SITE / ROADWAY

AE/BE
SERIES

Era® Acorn / Era® Bell

The Era® Collection

70 - 400 Watt

KIM LIGHTING

Era® Acorn / Era® Bell

The Era® Collection

Table of Contents

Concept

The “Acorn” luminaire is one of the classic designs in traditional or heritage style outdoor lighting. Yet, the original acorn fixtures were inefficient, glare producing luminaires that would be unacceptable in today’s outdoor environment. Kim Lighting has reinvented the classic acorn luminaire, using state-of-the-art optics to create a heritage look that meets all of the performance demands of today’s outdoor lighting. The **Era® Acorn** retains the classic acorn-shaped enclosure, but in a clear material that allows full optical performance with very low brightness. The **Era® Bell** utilizes a flat glass lens for full cutoff performance, satisfying the most demanding light control specifications. Era® Acorn and Era® Bell are true modern-day performance luminaires in classic configurations.

KIM LIGHTING

SITE / AREA
PARKING STRUCTURE
ROADWAY
ARCHITECTURAL FLOOD
ACCENT
LANDSCAPE

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Era® Acorn

Kim Theory of Relativity

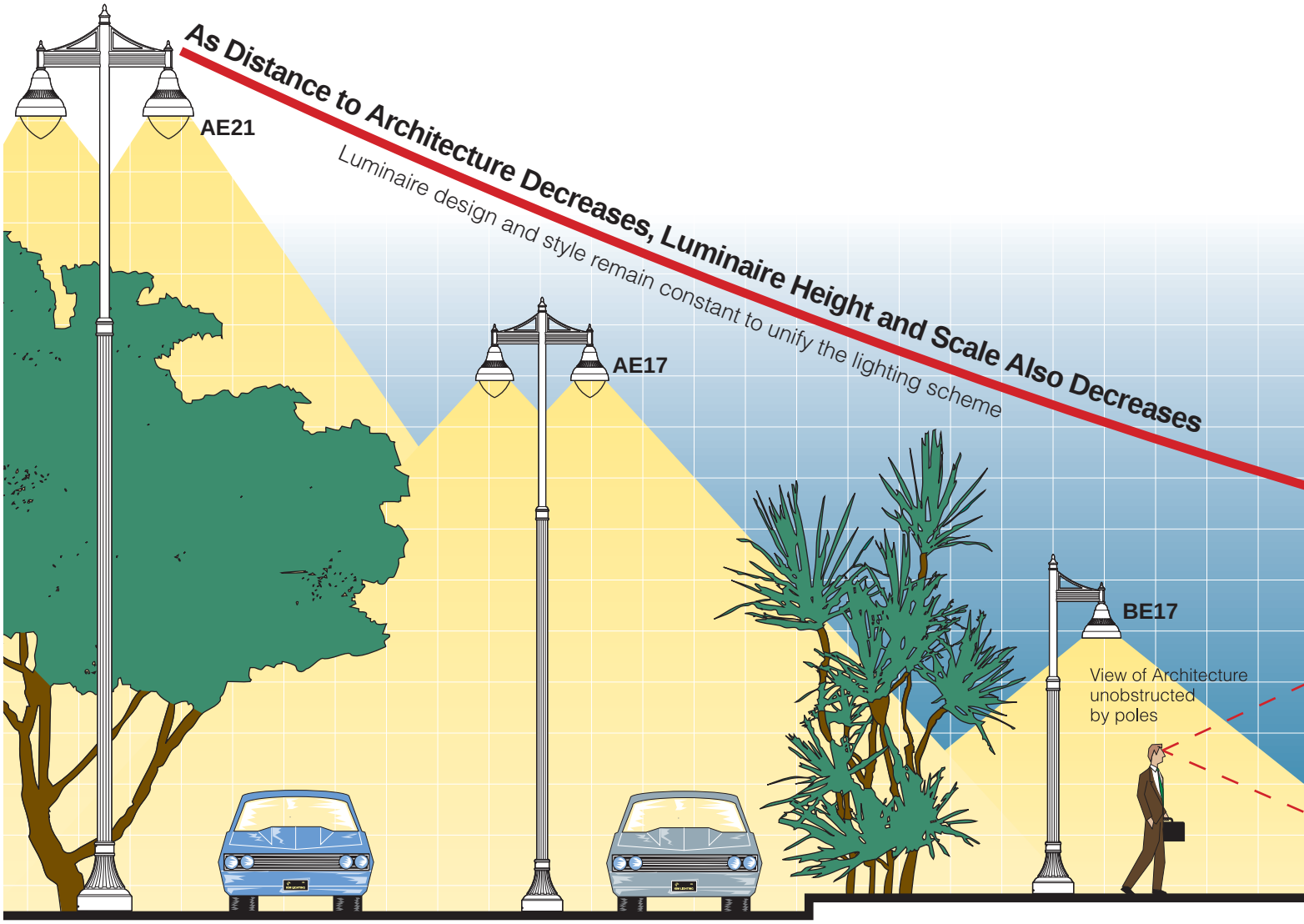
The Relationship of Outdoor Lighting to Site and Architecture

AE21 Large Era® Acorn

BE17 Small Era® Bell

BNB Bounce Bollard

LTV Lightvault®



SITE / ROADWAY ZONE
Parking lots and roadways require luminaires on 20′ - 30′ poles to efficiently light these large areas. Therefore, this lighting becomes dominant, and sets the design and style for all other lighting as you progress towards the building.

PEDESTRIAN ZONE
As you leave the parking lot and transition to pedestrian areas, poles should decrease in height to 10′ - 16′. In addition, luminaires should decrease in scale, and can have more decorative features to be appreciated at the pedestrian level.

AFL Architectural Floodlight

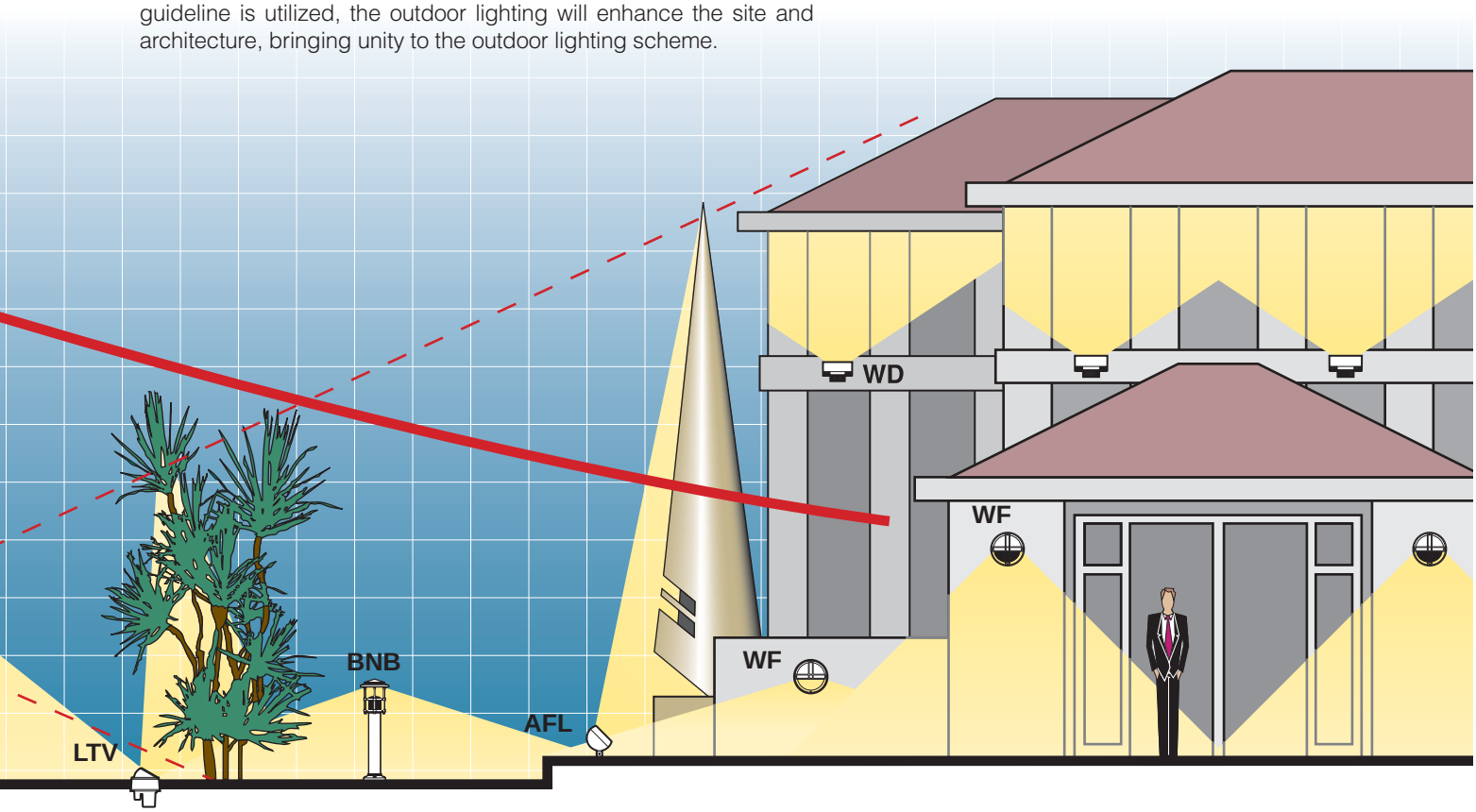
Bell™ Accent / Path Lighting

WF Wall Forms®

WD Wall Director®

KIM THEORY OF RELATIVITY

The purpose of this guideline is to bring a cohesive look to outdoor lighting, maximizing lighting efficiency while preserving the architectural experience. Simply stated, the Kim Theory of Relativity says “Poles belong in parking lots. And, once you leave the parking lot, the outdoor lighting should become less and less conspicuous until it becomes an integral part of the architecture.” In addition, the luminaire style and geometry should remain consistent. If this guideline is utilized, the outdoor lighting will enhance the site and architecture, bringing unity to the outdoor lighting scheme.



