

CC21A2/P2

ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____
 TYPE: _____ PROJECT: _____
 CATALOG #: _____

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

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

PHOTOMETRY

DELIVERED LUMENS

DIMENSIONAL DRAWINGS

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE

Example: 1A-CC21A2-72L-570-3K7-3-HDL-BLT-UNV-2.38

CATALOG #

HOUSING

Mounting	Fixture Housing	Current	CCT/CRI	Distribution	Lens
1A Single Arm Mount	CC21A2 Three Groove (Arm)	72L - 330 9,000lm	AM² Amber-595nm Peak	FR Type I/Front Row	Blank No Lens
1W Wall Mount	CC21P2 Three Groove (Post Top)	72L - 465 12,000lm	3K7 3000K, 70 CRI	2 Type II	CLR Clear Lens
HSF Horizontal Slipfitter		72L - 570 15,000lm	4K7 4000K, 70 CRI	3 Type III	HDL³ Lightly Diffused Lens
PT Post Top Tenon Mount		72L - 700 18,000lm	5K7 5000K, 70 CRI	4 Type IV	PL Polycarbonate Lens
FM Flush mount Post Top		72L - 900 22,000lm ¹		4W Type IV Wide	
DM Direct Mount		<i>Equivalent</i> CC21-E35 = 72L-465 CC25-P35 = 72L-465 CC25-P70 = 72L-700		5QM Type V Square Medium	
				5QN Type V Square Narrow	
				5R Type V Rectangular	
				5W Type V Wide (Round)	

Fixture Finish	Voltage	Options	Pole Shape/Section
BLS Black Gloss Smooth	UNV 120-277V	REV⁵ Accent Reveal	3.25 3.25" OD
BLT Black Matte Textured	347 347V	CCS Single Groove	3.50 3.50" OD
DBS Dark Bronze Gloss Smooth	480 480V	SF Single Fuse	4.00 4.00" OD
DBT Dark Bronze Matte Textured		DF Double Fuse	5.00 5.00" OD
GTT Graphite Matte Textured		BC⁶ Back Light Control	SQ Square
LGS Light Grey Gloss Smooth		7PR 7-Pin Photocell Receptacle	SVSF^{7,8} Vertical Slipfitter Mount Square for 2" pipe tenon, (2.375" O.D.)
LGT Light Grey Matte Textured		PC Button Photocell	VSF^{7,8} Vertical Slipfitter Mount for 2" pipe tenon, (2.375 O.D.)
PSS Platinum Silver Gloss Smooth			
VGT Verde Green Matte Textured			
WHS White Gloss Smooth			
WHT White Matte Textured			
Color Option			
CC⁴ Custom Color			

Notes:

- Lenses not available for 900mA option
- Turtle friendly
- Diffuse Lens available for Type 3 and 5W only
- Consult factory for custom color, marine and corrosive finish options
- Not available for CCS. Available in 6 standard fixture finishes. Specify finish, example: REV/BL
- Not available for Type 5
- See page 3 for mounting configuration
- For multiple mount, reference to Mounting Configuration Diagram

PRODUCT EXCEPTIONS & DETAILS

Configuration				Configuration			
EPA				EPA			
	1A	1 Arm Side Mount	1.2		3SY*	3 Arm Side Mount	3.4
	2SB	2 Arm Side Mount	2.4		4C	4 Arm Side Mount	3.9
	2SL	2 Arm Side Mount	2.2		1W	Single Wall Mount	n/a
	3ST	3 Arm Side Mount	3.4		HSF	Horizontal Slipfitter	n/a

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 wired 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

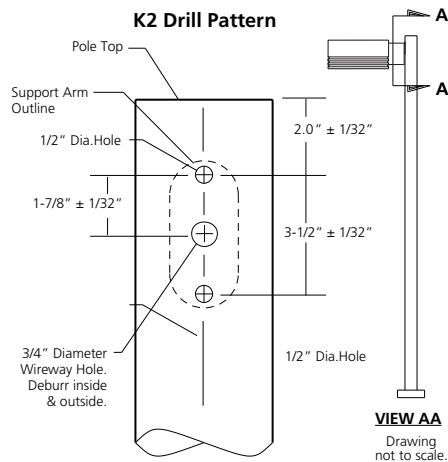
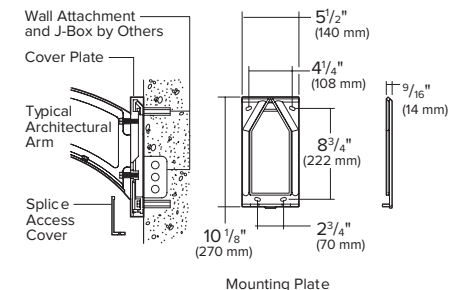


WALL MOUNT

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.



