2 | 52.2  | 8641        | 1          | 0 | 2 | 54.5  |
|       |                       |               | 4            | 14016       | 1          | 0 | 3 | 88.4  | 14309       | 1          | 0 | 3 | 90.2  | 14944       | 1          | 0 | 3 | 94.3  |
|       |                       |               | 4-BC         | 9675        | 0          | 0 | 2 | 61.0  | 9877        | 0          | 0 | 2 | 62.3  | 10315       | 0          | 0 | 2 | 65.1  |
|       |                       |               | 4W           | 14703       | 2          | 0 | 4 | 92.7  | 15011       | 2          | 0 | 4 | 94.7  | 15677       | 2          | 0 | 4 | 98.9  |
|       |                       |               | 4W-BC        | 8403        | 1          | 0 | 2 | 53.0  | 8579        | 1          | 0 | 2 | 54.1  | 8960        | 1          | 0 | 2 | 56.5  |
|       |                       |               | 5R           | 14612       | 4          | 0 | 4 | 92.2  | 14917       | 4          | 0 | 4 | 94.1  | 15579       | 4          | 0 | 4 | 98.3  |
|       |                       |               | 5QM          | 14590       | 3          | 0 | 2 | 92.0  | 14895       | 3          | 0 | 2 | 93.9  | 15556       | 4          | 0 | 2 | 98.1  |
|       |                       |               | 5QN          | 15375       | 4          | 0 | 1 | 97.0  | 15697       | 4          | 0 | 1 | 99.0  | 16393       | 4          | 0 | 1 | 103.4 |
|       |                       |               | 5W           | 12994       | 4          | 0 | 2 | 81.9  | 13265       | 4          | 0 | 2 | 83.7  | 13854       | 4          | 0 | 2 | 87.4  |

# CC21K2

LED UPGRADE KIT

## PHOTOMETRY

CC21x2-72L-900-4K7-FR

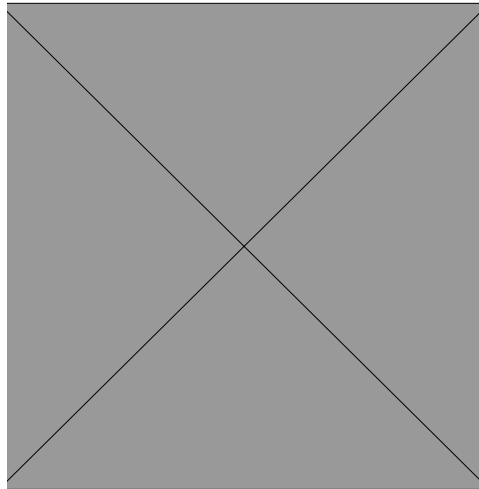
### LUMINAIRE DATA

|                  |              |
|------------------|--------------|
| Description      | 4000K, 70CRI |
| Delivered Lumens | 22571        |
| Watts            | 208.3        |
| Efficacy         | 108.4        |
| IES Type         | I            |
| BUG Rating       | B2-U0-G2     |
| Mounting Height  | 30 ft        |
| Grid Scale       | 30 ft        |

### ZONAL LUMEN SUMMARY

| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 19733  | 87.4%       |
| Downward House Side  | 2838   | 12.6%       |
| Downward Total       | 22571  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House Side    | 0      | 0%          |
| Upward Total         | 0      | 0%          |
| Total Flux           | 22571  | 100%        |

### ISOFOOT CANDLE PLOT



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC

CC21x2-72L-900-4K7-2

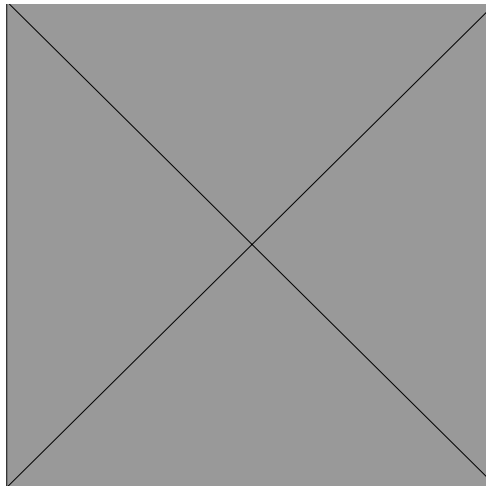
### LUMINAIRE DATA

|                  |              |
|------------------|--------------|
| Description      | 4000K, 70CRI |
| Delivered Lumens | 21360        |
| Watts            | 208.79       |
| Efficacy         | 102.3        |
| IES Type         | II           |
| BUG Rating       | B3-U0-G3     |
| Mounting Height  | 30 ft        |
| Grid Scale       | 30 ft        |

