



by Signify

## Floodlight

AF1000 Series

Akra Cutoff Floodlight 400-1000W HID



**DustTite**



Unit shown is representative of MAF series with optional marine listing and standard AFS-1000 unit.

Project: \_\_\_\_\_

Location: \_\_\_\_\_

Cat.No: \_\_\_\_\_

Type: \_\_\_\_\_

Lamps: \_\_\_\_\_ Qty: \_\_\_\_\_

Notes: \_\_\_\_\_

### Ordering Guide

example: MAFS-400A120BLTDBF-F1-KIT(F)

Optional Marine Listing	Series/Source-Wattage <sup>1</sup>		Distribution	Voltage	Options (Factory Installed)		Finish		Accessories (Ordered Separately) (Field Installed)	
<b>M<sup>1</sup></b> Marine Type UL 1598A Floodlight <i>(M prefix along with series/ source-wattage designates marine listed luminaire)</i>	<b>AFS-400<sup>4</sup></b>  <b>AFS-1000<sup>5, 6</sup></b>	High Pressure Sodium	<b>A C</b>	<b>120</b>	<b>BL<sup>8</sup></b>	Bi-Level dimming	<b>TDB</b> Textured Dark  <b>TGR</b> Textured Bronze  <b>TBK</b> Textured Gray  <b>TWHT</b> Textured White  <b>TSA</b> Textured Satin Aluminum  <b>TGN</b> Textured Green  <b>M(F)</b> Marine grade paint  <i>(F) = specify finish color. Recommended for coastal applications. Consult factory for color availability. Finish is applied in a three-step process to pass 1500 hours with scribe salt spray test per ASTM B117, 5% solution.</i>	<b>F-F1-KIT-(F)<sup>9</sup></b> Single Fuse Kit (120/277/347V) <b>F-F2-KIT-(F)<sup>9</sup></b> Double Fuse Kit (208/240/480V) <b>PCM-1-(F)</b> Photocell mounting bracket <b>WB-1-(F)</b> Wall bracket for mounting to flat vertical surface <b>WB-5-(F)</b> Wiring box for WB-1 <b>FB-1-(F)</b> Flat base mount <b>PX-1-(F)</b> Cross Arm bracket with 2-3/8" pipe stub <b>AL-10-AF</b> Auxiliary polymer lens <b>PM-1</b> Wood pole mounting kit for single fixture with one U-arm <b>PM-2</b> Wood pole mounting kit for two fixtures with two U-arms <b>PM-3</b> Wood pole mounting kit for three fixtures with three U-arms <b>PM-4</b> Wood pole mounting kit for four fixtures with four U-arms  <i>(F) = specify finish color.</i>		
					<b>208</b>	<b>TL<sup>8</sup></b>			Tri-Level dimming	
					<b>240</b>	<b>CSR</b>			Hot Quartz Restrike	
					<b>277</b>	<b>LQ</b>			Hot/Cold Quartz Restrike	
					<b>347</b>	<b>LQ1</b>			Separately Wired (120V) Quartz Restrike	
					<b>480</b>				<b>F-F1<sup>9</sup></b> Single Fuse (120/277V)	
									<b>F-F2<sup>9</sup></b> Double Fuse (208/240/480V)	
									<b>MF-1<sup>10</sup></b> Less ballast Mastfitter mount	
									<b>TG</b> Teflon bonded to glass lens	
									<b>50HZ</b> 50 Hz ballast operation	
					<b>EPXY-CTD-GR</b>	Gray Epoxy coated				
					<b>EPXY-CTD-WHT</b>	White Epoxy coated				

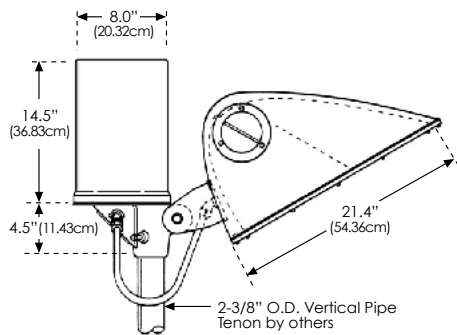
Enter the order code into the appropriate box above. Note: Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

1. Additional Marine Grade gasketing, specially constructed with low copper content alloy (less than 0.4%) for corrosion control in harsh coastal and industrial environments or wherever marine type units are required. Meets U.S. Coast Guard specifications for marine type applications.
2. Mogul Base EP39 T25 (Clear) Lamp provided by others.
3. Position oriented socket aiming angle limited to between 48° and 78°.
4. Mogul Base E18 Lamp (Clear) provided by others.
5. Mogul Base E25 Lamp (Clear) provided by others.
6. In 1000W HPS units, the standard SO cord from ballast to optic head is replaced with flex conduit. The M2 option (less ballast mastfitter mount) is not available.
7. Quad voltage ballast. Allows field selection of 120/208/240/277 voltage. Certain options may require voltage selection as well.
8. Dimming options available for HPS units in any aiming position.
9. Fusing is not available on MAF series (marine listed) units. Voltage must be specified.
10. Not available for MAF (marine listed) series or standard 1000W HPS unit.

