

## Curvilinear

## FEATURES

- TIR Optics
- Patented low profile luminaire
- 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



3000K and warmer CCTs only

See Certification Specifications



## RELATED PRODUCTS

Ouro

Pavilion

PGL8

## SPECIFICATIONS

## CONSTRUCTION

- One piece non die-cast housing, low copper (<0.6% Cu) Aluminum Alloy with integral cooling ribs over the optical chamber and electrical compartment
- Double-thick wall with gussets on the support-arm mounting end
- Housing forms a half cylinder with 55° front face plane providing a recess to allow a flush single-latch detail
- All hardware is stainless steel or electro-zinc plated steel
- Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat
- One-piece die-cast, low copper (<0.6% Cu) aluminum alloy lens frame with 1" minimum depth around the gasket flange
- Optional clear 1/8" thick tempered glass lens retained by eight steel clips with full silicone gasketing around the perimeter
- Optional, fixture supplied with a one-piece flat, clear, UV stabilized polycarbonate, fully gasketed, replacing the standard tempered glass lens. CAUTION: Use only when vandalism is anticipated to be high. Useful life is limited by UV discoloration from sunlight. A program of regular inspection and periodic replacement is highly recommended to maintain optimum fixture performance
- One-piece extruded aluminum arm with internal bolt guides and fully radiussed top and bottom
- Luminaire-to-pole attachment is by internal draw bolts, and includes a pole reinforcing plate with wire strain relief
- Arm is circular cut for specified round pole

## CONSTRUCTION (CONTINUED)

- Optional cast, low copper aluminum horizontal slip-fitter with adaptor plate to secure the luminaire to 2" IPS pipe size arms
- Optional cast aluminum wall mount plate assembly. Attaches to the wall over the junction box. Luminaire attaches to the wall plate

## OPTICS

- Optical cartridge system consisting of a die cast heat sink, LED engine, TIR optics, gasket and bezel plate
- Cartridge is easily disassembled to replace components. Optics are held in place without the use of adhesives
- 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
- IP66 Optical assembly
- Type 1, 2, 3, 4, 4W, 5QM, 5QN, 5R, and 5W standard distributions Custom available
- 3000K, 4000K, 5000K standard CCT. Amber and custom available
- Die-cast, low copper aluminum heat sink modules provide thermal transfer at PCB level
- Anodized aluminum heat sink modules

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

## CONTROLS

- Standard PC 7 Pin Receptacle

## 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
- This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction Materials under Trade Agreements effective 6/06/2020. See Buy American Solutions

## WARRANTY

- 5 year warranty

| KEY DATA                   |                 |
|----------------------------|-----------------|
| Lumen Range                | 4,268–23,572    |
| Wattage Range              | 74–208          |
| Efficacy Range (LPW)       | 51–139          |
| Reported Life (Hours)      | L70/60,000      |
| Weight                     | 47 lbs 21.31 kg |
| EPS Front View / Side View | 1.2 / 1.2       |

DATE:

LOCATION:

TYPE:

PROJECT:

CATALOG #:

ORDERING GUIDE

Example: CC21A2-1A-36L-465-3K7-3-HDL-BLT-UNV-2.38

CATALOG #

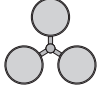
HOUSING

| Fixture Housing |                         | Mounting |                                                                               | Current   | CCT/CRI         |                  | Distribution         |                     | Lens                 |          |                  |                       |
|-----------------|-------------------------|----------|-------------------------------------------------------------------------------|-----------|-----------------|------------------|----------------------|---------------------|----------------------|----------|------------------|-----------------------|
| CC21A2          | Three Groove (Arm)      | 1A       | Single Arm Mount                                                              | 72L - 330 | AM <sup>2</sup> | Amber-595nm Peak | FR                   | Type I/Front Row    | Blank                | No Lens  |                  |                       |
| CC21P2          | Three Groove (Post Top) | 1W       | Wall Mount                                                                    | 72L - 465 |                 |                  | 3K7                  | 3000K, 70 CRI       | 2                    | Type II  | CLR              | Clear Lens            |
|                 |                         | HSF      | Horizontal Slipfitter                                                         | 72L - 570 |                 |                  | 4K7                  | 4000K, 70 CRI       | 3                    | Type III | HDL <sup>3</sup> | Lightly Diffused Lens |
|                 |                         | PT       | Post Top Tenon Mount                                                          | 72L - 700 |                 |                  | 5K7                  | 5000K, 70 CRI       | 4                    | Type IV  | PL               | Polycarbonate Lens    |
|                 |                         | FM       | Flush mount Post Top                                                          | 72L - 900 |                 |                  |                      | 4W                  | Type IV Wide         |          |                  |                       |
|                 |                         | DM       | Direct Mount                                                                  |           |                 |                  |                      | 5QM                 | Type V Square Medium |          |                  |                       |
|                 |                         |          | Equivalent:<br>CC21-E35 = 72L-465<br>CC25-P35 = 72L-465<br>CC25-P70 = 72L-700 |           |                 | 5QN              | Type V Square Narrow |                     |                      |          |                  |                       |
|                 |                         |          |                                                                               |           |                 |                  | 5R                   | Type V Rectangular  |                      |          |                  |                       |
|                 |                         |          |                                                                               |           |                 |                  | 5W                   | Type V Wide (Round) |                      |          |                  |                       |