### ZONAL LUMEN SUMMARY

| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 17906  | 83.8%       |
| Downward House Side  | 3454   | 16.2%       |
| Downward Total       | 21360  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House Side    | 0      | 0%          |
| Upward Total         | 0      | 0%          |
| Total Flux           | 21360  | 100%        |

### ISOFOOT CANDLE PLOT



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC

CC21x2-72L-900-4K7-3

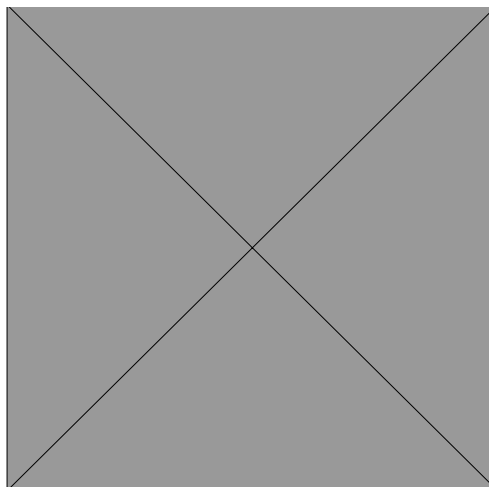
### LUMINAIRE DATA

|                  |              |
|------------------|--------------|
| Description      | 4000K, 70CRI |
| Delivered Lumens | 20603        |
| Watts            | 206.8        |
| Efficacy         | 99.6         |
| IES Type         | III          |
| BUG Rating       | B2-U0-G4     |
| Mounting Height  | 30 ft        |
| Grid Scale       | 30 ft        |

### ZONAL LUMEN SUMMARY

| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 17604  | 85.4%       |
| Downward House Side  | 2999   | 14.6%       |
| Downward Total       | 20603  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House Side    | 0      | 0%          |
| Upward Total         | 0      | 0%          |
| Total Flux           | 20603  | 100%        |

### ISOFOOT CANDLE PLOT



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC



**CC21K2**

LED UPGRADE KIT

**PHOTOMETRY**

CC21x2-72L-900-4K7-4

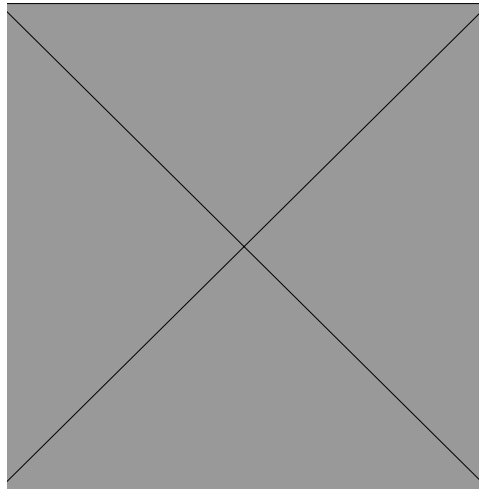
**LUMINAIRE DATA**

|                  |              |
|------------------|--------------|
| Description      | 4000K, 70CRI |
| Delivered Lumens | 20510        |
| Watts            | 208.3        |
| Efficacy         | 98.5         |
| IES Type         | IV           |
| BUG Rating       | B2-U0-G4     |
| Mounting Height  | 30 ft        |
| Grid Scale       | 30 ft        |

**ZONAL LUMEN SUMMARY**

| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 18232  | 88.9%       |
| Downward House Side  | 2278   | 11.1%       |
| Downward Total       | 20510  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House Side    | 0      | 0%          |
| Upward Total         | 0      | 0%          |
| Total Flux           | 20510  | 100%        |

