

KAX1 LED Size 1 LED Area Luminaire



Catalog Number
Notes
Type

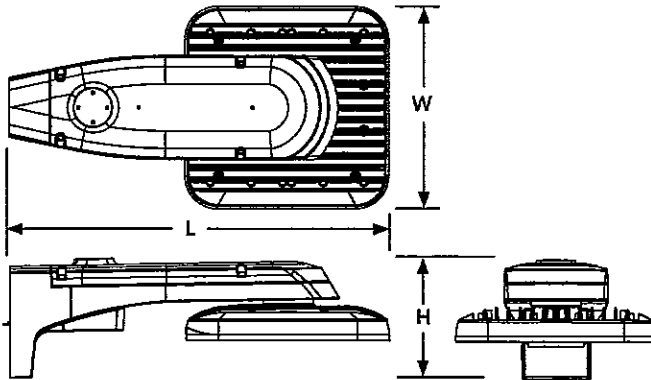
Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

This feature-rich luminaire embodies the highest level of functionality, and with field-rotatable optics and optional tilt, light can be placed exactly where it's needed. The optics are specifically designed to maximize the light in the desired area and are particularly useful in small to medium sized parking lots or lots requiring higher illuminance levels such as restaurants, banks, service stations, corporate offices and strip malls. By providing the maximum amount of light at minimal cost, the KAX1 is the perfect choice for new installations or retrofit installations replacing up to 400W MH.

Specifications

EPA:	0.7 ft ² (0.07 m ²)
Length:	25" (64 cm)
Width:	13-1/4" (34 cm)
Height:	7-3/4" (20 cm)
Weight (max):	26 lbs (11.8 kg)



Ordering Information

EXAMPLE: KAX1 LED P4 40K R3 MVOLT SPA DDBXD

KAX1 LED

Series	Performance package	Color temperature	Distribution	Voltage	Mounting
KAX1 LED	P1	30K 3000 K	R3 Type 3	MVOLT ¹	Shipped included SPA Square pole mounting RPA Round pole mounting Shipped separately KMA Mast arm adaptor ²
	P2	40K 4000 K	R4 Type 4	120 ¹	
	P3	50K 5000 K	R5 Type 5	208 ¹	
	P4			240 ¹ 277 ¹ 347 480	

Control options	Other options	Finish (required)
Shipped installed PER NEMA twist-lock receptacle only (no controls) ^{3,4} PERS Five-wire receptacle only (no controls) ^{4,5} PER7 Seven-wire receptacle only (no controls) ^{4,5} PIR Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ⁶ PIRH Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ⁶ PIR1FC3V Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ⁶ PIRH1FC3V Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ⁶ FAO Field adjustable output ⁷	Shipped installed HS House-side shield ⁸ SF Single fuse (120, 277, 347V) ⁹ DF Double fuse (208, 240, 480V) ¹⁰ TILT Tilt arm Shipped separately BS Bird spikes ⁴ EGS External glare shield ⁴	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLTXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Controls & Shields

DL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ¹¹
DL1347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ¹¹
DL1480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ¹¹
DSHORT SBK U	Shorting cap ¹
KMA DDBXD U	Mast arm mounting bracket adaptor (specify finish) ²
KAX1NS P1/P2 U	House-side shield (P1, P2)
KAX1NS P3/P4 U	House-side shield (P3, P4)
KAXBS U	Bird spikes
KAX1EGS U	External glare shield

NOTES

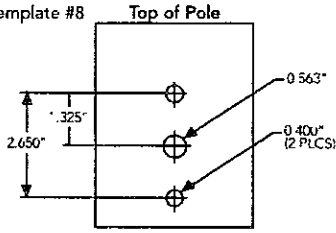
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120V, 208V, 240V or 277V options only when ordering with fusing (SF, DF options).
- For use with 2-3/8" mast arm (not included).
- Not available with ROAM®. See PERS or PER7 option.
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See Accessories information.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls.
- PIR and PIR1FC3V specify the SensorSwitch SBGR-10-ODP control; PIRH and PIRH1FC3V specify the SensorSwitch SBGR-6-ODP control; see Outdoor Control Technical Guide for details. Dimming driver standard. Not available with PERS or PER7. Ambient sensor disabled when ordered with DCR. Separate on/off required. Not available with PNMT options.
- Dimming driver standard. Not available with PERS or PER7.
- Also available as a separate accessory; see Accessories information.
- Must specify 120, 277, or 347V option.
- Must specify 208, 240, or 480V option.
- Requires luminaire to be specified with PER, PERS, or PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.

For more control options, visit DTL and ROAM online.



Drilling

Template #8



KAX1 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	DM29AS	2 at 90°*
DM28AS	2 at 180°	DM39AS	3 at 90°*
DM49AS	4 at 90°*	DM32AS	3 at 120°**

Example: SSA 20-4C DM19AS DOBYD

Visit LithoniaLighting.com to see our wide selection of poles, accessories and educational tools.

