

Project		Catalog #		Type	
Prepared by		Notes		Date	



Streetworks

Archeon Small

Roadway Luminaire

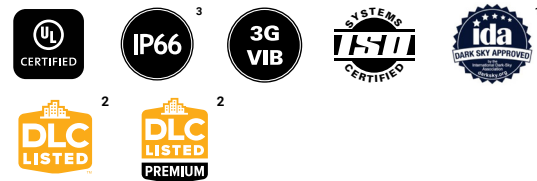
Product Features



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Product Certifications



Quick Facts

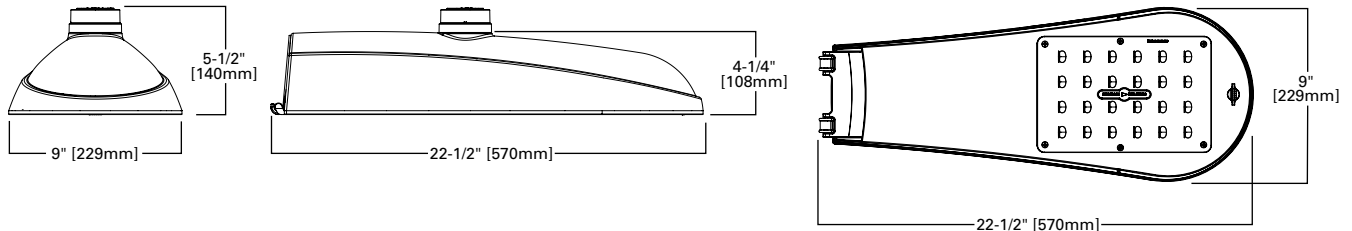
- Die-cast aluminum construction; Single latch tool-less entry
- Replaces up to 250W equivalent HID; -40°C to 40°C with optional 50°C operating range
- Pole-mounted; Optional arm and offset adjustable arm mounting
- 120-277V, 240-480V, 347V, and 480V, 50/60Hz operation

Connected Systems

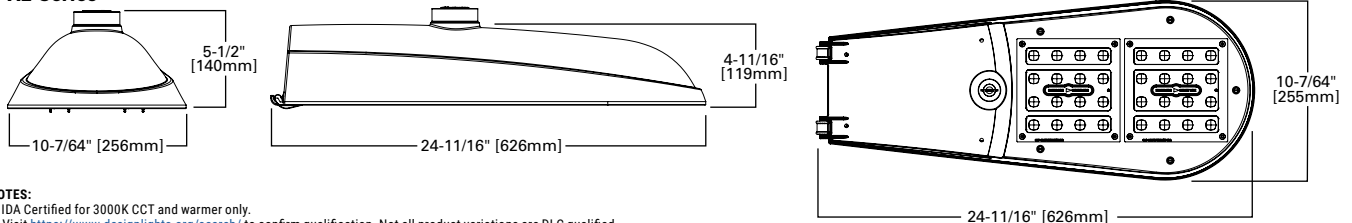
- WaveLinX
- Telensa

Dimensional Details

PA1 Series



PA2 Series



NOTES:
 1. IDA Certified for 3000K CCT and warmer only.
 2. Visit <https://www.designlights.org/search/> to confirm qualification. Not all product variations are DLC qualified.
 3. IP66 Optic enclosure rated.