LANDSCAPE / PATH ZONE

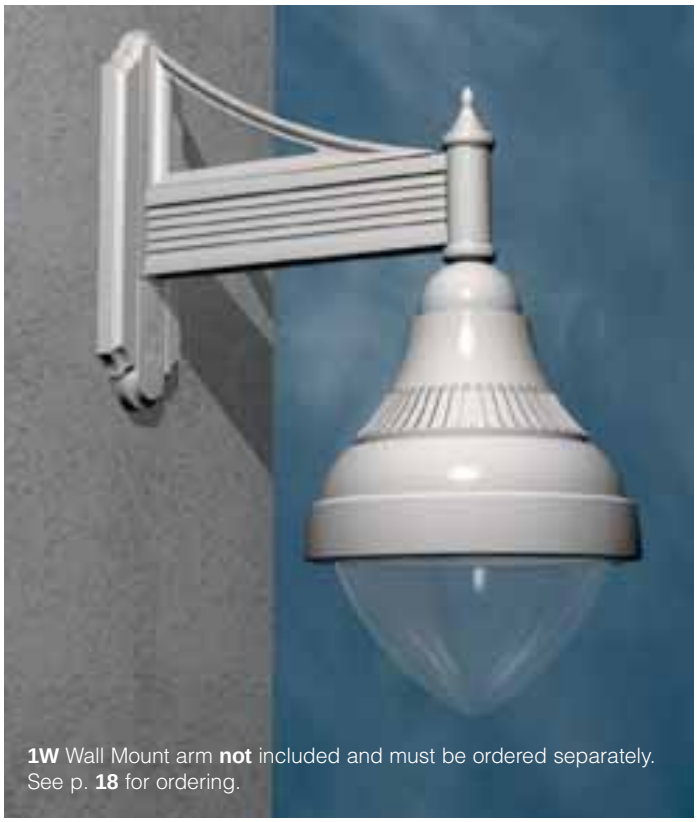
Near the building, luminaires should begin to disappear, blending into the landscape and hardscape elements.

BUILDING / PERIMETER ZONE

No pole mounted luminaires should ever be used near the building, as they will dominate the architecture. The only exception would be the use of decorative luminaires to delineate entrances to the structure. Building mounted, architecturally compatible fixtures should be almost invisible.

Style and Performance

Aesthetics without Compromise



1W Wall Mount arm **not** included and must be ordered separately. See p. **18** for ordering.

Approach

Unlike most Kim product innovations that have a singular design theme, Era® Acorn is unique. We wanted to develop a luminaire that was equally at home in either a traditional or contemporary setting; an international style fixture capable of establishing a visual unity with many architectural themes. To accomplish this, Era® Acorn combines basic design elements of both traditional and contemporary luminaires, skillfully orchestrated into a cohesive product design with appealing proportions and elegant detailing.

Era® Acorn incorporates Kim's most up-to-date optical systems, with four horizontal lamp reflectors and two vertical lamp reflectors. Performance and aesthetics are combined to create a balanced solution for today's outdoor lighting requirements.

Performance

In every respect, Era® Acorn and Era® Bell are optically equal to any Kim Site / Roadway luminaire. The reflectors used are the same as those available in the extensive Kim Site / Roadway product lines. Incorporating fully rotatable orientation and sealed optical chambers, Era® Acorn and Era® Bell offer an alternative to contemporary luminaires without sacrificing illumination performance.

Robust Components

Heavy castings and extrusions are used to produce precise and durable fixture and arm assemblies. Tight fitment and rigid construction insure clean no-weld component attachment, and sealing against intrusion of contaminants.

Design Features

Precision and Durability

Die-Cast Aluminum Components

The Era® Acorn and Era® Bell housing and door frame are die-cast, low copper (<0.6% Cu) aluminum for precision, durability, and repeatability. Housing and door frame castings are reinforced and sealed with a continuous O-ring silicone gasket.

Die-Cast Housing and Lens Frame

The precision of die-casting produces clean detailing and repeatable quality. Integrated cooling ribs increase the surface area providing rapid heat dissipation.

Sealed Optics

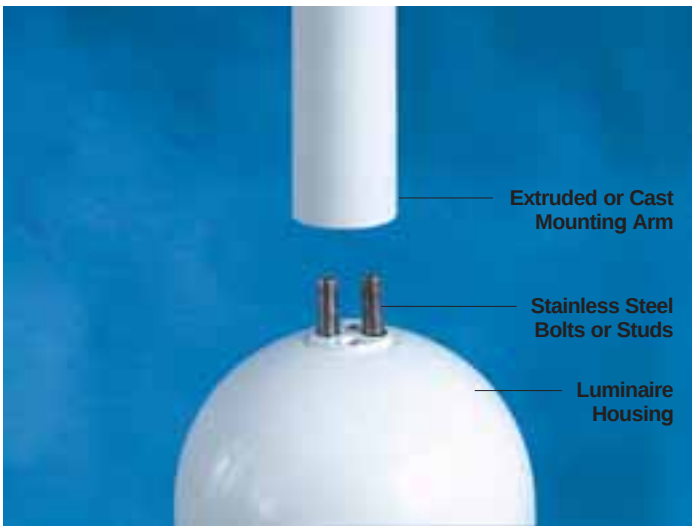
All optical systems utilize specular reflector components mounted in one-piece die-cast, low copper (<0.6% Cu) aluminum housing. Each die-cast reflector forms a sealed chamber to eliminate airborne contaminants, and provides for precision and repeatability in the manufacturing process.

The lens frame is extra rigid for dependable sealing of the optical chamber through uniform gasket pressure.

The one-piece molded silicone gasket provides repeatable positive sealing after lamp replacement intervals.

Strong Universal Mount

Era® Acorn and Era® Bell luminaires incorporate a strong double-bolt mount, universal to every arm configuration.

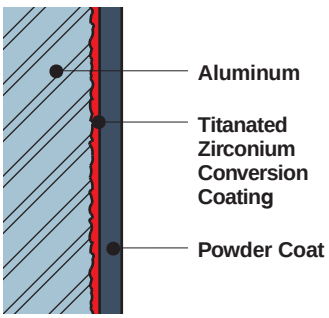


Durable Powder Coat Finish

Kim's state-of-the-art powder coat paint system is engineered to provide the highest quality finish with absolute paint adhesion under weather extremes. The Super TGIC thermoset polyester powder coat finish is applied over a Titanated Zirconium conversion coating. This finish system exceeds the A.S.T.M. 1000 hour salt spray test, enduring over 2500 hours without failure.

Eight Stage Finish

1. Power wash and degrease.
2. Detergent tank bath.
3. Clear water rinse bath.
4. Premium Titanated Zirconium conversion coating as used in the automobile industry.
5. Clear water rinse bath.
6. Dry off oven.
7. Powder coating, 2.5 mil nominal thickness.
8. Bake for 20 minutes at 410°F.

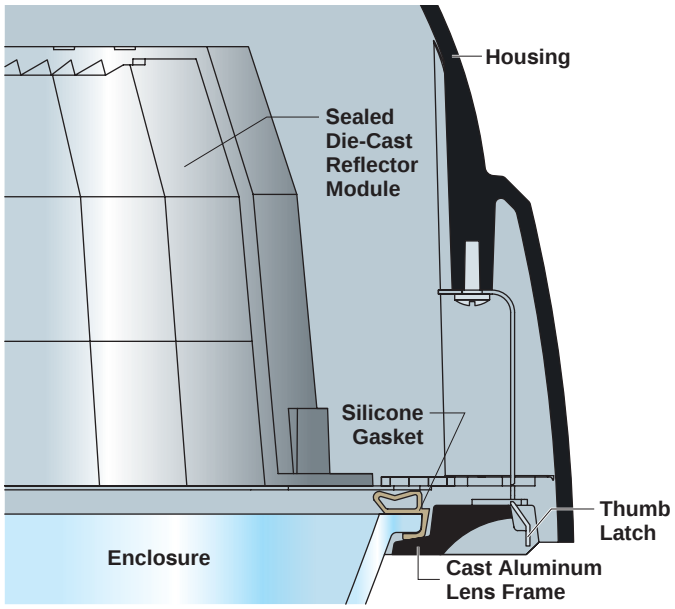


Standard Super TGIC Colors

BL Black
DB Dark Bronze
LG Light Gray
SG Stealth™ Gray
PS Platinum Silver
WH White

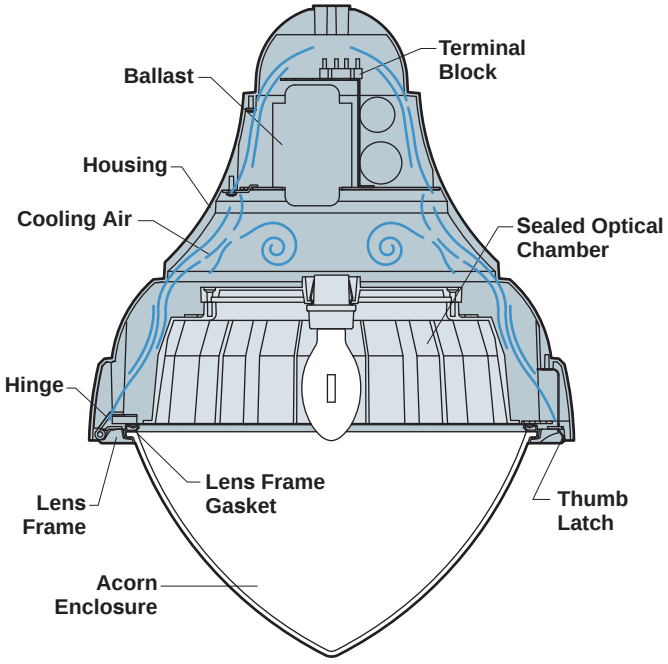
Sealed Optical System

The optical compartment is completely sealed from outside and inside including wire entries to the socket. The enclosure is sealed by a one-piece molded silicone gasket at the lens frame. By eliminating the intrusion of moisture, dust, and insects, the efficiency of the optical system is maintained. This assures maximum light output between standard maintenance intervals.