*Round pole top must be 3.25" O.D. minimum
**For round pole mounting (RPA) only

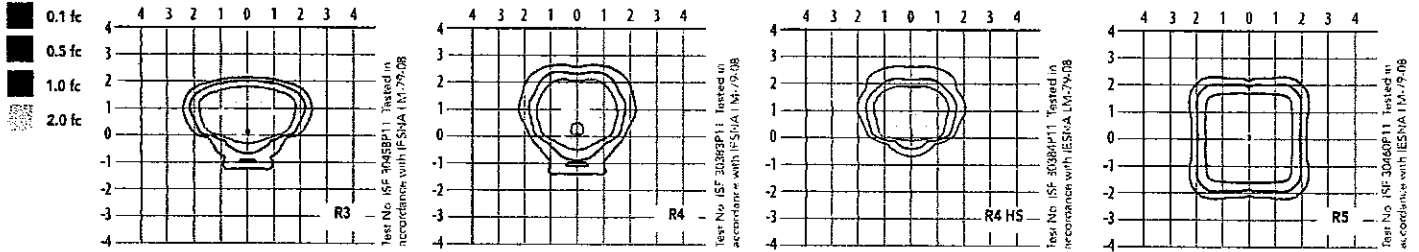
Tenon Mounting Slipfitter**

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	AST20-290	AST20-320	AST20-390	AST20-490
2-7/8"	AST25-190	AST25-280	AST25-290	AST25-320	AST25-390	AST25-490
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit [Lithonia Lighting's KAX1 Area Light homepage](http://LithoniaLighting.com). Isofootcandle plots for the KAX1 LED P4 40K. Distances are in units of mounting height (30').

LEGEND



Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	50	R3	6,212	1	0	1	124	6,628	1	0	1	133	6,745	1	0	2	135
		R4	6,444	1	0	1	129	6,876	1	0	1	138	6,997	1	0	1	140
		R5	6,826	3	0	1	137	7,283	3	0	1	146	7,411	3	0	1	148
P2	96	R3	10,687	2	0	2	111	11,403	2	0	2	119	11,603	2	0	2	121
		R4	11,087	2	0	2	115	11,829	2	0	2	123	12,037	2	0	2	125
		R5	11,743	3	0	1	122	12,529	3	0	2	131	12,750	3	0	2	133
P3	130	R3	15,567	2	0	3	120	16,609	2	0	3	128	16,902	2	0	3	130
		R4	16,149	2	0	2	124	17,230	2	0	3	133	17,533	2	0	3	135
		R5	17,106	4	0	2	132	18,251	4	0	2	140	18,572	4	0	2	143
P4	160	R3	18,623	3	0	3	116	19,869	3	0	3	124	20,219	3	0	3	126
		R4	19,319	3	0	3	121	20,612	3	0	3	129	20,975	3	0	3	131
		R5	20,463	4	0	2	128	21,833	4	0	2	136	22,217	4	0	2	139

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-50°C (32-122°F).

* Shaded cells include active dynamic temperature sensing.

Ambient	Lumen Multiplier			
	P1	P2	P3	P4
0°C	1.05	1.05	1.05	1.05
10°C	1.03	1.03	1.03	1.03
20°C	1.01	1.01	1.01	1.01
25°C	1	1	1	1
30°C	0.99	0.99	0.99	0.99
40°C	0.97	0.97	0.97	0.95
45°C	0.96	0.96	0.93	0.81
50°C	0.95	0.95	0.78	0.67

Electrical Load

Package		120V	208V	240V	277V	347V	480V
P1	Current (A)	0.42A	0.24A	0.21A	0.18A	0.15A	0.12A
	System Watts	50W	49W	49W	49W	49W	49W
P2	Current (A)	0.80A	0.46A	0.40A	0.35A	0.28A	0.21A
	System Watts	96W	94W	94W	93W	94W	93W
P3	Current (A)	1.08A	0.62A	0.54A	0.47A	0.39A	0.30A
	System Watts	130W	127W	127W	126W	128W	128W
P4	Current (A)	1.33A	0.76A	0.66A	0.58A	0.48A	0.36A
	System Watts	160W	156W	156W	155W	159W	159W

Projected LED Lumen Maintenance

Operating Hours	25,000	50,000	100,000
Lumen Maintenance Factor	>0.94	>0.89	>0.80

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.



FEATURES & SPECIFICATIONS

INTENDED USE

This feature-rich luminaire embodies the highest level of functionality with extraordinary efficacy which maximizes your application efficiency providing high levels of light for minimal cost specifically on small to medium sized parking lots like banks, restaurants, service stations, corporate offices and strip malls.

CONSTRUCTION

Separated die-cast aluminum heat sink and mounting arm allow maximum air flow and separated electrical compartments to promote cool operating environments extending component life. This modular design allows for ease of maintenance and future light engine upgrades. The KAX features a field rotatable optical assembly enabling on-the-fly adjustments when plans change, and can even be tilted upwards if necessary for additional forward throw. The housing is completely sealed against moisture and environmental contaminants (IP66). Low EPA (0.7 ft³) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Individually formed acrylic lenses are engineered for superior application efficiency which maximizes the light in the areas where it is most needed. Light engines are available in 3000 K, 4000 K or 5000 K (minimum 70 CRI) configurations. In its standard configuration the KAX has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight. With the TILT option, the optical assembly can be raised up to 80 degrees for additional forward throw or to provide vertical illumination.

ELECTRICAL

Light engine(s) configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (>L80/100,000 hours). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION

The base of the mounting arm features a universal mounting template to facilitate quick and easy installation. Mounting bolts featuring a 1000-hour salt fog finish are utilized to secure the luminaire providing up to a 1.5 G vibration load rating per ANSI C136.31. The KAX utilizes the AERIS™ series pole drilling pattern. Optional bi-level motion sensor and NEMA 3, 5 or 7 pin twist lock photocontrol receptacle are also available.

LISTINGS

CSA Listed for wet locations. Light engines and electrical compartment are IP66 rated. Rated for temperatures as low as -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.