- 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:

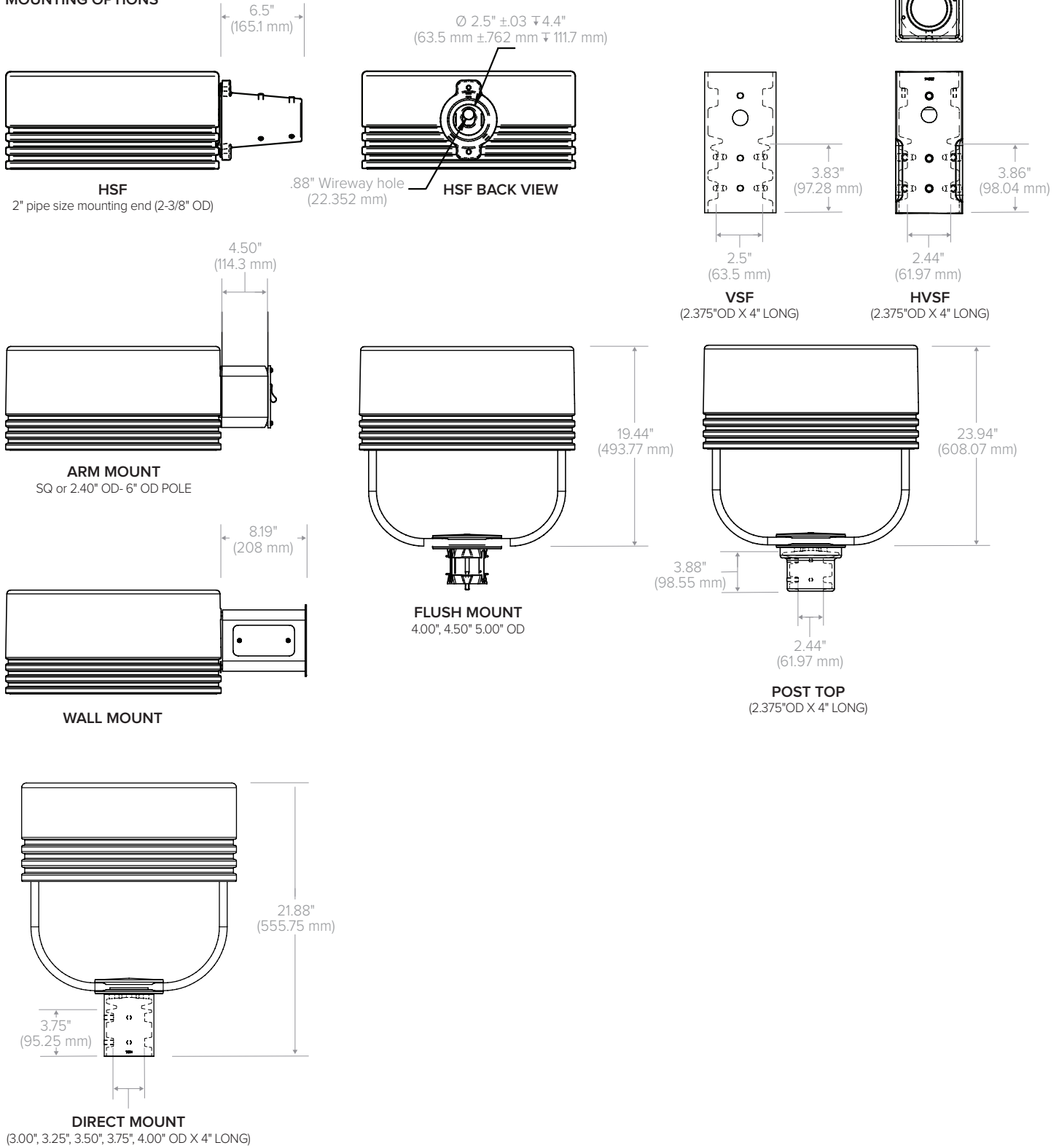
- 2 1A/CC21A2/54L-500/35K8/3/CLR/**SQ**/UNV/BLT

