

Project	WisDOT	Catalog #	ARCH2-50-740-U-T3-AP-10MSP-K-PSC-WISDOT	Type	LED A
Prepared by	DAT	Notes	WisDOT = exterior label 3x3 "LED A/B/C/D", safety cable on power door and OA/RA1013 shorting cap installed, 10yr warranty	Date	4/29/24



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Streetworks

Archeon Contemporary - ARCH2

Roadway Luminaire

Product Certifications & Features



Product Specifications

OPTICAL

- 5 patented AccuLED high efficiency roadway and area optical distributions
- 7 color temperature options
 - » 70 CRI: 2200K, 2700K, 3000K, 4000K, 5000K
 - » Amber: wildlife-friendly and observatory applications
- Optics are IP66 enclosure rated
- 2 versions of field-installable shielding for superior spill light control
 - » Single-piece snap-on square shields
 - » Multiple-piece configurable vertical perimeter shielding
- IDA certified for 3000K, 2700K, 2200K CCTs

ELECTRICAL

- 120-277V, 240-480V, 347V, and 480V; 50/60Hz
- Standard 0-10V dimming
- 10kV and 20kV surge protection options in common- and differential- mode versions
- -40°C to 40°C ambient temperature operating range
- Standard 3-position terminal block

WARRANTY

- Five-year limited warranty. Consult website for details. www.cooperlightng.com/legal

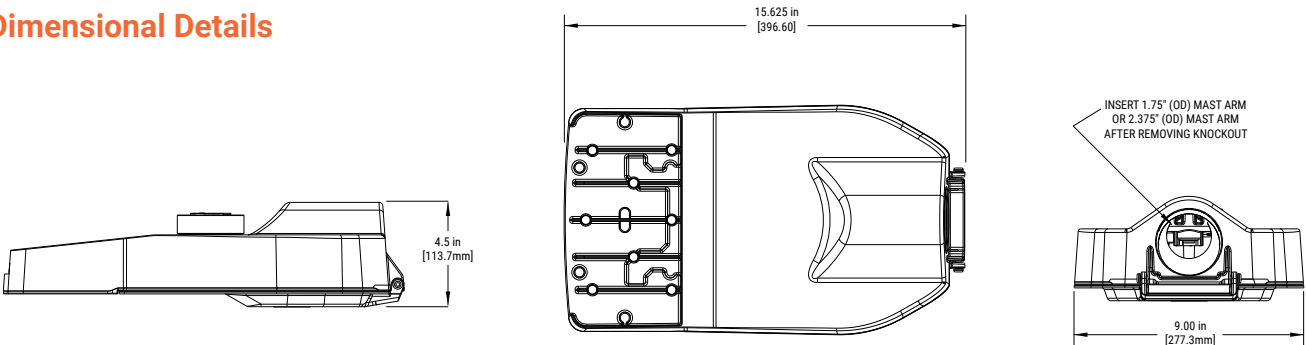
PHYSICAL CHARACTERISTICS

- Heavy duty die-cast aluminum housing and door
- Tool-less entry for easy maintenance
- 3G vibration rating (ANSI C136.31)
- Standard CLS lineman-friendly features
 - » Tool-less entry
 - » 3-position terminal block
- Housing finished in 5-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness
- 5 standard color options, plus a wide range of customer colors (consult your Cooper Lighting representative for custom color options)
- Two-bolt slipfitter with cast-in pipe stop and 2.5" leveling steps
- Stamped metal birdguard seals entry for 1-1/4" to 2" (1-5/8" to 2-3/8" OD) mounting arms
- Approximate net weight: 8 lbs
- EPA: 0.35

CONTROLS

- Standard ANSI C136.10 7-pin receptacle for photocells Networked Lighting Control (NLC) modules
- Optional Field Adjustable Dimming Control Module (FADC)
 - » Enables manual adjustment of power consumption and lumen output. Factory pre-set to highest output level for option selected
 - » Allows a single fixture SKU to cover multiple field applications with manual adjustment at installation
- Optional 4-pin Zhaga Book 18 receptacle for integration of onboard sensors with DALI- and D4i-enabled drivers
- Fully compatible with Cooper Lighting Solutions Trellix Infrastructure UNB (Ultra Narrow Band) and cellular networked lighting controls platforms.
 - » Automatic, wireless collection of luminaire performance and status data
 - » Allows asset location for inventory management of large-scale installations