Ventilated Ballast Compartment

The housing of the Era® Acorn and Era® Bell luminaires draw ventilation air from around the sealed optical assembly to maintain the lowest possible operating temperature on the internal electrical components.



Vertical Lamp Era® Acorn shown.

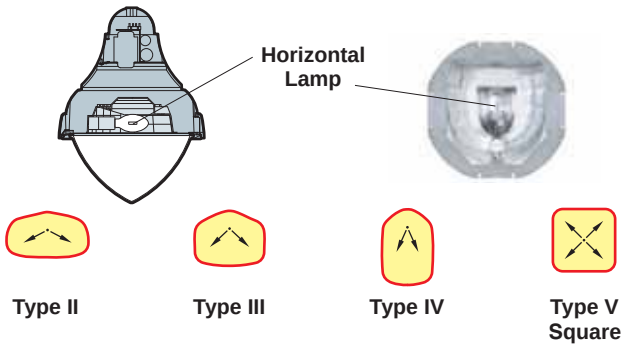
Optical System Features

Horizontal or Vertical Lamps

Era® Acorn

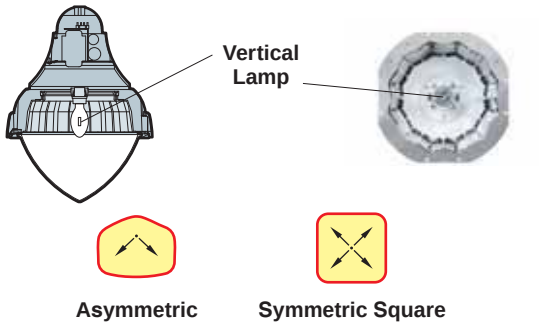
Horizontal Lamp / Acorn Enclosure

Available in **Type II, Type III, Type IV,** and **Type V Square** distributions, providing **maximum cutoff** and very good uniformity.



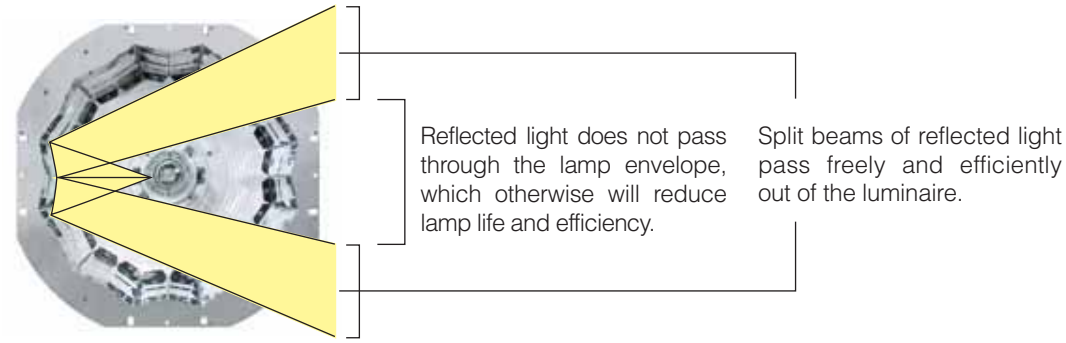
Vertical Lamp / Acorn Enclosure

Available in **Asymmetric** and **Symmetric Square** distributions. Wide light throws provide for maximum pole spacings. Delivers vertical lamp performance in a compact luminaire profile with excellent uniformity.



Split Beam Reflector Geometry

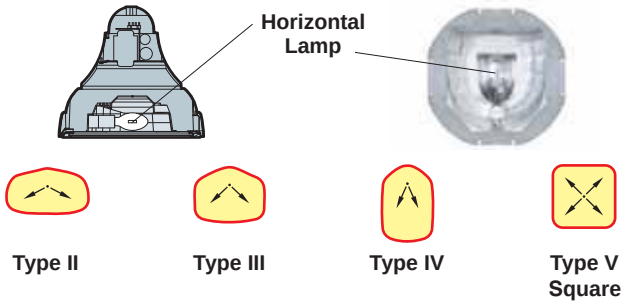
Wide-beam vertical lamp reflectors will redirect light back into the lamp unless properly designed. Kim reflectors are precision engineered to avoid this by using split-beam reflector geometry.



Era® Bell

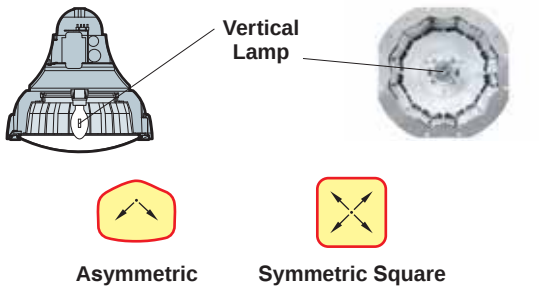
Horizontal Lamp / Flat or Convex Lens

Available in **Type II, Type III, Type IV,** and **Type V Square** distributions, providing **full cutoff** (with flat lens) and **maximum cutoff** (with convex lens) with excellent uniformity.



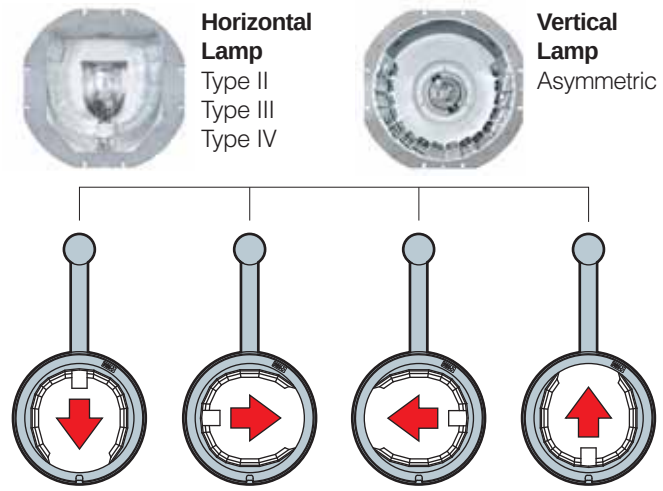
Vertical Lamp / Convex Lens

Available in **Asymmetric** and **Symmetric Square** distributions, providing **maximum cutoff** and wide range distribution for maximum pole spacings. Delivers vertical lamp performance in a compact luminaire profile with excellent uniformity.



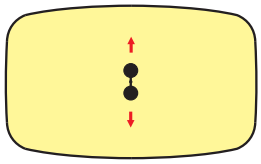
Rotatable Optics

All asymmetric reflectors are field rotatable in 90° increments. This allows design flexibility in producing very high illumination levels for special applications or for maintaining a consistent fixture orientation throughout the site. To facilitate field rotation, each reflector is labeled to show the orientation of the light pattern.

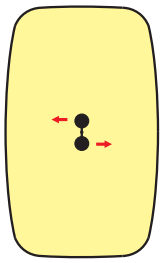


Rotatable reflectors offer a degree of refinement in fixture orientation when the architecture and site demand perfection.

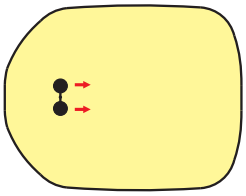
When the twin-mounted luminaires are used for site lighting using Types II, III or IV distributions, the combined effect from the twin mount is a rectangular light pattern.



To change the orientation of the rectangular pattern, you normally change the orientation of the twin mount. An alternative to this is shown at right, where the fixture orientation remains constant and the internal reflectors rotate to change the orientation of the rectangular light pattern. This can maintain identical fixture orientations throughout the site.