- 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

PRODUCT EXCEPTIONS & DETAILS (CONTINUED)

MOUNTING OPTIONS



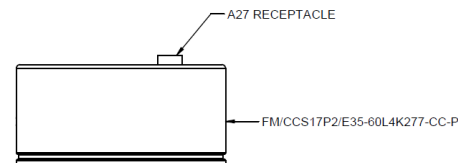
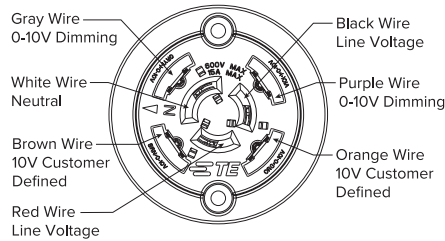
CC21A2/P2
ARCHITECTURAL AREA/SITE

PRODUCT EXCEPTIONS & DETAILS (CONTINUED)

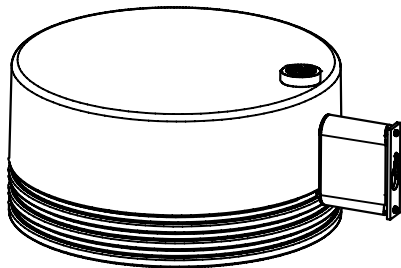
CONTROLS

7PR

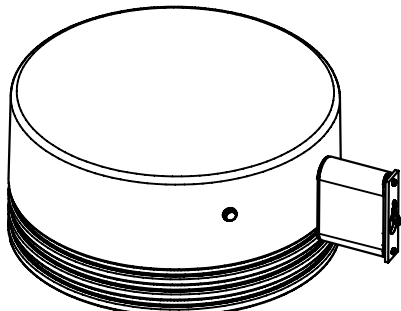
- Fully gasketed and wired 7-pin receptacle option. Easy access location above the electrical compartment. 7-pin construction allows for a user-defined interface and provides a controlled definition of operational performance. ANSI twist-lock control module by-others.
- Standard customer operation modes:
 - 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

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

2700K Multiplier	
CCT	Multiplier
5000K	1
2700K	0.897

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

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
	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