Ordering Information

SAMPLE ORDER NUMBER: ARCH-S-PA1-100-740-U-T2R-A15-AP-10K-PR

Product Family ³	Light Engine	Wattage Bucket	Color Temperature	Voltage	Distribution	Mounting	Finish
ARCH-S =Archeon Small BAA-ARCH-S =Archeon Small Buy American Act Compliant ^{1,5} TAA-ARCH-S =Archeon Small Trade Agreements Act Compliant ^{1,5}	PA1 (Only available up to 100W)	30 40 50 60 70 80 90 100	722=70CRI, 2200K 727=70CRI, 2700K 730=70CRI, 3000K 735=70CRI, 3500K 740=70CRI, 4000K 750=70CRI, 5000K 827=80CRI, 2700K ⁵ AMB=Amber 590nm ^{17,18}	U=Universal (120-277V) 1=120V ²² 2=208V ²² 3=240V ²² 4=277V ²² 8=480V ^{4,22} 9=347V ²² DV1=240V-480V ^{4,23}	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 ⁹ ASJS15=Adjustable Slipfitter (Factory set at 15° degrees) ASJS25=Adjustable Slipfitter (Factory set at 25° degrees) ASJS45=Adjustable Slipfitter (Factory set at 45° degrees)	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum WH=White
	PA2	20 30 40 50 60 70 80 90 100 110 120 130					
Options (Add as Suffix)		Controls			Accessories (Order Separately) ²		
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 L90=PA2 Optics Rotated 90° Left ²⁴ R90=PA2 Optics Rotated 90° Right ²⁴ HSS=Factory Installed House Side Shield ^{8,27} GRSBK=PA2 Glare Reducing Shield Black ²⁴ GRSWH=PA2 Glare Reducing Shield White ²⁴ HA=50°C High Ambient Temperature ⁷ K=Level Indicator CC=Coastal Construction ²⁰ LCF=PA2 Trim Painted to Match Housing ²⁴		PSC=Photocontrol Shorting Cap NPC=NEMA Photocontrol - Multi-Tap LLPC=Longlife Photocontrol Included PR=NEMA 3-PIN Twistlock Photocontrol Receptacle ⁶ PR7=NEMA 7-PIN Twistlock Photocontrol Receptacle FADC=Field Adjustable Dimming Controller ¹⁹ SLTD=DALI SPB1=Dimming Occupancy Sensor with Bluetooth Interface ²¹ SPB2=Dimming Occupancy Sensor with Bluetooth Interface, 8'-20' Mounting ²¹ SPB4=Dimming Occupancy Sensor with Bluetooth Interface, 21'-40' Mounting ²¹ ZD=DALI-enabled 4-PIN Twistlock Receptacle ^{12,25,26} ZW=WaveLinX-enabled 4-PIN Twistlock Receptacle ^{11,12} SWPD4XX=WaveLinX Wireless Sensor, 7' - 15' Mounting Height ^{12,13,14,15,16} SWPD5XX=WaveLinX Wireless Sensor, 15' - 40' Mounting Height ^{12,13,14,15,16} WOBXX=WaveLinX Wireless Sensor with Bluetooth, 7-15ft ^{12,13,14,15} WOFXX=WaveLinX Wireless Sensor with Bluetooth, 15-40ft ^{12,13,14,15}			OA / RA1013=Photocontrol Shorting Cap OA1223=10kV Surge Module Replacement OA/RA1014=NEMA Photocontrol - 120V OA/RA1016=NEMA Photocontrol - Multi-Tap OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V A15-XX=Arm (15' Straight Arm) ^{9,10} ASJS15-XX=Adjustable slipfitter (Factory set at 15 degrees) ¹⁰ ASJS25-XX=Adjustable slipfitter (Factory set at 25 degrees) ¹⁰ ASJS45-XX=Adjustable slipfitter (Factory set at 45 degrees) ¹⁰ HS-ARCH-24=PA1 Field Installed ARCH House Side Shield ^{8,27} VGS-ARCH=PA1 Short Vertical Drop Shield ²⁸ VGL-ARCH=PA1 Long Vertical Drop Shield ²⁸ SWPD4-XX=WaveLinX Wireless Sensor, 7' - 15' Mounting Height ^{12,13,14,15,16} SWPD5-XX=WaveLinX Wireless Sensor, 15' - 40' Mounting Height ^{12,13,14,15,16} WOB-XX=WaveLinX Wireless Sensor with Bluetooth, 7'-15' Mounting Height ^{12,13,14,15} WOF-XX=WaveLinX Wireless Sensor with Bluetooth, 15'-40' Mounting Height ^{12,13,14,15}		
NOTES: 1. 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. 2. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. 3. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WPS13001EN for additional support information. 4. 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). 5. Extended lead times may apply. 6. If "PR" selected, dimming functionality not available, dimming leads will be capped. 7. Option not available with PA1-90, PA1-100, PA2-100+. 8. HS-ARCH not available with 5WQ and T2U distribution. 9. Round pole adapter and mounting hardware included. "M" drill pattern. 10. Replace XX with color designation. 11. Only available with "U" universal voltage. Not available with PA2. 12. Controls system is not available with photocontrol receptacles (PR, PR7) or other controls systems (FADC, SPBx). 13. Requires 4-PIN twistlock receptacle (ZD or ZW) option. 14. Replace XX with sensor color (WH, BZ or BK). 15. Sensor passive infrared (PIR) may be overly sensitive with operating below -20°C (-4°F). 16. 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. 17. Not available with HA option. 18. Amber 590nm +/-5nm for wildlife and observatory use. Supplied in PA1-30 and PA2-40 wattage bucket only. 19. Cannot be used with PR7 or other motion response control options. 20. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. 21. Smart device with Sensor Configuration mobile application by Wattstopper required to change system defaults. 22. Required for voltage specific options 23. Only available for 80W through 130W. 24. PA2 Only. 25. Utilizes internal step-down transformer when 347V or 480V is selected. 26. Not available with PA1-30, PA1-90, and PA1-100. 27. Not available with PA2-110 through PA2-130. 28. Kit to install one side for one luminaire.							