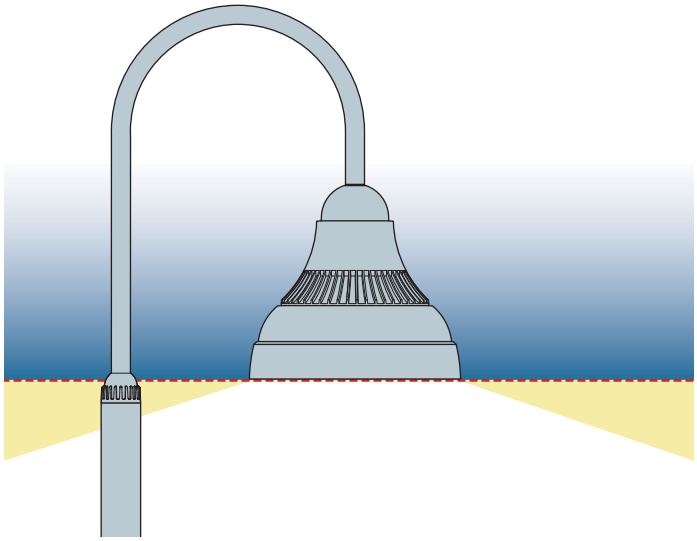


For applications demanding high light levels, such as tennis courts and automobile dealerships, reflectors can be rotated in parallel to double the light levels. Houseside shields can be added to the fixtures for reducing spill light into unwanted areas behind the luminaires. See pages **15** and **17**.



Cutoff Control

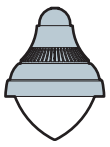
The Era® Bell has been engineered to provide maximum light distribution without distracting glare. The Full Cutoff (0% light above the horizon) classification, when utilizing the horizontally positioned lamp and flat glass lens, produces a Dark Sky compliant luminaire with the look and feel of a traditional outdoor lighting fixture.



Luminaire Ordering Information

Era® Acorn Series

AE17
70 to 200 Watt
AE21
150 to 400 Watt



Ordering Example:

For Fixture, Arm and Pole

Mounting	Fixture	Electrical Module	Finish	Options	Pole	Optional Arm	Pole & Arm Finish
1A/	AE17H3/	175PMH277/	LG/	A-33/	HSAF16-534188A	/ HA01S-TM1/	LG
1	2	3	4	5-10	10	11-12	

See separate Kim **Arms & Poles Selection Guide**. Omit for **1W** Wall Mount.

1 Mounting:

Plan View:

Wall Mount

Cat. No.:	1A	2B	3Y	4C	1W

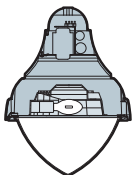
NOTE: 1A, 2B, 3Y, and **4C** mounting arms are part of the Pole Assembly. See the Era® Poles and Arms Catalog. **1W** Wall Mount arm **not** included and must be ordered separately. See page **18** for styles and ordering information.

2 Fixture:

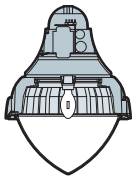
Cat. No. designates **AE** fixture and light distribution.

See the Kim Site/Roadway Optical Systems Catalog for detailed information on reflector design and application.

Horizontal Lamp



Vertical Lamp



Horizontal Lamp Acorn Enclosure

Light Distribution:	Type I	Type II	Type III Forward Throw	Type IV Square	Type V
Cat. No.: 17″	AE17H1	AE17H2	AE17H3	AE17H4	AE17H5
21″	AE21H1	AE21H2	AE21H3	AE21H4	AE21H5

Vertical Lamp Acorn Enclosure

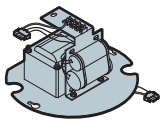
Light Distribution:	Asymmetric	Symmetric Square
Cat. No.: 17″	AE17V3	AE17V5
21″	AE21V3	AE21V5

3 Electrical Module:

PMH = Pulse Start Metal Halide

HPS = High Pressure Sodium

See lamp and electrical data on pages **20** - **21** for ballast types and characteristics.



Lamp Watts	Lamp Type	Line Volts
175	PMH	277

AE17 17″ Housing

Pulse Start Metal Halide		High Pressure Sodium	
100PMH120	175PMH120[1]	70HPS120	150HPS120
100PMH208	175PMH208[1]	70HPS208	150HPS208
100PMH240	175PMH240[1]	70HPS240	150HPS240
100PMH277	175PMH277[1]	70HPS277	150HPS277
100PMH347	175PMH347[1]	70HPS347	150HPS347
100PMH480[2]	175PMH480[1,2]	70HPS480[2]	150HPS480[2]
150PMH120	200PMH120[1]	100HPS120	
150PMH208	200PMH208[1]	100HPS208	
150PMH240	200PMH240[1]	100HPS240	
150PMH277	200PMH277[1]	100HPS277	
150PMH347	200PMH347[1]	100HPS347	
150PMH480[2]	200PMH480[1,2]	100HPS480[2]	

AE21 21″ Housing

Pulse Start Metal Halide		High Pressure Sodium	
175PMH120[1]	400PMH120	150HPS120	400HPS120
175PMH208[1]	400PMH208	150HPS208	400HPS208
175PMH240[1]	400PMH240	150HPS240	400HPS240
175PMH277[1]	400PMH277	150HPS277	400HPS277
175PMH347[1]	400PMH347	150HPS347	400HPS347
175PMH480[1,2]	400PMH480[2]	150HPS480[2]	400HPS480[2]
250PMH120		250HPS120	
250PMH208		250HPS208	
250PMH240		250HPS240	
250PMH277		250HPS277	
250PMH347		250HPS347	
250PMH480[2]		250HPS480[2]	

[1] 175PMH and 200 PMH lamp for use in vertical lamp reflector systems (V3 and V5) only.
[2] 480 volt with medium base sockets may be subject to approval of local building code authority.

NOTE: Due to the Energy Independence and Security Act (EISA) of 2007, Kim Lighting can no longer supply probe start metal halide ballasts with its luminaires, effective January 1, 2009. Contact Kim Lighting for availability of replacement ballasts for warranty service claims.

(Visit www.aboutlightingcontrols.org or the Library of Congress website for more details).

4 Finish:

Super TGIC powder coat paint over Titanated Zirconium conversion coating.

Color:	Black	Dark Bronze	Light Gray	Stealth™ Gray	Platinum Silver	White	Custom Colors
Cat. No.:	BL	DB	LG	SG	PS	WH	CC

Consult representative for custom colors.

5 Optional Photocell:

One per fixture required.

Line Volts:	120V	208V	240V	277V	347V	480V
Cat. No.:	A-30	A-31	A-32	A-33	A-35	A-34

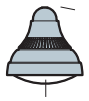
Photocell

6 Optional Lexan® Non-Yellowing Convex Enclosure:

For Horizontal or Vertical Lamp fixtures.

Cat. No.: **LS**

Lexan® Convex Enclosure replaces standard tempered glass lens. 250 watt maximum. May be used with 400HPS in outdoor locations where ambient air temperature during fixture operation will not exceed 85° F.



Lexan® SLX Convex Enclosure

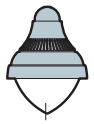
7 Optional Convex Glass Lens:

For Horizontal Lamp models.

Cat. No.: **CGL**

Tempered convex glass lens replaces standard flat lens. For horizontal lamp Type II, Type III, Type IV, and Type V distributions. Changes light distribution from Full Cutoff to Cutoff.

NOTE: Convex Glass Lens is standard on all Vertical Lamp Optical Systems.

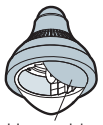


Convex Glass Lens

8 Optional Houseside Shield:

Cat. No.: **HS**

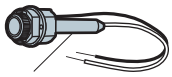
Recommended for use with clear lamps only. Effectiveness is reduced for coated lamps. Not for use with Type V (horizontal lamp) or symmetric (vertical lamp) light distributions.



Houseside Shield

9 Optional Fusing:

Line Volts:	120V	208V	240V	277V	347V	480V
Cat. No.:	**SF**	**DF**	**DF**	**SF**	**SF**	**DF**



Single Fuse

12 Poles:

See Kim Era® Poles and Arms Catalog for a complete selection of heritage style poles.

10 Optional Support Arm:

Drawings not to scale

Post Top Crook Arm

	RA17	RA25
Cat. No.:	**HA01S**	**HA01L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.1**	**1.8**
2SB/2B	–	–
3SY/3Y	–	–
4SC/4C	–	–

Side Pole Crook Arm

	RA17	RA25
Cat. No.:	**HA02S**	**HA02L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.3**	**1.9**
2SB/2B	**2.6**	**3.8**
3SY/3Y	**3.5**	**5.1**
4SC/4C	**3.9**	**5.9**

Post Top Swept Cast Arm

	RA17	RA25
Cat. No.:	**HA03S**	**HA03L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.3**	**1.9**
2SB/2B	**2.6**	**3.8**
3SY/3Y	**3.4**	**5.0**
4SC/4C	**3.7**	**5.5**

Side Pole Swept Cast Arm

	RA17	RA25
Cat. No.:	**HA11S**	**HA11L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.5**	**2.3**
2SB/2B	**3.0**	**4.8**
3SY/3Y	**3.8**	**5.8**
4SC/4C	**4.1**	**6.3**

Side Pole S-Shaped Up Cast Arm

	RA17	RA25
Cat. No.:	**HA12S**	**HA12L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.4**	**2.0**
2SB/2B	**2.8**	**4.0**
3SY/3Y	**3.6**	**5.2**
4SC/4C	**3.9**	**5.7**

Side Pole Neo-Classic Arm

	RA17	RA25
Cat. No.:	**HA14S**	**HA14L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.7**	**2.6**
2SB/2B	**3.4**	**5.2**
3SY/3Y	**4.2**	**6.4**
4SC/4C	**4.5**	**6.9**

Side Pole Ribbon Arm w/ Top Scroll

	RA17	RA25
Cat. No.:	**HA31S**	**HA31L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.7**	**2.6**
2SB/2B	**3.3**	**5.2**
3SY/3Y	**4.0**	**6.2**
4SC/4C	**4.3**	**6.7**

