



KAX LED Size 1 LED Area Luminaire



Specifications

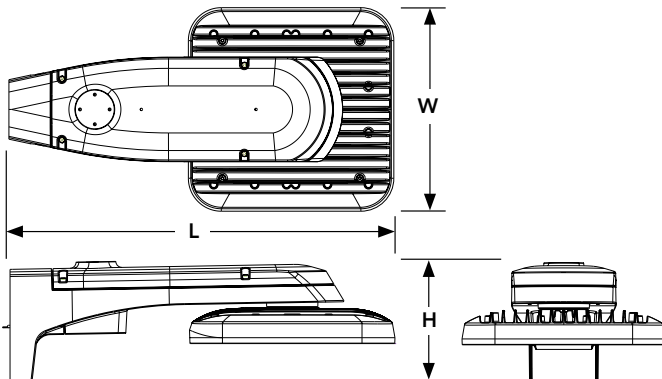
EPA: 0.7 ft²
(0.07 m²)

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 options indicated by this color background.

Ordering Information

EXAMPLE: KAX1 LED P4 40K R3 MVOLT SPA DDBXD

| KAX1 LED | | | | | |
|--------------------------|---|--|--|--|---|
| Series | Performance package | Color temperature | Distribution | Voltage | Mounting |
| KAX1 LED | P1 P2 P3 P4 | 30K 3000 K 40K 4000 K 50K 5000 K | R3 Type 3 R4 Type 4 R5 Type 5 ¹ | MVOLT ² 120 ³ 208 ⁴ 240 ⁴ 277 ³ 347 ³ 480 ⁴ | Shipped included SPA Square pole mounting RPA Round pole mounting (includes round and square mounting) |
| Control options | | | Other options | | Finish <i>(required)</i> |
| Shipped installed | | | Shipped installed | | DDBXD Dark bronze |
| PER | NEMA twist-lock receptacle only (Controls order separate) ^{5,6,7} | | HS | House-side shield ¹¹ | DBLXD Black |
| PER5 | Five-wire receptacle only (Controls order separate) ^{5,6,7} | | SF | Single fuse (120, 277, 347V) ³ | DNAXD Natural aluminum |
| PER7 | Seven-wire receptacle only (Controls order separate) ^{5,6,7} | | DF | Double fuse (208, 240, 480V) ⁴ | DWHXD White |
| PIR | Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ^{8,9} | | TILT | Tilt arm | DDBTXD Textured dark bronze |
| PIRH | Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ^{8,9} | | Shipped separately | | DBLBXD Textured black |
| PIR1FC3V | Bi-level, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{8,9} | | BS | Bird spikes ¹¹ | DNATXD Textured natural aluminum |
| PIRH1FC3V | Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{8,9} | | EGS | External glare shield ¹¹ | DWHGXD Textured white |
| FAO | Field adjustable output ⁹ | | | | |

Catalog
Number

Notes

Type

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

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 interoperability¹
- 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 background¹

To learn more about A+, visit www.acuitybrands.com/aplus.

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: [Link to Roam](#); [Link to DTL DLL](#)

Ordering Information Cont.

Accessories

Ordered and shipped separately.

| | |
|------------------------|--|
| DLL127F 1.5 JU | Photocell - SSL twist-lock (120-277V) ¹² |
| DLL347F 1.5 CUL JU | Photocell - SSL twist-lock (347V) ¹² |
| DLL480F 1.5 CUL JU | Photocell - SSL twist-lock (480V) ¹² |
| DSHORT SBK U | Shorting cap ¹² |
| KMA DDBXD U | Mast arm mounting bracket adaptor (specify finish) ¹³ |
| 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 ¹ |

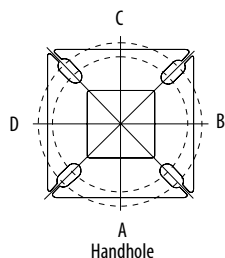
For more control options, visit [DTL](#) and [ROAM](#) online.