Product Specifications

Construction

- Heavy-duty die-cast aluminum housing and door
- Tool-less entry, hinged removable door for easy maintenance
- 3G vibration rated

Optics

- Choice of four patented, high efficiency AccuLED Optics
- Available in Type IIR, IIU, 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 2200K, 2700K, 3000K, 3500K, and 5000K CCT
- For the ultimate level of spill light control, an optional house side shield accessory is available and can be field or factory installed
- Optics are IP66 enclosure rated
- IDA Certified for 3000K CCT and warmer only

Electrical

- 120-277V, 240-480V, 347V, and 480V; 50/60Hz operation

- Standard 0-10V dimming
- Optional 10kV and 20kV surge common- and differential-mode surge protection available
- 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 97% and 94% lumen maintenance expected at 50,000 and 100,000 hours respectively with calculated L70 greater than 150,000 hours
- Replaces 50W to 250W HID
- Luminaire available with the field adjustable dimming controller (FADC) to manually adjust wattage and reduce the total lumen output and light levels. Comes pre-set to the highest position at the lumen output selected

Mounting

- **PA1 Mounting:** Two-bolt/one-bracket slipfitter with cast-in pipe stop and 2.5° leveling steps
- **PA2 Mounting:** Four-bolt/two-bracket slipfitter with cast-in pipe stop and 2.5° leveling steps
- 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

Shipping Data

PA1

- Approximate Net Weight: 12 lbs. (5.4 kgs.)
- Effective Projected Area: 0.5 (Sq. Ft.)

PA2

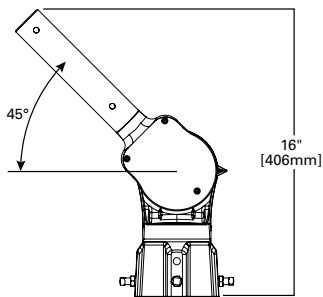
- Approximate Net Weight: 12.25 lbs. (5.6 kgs.)
- Effective Projected Area: 0.7 (Sq. Ft.)

Warranty

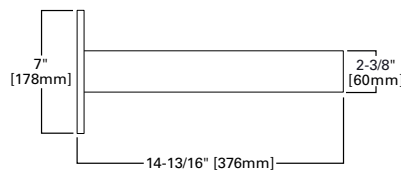
- Five year limited warranty, consult [website](#) for details

Mounting Details

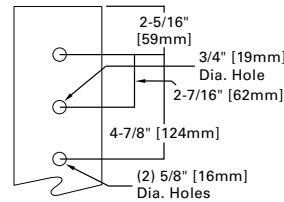
Adjustable Slipfitter Offset Arm



15" Straight Arm



Type "M" - Drilling Pattern



Energy and Performance Data

Lumen Maintenance

Light Engine	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours*	L70*
PA1	25°C	99.7%	98.2%	97.6%	95.4%	>150,000
	40°C	98.7%	96.4%	95.5%	92.0%	>150,000
	50°C	99.2%	97.3%	96.5%	93.6%	>150,000
PA2	25°C	99.4%	97.8%	97.2%	94.7%	>150,000
	40°C	98.5%	96.0%	95.0%	91.2%	>150,000
	50°C	99.7%	98.5%	97.9%	95.9%	>150,000

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.