Side Pole Ribbon Arm w/ Top Gusset

	RA17	RA25
Cat. No.:	**HA33S**	**HA33L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.8**	**2.8**
2SB/2B	**3.6**	**5.6**
3SY/3Y	**4.4**	**6.8**
4SC/4C	**4.7**	**7.3**

Side Pole Ribbon Arm w/ Top Brace

	RA17	RA25
Cat. No.:	**HA35S**	**HA35L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.6**	**2.6**
2SB/2B	**3.4**	**5.2**
3SY/3Y	**4.3**	**6.6**
4SC/4C	**4.6**	**7.1**

Side Pole Ribbon Arm w/ Top Brace & Bottom Scroll

	RA17	RA25
Cat. No.:	**HA37S**	**HA37L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**1.8**	**2.8**
2SB/2B	**3.6**	**5.6**
3SY/3Y	**4.5**	**6.9**
4SC/4C	**4.8**	**7.4**

Side Pole Ribbon Arm w/ Top Brace & Bottom Gusset

	RA17	RA25
Cat. No.:	**HA38S**	**HA38L**
EPA for Fixture and Arm		
Mounting:	RA17	RA25
1SA/1A	**2.0**	**3.0**
2SB/2B	**4.0**	**6.0**
3SY/3Y	**4.9**	**7.4**
4SC/4C	**5.2**	**7.9**

NOTE: Refer to Kim Lighting's **Arms & Poles Selection Guide** for dimensions and details. See p. **20** for wall mounting feature.

11 Optional Arm Finial:

Cat. No.: **HAF2**

Traditional style finial avaialble to close off mounting hub opposite the fixture. Available only on selected Era arms. Refer to Kim **Arms & Poles Selection Guide** for a complete selection of heritage style finials.

Arm Finials

Luminaire Ordering Information

Era® Bell Series

BE17
70 to 200 Watt
BE21
150 to 400 Watt

Ordering Example:
For Fixture, Arm and Pole

Mounting	Fixture	Electrical Module	Finish	Options	Pole	Optional Arm	Pole & Arm Finish
1A/	BE17H3/	150PMH277/	LG/	A-33/	HSAF16-534188A	/ HA01S-TM1/	LG
1	2	3	4	5-9	10	11-12	

See separate Kim **Arms & Poles Selection Guide**. Omit for **1W** Wall Mount.

1 Mounting:

Plan View:

Wall Mount

Cat. No.:	1A	2B	3Y	4C	1W

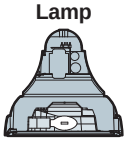
NOTE: 1A, 2B, 3Y, and **4C** mounting arms are part of the Pole Assembly. See the Era® Poles and Arms Catalog. **1W** Wall Mount arm **not** included and must be ordered separately. See page **18** for styles and ordering information.

2 Fixture:

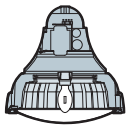
Cat. No. designates **BE** fixture and light distribution.

See the Kim Site/Roadway Optical Systems Catalog for detailed information on reflector design and application.

Horizontal Lamp



Vertical Lamp



Horizontal Lamp
Flat Glass Lens

Light Distribution:		Type I	Type II	Type III Forward Throw	Type IV Square	Type V
Cat. No.:	17″	BE17H1	BE17H2	BE17H3	BE17H4	BE17H5
	21″	BE21H1	BE21H2	BE21H3	BE21H4	BE21H5

Vertical Lamp
Convex Glass Lens

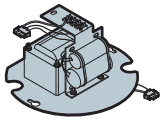
Light Distribution:		Asymmetric	Symmetric Square
Cat. No.:	17″	BE17V3	BE17V5
	21″	BE21V3	BE21V5

3 Electrical Module:

PMH = Pulse Start Metal Halide

HPS = High Pressure Sodium

See lamp and electrical data on pages **20** - **21** for ballast types and characteristics.



Lamp Watts	Lamp Type	Line Volts
175	PMH	277

AE17 17″ Housing			
Pulse Start Metal Halide		High Pressure Sodium	
100PMH120	175PMH120[1]	70HPS120	150HPS120
100PMH208	175PMH208[1]	70HPS208	150HPS208
100PMH240	175PMH240[1]	70HPS240	150HPS240
100PMH277	175PMH277[1]	70HPS277	150HPS277
100PMH347	175PMH347[1]	70HPS347	150HPS347
100PMH480[2]	175PMH480[1,2]	70HPS480[2]	150HPS480[2]
150PMH120	200PMH120[1]	100HPS120	
150PMH208	200PMH208[1]	100HPS208	
150PMH240	200PMH240[1]	100HPS240	
150PMH277	200PMH277[1]	100HPS277	
150PMH347	200PMH347[1]	100HPS347	
150PMH480[2]	200PMH480[1,2]	100HPS480[2]	

AE21 21″ Housing			
Pulse Start Metal Halide		High Pressure Sodium	
175PMH120[1]	400PMH120	150HPS120	400HPS120
175PMH208[1]	400PMH208	150HPS208	400HPS208
175PMH240[1]	400PMH240	150HPS240	400HPS240
175PMH277[1]	400PMH277	150HPS277	400HPS277
175PMH347[1]	400PMH347	150HPS347	400HPS347
175PMH480[1,2]	400PMH480[2]	150HPS480[2]	400HPS480[2]
250PMH120		250HPS120	
250PMH208		250HPS208	
250PMH240		250HPS240	
250PMH277		250HPS277	
250PMH347		250HPS347	
250PMH480[2]		250HPS480[2]	

[1] 175PMH and 200 PMH lamp for use in vertical lamp reflector systems (V3 and V5) only.
[2] 480 volt with medium base sockets may be subject to approval of local building code authority.

NOTE: Due to the Energy Independence and Security Act (EISA) of 2007, Kim Lighting can no longer supply probe start metal halide ballasts with its luminaires, effective January 1, 2009. Contact Kim Lighting for availability of replacement ballasts for warranty service claims.

(Visit www.aboutlightingcontrols.org or the Library of Congress website for more details).

4 Finish:

Super TGIC powder coat paint over Titanated Zirconium conversion coating.

Color:	Black	Dark Bronze	Light Gray	Stealth™ Gray	Platinum Silver	White	Custom Colors
Cat. No.:	BL	DB	LG	SG	PS	WH	CC

Consult representative for custom colors.

5 Optional Photocell:

One per fixture required.

Line Volts:	120V	208V	240V	277V	347V	480V
Cat. No.:	A-30	A-31	A-32	A-33	A-35	A-34

Photocell

6 Optional Lexan® Non-Yellowing Convex Enclosure:

For Horizontal or Vertical Lamp fixtures.

Cat. No.: **LS**

Lexan® Convex Enclosure replaces standard tempered glass lens. 250 watt maximum. May be used with 400HPS in outdoor locations where ambient air temperature during fixture operation will not exceed 85° F.

Lexan® SLX Convex Enclosure

7 Optional Convex Glass Lens:

For Horizontal Lamp models.

Cat. No.: **CGL**

Tempered convex glass lens replaces standard flat lens. For horizontal lamp Type II, Type III, Type IV, and Type V distributions. Changes light distribution from Full Cutoff to Cutoff.

NOTE: Convex Glass Lens is standard on all Vertical Lamp Optical Systems.

Convex Glass Lens

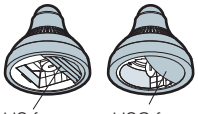
8 Optional Houseside Shield:

Cat. No.: **HS**

Recommended for use with clear lamps only. Effectiveness is reduced for coated lamps. Not for use with Type V (horizontal lamp) or symmetric (vertical lamp) light distributions.

Cat. No.: **HSC**

For use with all fixtures with convex glass lens. Not for use with Type V or symmetric light distributions.

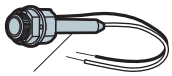


HS for flat lens

HSC for convex lens or polycarbonate lens

9 Optional Fusing:

Line Volts:	120V	208V	240V	277V	347V	480V
Cat. No.:	**SF**	**DF**	**DF**	**SF**	**SF**	**DF**



Single Fuse

10 Poles:

See Kim Era® Poles and Arms Catalog for a complete selection of heritage style poles.