| Arm Mount – Pole Shape/Section    |                                                           | Voltage |          | Options          |                            | Fixture Finish     |                              |
|-----------------------------------|-----------------------------------------------------------|---------|----------|------------------|----------------------------|--------------------|------------------------------|
| SQ                                | SQ                                                        | UNV     | 120-277V | REV <sup>5</sup> | Accent Reveal              | BLS                | Black Gloss Smooth           |
| 2.40                              | 2.40" OD                                                  | 347     | 347V     | S                | CCS/Single Groove          | BLT                | Black Matte Textured         |
| 3.00                              | 3.00" OD                                                  | 480     | 480V     | SF               | Single Fuse                | DBS                | Dark Bronze Gloss Smooth     |
| 3.50                              | 3.50" OD                                                  |         |          | DF               | Double Fuse                | DBT                | Dark Bronze Matte Textured   |
| 4.00                              | 4.00" OD                                                  |         |          | BC <sup>6</sup>  | Back Light Control         | GTT                | Graphite Matte Textured      |
| 4.50                              | 4.50" OD                                                  |         |          | 7PR              | 7-Pin Photocell Receptacle | LGS                | Light Grey Gloss Smooth      |
| 5.00                              | 5.00" OD                                                  |         |          | PC               | Button Photocell           | LGT                | Light Grey Matte Textured    |
| 6.00                              | 6.00" OD                                                  |         |          |                  |                            | PSS                | Platinum Silver Gloss Smooth |
| VSF <sup>7,8</sup>                | Vertical Slipfitter Mount for 2" pipe tenon, (2.375 O.D.) |         |          |                  |                            | VGT                | Verde Green Matte Textured   |
| SVSF <sup>7,8</sup>               | Square Verticle Slipfitter for 2" pipe tenon              |         |          |                  |                            | WHS                | White Gloss Smooth           |
| Flush Mount – Pole Shape/Section  |                                                           |         |          |                  |                            | WHT                | White Matte Textured         |
| 4.00                              | 4.00" OD                                                  |         |          |                  |                            | Color Option       |                              |
| 4.20                              | 4.20" OD                                                  |         |          |                  |                            | CC                 | Custom Color                 |
| 4.50                              | 4.50" OD                                                  |         |          |                  |                            | CLA-A <sup>4</sup> | Clear Anodized Finish        |
| 5.00                              | 5.00" OD                                                  |         |          |                  |                            |                    |                              |
| 6.00                              | 6.00" OD                                                  |         |          |                  |                            |                    |                              |
| Direct Mount – Pole Shape/Section |                                                           |         |          |                  |                            |                    |                              |
| 3.00                              | 3.00" OD                                                  |         |          |                  |                            |                    |                              |
| 3.25                              | 3.25" OD                                                  |         |          |                  |                            |                    |                              |
| 3.50                              | 3.50" OD                                                  |         |          |                  |                            |                    |                              |
| 3.60                              | 3.60" OD                                                  |         |          |                  |                            |                    |                              |
| 3.75                              | 3.75" OD                                                  |         |          |                  |                            |                    |                              |
| 4.00                              | 4.00" OD                                                  |         |          |                  |                            |                    |                              |

- Notes:
- 1 Lenses not available for 900mA option
  - 2 Turtle friendly
  - 3 Diffuse Lens available for Type 3 and 5W only
  - 4 Recommended for harsh environment, salt spray 3,000 hours rated
  - 5 Not available for CCS. Available in 6 standard fixture finishes. Specify finish, example: REV/BL
  - 6 Not available for Type 5
  - 7 See page 3 for mounting configuration
  - 8 For multiple mount, reference to Mounting Configuration Diagram