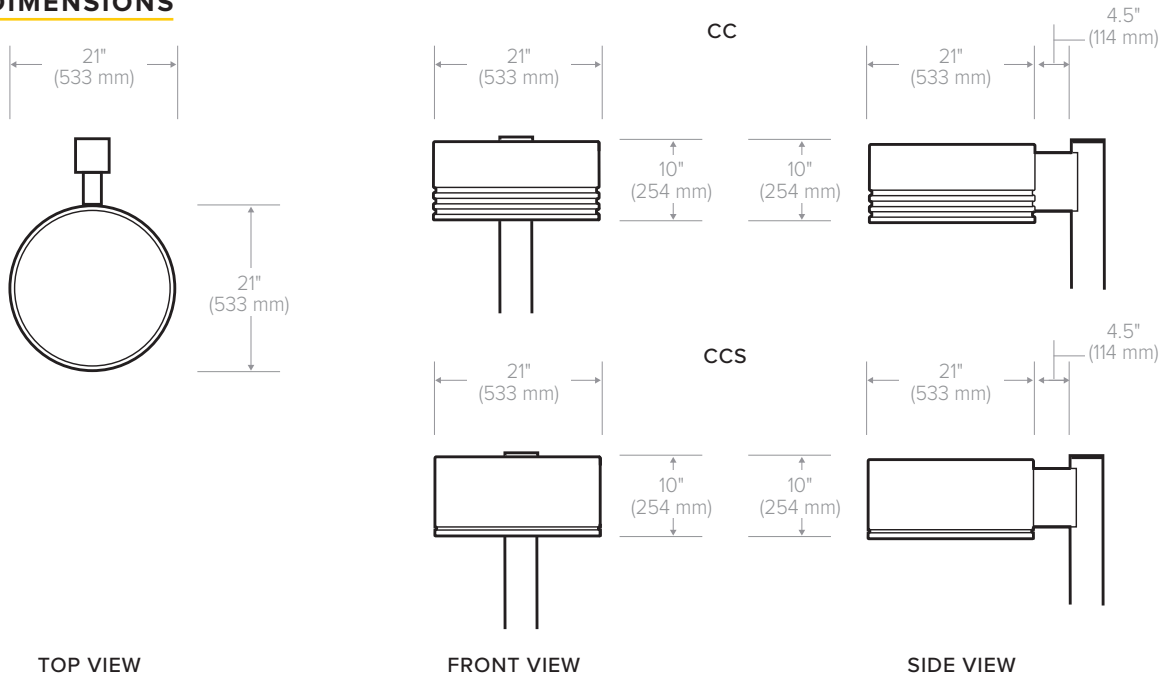
CC21A2/P2
ARCHITECTURAL AREA/SITE

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

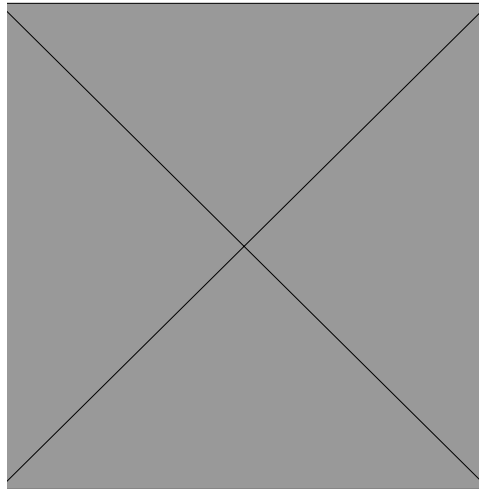
LUMINAIRE DATA

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



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC

CC21x2-72L-900-4K7-2

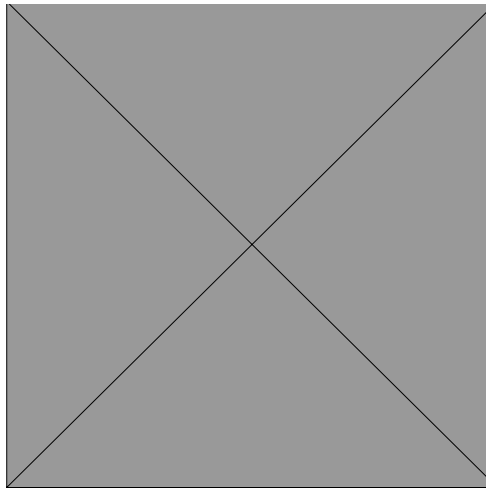
LUMINAIRE DATA

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

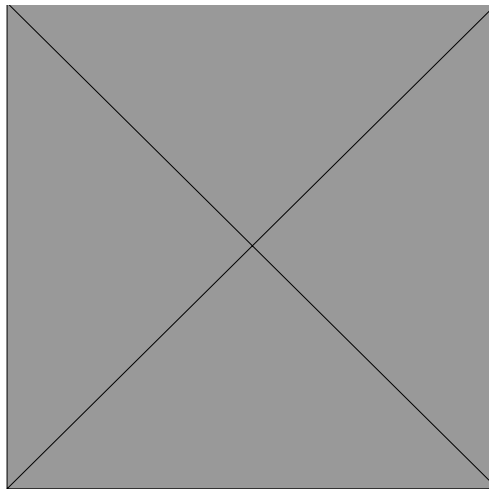
LUMINAIRE DATA

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

CC21A2/P2

ARCHITECTURAL AREA/SITE

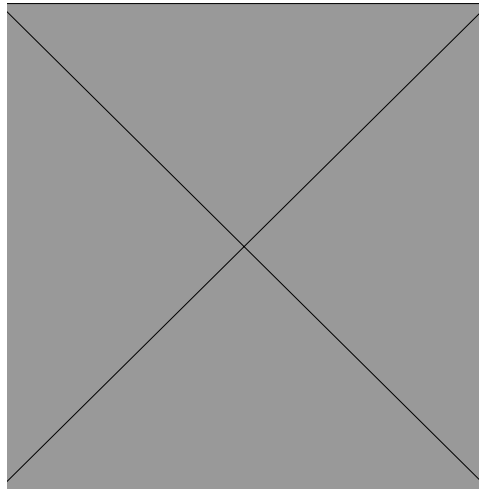
PHOTOMETRY

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

