

DESCRIPTION

The Archeon™ Medium LED roadway luminaire delivers all the performance benefits of the latest Cooper Lighting Solutions LED platforms and technologies with a modern, yet familiar cobrahead form factor. This discrete LED solution with the patented, high-efficiency AccuLED Optics™ system, provides uniform and energy conscious illumination for municipal streets and highways. Our customer focused features include single latch tool-less entry, industry leading surge protection options and superior lumen maintenance and performance, all in an economical design. Available in 13 standard lumen packages per optic.

SPECIFICATION FEATURES

Construction

Heavy-duty die-cast aluminum housing and door. Tool-less entry, hinged removable door for easy access to terminal block, mounting bolts, and optional surge module. 3G vibration rated.

Optics

Choice of four patented, high-efficiency AccuLED Optics. Available in Type IIR, III, IV wide and V square wide the optics are precisely designed to shape the distribution maximizing efficiency and application spacing. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 2700K (80 CRI), 3000K (70 CRI), 5000K (70 CRI) CCT are available. For the ultimate level of spill light control, an optional house side shield accessory is available and can be field or factory installed. The house side shield is designed to seamlessly integrate with the

T2R, T3, and T4W optics. Optics are IP66 enclosure rated.

Electrical

120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. Standard 0-10V dimming with 6kV/3kA and 10kV/10kA common- and differential- mode surge protection available. Thermal management transfers heat away from the LED source for optimal efficiency, light output and lumen maintenance. Ambient operating temperature from -40°C to 40°C; 50°C HA, high ambient, capability available. Standard with three-position tunnel type compression terminal block. Greater than 90% lumen maintenance expected at 50,000 hours.

Mounting

Standard four-bolt/two-bracket slipfitter with cast-in pipe stop and 2.5° leveling steps, and door

Catalog #		Type
Project		
Comments		Date
Prepared by		

tether. Fixed-in-place bird guard seals around 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) mounting arms. Optional 15" pole mount arm available with round pole adapter and mounting hardware included.

Finish

Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Consult your lighting representative at Cooper Lighting Solutions for a complete selection of standard colors.

Warranty

Standard five-year warranty. Optional ten-year warranty, please see your Cooper Lighting Solutions Streetworks sales representative for more information.

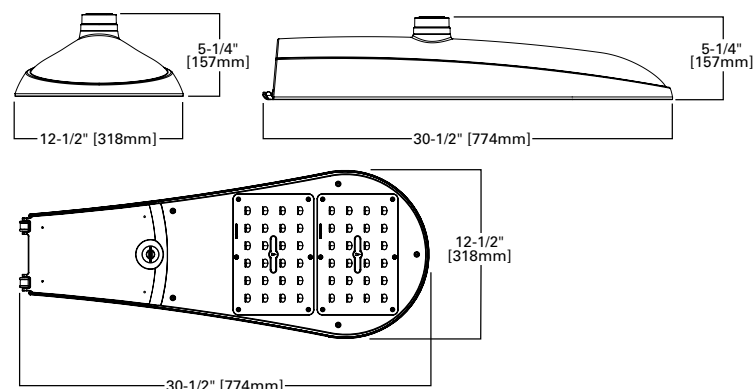


ARCH-M ARCHEON MEDIUM

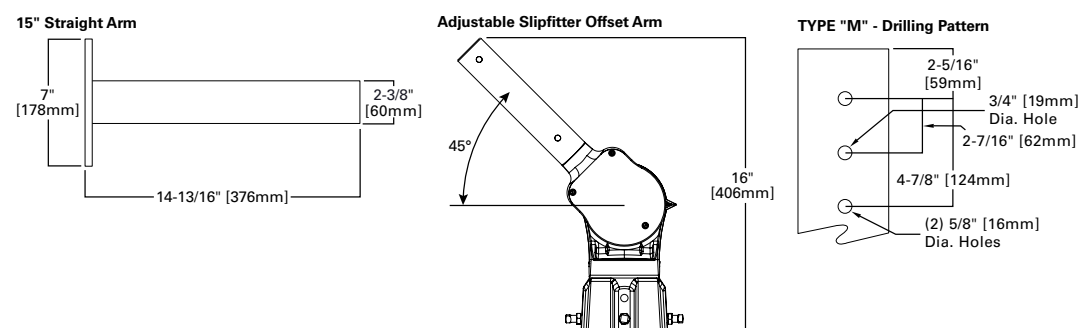
LED

ROADWAY LUMINAIRE

DIMENSIONS



OPTIONAL ARM



CERTIFICATION DATA

UL and cUL Wet Location Listed
IP66-Rated Optics
IP54-Rated Housing
3G Vibration Rated
ISO 9001
DesignLights Consortium® Qualified*
Dark Sky Approved (3000K CCT and warmer only)

ENERGY DATA

Electronic LED Driver
0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60Hz
-40°C Minimum Temperature Rating
+40°C Ambient Temperature Rating

EPA

Effective Projected Area (Sq. Ft.): 0.71

SHIPPING DATA

Approximate Net Weight:
18 lbs. (8.16 kgs.)