**PRODUCT EXCEPTIONS & DETAILS**

| Configuration                                                                     |     |                  | EPA |
|-----------------------------------------------------------------------------------|-----|------------------|-----|
|  | 1A  | 1 Arm Side Mount | 1.2 |
|  | 2SB | 2 Arm Side Mount | 2.4 |
|  | 2SL | 2 Arm Side Mount | 2.2 |
|  | 3ST | 3 Arm Side Mount | 3.4 |

| Configuration                                                                     |      |                       | EPA |
|-----------------------------------------------------------------------------------|------|-----------------------|-----|
|  | 3SY* | 3 Arm Side Mount      | 3.4 |
|  | 4C   | 4 Arm Side Mount      | 3.9 |
|  | 1W   | Single Wall Mount     | n/a |
|  | HSF  | Horizontal Slipfitter | n/a |

| Configuration                                                                                           | EPA |
|---------------------------------------------------------------------------------------------------------|-----|
|  FM Flush Mount      | 1.0 |
|  PT Post Tenon Mount | 1.0 |
|  DM Direct Mount     | 1.0 |

**MOUNTING OPTIONS**

**SUPPORT ARM:**

- Die-cast, low copper aluminum alloy, with splice access cover.
- Die-cast pole adaptor and an internal reinforcing plate are provided with a wire strain relief.
- The arm adapter is square or circular cut for specified pole size and shape.
- For field wire connections, a terminal block is mounted in the arm cavity and accessible behind the splice access cover. The block accepts #14 to #8 wire sizes and is factory prewired to the electrical module's quick-disconnect plug inside the electrical compartment.

**OPTIONAL VERTICAL SLIP-FITTER (VSF/SVSF):**

- Internally accessible slip-fitter attaches to a 2-3/8" x 4" long tenon and allows hands-free wiring and maintenance.
- Available for round and square poles



- For VSF arm configurations, please use 4". Mounting option on fixture ordering configuration. The optional VSF/SVSF will need to be ordered separately.

- SVSF use square configuration.

**Ordering example for round:**

- 2 A/CC21A2/54L-500/35K8/3/CLR/4.00/UNV/BLT

- 1 VSF-2SB

**Ordering example for square:**

- 2 1A/CC21A2/54L-500/35K8/3/CLR/SQ/UNV/BLT

- 1 SVSF-2SB

| VSF    | SVSF    |
|--------|---------|
| VSF-1A | SVSF-1A |
| VSF-2B | SVSF-2B |
| VSF-2L | SVSF-2L |
| VSF-3T | SVSF-3T |
| VSF-3Y | SVSF-3Y |
| VSF-4C | SVSF-4C |

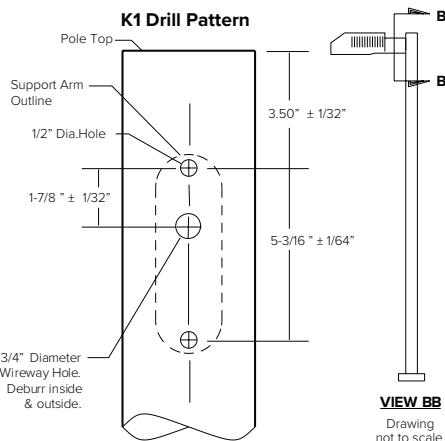
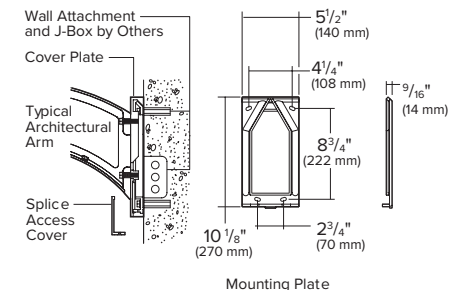
**WALL MOUNT**

**1W**

- A cast mounting plate of 356 alloy, low-copper (<0.6% Cu) aluminum, is mounted to the wall with bolts (by others). Fixture and arm are mounted to a cast 356 alloy aluminum cover plate before attaching to the wall mounting plate. The fixture-arm-cover plate assembly is hooked to the wall mounting plate, and secured with stainless steel screws provided. After mounting to the wall, field splices are made at the opening in the cover plate, then covered by a cast 356 alloy aluminum plate that blends with the cover plate design. Complete fixture-arm-cover plate assembly can therefore be mounted before field splices are made. Cover plate is finished to match arm and fixture powder coat color.