Dimensional Details



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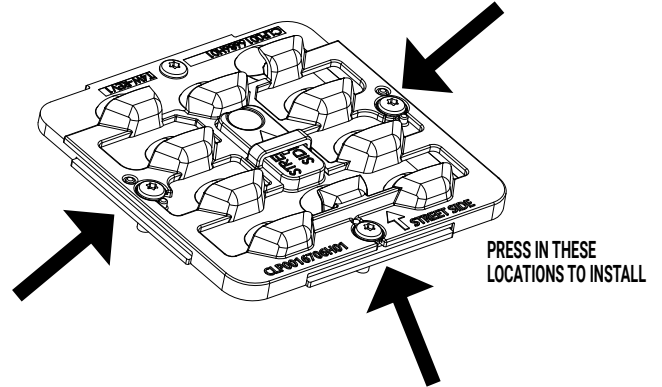
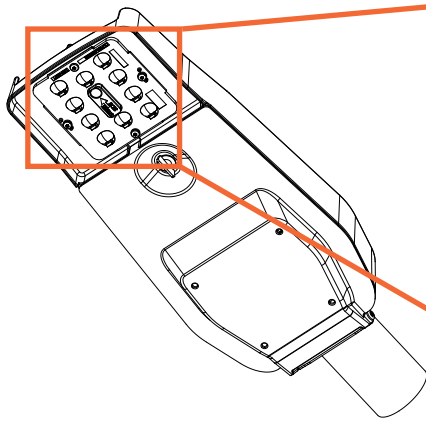
Archeon Contemporary - ARCH2

Ordering Information

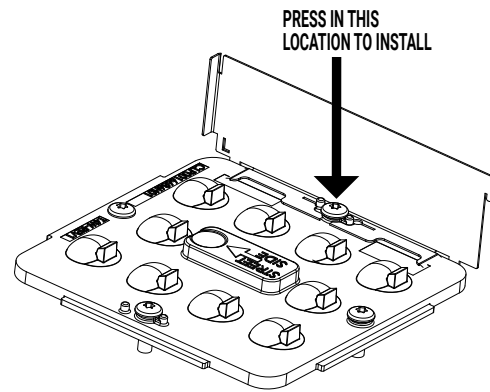
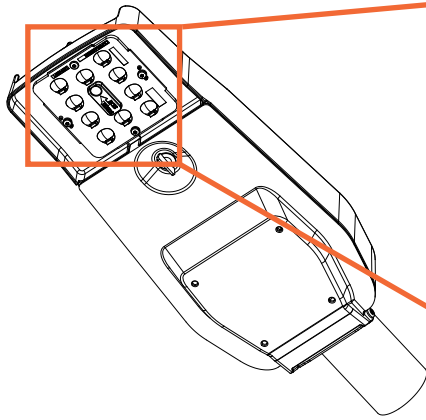
SAMPLE ORDER NUMBER: **ARCH2-80-730-U-T2R-AP-10MSP**