NOTES

- Any Type 5 distribution, is not available with WBA.
- 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

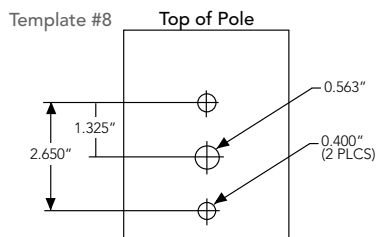
| Pole top or tenon O.D. | 4.5" @ 90° | 4" @ 90° | 3.5" @ 90° | 3" @ 90° | 4.5" @ 120° | 4" @ 120° | 3.5" @ 120° | 3" @ 120° |
|------------------------|------------|----------|------------|----------|-------------|-----------|-------------|-----------|
| KAX SPA | N | N | N | N | - | - | - | - |
| KAX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

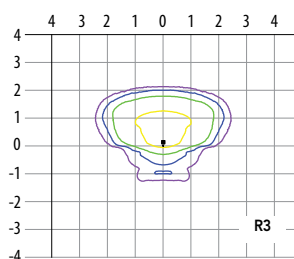


Photometric Diagrams

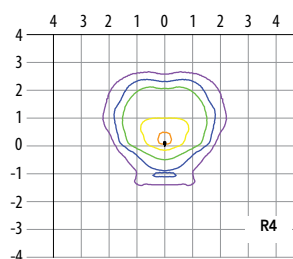
To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's KAX1 Area Light homepage. Isofootcandle plots for the KAX1 LED P4 40K. Distances are in units of mounting height (30').

LEGEND

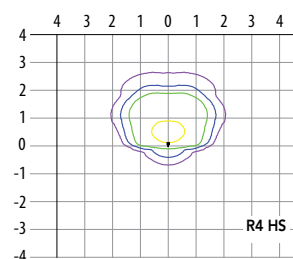
| |
|--------|
| 0.1 fc |
| 0.5 fc |
| 1.0 fc |
| 2.0 fc |



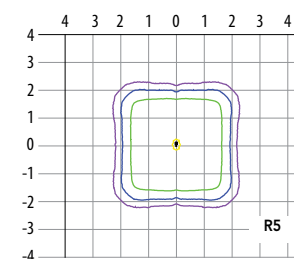
Test No. ISF 30458P11. Tested in accordance with IESNA LM-79-08.



Test No. ISF 30383P11. Tested in accordance with IESNA LM-79-08.



Test No. ISF 30384P11. Tested in accordance with IESNA LM-79-08.



Test No. ISF 30460P11. Tested in accordance with IESNA LM-79-08.

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 |

*For use when motion sensor is used as dusk to dawn control

FAO Setting

| FAO Setting | Input Watts Ratio | Lumens Ratio |
|-------------|-------------------|--------------|
| 8 (default) | 100% | 100% |
| 7 | 93% | 95% |
| 6 | 80% | 84% |
| 5 | 67% | 73% |
| 4 | 54% | 62% |
| 3 | 42% | 49% |
| 2 | 30% | 37% |
| 1 | 18% | 23% |

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 | |
| ROAM | ✗ | ✓ | Wired to dimming leads on driver | | ⚠ | Wired to dimming leads on driver | |
| ROAM with Motion | ✗ | ⚠ | Wired to dimming leads on driver | | ⚠ | Wired to dimming leads on driver | |
| Futureproof* | ✗ | ⚠ | Wired to dimming leads on driver | | ✓ | Wired to dimming leads on driver | |
| Futureproof* with Motion | ✗ | ⚠ | Wired to dimming leads on driver | | ✓ | Wired to dimming leads on driver | |

✓ 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 |
| 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 |



COMMERCIAL OUTDOOR

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KAX1-LED
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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 ft²) 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/support/customer-support/terms-and-conditions

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.



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