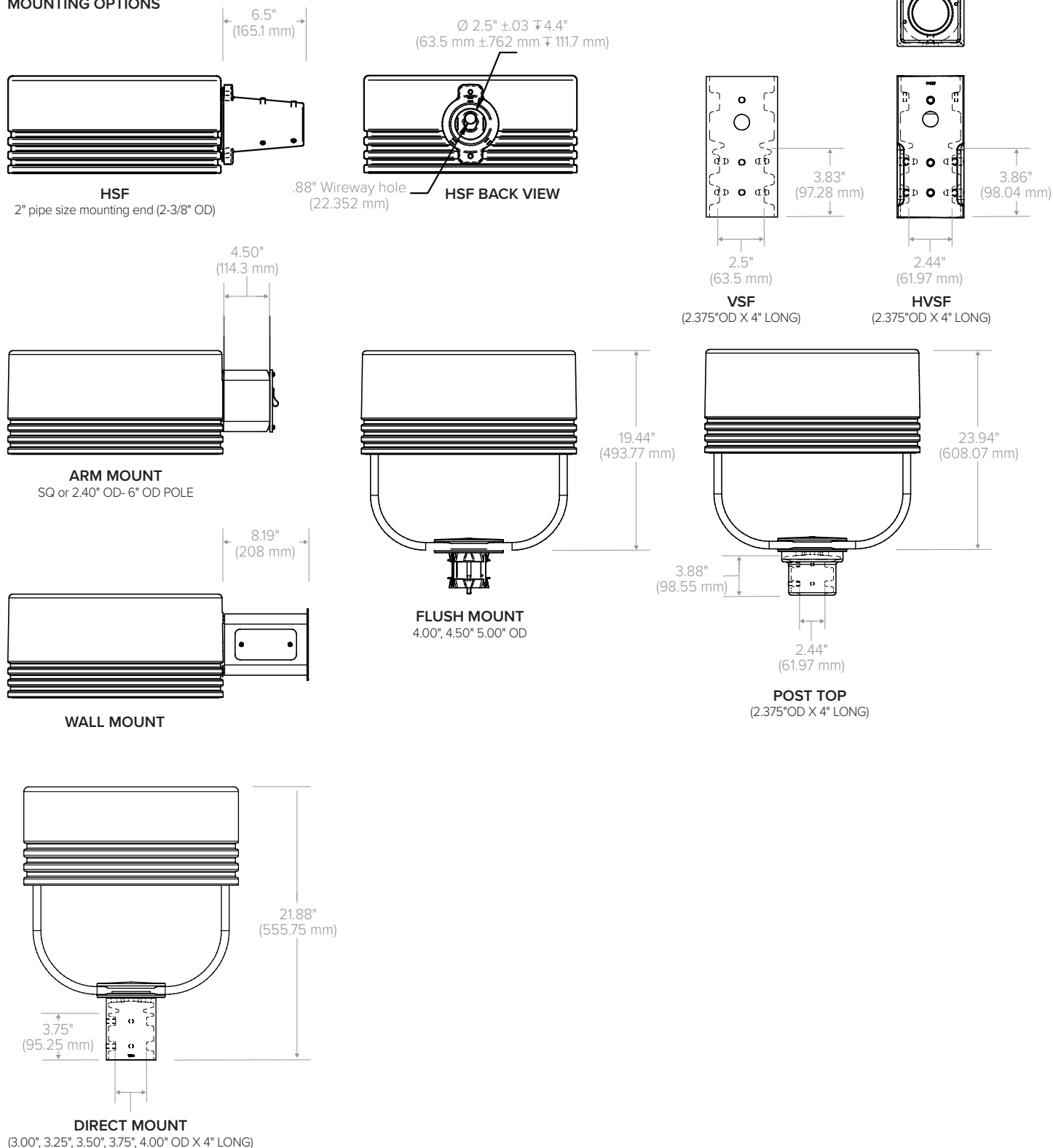
- Optional Wall Mount: (CC is illustration the same for all site area?)

- Optional, cast aluminum mounting plate attaches to a wall over a junction box and the speed mount is bolted to the cover plate. To complete the wiring, the luminaire assembly slides over the mounting plate.



**PRODUCT EXCEPTIONS & DETAILS (CONTINUED)**

**MOUNTING OPTIONS**

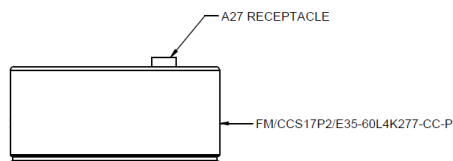
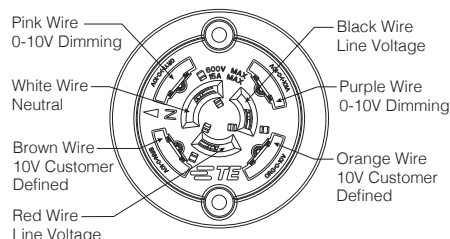


## PRODUCT EXCEPTIONS & DETAILS (CONTINUED)

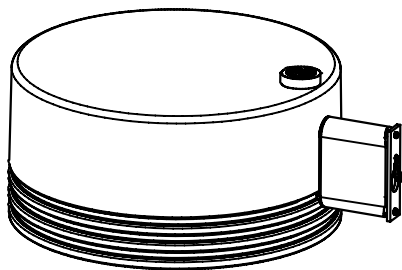
### CONTROLS

#### 7PR

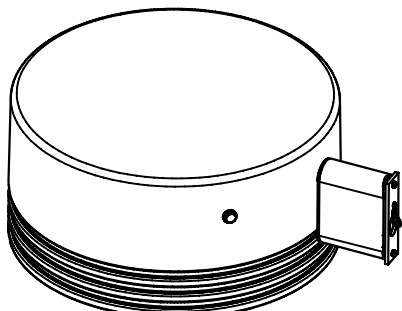
- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance. ANSI twist-lock control module by-others.
- Standard customer operation modes:
  - Traditional on/off photoelectric control.
  - 5-pin wireless photoelectric control for added dimming feature.
  - 7-pin wireless photoelectric control for dimming and additional I/O connections for customer use.