POWER AND LUMENS

Light Engine - AF48*		AF48-40	AF48-50	AF48-60	AF48-70	AF48-80	AF48-90	AF48-100	AF48-110	AF48-120	AF48-130	AF48-140	AF48-150	AF48-160
Power (Watts)		38	48	63	73	83	92	101	111	122	131	141	151	161
Wattage Label		40	50	60	70	80	90	100	110	120	130	140	150	160
Current (A) @ 120V		0.318	0.399	0.527	0.609	0.693	0.768	0.846	0.925	1.020	1.100	1.180	1.260	1.340
Current (A) @ 277V		0.145	0.178	0.243	0.275	0.309	0.342	0.374	0.407	0.453	0.486	0.518	0.553	0.586
Current (A) @ 347V		--	--	0.188	0.216	0.245	0.271	0.298	0.325	0.371	0.400	0.428	0.458	0.487
Current (A) @ 480V		--	--	0.146	0.165	0.185	0.203	0.222	0.240	0.286	0.304	0.323	0.344	0.363
Optics														
T2R	4000K/5000K	5,586	6,941	8,982	10,237	11,449	12,667	13,709	14,663	15,735	16,624	17,490	18,356	19,102
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	3000K	5,283	6,562	8,492	9,678	10,824	11,976	12,960	13,864	14,877	15,717	16,536	17,355	18,059
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
T3	4000K/5000K	5,552	6,898	8,925	10,172	11,377	12,587	13,623	14,571	15,637	16,520	17,381	18,241	18,982
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	3000K	5,249	6,522	8,438	9,618	10,757	11,902	12,880	13,777	14,784	15,619	16,434	17,247	17,947
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3
T4W	4000K/5000K	5,523	6,862	8,878	10,120	11,318	12,523	13,552	14,496	15,556	16,435	17,291	18,147	18,884
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
	3000K	5,222	6,488	8,394	9,568	10,701	11,839	12,813	13,706	14,707	15,538	16,349	17,157	17,854
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
5WQ	4000K/5000K	5,698	7,079	9,159	10,440	11,676	12,919	13,981	14,955	16,048	16,954	17,838	18,721	19,481
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3
	3000K	5,388	6,693	8,660	9,871	11,040	12,214	13,218	14,139	15,173	16,029	16,865	17,700	18,419
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B5-U0-G3	B5-U0-G3
T2U	4000K/5000K	5,519	6,857	8,872	10,113	11,310	12,513	13,542	14,485	15,544	16,422	17,278	18,133	18,869
	3000K	5,218	6,482	8,388	9,561	10,692	11,831	12,803	13,695	14,696	15,527	16,335	17,144	17,840
	BUG Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3

LUMEN MAINTENANCE

Light Engine	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
AF48-40 to AF48-160	Up to 50°C	>95%	416,000

LUMEN MULTIPLIER

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

CONTROL OPTIONS

Photocontrol (4 and 4N7)

Photocontrol receptacles (4 and 4N7) provide a flexible solution to enable “dusk-to-dawn” lighting by sensing light levels. Advanced control systems compatible with ANSI C136.41 7-pin standards can be utilized with the 4N7 receptacle.

Dimming Occupancy Sensor (MS/DIM-LXX)

These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. These occupancy sensors include an integral photocell that can be activated with the FSIR-100 accessory for “dusk-to-dawn” control or daylight harvesting - the factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters. A variety of sensor lens are available to optimize the coverage pattern for mounting heights from 8' - 40'.

Enlighted Wireless Control and Monitoring (LWR-LW and LWR-LN)

Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting. For additional details, refer to the Enlighted product guides.

