



# KAX LED Size 1

## LED Area Luminaire



### Specifications

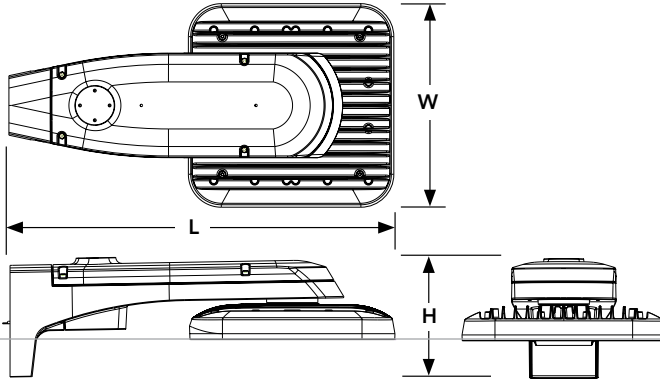
**EPA:** 0.7 ft<sup>2</sup>  
(0.07 m<sup>2</sup>)

**Length:** 25"  
(64 cm)

**Width:** 13-1/4"  
(34 cm)

**Height:** 7-3/4"  
(20 cm)

**Weight (max):** 26 lbs  
(11.8 kg)



### A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability<sup>1</sup>
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background<sup>1</sup>

1. See ordering tree for details.
2. A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire.

A+ Capable options indicated by this color background.

### Ordering Information

**EXAMPLE: KAX1 LED P4 40K R3 MVOLT SPA DDBXD**

Series	Performance package	Color temperature	Distribution	Voltage	Mounting
<b>KAX1 LED</b>	P1 P2 P3 P4	<b>30K</b> 3000 K 40K 4000 K 50K 5000 K	<b>R3</b> Type 3 R4 Type 4 R5 Type 5	<b>MVOLT<sup>1</sup></b> 120 <sup>2</sup> 208 <sup>3</sup> 240 <sup>3</sup> 277 <sup>2</sup> 347 <sup>2</sup> 480 <sup>3</sup>	<b>Shipped included</b> <b>SPA</b> Square pole mounting RPA Round pole mounting (includes round and square mounting)

Control options	Other options	Finish (required)
<b>Shipped installed</b> <b>PER</b> NEMA twist-lock receptacle only (Controls order separate) <sup>4,5,6</sup> <b>PER5</b> Five-wire receptacle only (Controls order separate) <sup>4,5,6</sup> <b>PER7</b> Seven-wire receptacle only (Controls order separate) <sup>4,5,6</sup> <b>PIR</b> Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc <sup>7,8</sup> <b>PIRH</b> Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc <sup>7,8</sup> <b>PIR1FC3V</b> Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc <sup>7,8</sup> <b>PIRH1FC3V</b> Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc <sup>7,8</sup> <b>FAO</b> Field adjustable output <sup>9</sup>	<b>Shipped installed</b> <b>HS</b> House-side shield <sup>10</sup> <b>SF</b> Single fuse (120, 277, 347V) <sup>2</sup> <b>DF</b> Double fuse (208, 240, 480V) <sup>3</sup> <b>TILT</b> Tilt arm <b>Shipped separately</b> <b>BS</b> Bird spikes <sup>10</sup> <b>EGS</b> External glare shield <sup>10</sup>	<b>DDBXD</b> Dark bronze <b>DBLXD</b> Black <b>DNAXD</b> Natural aluminum <b>DWHXD</b> White <b>DDBTXD</b> Textured dark bronze <b>DBLTXD</b> Textured black <b>DNATXD</b> Textured natural aluminum <b>DWHGXD</b> Textured white



# Ordering Information Cont.

## Accessories

Ordered and shipped separately.

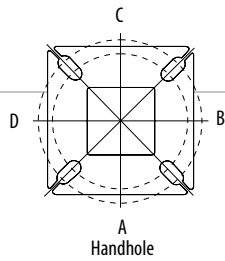
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) <sup>11</sup>
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) <sup>11</sup>
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) <sup>11</sup>
DSHORT SBK U	Shorting cap <sup>11</sup>
KMA DDBXD U	Mast arm mounting bracket adaptor (specify finish) <sup>12</sup>
KAX1HS P1/P2 U	House-side shield (P1, P2)
KAX1HS P3/P4 U	House-side shield (P3, P4)
KAXBS U	Bird spikes
KAX1EGS U	External glare shield
RK1 KAX1WBA (FINISH) U	Wall mount bracket

## NOTES

- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- Must specify 120, 277, or 347V when ordering SF option.
- Must specify 208, 240, or 480V when ordering DF option.
- See PER Table on page 3.
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
- If ROAM node required, it must be ordered and shipped as a separate line from Acuity Brands Controls. Shorting Cap included.
- Reference Motion Sensor Table on page 3.
- Reference PER Table on page 3 to see functionality.
- Not available with other controls option.
- Also available as a separate accessory; see Accessories information.
- Requires luminaire to be specified with PER option. See PER Table on page 3.
- For use with 2-3/8" mast arm (not included).