**ISOFOOT CANDLE PLOT**



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC

CC21x2-72L-900-4K7-4W

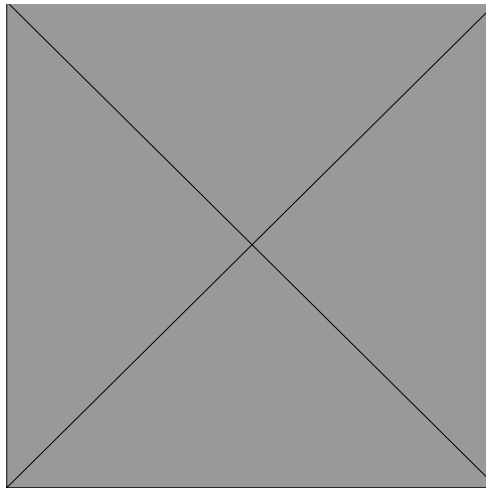
**LUMINAIRE DATA**

|                  |              |
|------------------|--------------|
| Description      | 4000K, 70CRI |
| Delivered Lumens | 21516        |
| Watts            | 208.3        |
| Efficacy         | 103.3        |
| IES Type         | IV           |
| BUG Rating       | B2-U0-G4     |
| Mounting Height  | 30 ft        |
| Grid Scale       | 30 ft        |

**ZONAL LUMEN SUMMARY**

| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 19250  | 89.5%       |
| Downward House Side  | 2266   | 10.5%       |
| Downward Total       | 21516  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House Side    | 0      | 0%          |
| Upward Total         | 0      | 0%          |
| Total Flux           | 21516  | 100%        |

**ISOFOOT CANDLE PLOT**



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC

CC21x2-72L-900-4K7-5QM

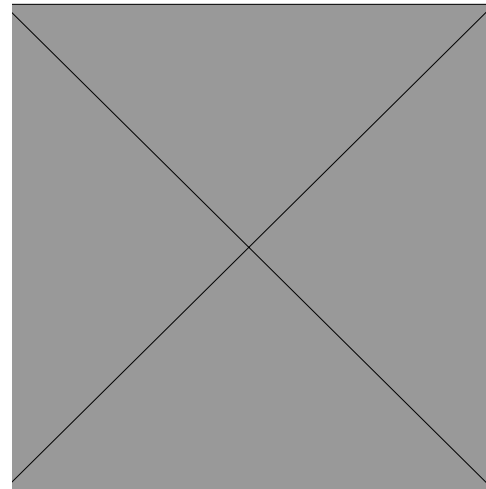
**LUMINAIRE DATA**

|                  |              |
|------------------|--------------|
| Description      | 4000K, 70CRI |
| Delivered Lumens | 21351        |
| Watts            | 208.3        |
| Efficacy         | 102.5        |
| IES Type         | V            |
| BUG Rating       | B4-U0-G2     |
| Mounting Height  | 30 ft        |
| Grid Scale       | 30 ft        |

**ZONAL LUMEN SUMMARY**

| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 10676  | 50.0%       |
| Downward House Side  | 10676  | 50.0%       |
| Downward Total       | 21351  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House Side    | 0      | 0%          |
| Upward Total         | 0      | 0%          |
| Total Flux           | 21351  | 100%        |

**ISOFOOT CANDLE PLOT**



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC

**CC21K2**

LED UPGRADE KIT

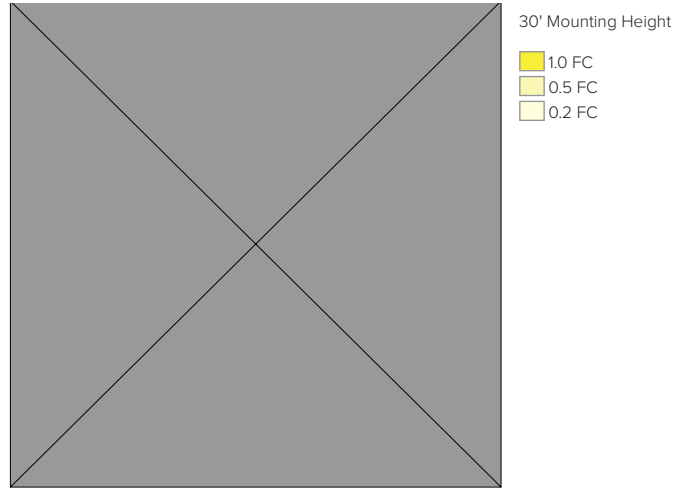
**PHOTOMETRY**

**CC21x2-72L-900-4K7-5QN**

**LUMINAIRE DATA**

|                  |                     |
|------------------|---------------------|
| Description      | <b>4000K, 70CRI</b> |
| Delivered Lumens | <b>22499</b>        |
| Watts            | <b>208.3</b>        |
| Efficacy         | <b>108.0</b>        |
| IES Type         | <b>V</b>            |
| BUG Rating       | <b>B4-U0-G1</b>     |
| Mounting Height  | <b>30 ft</b>        |
| Grid Scale       | <b>30 ft</b>        |