11 Optional Support Arm:

Drawings not to scale

Post Top Crook Arm

Side Pole Crook Arm

Post Top Swept Cast Arm

Side Pole Swept Cast Arm

Side Pole S-Shaped Up Cast Arm

Side Pole Neo-Classic Arm

	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25
Cat. No.:	**HA01S**	**HA01L**	**HA02S**	**HA02L**	**HA03S**	**HA03L**	**HA11S**	**HA11L**	**HA12S**	**HA12L**	**HA14S**	**HA14L**
EPA for Fixture and Arm												
Mounting:	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25
1SA/1A	**1.1**	**1.8**	**1.3**	**1.9**	**1.3**	**1.9**	**1.5**	**2.3**	**1.4**	**2.0**	**1.7**	**2.6**
2SB/2B	–	–	**2.6**	**3.8**	**2.6**	**3.8**	**3.0**	**4.8**	**2.8**	**4.0**	**3.4**	**5.2**
3SY/3Y	–	–	**3.5**	**5.1**	**3.4**	**5.0**	**3.8**	**5.8**	**3.6**	**5.2**	**4.2**	**6.4**
4SC/4C	–	–	**3.9**	**5.9**	**3.7**	**5.5**	**4.1**	**6.3**	**3.9**	**5.7**	**4.5**	**6.9**

Side Pole Ribbon Arm w/ Top Scroll

Side Pole Ribbon Arm w/ Top Gusset

Side Pole Ribbon Arm w/ Top Brace

Side Pole Ribbon Arm w/ Top Brace & Bottom Scroll

Side Pole Ribbon Arm w/ Top Brace & Bottom Gusset

	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25
Cat. No.:	**HA31S**	**HA31L**	**HA33S**	**HA33L**	**HA35S**	**HA35L**	**HA37S**	**HA37L**	**HA38S**	**HA38L**
EPA for Fixture and Arm										
Mounting:	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25	RA17	RA25
1SA/1A	**1.7**	**2.6**	**1.8**	**2.8**	**1.6**	**2.6**	**1.8**	**2.8**	**2.0**	**3.0**
2SB/2B	**3.3**	**5.2**	**3.6**	**5.6**	**3.4**	**5.2**	**3.6**	**5.6**	**4.0**	**6.0**
3SY/3Y	**4.0**	**6.2**	**4.4**	**6.8**	**4.3**	**6.6**	**4.5**	**6.9**	**4.9**	**7.4**
4SC/4C	**4.3**	**6.7**	**4.7**	**7.3**	**4.6**	**7.1**	**4.8**	**7.4**	**5.2**	**7.9**

NOTE: Refer to Kim Lighting's **Arms & Poles Selection Guide** for dimensions and details. See p. **20** for wall mounting feature.

12 Optional Arm Finial:

Cat. No.: **HAF2**

Traditional style finial avaialble to close off mounting hub opposite the fixture. Available only on selected Era arms. Refer to Kim **Arms & Poles Selection Guide** for a complete selection of heritage style finials.

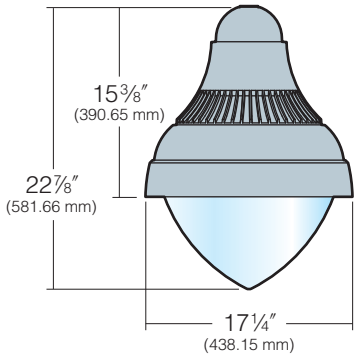
Arm Finials

Luminaire Specifications

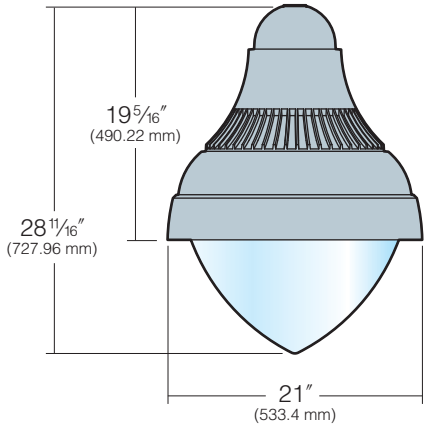
Era® Acorn Models

Dimensions

AE17



AE21



Housing: One-piece, die-cast low copper (<0.6% Cu) aluminum component with integral cooling fins.

Lens Frame: One-piece, die-cast low copper (<0.6% Cu) aluminum alloy. Stainless steel hinges provided for attachment to Housing. A single stainless steel thumb latch is provided for toolless entry and is concealed from normal view. The high temperature rated 3/16″ thick clear injection molded acrylic acorn enclosure, UV stabilized (Optional Lexan® SLX) seals against the reflector flange by a one-piece extruded silicone gasket with fused seam, to produce a fully sealed optical chamber (IP66).

Mounting: Stainless steel bolts are provided to attach the luminaire to mounting arms.

Reflector Module: Specular Alzak® optical segments are rigidly mounted within a die-cast, low-copper (<0.6% Cu) aluminum alloy enclosure, which attaches to the Housing as a one-piece module. Reflectors are field rotatable in 90° increments. All sockets are factory prewired with a quick-disconnect plug for the ballast module, with wires passing through a silicone gasket to maintain sealed optical chamber integrity. The optical segments are positioned so that reflected light does not pass through the lamp arc tube to achieve maximum lamp output.

Socket: The 17″ luminaire is equipped with a medium base socket rated 4KV. The 21″ luminaire is equipped with a mogul base socket rated 4KV. Horizontal MH mogul base socket is pin-oriented and has a silicone lamp stabilizer.

Electrical Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs for attachment to the incoming wires and the socket wires. The module attaches inside the housing using keyhole slots. All ballasts are high power factor with starting temperatures of -40°F for HPS and -20°F for MH lamp modes. See lamp and electrical data on pages **18-19** for ballast types and characteristics.

Finish: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a titanated zirconium conversion coating; A.S.T.M. 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Light Gray, Platinum Silver, or White. Custom colors are available.

Listings and Ratings		
UL cUL 1598	–	IP66 Rated

NOTE: See Kim **Arms & Poles Selection Guide** for a complete selection of heritage style poles and mounting arms.

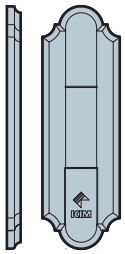
CAUTION: Fixtures must be grounded in accordance with national, state, and/or local codes. Failure to do so may result in serious personal injury.

Option Specifications

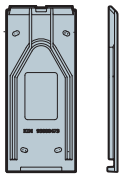
See pages 10-11 for complete ordering information

Wall Mounting: A cast aluminum mounting is mounted to the wall with bolts (by others). Fixture and arm are mounted to a cast aluminum cover plate before attaching to the wall mounting plate. The fixture-arm-cover plate assembly is hooked to the wall mounting plate, and secured with stainless steel screws provided. After mounting to the wall, field splices are made at the opening in the cover plate, then covered by a cast aluminum plate that blends with the cover plate design. Complete fixture-arm-cover plate assembly can therefore be mounted before field splices are made. Cover plate is finished to match arm and fixture powder coat color. See photo on page **4**. **1W** Wall Mount arm **not** included. See page **18** for ordering.

CAUTION: Structural integrity of mounting plate attachment to wall is by others.



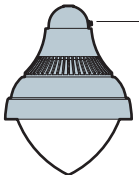
Wall Mount Cover



Mouniting Plate

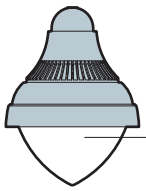
See Kim **Arms & Poles Selection Guide** for complete Wall Mounting ordering information..

Photocell Control: Factory installed fully gasketed sensor.



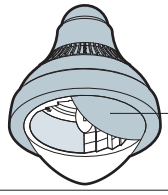
Photocell Control

Lexan® Enclosure: Lexan® Enclosure replaces standard enclosure.



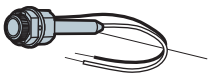
Lexan®
Enclosure

Houseside Shield: (Types II, III, IV, and Asymmetric distributions only). The cutoff horizontal reflectors are available with stamped aluminum louvers that pass streetside light and block houseside light, and a blackened panel added to the reflector to reduce houseside reflections.



Houseside Shield
for Acorn models

Fusing: High temperature fuse holders factory installed inside the fixture housing. Single fusing **(SF)** for 120V, 277V and 347V or Double fusing **(DF)** for 208V, 240V and 480V.



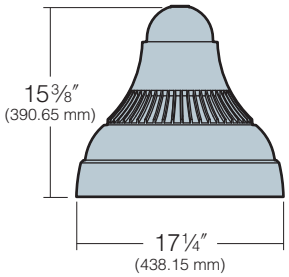
Single Fuse

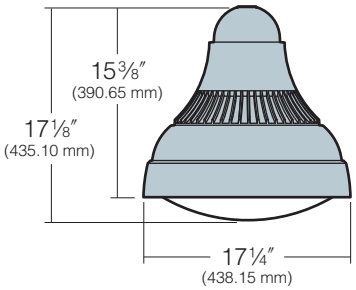
Luminaire Specifications

Era® Bell Models

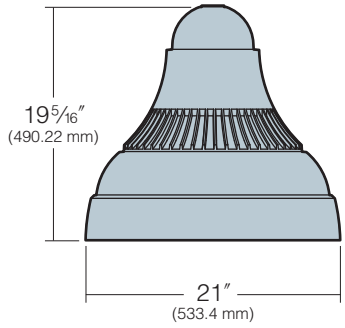
Dimensions

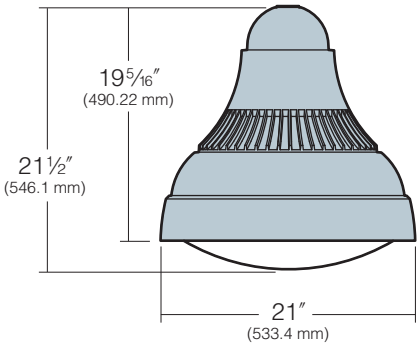
BE17





BE21





Housing: One-piece, die-cast, low copper (<0.6% Cu) aluminum alloy component with integral cooling fins.

Lens Frame: One-piece, die-cast, low copper (<0.6% Cu) aluminum alloy. Stainless steel hinges provided for attachment to Housing. A single stainless steel thumb latch is provide for toolless entry and is concealed from normal view. The 3⁄16″ thick clear flat lens or convex tempered glass lens (Optional Lexan® SLX) seals against the reflector flange by a one-piece extruded silicone gasket with fused seam, to produce a fully sealed optical chamber (IP66).

Mounting: Stainless steel bolts are provided to attach the luminaire to mounting arms.