Product Family	Wattage Bucket	Color Temperature	Voltage	Distribution	Mounting	Finish
ARCH2=Archeon Contemporary Size 2 BAA-ARCH2=Archeon Contemporary Buy American Act Compliant² TAA-ARCH2=Archeon Contemporary Trade Agreements Act Compliant²	20=20W (nominal) 30=30W (nominal) 40=40W (nominal) 50=50W (nominal) 60=60W (nominal) 70=70W (nominal) 80=80W (nominal) 90=90W (nominal) 100=100W (nominal) 110=110W (nominal)	722=70CRI, 2200K 727=70CRI, 2700K 730=70CRI, 3000K 740=70CRI, 4000K 750=70CRI, 5000K AMB=Amber	U=Universal (120-277V) 1=120V 2=208V 3=240V 4=277V 8=480V 9=347V H=High Voltage Driver (347-480V)	T2R=Type II Roadway T2U=Type II Urban T3=Type III T4W=Type IV Wide 5WQ=Type V Square Wide	[Blank]=None A15=15" Straight Mast Arm ASJS00=Adjustable Slipfitter (Factory set at 0°) ASJS15=Adjustable Slipfitter (Factory set at 15°) ASJS25=Adjustable Slipfitter (Factory set at 25°) ASJS45=Adjustable Slipfitter (Factory set at 45°)	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)		Controls		Accessories (Order Separately)		
F=Single Pole Fusing, specify voltage (120V, 277V, 347V) FF=Double Pole Fusing, specify voltage (208V, 240V, 480V) 10MSP=Parallel 10kV MOV Surge Protection Device 10K=Series 10kV UL 1449 Surge Protection Device 20MSP=Parallel 20kV MOV Surge Protection Device 20K=Series 20kV UL 1449 Surge Protection Device 20KI=Series 20kV UL 1449 Surge Protection Device with light indicator HSS=Factory Installed House Side Shield⁴ HA=50°C High Ambient Temperature⁴ K=Level Indicator CC=Coastal Construction⁵ XTB=No Terminal block Dxxxxx=DOT Configuration - Contact Quotes Team Uxxxxx=Utility Configuration - Contact Quotes Team		PSC=Photocontrol Shorting Cap⁹ NPC=NEMA Photocontrol - Multi-Tap⁴ LLPC=Longlife Photocontrol Included⁴ PR=NEMA 3-PIN Twistlock Photocontrol Receptacle⁴ XPR=No Photocontrol Receptacle FADC=Field Adjustable Dimming Controller⁷ DALI=DALI Driver(s) - check with factory quotes team for availability D4=D4i driver(s) - check with factory quotes team for availability Z4=4-pin DALI receptacle Zhaga Book 18^{8, 9, 11} ZD=4-pin DALI receptacle Zhaga Book 18 for Wavelinx Wireless Sensor^{8, 10, 11} SWPD4XX=WaveLinX Wireless Sensor, 7'-15' mounting height^{11, 12} SWPD5XX=WaveLinX Wireless Sensor, 15'-40" mounting height^{11, 12} WOBXX=WaveLinX Wireless Sensor with Bluetooth, 7'-15' mounting height^{11, 12} WOFXX=WaveLinX Wireless Sensor with Bluetooth, 15'-40" mounting height^{11, 12} ZSC=Zhaga Book 18 shorting cap¹³		OA / RA1013=Photocontrol Shorting Cap OA1223=10kV Surge Module Replacement OA/RA1014=NEMA Photocontrol - 120V OA/RA1016=NEMA Photocontrol - Multi-Tap A15-xx=15" Straight Mast Arm (replace xx with finish color designator) ASJS00-xx=Adjustable slipfitter, Factory set at 10° (replace xx with finish color designator) ASJS15-xx=Adjustable slipfitter, Factory set at 15° (replace xx with finish color designator) ASJS25-xx=Adjustable slipfitter, Factory set at 25° (replace xx with finish color designator) ASJS45-xx=Adjustable slipfitter, Factory set at 45° (replace xx with finish color designator) PBHSS=House Side Shield (Single)³ PBPFS=Perimeter Fence Shield Kit (4 Pieces)		
NOTES: 1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.* 2. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.* 3. Not available/compatible with 5WQ optic 4. Not available in 50W or 60W configurations 5. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.* 6. Not available with XPR option 7. Must specify PR or XPR 8. Must specify XPR (no NEMA receptacle) 9. For use only with other manufacturers' Zhaga Book 18 sensors; not available when Wavelinx Wireless Sensors (SWPD, WOB) are also selected 10. Select this option only when Wavelinx Wireless Sensors (SWPD, WOB) are also selected 11. Must select DALI or D4 driver option 12. Must select ZD receptacle option 13. Must select Z4 or ZD receptacle option						