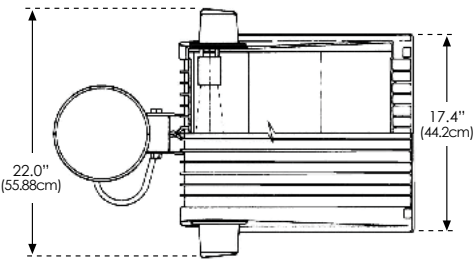
# AF1000 Series Aktra Cutoff Floodlight, 400-1000W HID

Overall Dimensions – For Reference Only

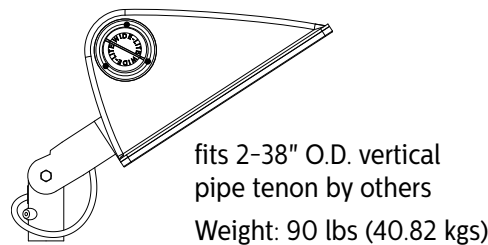
Side View



Top View



Less Ballast version with MF-1 mastfitter



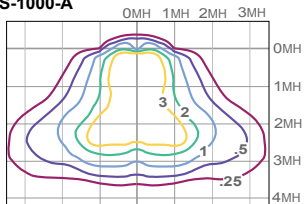
Not available with MAF marine floodlight.

Distribution Guide & Ballast Data

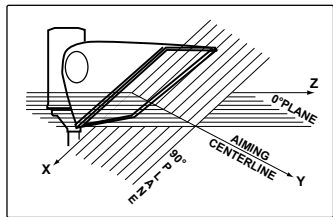
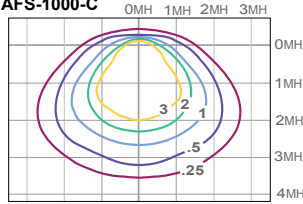
Source Type	Catalog Number	Reflector Type	Lamp Envelope	Field Angle Based on 10%	Beam Angle Based on 50%	.ies File Name	Ballast Type	ANSI Code	Line Current 120/2-8/277/480	Line Watts
HPS	AFS-400	A	E18	130H x 69V	48H x 15V	afs40a.ies	CWA	S51	4.1/2.5/2.1/1.9/1.1	467
	AFS-400	C		130H x 86V	87H x 42V	afs40c.ies				
	AFS-1000	A	E25	123H x 39V	71H x 6V	afs100a.ies	CWA	S52	9.5/5.5/4.8/4.2/2.5	1100
	AFS-1000	C		127H x 82V	78H x 33V	afs100c.ies				

Distribution Patterns

AFS-1000-A



AFS-1000-C



EPA – Effective Projected Area in Ft²

EPA Data	
Standard unit	Less ballast unit
2.0	1.5

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## Specifications

### HOUSING

Permanent mold aluminum alloy with integrally cast heat dissipating fins. Marine unit housing is specially constructed with copper content less than 0.4% for corrosion control in harsh coastal and industrial environments. Dust-Tite housing shall be totally sealed from particulate entry. Standard unit constructed to IP65. MAF Series, Marine Listing, constructed to IP66.

### DISTRIBUTION

High purity anodized reflectors assure maximum efficiency. A secondary internal reflector element reflects high angle rays back into the beam to achieve high beam utilization. Meets IES definition of Cutoff distribution.

### LAMP ACCESS

A gasketed and removable socket assembly provides convenient lamp access opposite the pre-wired base socket.

### LENS

7/32" glass, tempered to withstand thermal and physical shock, is held by an extruded aluminum frame and sealed to the housing flange by an extruded gasket and stainless steel screws to provide a sealed optical assembly.

### SOCKET

Grip-type mogul base socket is pre-wired. Glass end of lamp is held in precise photometric alignment and protected from breakage by a Stabilux socket.