**ISOFOOT CANDLE PLOT**



**ZONAL LUMEN SUMMARY**

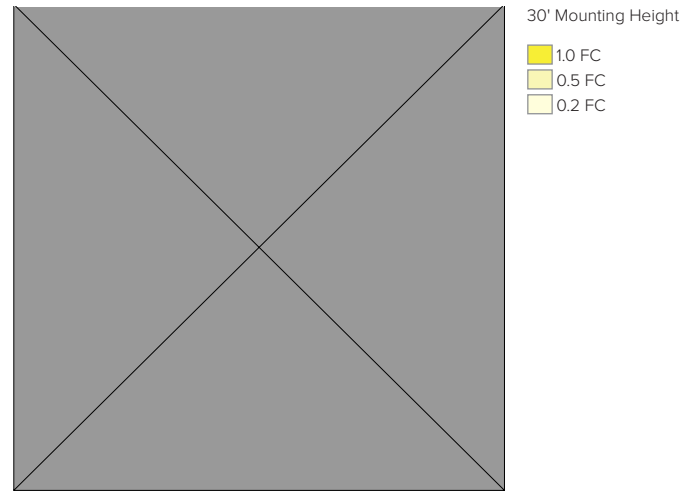
| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 11250  | 50.0%       |
| Downward House Side  | 11250  | 50.0%       |
| Downward Total       | 22499  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House Side    | 0      | 0%          |
| Upward Total         | 0      | 0%          |
| Total Flux           | 22499  | 100%        |

**CC21x2-72L-900-4K7-5R**

**LUMINAIRE DATA**

|                  |                     |
|------------------|---------------------|
| Description      | <b>4000K, 70CRI</b> |
| Delivered Lumens | <b>21382</b>        |
| Watts            | <b>208.3</b>        |
| Efficacy         | <b>102.7</b>        |
| IES Type         | <b>V</b>            |
| BUG Rating       | <b>B4-U0-G4</b>     |
| Mounting Height  | <b>30 ft</b>        |
| Grid Scale       | <b>30 ft</b>        |

**ISOFOOT CANDLE PLOT**



**ZONAL LUMEN SUMMARY**

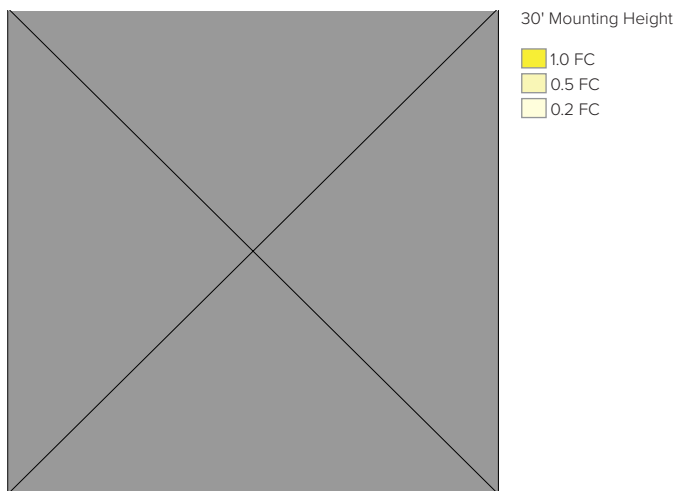
| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 10691  | 50.0%       |
| Downward House Side  | 10691  | 50.0%       |
| Downward Total       | 21382  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House Side    | 0      | 0%          |
| Upward Total         | 0      | 0%          |
| Total Flux           | 21382  | 100%        |

**CC21x2-72L-900-4K7-5W**

**LUMINAIRE DATA**

|                  |                     |
|------------------|---------------------|
| Description      | <b>4000K, 70CRI</b> |
| Delivered Lumens | <b>19013</b>        |
| Watts            | <b>208.3</b>        |
| Efficacy         | <b>91.3</b>         |
| IES Type         | <b>V</b>            |
| BUG Rating       | <b>B4-U0-G2</b>     |
| Mounting Height  | <b>30 ft</b>        |
| Grid Scale       | <b>30 ft</b>        |