LED Color Multipliers

CRI	CCT					
	2200	2700	3000	3500	4000	5000
70	0.74	0.84	0.91	0.93	1.00	1.00
80	--	0.75	--	--	--	--

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

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

[View Archeon Small IES files](#)

FADC Settings

FADC Position	Percent of Typical Lumen Output
1	25%
2	46%
3	55%
4	62%
5	72%
6	77%
7	82%
8	85%
9	90%
10	100%

Note: +/-5% typical value

Energy and Performance Data

Power and Lumens (PA1 Light Engine) (70CRI - 4000K)

Light Engine - PA1	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100	
Power (Watts)	31	40	54	64	74	83	94	96	
Wattage Label	30	40	50	60	70	80	90	100	
Input Current @ 120V (A)	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80	
Input Current @ 277V (A)	0.12	0.16	0.21	0.24	0.28	0.31	0.35	0.35	
Input Current @ 347V (A)	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28	
Input Current @ 480V (A)	0.07	0.09	0.13	0.15	0.17	0.18	0.21	0.21	
Optics									
T2R	Lumens	4,756	6,137	7,912	9,083	10,127	10,942	11,729	11,850
	Lumens Per Watt	153	153	146	141	136	131	124	123
	Bug Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2
T2U	Lumens	4,739	6,114	7,884	9,052	10,091	10,905	11,688	11,809
	Lumens Per Watt	152	152	146	141	136	131	124	123
	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
T3	Lumens	4,729	6,102	7,868	9,033	10,071	10,882	11,664	11,785
	Lumens Per Watt	152	152	145	141	136	131	124	122
	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
T4W	Lumens	4,700	6,062	7,819	8,976	10,006	10,813	11,591	11,710
	Lumens Per Watt	151	151	144	140	135	130	123	121
	Bug Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
5WQ	Lumens	4,832	6,234	8,040	9,230	10,291	11,120	11,918	12,042
	Lumens Per Watt	155	155	148	144	139	133	126	125
	Bug Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2

Power and Lumens (PA2 Light Engine) (70CRI - 4000K)

Light Engine - PA2	PA2-20	PA2-30	PA2-40	PA2-50	PA2-60	PA2-70	PA2-80	PA2-90	PA2-100	PA2-110	PA2-120	PA2-130	
Power (Watts)	23	33	43	53	63	73	83	93	103	113	123	133	
Wattage Label	20	30	40	50	60	70	80	90	100	110	120	130	
Input Current @ 120V (A)	0.20	0.28	0.36	0.45	0.53	0.61	0.69	0.77	0.86	0.96	1.02	1.10	
Input Current @ 277V (A)	0.09	0.13	0.16	0.20	0.24	0.27	0.31	0.34	0.38	0.42	0.46	0.49	
Input Current @ 347V (A)	0.07	0.10	0.13	0.16	0.18	0.21	0.24	0.27	0.30	0.33	0.36	0.39	
Input Current @ 480V (A)	0.06	0.08	0.09	0.11	0.13	0.16	0.17	0.19	0.22	0.24	0.26	0.28	
Optics													
T2R	Lumens	3,706	5,265	6,723	8,043	9,495	10,744	11,875	12,883	13,956	15,091	15,688	16,268
	Lumens Per Watt	158	157	155	150	150	147	143	139	135	132	128	124
	Bug Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
T2U	Lumens	3,648	5,183	6,618	7,917	9,346	10,576	11,689	12,682	13,738	14,854	15,442	16,014
	Lumens Per Watt	155	155	152	148	148	144	141	137	133	130	126	122
	Bug Rating	B1-U0-G1	B1-U0-G1	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
T3	Lumens	3,693	5,247	6,700	8,015	9,461	10,707	11,833	12,838	13,907	15,038	15,633	16,211
	Lumens Per Watt	157	157	154	150	150	146	143	139	135	132	128	123
	Bug Rating	B1-U0-G1	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
T4W	Lumens	3,680	5,228	6,676	7,987	9,428	10,669	11,791	12,793	13,858	14,985	15,578	16,154
	Lumens Per Watt	157	156	153	149	149	146	142	138	134	131	127	123
	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-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3
5WQ	Lumens	3,810	5,413	6,912	8,269	9,761	11,046	12,208	13,245	14,348	15,514	16,128	16,725
	Lumens Per Watt	162	162	159	154	155	151	147	143	139	136	132	127
	Bug Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2