ISOFOOT CANDLE PLOT



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC

ZONAL LUMEN SUMMARY

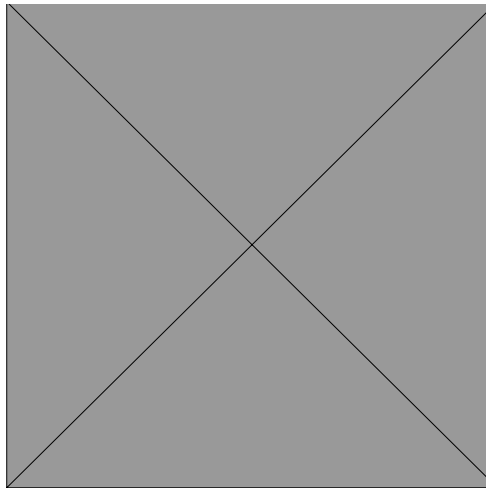
Zone	Lumens	% Luminaire
Downward Street Side	18232	88.9%
Downward House Side	2278	11.1%
Downward Total	20510	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	20510	100%

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

ISOFOOT CANDLE PLOT



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC

ZONAL LUMEN SUMMARY

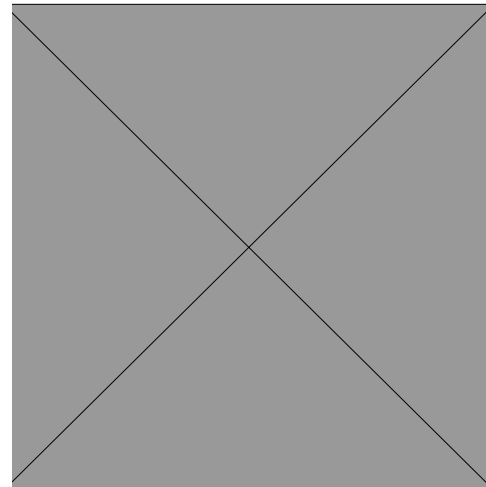
Zone	Lumens	% Luminaire
Downward Street Side	19250	89.5%
Downward House Side	2266	10.5%
Downward Total	21516	100%
Upward Street Side	0	0%
Upward House Side	0	0%
Upward Total	0	0%
Total Flux	21516	100%