House Side Shield Details



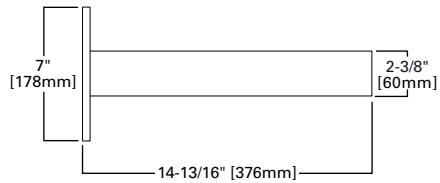
Perimeter Shield Details



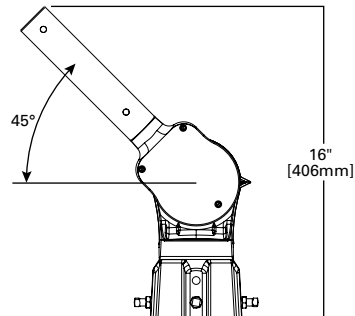
Mounting Details

Optional Arms

15" STRAIGHT ARM



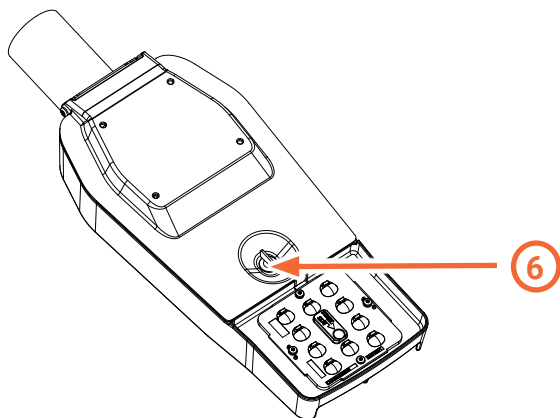
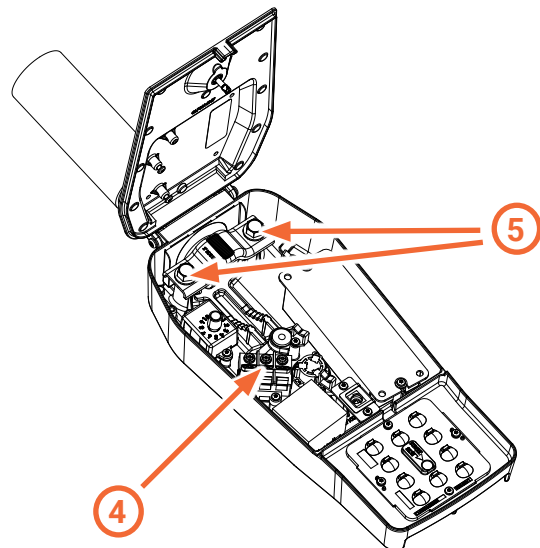
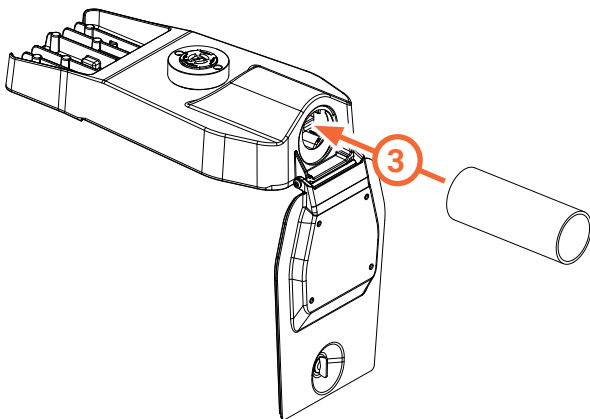
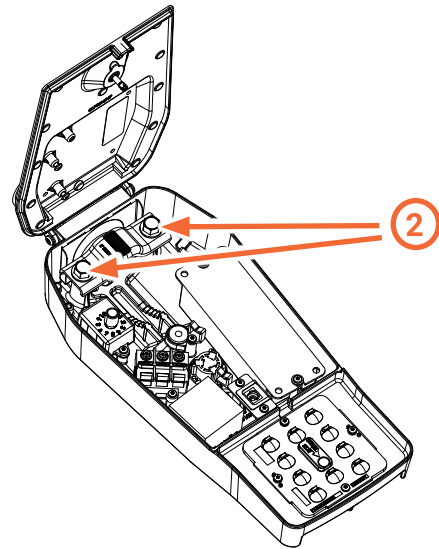
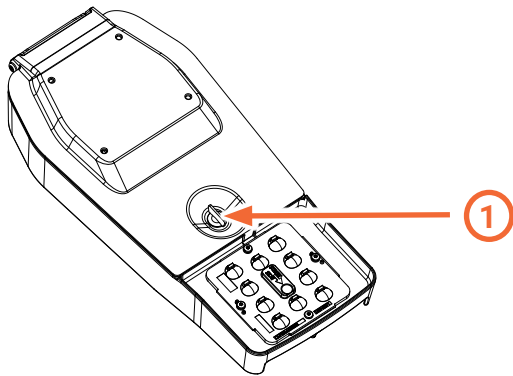
ADJUSTABLE SLIPFITTER OFFSET ARM



Installation Overview

Quick Instruction Steps:

1. Open Door Latch
2. Loosen Bolts for Mast Arm Clamp (Inside Housing)
3. Insert Mast Arm Into Fixture Through Mast Receptacle
4. Wire Appropriately
5. Tighten Bolts on Mast Arm Clamp
6. Close fixture Door and Secure Door Latch