#### 7-PIN RECEPTACLE



#### BUTTON PHOTOCELL



#### 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.

#### 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.

## DELIVERED LUMENS

### NO LENS

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

| 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 |

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

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

### CLR LENS

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

| 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  |

DATE: | LOCATION:

TYPE: | PROJECT:

CATALOG #:

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  |

DATE:

LOCATION:

TYPE:

PROJECT:

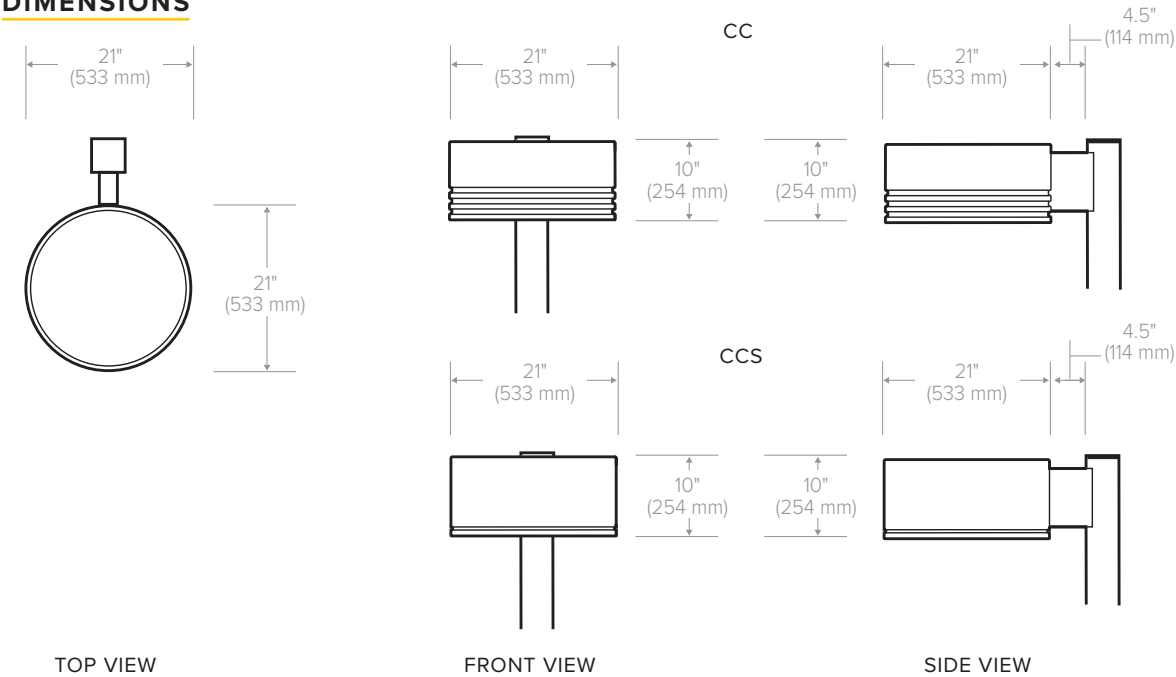
CATALOG #:

DELIVERED LUMENS (CONTINUED)

HDL 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   | 3,000                 | 330           | 3-DL         | 5944        | 1          | 0 | 1 | 80.2 | 6068        | 1          | 0 | 1 | 81.9 | 6337        | 2          | 0 | 1 | 85.5 |
|       |                       |               | 5W-DL        | 5485        | 2          | 0 | 1 | 74.0 | 5600        | 2          | 0 | 1 | 75.6 | 5849        | 2          | 0 | 1 | 78.9 |
|       | 12,000                | 465           | 3-DL         | 8166        | 2          | 0 | 2 | 77.0 | 8336        | 2          | 0 | 2 | 78.7 | 8706        | 2          | 0 | 2 | 82.1 |
|       |                       |               | 5W-DL        | 7536        | 2          | 0 | 1 | 71.1 | 7694        | 2          | 0 | 1 | 72.6 | 8035        | 3          | 0 | 1 | 75.8 |
|       | 15,000                | 570           | 3-DL         | 9655        | 2          | 0 | 2 | 74.7 | 9857        | 2          | 0 | 2 | 76.2 | 10294       | 2          | 0 | 2 | 79.6 |
|       |                       |               | 5W-DL        | 8910        | 3          | 0 | 1 | 68.9 | 9097        | 3          | 0 | 1 | 70.4 | 9500        | 3          | 0 | 1 | 73.5 |
|       | 18,000                | 700           | 3-DL         | 11287       | 2          | 0 | 2 | 71.2 | 11523       | 2          | 0 | 2 | 72.7 | 12034       | 2          | 0 | 2 | 75.9 |
|       |                       |               | 5W-DL        | 10417       | 3          | 0 | 2 | 65.7 | 10634       | 3          | 0 | 2 | 67.1 | 11106       | 3          | 0 | 2 | 70.0 |