Reflector Module: Specular Alzak® optical segments are rigidly mounted within a die-cast, low-copper (<0.6% Cu) aluminum alloy enclosure, which attaches to the Housing as a one-piece module. Reflectors are field rotatable in 90° increments. All sockets are factory prewired with a quick-disconnect plug for the ballast module, with wires passing through a silicone gasket to maintain sealed optical chamber integrity. The optical segments are positioned so that reflected light does not pass through the lamp arc tube to achieve maximum lamp component.

Socket: The 17″ luminaire is equipped with a medium base socket rated 4KV. The 21″ luminaire is equipped with a mogul base socket rated 4KV. Horizontal MH mogul base socket is pin-oriented and has a silicone lamp stabilizer.

Electrical Module: All electrical components are UL and CSA recognized, mounted on a single plate and factory prewired with quick-disconnect plugs for attachment to the incoming wires and the socket wires. The module attaches inside the housing using keyhole slots. All ballasts are high power factor with starting temperatures of -40°F for HPS and -20°F for MH lamp modes. See lamp and electrical data on pages **18-19** for ballast types and characteristics.

Finish: Super TGIC thermoset polyester powder coat paint, 2.5 mil nominal thickness, applied over a Titanated Zirconium conversion coating; A.S.T.M. 2500 hour salt spray test endurance rating. Standard colors are Black, Dark Bronze, Light Gray, Platinum Silver, or White. Custom colors are available.

Listings and Ratings		
UL cUL 1598	–	IP66 Rated

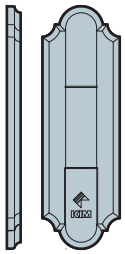
NOTE: See Kim **Arms & Poles Selection Guide** for a complete selection of heritage style poles and mounting arms.

CAUTION: Fixtures must be grounded in accordance with national, state, and/or local codes. Failure to do so may result in serious personal injury.

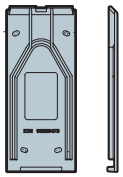
See pages 12-13 for complete ordering information

Wall Mounting: A cast aluminum mounting plate is mounted to the wall with bolts (by others). Fixture and arm are mounted to a cast aluminum cover plate before attaching to the wall mounting plate. The fixture-arm-cover plate assembly is hooked to the wall mounting plate, and secured with stainless steel screws provided. After mounting to the wall, field splices are made at the opening in the cover plate, then covered by a cast alloy aluminum plate that blends with the cover plate design. Complete fixture-arm-cover plate assembly can therefore be mounted before field splices are made. Cover plate is finished to match arm and fixture powder coat color. See photo on page **4**. **1W** Wall Mount arm **not** included. See page **18** for ordering.

CAUTION: Structural integrity of mounting plate attachment to wall is by others.



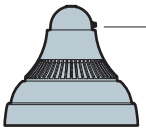
Wall Mount Cover



Mouniting Plate

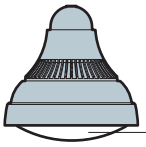
See Kim **Arms & Poles Selection Guide** for complete Wall Mounting ordering information..

Photocell Control: Factory installed fully gasketed sensor.



Photocell Control

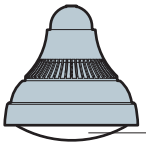
Lexan® SLX Enclosure: Lexan® SLX Enclosure replaces standard enclosure. 250 watt maximum. May be used with 400HPS in outdoor locations where ambient air temperature during fixture operation will not exceed 85° F.



Lexan® SLX Enclosure

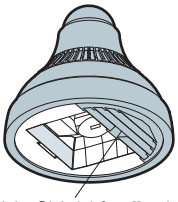
Convex Glass Lens: The 3⁄16″ thick clear convex tempered glass lens replaces the standard flat glass lens in horizontal lamp fixtures. Provides increased lens presence and provides a subtle improvement in uniformity where pole spacing is extreme.

NOTE: Convex Glass Lens is standard on all Vertical Lamp Optical Systems.

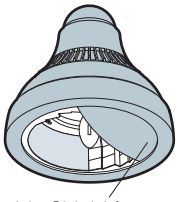


Convex Glass Lens

Houseside Shield: (Types II, III, IV, and Asymmetric distributions only). The cutoff horizontal reflectors are available with stamped aluminum louvers that pass streetside light and block houseside light, and a blackened panel added to the reflector to reduce houseside reflections. The vertical reflectors and horizontal reflectors with the optional convex glass lens are available with a formed aluminum shield that passes streetside light and blocks houseside light, and a blackened panel added to the reflector to reduce houseside reflections.

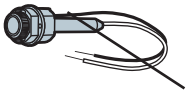


Houseside Shield for **flat** lens



Houseside Shield for **convex** lens or Lexan® Enclosure

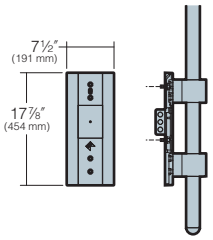
Fusing: High temperature fuse holders factory installed inside the fixture housing. Single fusing **(SF)** for 120V, 277V and 347V or Double fusing **(DF)** for 208V, 240V and 480V.



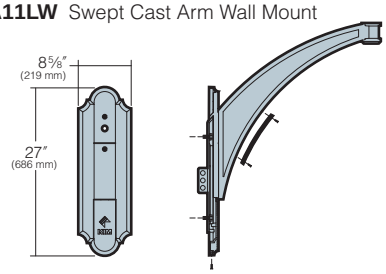
Single Fuse

Wall Mounting Options

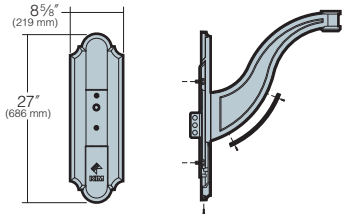
HA02LW Large Side Crook Arm Wall Mount



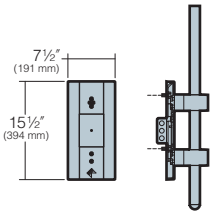
HA11LW Swept Cast Arm Wall Mount



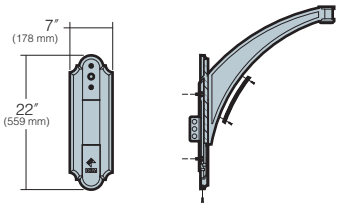
HA12LW S-Shaped Up Cast Arm Wall Mount



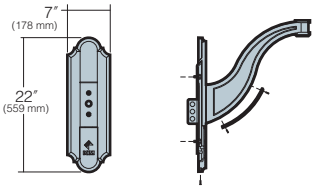
HA02SW Small Side Crook Arm Wall Mount



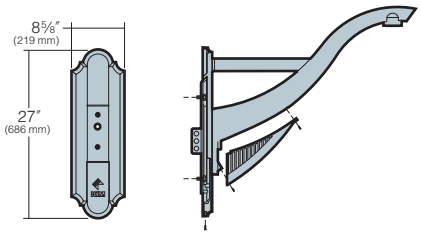
HA11SW Swept Cast Arm Wall Mount



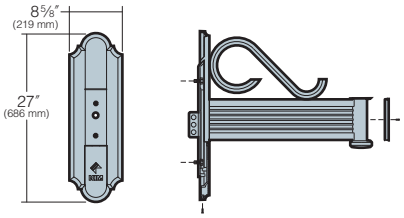
HA12SW S-Shaped Up Cast Arm Wall Mount



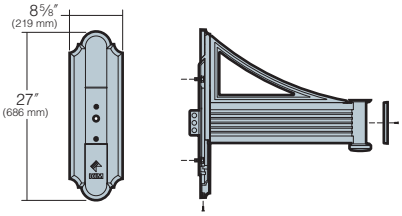
HA14LW Neo-Classic Arm Wall Mount



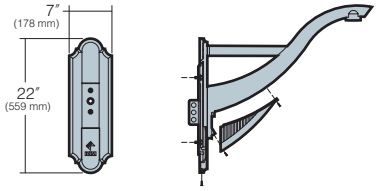
HA31LW Ribbon Arm with Top Scroll Wall Mount



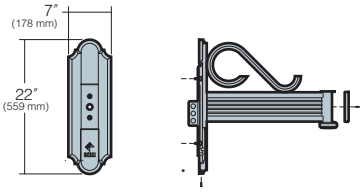
HA33LW Ribbon Arm with top Gusset Wall Mount



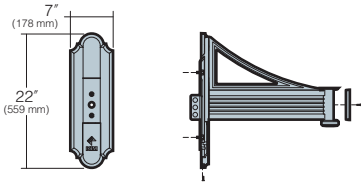
HA14SW Neo-Classic Arm Wall Mount



HA31SW Ribbon Arm with Top Scroll Wall Mount



HA33SW Ribbon Arm with top Gusset Wall Mount



NOTE: Wall mount arm is **not** included and must be ordered separately.