ORDERING INFORMATION

Sample Number: ARCH-M-AF48-40-D-U-T2R-4N7-AP

Product Family ^{1,2}	Light Engine ³	Wattage Bucket ⁴	Driver	Voltage	Distribution	Color
ARCH-M=Archeon Medium	AF48	40=40W 50=50W 60=60W 70=70W 80=80W 90=90W 100=100W 110=110W 120=120W 130=130W 140=140W 150=150W 160=160W	D=Dimming (0-10V) 5LTD=DALI ⁵	U=Universal (120-277V) 8=480V ^{6,7} 9=347V ⁶	T2R=Type II Roadway T2U=Type II Urban T3=Type III T4W=Type IV Wide 5WQ=Type V Square Wide	AP=Grey (Standard) BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)				Accessories (Order Separately)		
7027 =70 CRI / 2700K ⁸ 7030 =70 CRI / 3000K ⁸ 7050 =70 CRI / 5000K ⁸ 8027 =80 CRI / 2700K ^{8,9} AMB =Amber 590nm ^{21,28} 4 =NEMA 3-PIN Twistlock Photocontrol Receptacle ¹⁰ 4N7 =NEMA 7-PIN Twistlock Photocontrol Receptacle 10K =10kV UL 1449 Surge Protective Device 10MSP =10kV MOV Surge Protective Device MS/DIM-L08 =Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ^{11,12} MS/DIM-L20 =Motion Sensor for Dimming Operation, 9' - 20' Mounting Height ^{11,12} MS/DIM-L40 =Motion Sensor for Dimming Operation, 21' - 40' Mounting Height ^{11,12} K =Level Indicator LWR-LW =Enlighted Wireless Sensor, Wide Lens for 8' - 16' Mounting Heights ^{11,13,14} LWR-LN =Enlighted Wireless Sensor, Narrow Lens for 16' - 40' Mounting Heights ^{11,13,14} HA =50°C High Ambient Temperature ¹⁵ HS-ARCH =Factory Install ARCH House Side Shield ¹⁶ A15 =Arm Included (15" Straight Arm) ¹⁷ IP66 =IP66 Rated Housing ASJS15 =Adjustable slipfitter (Factory set at 15 degrees) ASJS25 =Adjustable slipfitter (Factory set at 25 degrees) ASJS45 =Adjustable slipfitter (Factory set at 45 degrees) ZD =DALI-enabled 4-PIN Twistlock Receptacle ^{22,23} ZW =WaveLinX-enabled 4-PIN Twistlock Receptacle ^{22,23} SWPD4XX =WaveLinX Wireless Sensor, 7' - 15' Mounting Height ^{24,25,26,27} SWPD5XX =WaveLinX Wireless Sensor, 15' - 40' Mounting Height ^{24,25,26,27}				OA/RA1013 =Photocontrol Shorting Cap OA1223 =10kV Surge Module Replacement HS-ARCH =Field Install ARCH House Side Shield ^{16,18} OA/RA1014 =NEMA Photocontrol - 120V OA/RA1016 =NEMA Photocontrol - Multi-Tap ASJS15-XX =Adjustable slipfitter (Factory set at 15 degrees) ¹⁹ ASJS25-XX =Adjustable slipfitter (Factory set at 25 degrees) ¹⁹ ASJS45-XX =Adjustable slipfitter (Factory set at 45 degrees) ¹⁹ OA/RA1027 =NEMA Photocontrol - 480V OA/RA1201 =NEMA Photocontrol - 347V A15-XX =Arm (15" Straight Arm) ^{17,19} FSIR-100 =Wireless Configuration Tool for Occupancy Sensor ²⁰ VGS-ARCH =Short Vertical Drop Shield VGL-ARCH =Long Vertical Drop Shield SWPD4-XX =WaveLinX Wireless Sensor, 7' - 15' Mounting Height ^{24,25,26,27} SWPD5-XX =WaveLinX Wireless Sensor, 15' - 40' Mounting Height ^{24,25,26,27}		

NOTES:

- 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.
- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
- Standard 4000K CCT and 70 CRI.
- Nominal wattage values will be labeled on fixture as per ANSI C136.15. For specific fixture wattage, refer to Power and Lumens table.
- Only available in universal voltage.
- Not available at 40W or 50W.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- Use dedicated IES files for 2700K, 3000K and 5000K when performing layouts. These files are published on the Archeon medium luminaire product page on the website.
- Extended lead times may apply.
- If "4" selected, dimming functionality not available. Dimming leads will be capped.
- Only available in Universal voltage.
- The FSIR-100 accessory is required to adjust parameters.
- Enlighted wireless system is not available with photocontrol receptacle (not required)
- Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See website for LumaWatt Pro application information.
- HA option not available with the following configurations, 347/480V 150W and 160W if paired with HS-ARCH or 5LTD 140-160W.
- HS-ARCH not available with 5WQ distribution.
- Round pole adapter and mounting hardware included. "M" drill pattern.
- Archeon Medium requires two house side shields.
- Replace XX with color designation.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information.
- Amber 590nm +/- 5nm for wildlife and observatory use. Supplied in AF48- 60 wattage bucket only.
- Utilizes internal step-down transformer when 347V or 480V is selected.
- Controls system is not available with photocontrol (BPC), photocontrol receptacle (PR or PR7), or other controls systems (MS, ZD, ZW, LWR, DALI, or DIM).
- Requires 4-PIN twistlock receptacle (ZD or ZW) option.
- Replace XX with sensor color (WH, BZ or BK).
- Sensor passive infrared (PIR) may be overly sensitive with operating below -20°C (-4°F).
- For this device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinX system and software and requires system components to be installed for operation. See website for more WaveLinX application information.
- Not available with HA option.