DIMENSIONS



# CC21A2/P2

ARCHITECTURAL AREA/SITE  
**PHOTOMETRY**

CC21x2-72L-900-4K7-FR

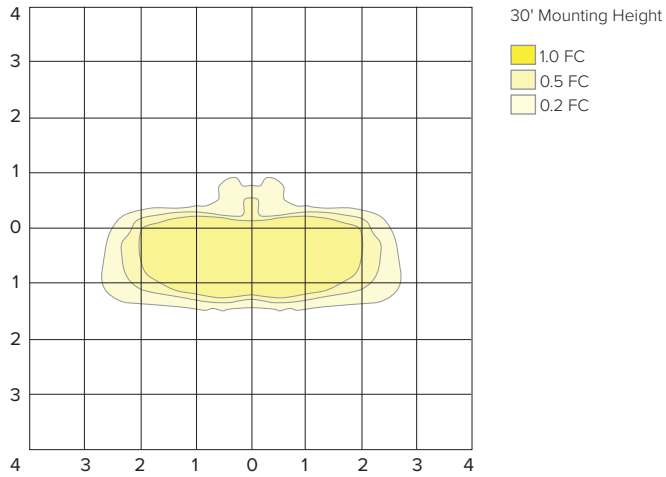
## LUMINAIRE DATA

|                  |              |
|------------------|--------------|
| 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



CC21x2-72L-900-4K7-2

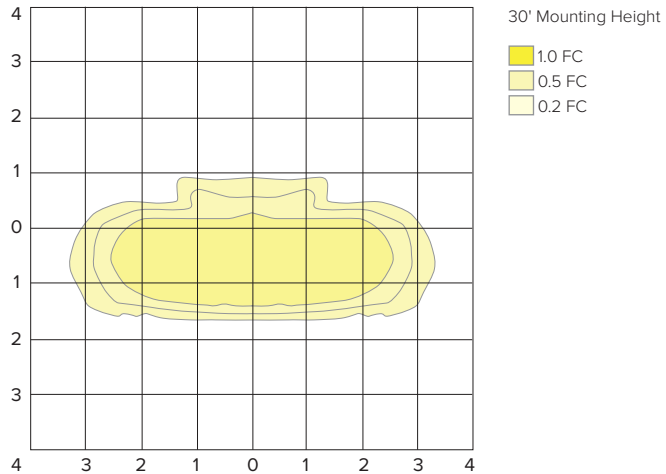
## LUMINAIRE DATA

|                  |              |
|------------------|--------------|
| 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



CC21x2-72L-900-4K7-3

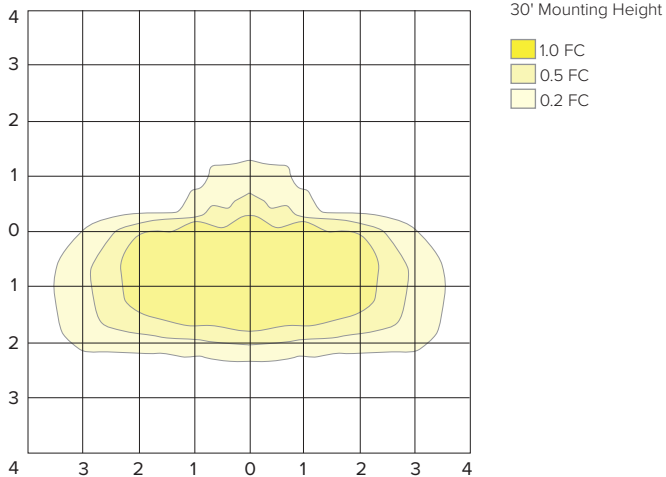
## LUMINAIRE DATA

|                  |              |
|------------------|--------------|
| 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



# CC21A2/P2

ARCHITECTURAL AREA/SITE  
**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%        |