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

ISOFOOT CANDLE PLOT



30' Mounting Height

- 1.0 FC
- 0.5 FC
- 0.2 FC

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%

CC21A2/P2
ARCHITECTURAL AREA/SITE

DATE: _____ LOCATION: _____

TYPE: _____ PROJECT: _____

CATALOG #: _____

PHOTOMETRY

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

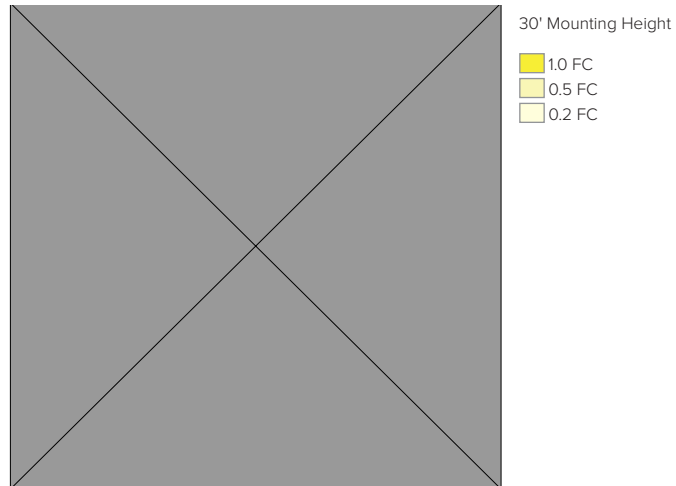
LUMINAIRE DATA

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%

ISOFOOT CANDLE PLOT



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

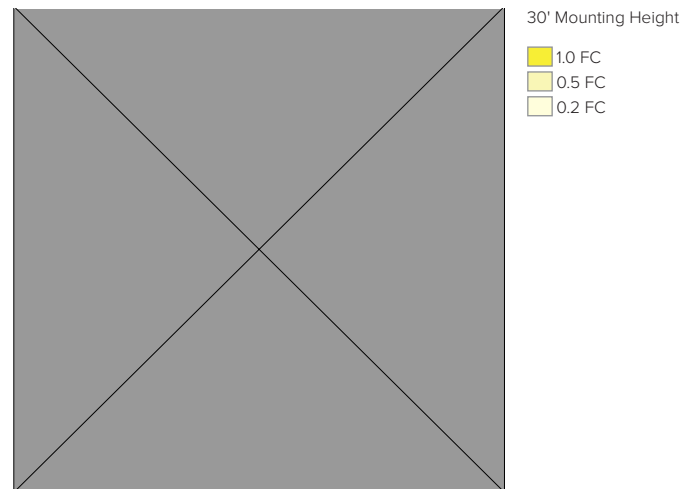
LUMINAIRE DATA

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%

ISOFOOT CANDLE PLOT



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

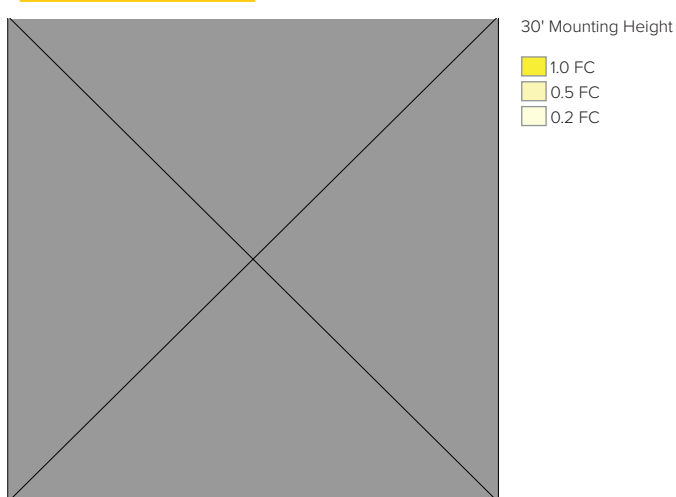
LUMINAIRE DATA

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%

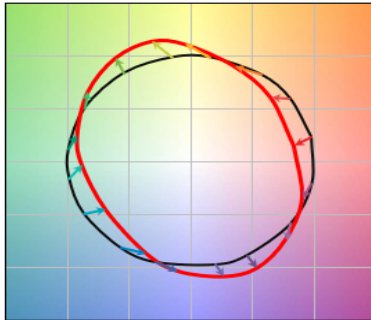
ISOFOOT CANDLE PLOT



CC21A2/P2
ARCHITECTURAL AREA/SITE

TM-30 DATA

COLOR VECTOR GRAPHIC

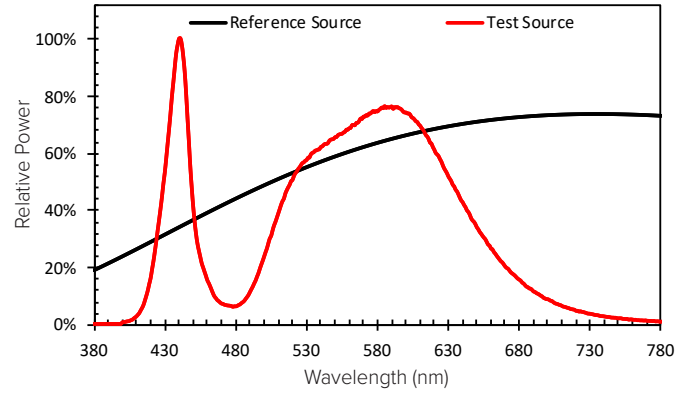


— Reference Illuminant — Test Source

TEST SOURCE

R _f	68
R _g	99
CCT(K)	3947
D _{uv}	0.0004
x	0.3831
y	0.3793
CIE R _a	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