Era® Bell
Wall Mount

Lamp and Electrical Guide

Lamp	Lamp Watts	ANSI Ballast Type	Life (Hours)	Initial Lumens[1]	Voltage	Operating Amps.	Open Circuit	Starting Amps.	Max. Amps.
HIGH PRESSURE SODIUM									
70HPS					120	0.81	1.45	0.75	1.45
ED-17 Clear	70	S-62	24K+	6300	208	0.47	0.85	0.45	0.85
Medium Base					240	0.40	0.75	0.37	0.75
					277	0.35	0.65	0.35	0.65
					347	0.30	0.55	0.30	0.55
					480[3]	0.21	0.36	0.21	0.36
100HPS					120	1.15	2.20	1.30	2.20
ED-17 Clear	100	S-54	24K+	9500	208	0.67	1.25	0.75	1.25
Medium Base					240	0.58	1.10	0.65	1.10
					277	0.50	0.85	0.60	0.85
					347	0.39	0.70	0.45	0.70
					480[3]	0.29	0.55	0.35	0.55
150HPS					120	1.65	2.80	2.00	2.80
E-17 Clear	150	S-55	24K+	16000	208	0.95	1.60	1.15	1.60
Medium Base (AE17/BE17 only)					240	0.83	1.40	1.00	1.40
ED-23½ Clear					277	0.72	1.25	0.85	1.25
Mogul Base (AE21/BE21 only)					347	0.56	0.92	0.52	0.92
					480[3]	0.42	0.70	0.50	0.70
250HPS					120	2.50	1.70	1.65	2.50
E-18 Clear	250	S-50	24K+	29000	208	1.50	1.00	0.95	1.50
Mogul Base					240	1.30	0.85	0.80	1.30
					277	1.10	0.75	0.70	1.10
					347	0.93	0.70	0.60	0.93
					480[3]	0.63	0.45	0.40	0.63
400HPS					120	3.80	2.00	3.30	3.80
E-18 Clear	400	S-51	24K+	51000	208	2.20	1.20	1.80	2.20
Mogul Base					240	1.90	0.95	1.50	1.90
					277	1.70	0.85	1.40	1.70
					347	1.32	0.70	1.00	1.32
					480[3]	0.97	0.55	0.75	0.97
PULSE START METAL HALIDE									
100PMH					120	1.15	2.30	1.20	2.30
ED-17 Clear	100	M-90	16K+ V 11K+ H	9500 V 8800 H	208	0.66	1.40	0.80	1.40
Medium Base					240	0.58	1.15	0.65	1.15
					277	0.50	1.00	0.60	1.00
					347	0.40	1.00	0.40	1.00
					480[3]	0.30	0.55	0.30	0.55
150PMH					120	1.60	3.65	1.75	3.65
ED-17 Clear	150	M-102	15K+ V 11K+ H	14000 V 12800 H	208	1.00	2.10	1.30	2.10
Medium Base					240	0.80	1.80	0.85	1.80
					277	0.70	1.58	0.77	1.58
					347	0.55	1.25	0.65	1.25
					480[3]	0.42	0.81	0.45	0.81
175PMH[2]					120	1.80	1.80	0.95	1.80
ED-17 Clear	175	M-137	15K+	17500	208	1.05	1.05	0.55	1.05
Medium Base					240	0.90	0.90	0.45	0.90
					277	0.80	0.80	0.40	0.80
					347	0.63	0.60	0.32	0.63
					480[3]	0.45	0.62	0.15	0.62
200PMH[2]					120	2.00	2.00	0.75	2.00
ED-17 Clear	200	M-136	12K+	21000	208	1.20	1.20	0.40	1.20
Medium Base					240	1.00	1.00	0.35	1.00
					277	0.85	0.85	0.30	0.85
					347	0.70	0.65	0.25	0.70
					480[3]	0.54	0.43	0.19	0.54

Lamp	Lamp Watts	ANSI Ballast Type	Life (Hours)	Initial Lumens[1]	Voltage	Operating Amps.	Open Circuit	Starting Amps.	Max. Amps.
PULSE START METAL HALIDE (continued)									
250PMH					120	2.50	1.40	1.90	2.50
ED-28 Clear	250	M-138	15K+	26800 V	208	1.45	0.80	1.10	1.45
Mogul Base			11K+	22050 H	240	1.25	0.70	0.96	1.25
					277	1.10	0.65	0.85	1.10
					347	0.98	0.75	0.45	0.98
					480[3]	0.60	0.62	0.32	0.62
400PMH					120	3.80	2.20	2.85	3.80
ED-28 Clear	400	M-135	20K+ V	44000 V	208	2.20	1.50	1.65	2.20
Mogul Base			15K+ H	40000 H	240	1.90	1.10	1.45	1.90
					277	1.65	0.95	1.25	1.65
					347	1.35	0.75	1.10	1.35
					480[3]	1.00	0.60	0.75	1.00

[1] Consult lamp manufacturer's data for exact lumen and life data.
[2] 175W and 200W pulse rated lamps are for use in vertical lamp luminaires only.
[3] 480 volt with medium base lamp sockets may require approval by the local building code authority.
NOTE: For lamp/ballast information outside of the U.S.A. and Canada, please consult your local Kim representative.

WARNING: All fixtures must be grounded in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.

Lamps by others.

Application Engineering Services

Applications Assistance

Kim Lighting utilizes the latest computer technology and software to provide specifiers with reliable evaluations of lighting system performance. We can analyze a proposed luminaire layout or provide recommendations based on performance criteria.

Electronic copies of plans can be sent directly to **yyeager@hubbell-ltg.com.** Hard copies can be sent by fax at 864-678-1743, or they can be mailed to Applications Dept, 701 Millennium Blvd, Greenville, SC 29607.

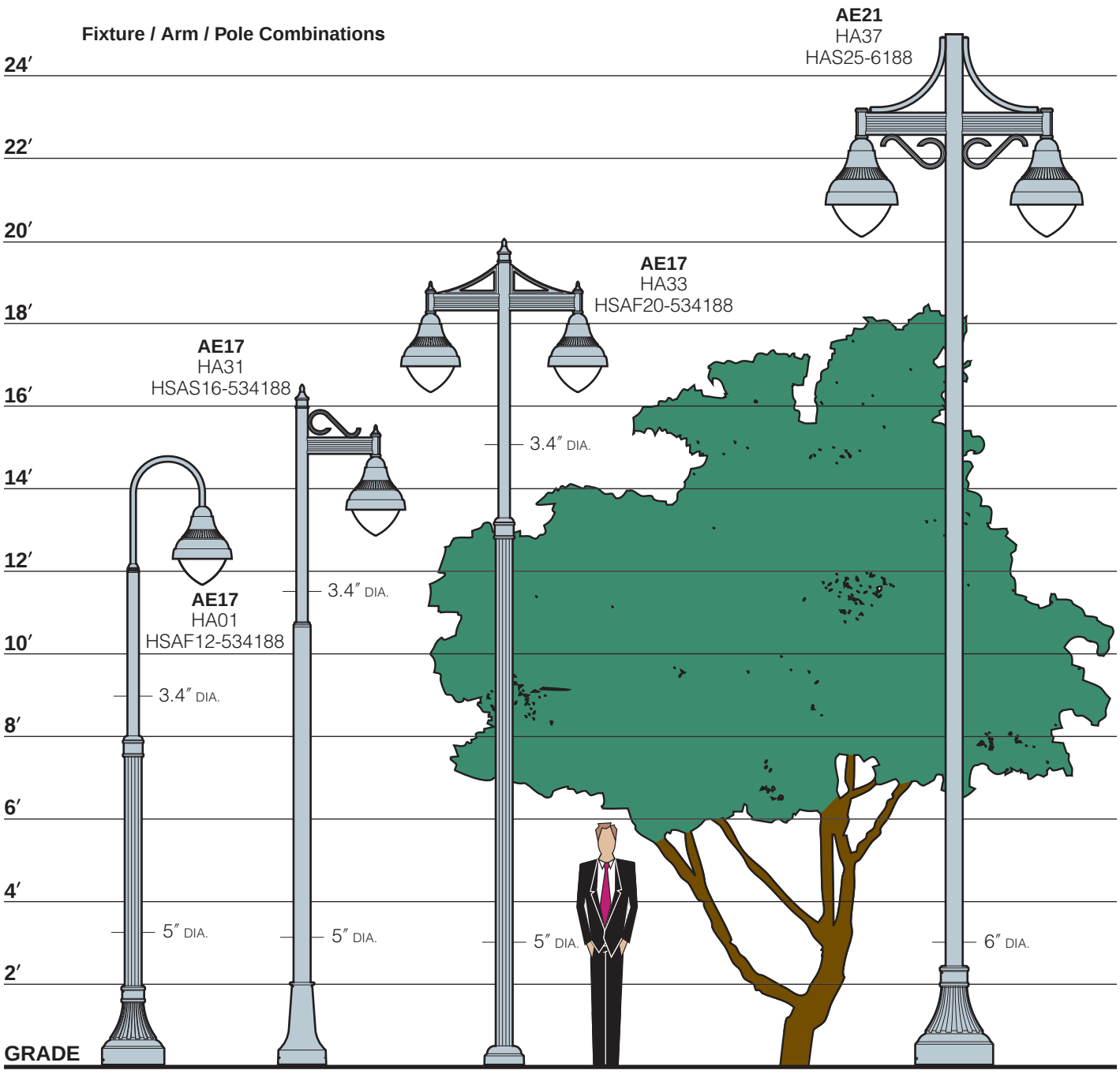
Photometric Files

Kim Lighting .ies format photometric files are available for use in lighting calculation software. The complete IES File Library is on the internet at **www.kimlighting.com**.

Proportion Guide

This proportion diagram is intended to help visualize and select the best Era® Acorn system to satisfy aesthetic requirements. Remember, the pole height also affects performance; the higher the fixture is mounted, the greater the light throw. If poles are mounted on concrete pedestals such as in parking lots, the height of the pedestal must be considered in selecting the pole height.

Fixture / Arm / Pole Combinations



Era® Acorn / Era® Bell

The Era® Collection

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www.kimlighting.com

Your input is valuable to us.

KIM LIGHTING

HUBBELL

HUBBELL LIGHTING, INC.