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%        |

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

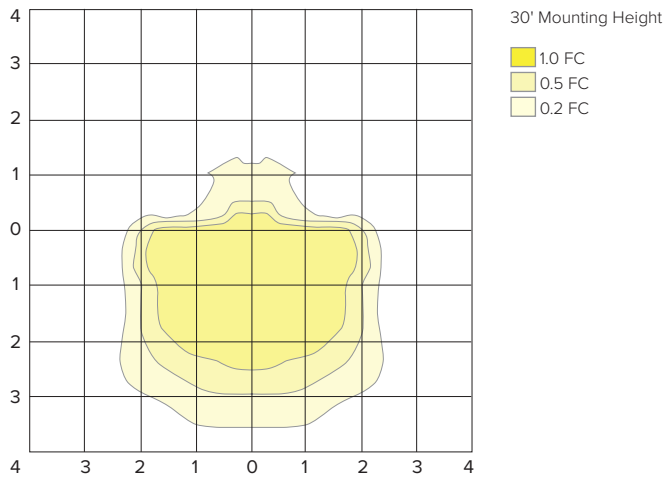
| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 10676  | 50.0%       |
| Downward House Side  | 10676  | 50.0%       |
| Downward Total       | 21351  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House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

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

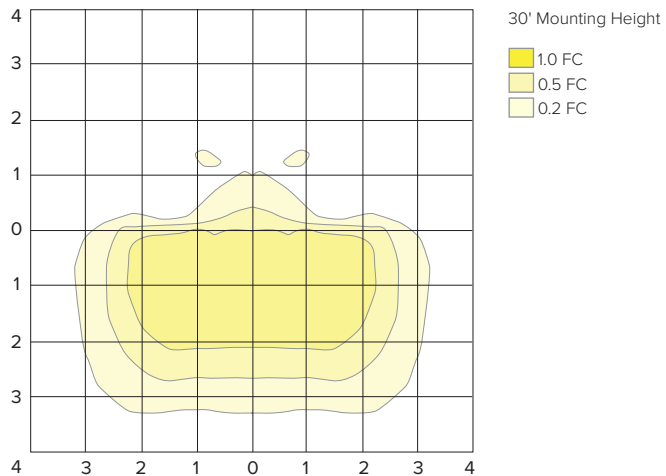
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_

CATALOG #: \_\_\_\_\_

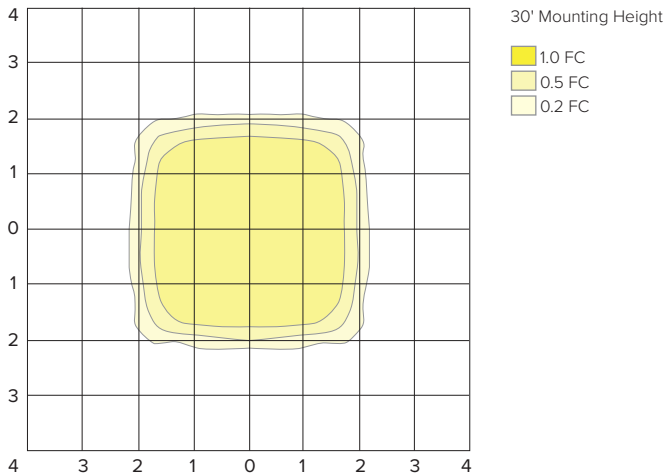
## ISOFOOT CANDLE PLOT



## ISOFOOT CANDLE PLOT



## ISOFOOT CANDLE PLOT



# CC21A2/P2

ARCHITECTURAL AREA/SITE

## PHOTOMETRY

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

### LUMINAIRE DATA

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

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

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

### ZONAL LUMEN SUMMARY

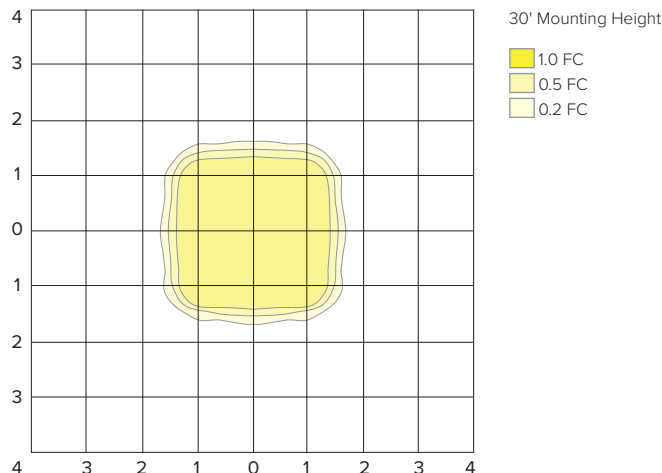
| Zone                 | Lumens | % Luminaire |
|----------------------|--------|-------------|
| Downward Street Side | 9507   | 50.0%       |
| Downward House Side  | 9507   | 50.0%       |
| Downward Total       | 19013  | 100%        |
| Upward Street Side   | 0      | 0%          |
| Upward House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