**ISOFOOT CANDLE PLOT**



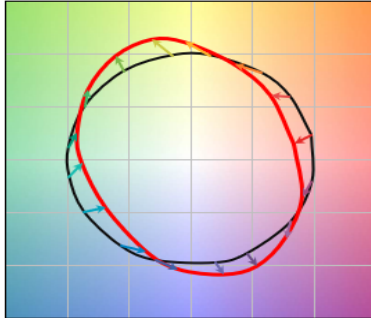
**ZONAL LUMEN SUMMARY**

| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 9507   | 50.0%       |
| Downward House Side  | 9507   | 50.0%       |
| Downward Total       | 19013  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House Side    | 0      | 0%          |
| Upward Total         | 0      | 0%          |
| Total Flux           | 19013  | 100%        |

**CC21K2**  
LED UPGRADE KIT

**TM-30 DATA**

**COLOR VECTOR GRAPHIC**

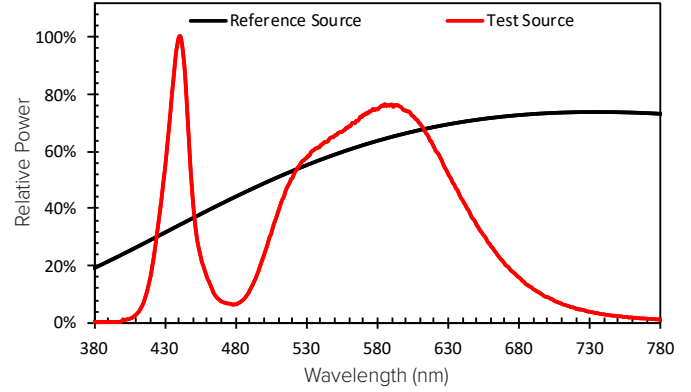


— Reference Illuminant — Test Source

**TEST SOURCE**

|                    |        |
|--------------------|--------|
| R <sub>f</sub>     | 68     |
| R <sub>g</sub>     | 99     |
| CCT(K)             | 3947   |
| D <sub>uv</sub>    | 0.0004 |
| x                  | 0.3831 |
| y                  | 0.3793 |
| CIE R <sub>a</sub> | 72     |

**SPECTRAL POWER DISTRIBUTION COMPARISON**



**ELECTRICAL DATA**

| LED # | System Watts | Current | Line Voltage |       | Amps AC |      |      |      |      |      | Min Power Factor | Max. THD (%) | Dimming       |                    |     |                  |     |
|-------|--------------|---------|--------------|-------|---------|------|------|------|------|------|------------------|--------------|---------------|--------------------|-----|------------------|-----|
|       |              |         | VAC          | Hz    | 120     | 208  | 240  | 277  | 347  | 480  |                  |              | Dimming Range | Source Current Out |     | Absolute Voltage |     |
|       |              |         |              |       |         |      |      |      |      |      |                  |              |               | Min                | Max | Min              | Max |
| 72L   | 74.1         | 330     | 120-480      | 50/60 | 0.62    | 0.36 | 0.31 | 0.27 | 0.21 | 0.15 | >0.9             | 20           | 10% to 100%   | 0mA                | 1mA | 0V               | 10V |
|       | 106.0        | 465     |              |       | 0.88    | 0.51 | 0.44 | 0.38 | 0.31 | 0.22 |                  |              |               |                    |     |                  |     |
|       | 129.3        | 570     |              |       | 1.08    | 0.62 | 0.54 | 0.47 | 0.37 | 0.27 |                  |              |               |                    |     |                  |     |
|       | 158.6        | 700     |              |       | 1.32    | 0.76 | 0.66 | 0.57 | 0.46 | 0.33 |                  |              |               |                    |     |                  |     |
|       | 208.3        | 900     |              |       | 1.74    | 1.00 | 0.87 | 0.75 | 0.60 | 0.43 |                  |              |               |                    |     |                  |     |

**TM-21 Lifetime Calculation - Projected Lumen Maintenance (25°C / 77°C)**

| HOURS                       | 0    | 25,000 | 36,000 | 50,000 | 100,000 | Reported L70 |
|-----------------------------|------|--------|--------|--------|---------|--------------|
| Projected Lumen Maintenance | 100% | 90.8%  | 88.0%  | 84.5%  | 73.0%   | >60000       |