## Drilling

### HANDHOLE ORIENTATION



### Pole drilling nomenclature: # of heads at degree from handhole (default side A)

DM19AS	DM28AS	DM29AS	DM32AS	DM39AS	DM49AS
1 @ 90°	2 @ 280°	2 @ 90°	3 @ 120°	3 @ 90°	4 @ 90°
Side B	Side B & D	Side B & C	Round pole only	Side B, C, & D	Sides A, B, C, D

Note: Review luminaire spec sheet for specific nomenclature

Pole top or tenon O.D.	4.5" @ 90°	4" @ 90°	3.5" @ 90°	3" @ 90°	4.5" @ 120°	4" @ 120°	3.5" @ 120°	3" @ 120°
KAX SPA	N	N	N	N	-	-	-	-
KAX RPA	N	N	N	N	Y	Y	Y	N

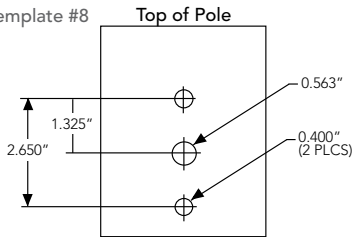
\*3 fixtures @120 require round pole top/tenon.

### Tenon Mounting Slipfitter

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	*3 at 120°	3 at 90°	4 at 90°
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

\*3@120° is Round Pole only.

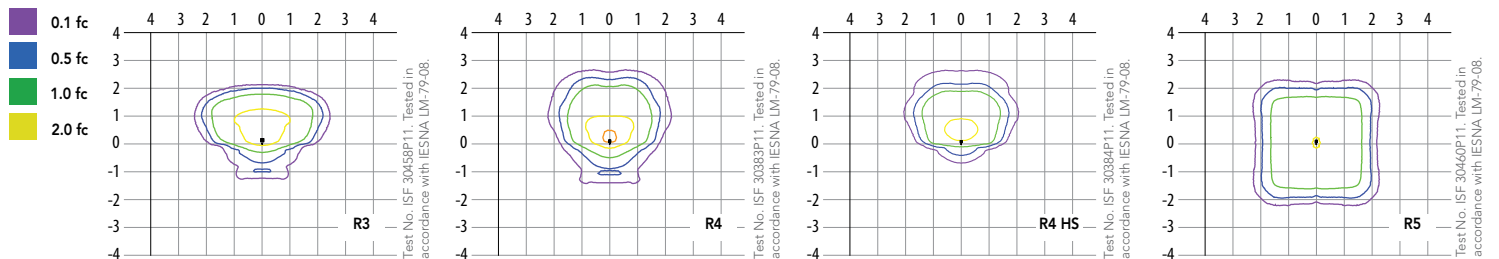
Template #8



## Photometric Diagrams

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

### LEGEND



## Performance Data

### 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.

### Motion Sensor Default Settings

Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

### PER Table

Control	PER (3 wire)	PER5 (5 wire)			PER7 (7 wire)		
			Wire 4/Wire5			Wire 6/Wire7	
Photocontrol Only (On/Off)	✓	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture	
ROAM	⊘	✓	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture	
ROAM with Motion	⊘	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture	
Futureproof*	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture	
Futureproof* with Motion	⊘	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture	

✓ Recommended

⊘ Will not work

⚠ Alternate

\*Futureproof means: Ability to change controls in the future.

### 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
		R3	10,687	2	0	2	111	11,403	2	0	2	119	11,603	2	0	2	121
P2	96	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
		R3	15,567	2	0	3	120	16,609	2	0	3	128	16,902	2	0	3	130
P3	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
		R3	18,623	3	0	3	116	19,869	3	0	3	124	20,219	3	0	3	126
P4	160	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

## 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 ft<sup>2</sup>) 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.

### WARRANTY

5-year limited warranty.

**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.