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

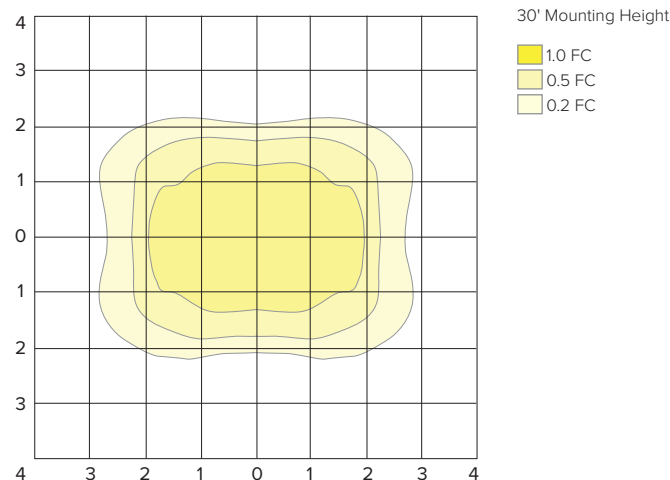
TYPE: \_\_\_\_\_ PROJECT: \_\_\_\_\_

CATALOG #: \_\_\_\_\_

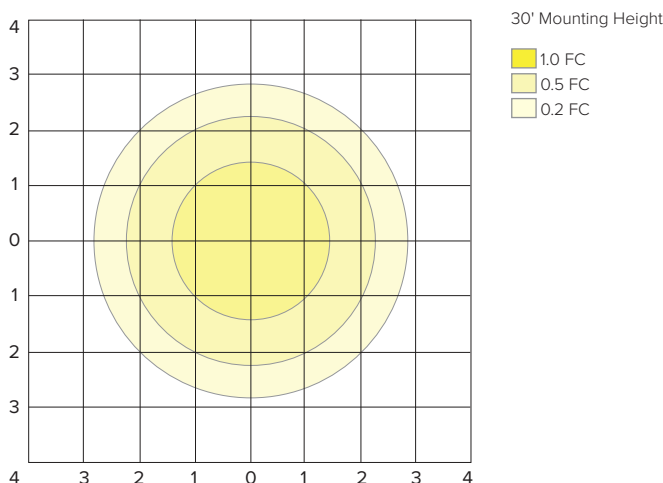
### ISOFOOT CANDLE PLOT



### ISOFOOT CANDLE PLOT

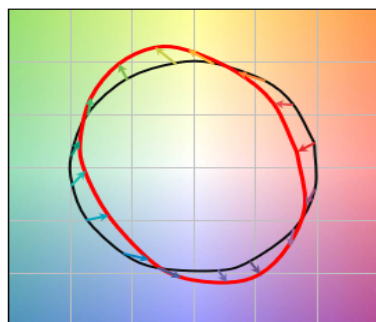


### ISOFOOT CANDLE PLOT



## TM-30 DATA

### COLOR VECTOR GRAPHIC

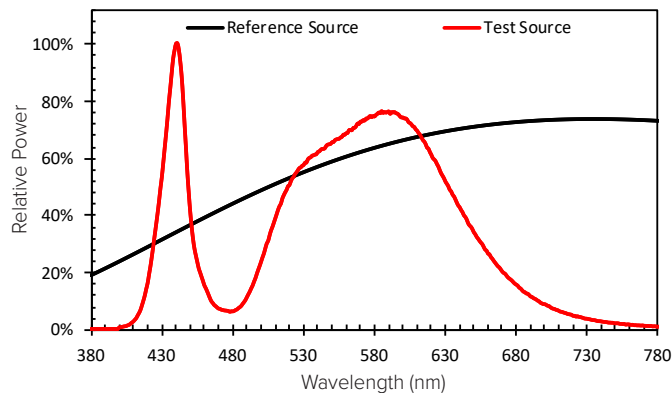


— Reference Illuminant — Test Source

### TEST SOURCE

|                    |        |
|--------------------|--------|
| R <sub>f</sub>     | 68     |
| R <sub>a</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       |

### STRIKE LUMEN MULTIPLIER

| CCT                            | 70 CRI | 80 CRI | 90 CRI |
|--------------------------------|--------|--------|--------|
| 2700K                          | 0.9    | 0.81   | 0.62   |
| 3000K                          | 0.933  | 0.853  | 0.659  |
| 3500K                          | 0.959  | 0.894  | 0.711  |
| 4000K                          | 1      | 0.9    | 0.732  |
| 5000K                          | 1      | 0.9    | 0.732  |
| MONOCHROMATIC AMBER MULTIPLIER |        |        |        |
| Amber                          | 0.255  |        |        |