Energy and Performance Data

Nominal Power (Watts)	30	40	50	60	70	80	90	100	110
Actual Power (Watts)	34	44	54	64	74	84	94	103	110
Wattage Label	30	40	50	60	70	80	90	100	110
Input Current @ 120V (A)	0.28	0.37	0.45	0.53	0.62	0.70	0.78	0.86	0.92
Input Current @ 277V (A)	0.12	0.16	0.19	0.23	0.27	0.30	0.34	0.37	0.40
Input Current @ 347V (A)	0.10	0.13	0.16	0.18	0.21	0.24	0.27	0.30	0.32
Input Current @ 480V (A)	0.07	0.09	0.11	0.13	0.15	0.18	0.20	0.21	0.23

[Supplemental Lumen Tables](#)
[Archeon Contemporary - ARCH2 IES Files](#)

70 CRI, 3000K										
T2R	Lumens	5,131	6,464	7,741	8,938	10,012	11,054	11,927	12,707	13,164
	Lumens per Watt	149	147	143	140	136	131	127	123	120
	BUG Rating	B1 U0 G1	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G3
T2U	Lumens	5,130	6,462	7,739	8,934	10,008	11,051	11,923	12,702	13,159
	Lumens per Watt	149	147	143	140	136	131	127	123	120
	BUG Rating	B1 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3
T3	Lumens	5,107	6,433	7,704	8,895	9,964	11,001	11,870	12,646	13,100
	Lumens per Watt	148	146	143	139	135	130	127	122	120
	BUG Rating	B1 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2
T4W	Lumens	4,922	6,200	7,425	8,573	9,603	10,603	11,441	12,188	12,626
	Lumens per Watt	143	141	137	134	130	126	122	118	115
	BUG Rating	B1 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2
5WQ	Lumens	5,123	6,453	7,729	8,923	9,995	11,036	11,908	12,686	13,142
	Lumens per Watt	149	146	143	140	136	131	127	123	120
	BUG Rating	B3 U0 G1	B3 U0 G1	B3 U0 G1	B3 U0 G2	B3 U0 G2	B3 U0 G2	B4 U0 G2	B4 U0 G2	B4 U0 G2

70 CRI, 4000K										
T2R	Lumens	5,388	6,787	8,128	9,384	10,512	11,607	12,524	13,342	13,822
	Lumens per Watt	157	154	151	147	143	138	134	129	126
	BUG Rating	B1 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3
T2U	Lumens	5,386	6,785	8,126	9,381	10,509	11,603	12,519	13,337	13,817
	Lumens per Watt	157	154	150	147	143	138	134	129	126
	BUG Rating	B1 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3
T3	Lumens	5,362	6,755	8,089	9,339	10,462	11,551	12,463	13,278	13,755
	Lumens per Watt	156	153	150	146	142	137	133	129	126
	BUG Rating	B1 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2
T4W	Lumens	5,168	6,510	7,797	9,001	10,083	11,133	12,013	12,798	13,258
	Lumens per Watt	150	148	144	141	137	132	128	124	121
	BUG Rating	B1 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2
5WQ	Lumens	5,379	6,776	8,115	9,369	10,495	11,588	12,503	13,320	13,799
	Lumens per Watt	156	154	150	147	143	137	133	129	126
	BUG Rating	B3 U0 G1	B3 U0 G1	B3 U0 G2	B3 U0 G2	B3 U0 G2	B4 U0 G2	B4 U0 G2	B4 U0 G2	B4 U0 G2

Lumen Maintenance

Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours*	L70*
25°C	98.1%	96.3%	95.6%	92.8%	>102,000
40°C	98.0%	96.1%	95.3%	92.3%	>102,000
50°C	97.8%	95.6%	94.8%	91.4%	>102,000

Note: * Calculations provided in accordance with IES TM-21-11 using the configuration resulting in highest LED temperature. Previous versions of IES TM-21 where theoretical calculations were used are no longer recommended as a proxy of lumen depreciation.

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

FADC Settings

FADC Position	Percent of Typical Lumen Output
1	25%
2	48%
3	56%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

Note: +/-5% typical value

LED Color Multipliers

	CCT				
	2200	2700	3000	4000	5000
CRI	Lumen Multiplier*				
70	0.83	0.92	0.95	1.00	1.00
80	--	0.85	--	--	--

Note: * Estimates, refer to IES files for accuracy.

Optical Distributions