### BALLAST

SilentGuard high power factor ballast designed for -40°C (-40°F) starting temperature

High Pressure Sodium, 180°C (356°F) Class H insulation system. Crest factor does not exceed 1.8. Core and coil are encapsulated in a polyester resin compound with the capacitor located outside the encapsulation for ease of maintenance. Ballast components are enclosed in a drawn aluminum container. The fixture and ballast are arranged as separate but integral components.

### MOUNTING

Cast aluminum ballast base provides integral mastfitter, suitable for mounting to a 2-3/8" O.D. vertical tenon. Less Ballast version requires MF-1 Mastfitter mounting option.

### FINISH

Standard finish shall be corrosion-resistant textured dark bronze UltraClad polyester powder coating,

2.5 mil nominal thickness, electrostatically applied and oven cured. All components shall be thoroughly cleaned by a 5 stage pre-treatment process including iron phosphate bath and non-chromic acid etching stages, ensuring optimum performance characteristics. Other colors may be specified. Optional marine grade finish available.

### LISTINGS

ETL/cETL listed to the UL 1598 standard, suitable for wet locations, UL1598A Marine Listing available. The quality systems of this facility have been Registered by UL to the ISO 9000 Series Standards.

### WARRANTY

5 year limited warranty. See [signify.com/warranties](http://signify.com/warranties) for complete details and exclusions.



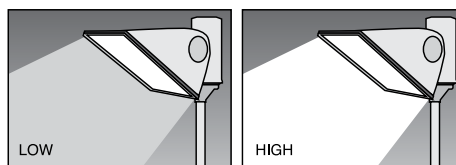
Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled 'Contain Mercury' and/or with the symbol 'Hg'. Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycle and disposal can be found at [www.lamprecycle.org](http://www.lamprecycle.org).

## Option details (Factory Installed)

**BL** Bi-Level

**TL** Tri-Level switching ballast (consult factory)

*Note: Dimming is suitable for HPS in any aiming position.*



Bi-Level provides high/low level of lamp output with up to 50% power consumption. Zero crossover network avoids strobing and lamp dropout. Tri-Level option provides high / mid / low dimming.

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## Option details (Factory Installed)

### Auxiliary / Emergency Lighting (150 watt quartz lamp, standard)

Combined quartz wattage may not exceed HID lamp wattage. 120V double contact bayonet base.

#### CSR Hot Quartz Restrike

using Current Sensing Relay (without time delay)



Extinguishes auxiliary quartz lamp when arc of the main HID lamp strikes.

Activation: At (initial) Cold Start or Restrike (after a momentary "Brown Out" or extended "Black Out" power interruption), through Run Down.

#### CSR Auxiliary Quartz Operation



**Normal Start:**  
Quartz lamp energized until main HID lamp strikes.



**HID Lamp Reaches Full Brightness:**  
Auxiliary quartz lamp automatically extinguished when main HID lamp strikes. (Takes approximately 3 minutes to reach approx. 40% brightness.)

#### LQ LiteMatic Hot / Cold Quartz Restrike



Provides LiteMatic quartz auxiliary operation for fixtures with 120V or multi-tap ballasts. 120V auxiliary LiteMatic quartz lamp power supplied by ballast (AC line voltage). Quartz lamp remains on for three minutes after main HID lamp strikes and reaches approximately 40% light output.

Activation: At (initial) Cold Start or Restrike (after a momentary "Brown Out" or extended "Black Out" power interruption), through Run Down, Restrike and Ramp Up.

#### LQ Auxiliary LiteMatic Quartz Operation

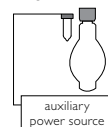


**Normal Start:**  
Quartz lamp energized at initial cold start or at restrike after a temporary power interruption.



**Quartz Lamp Remains on during Ramp Up:**  
Besides providing illumination while the main HID lamp reaches full brightness, the warmth provided by the quartz lamp helps to create a favorable restrike condition for the main HID lamp (useful in extreme cold temperatures).

#### LQ1 Separately Wired (120V) Hot / Cold Quartz Restrike



Externally controlled emergency lighting from a separate power source. Quartz lamp is extinguished once power is restored. To ensure integrity of the emergency lighting system, LQ1 leads should be hardwired.

Activation: At "Black Out" conditions only. Normal HID operation will occur at all other times.

LQ1 requires an interlock by others to ensure HID and quartz source are not operated together.

#### LQ1 Emergency Quartz Operation



**At AC Power Interruption:**  
During AC line voltage power interruption, auxiliary quartz lamp is automatically energized by separately wired power source.



**Once Power is Restored, Quartz Lamp Automatically Extinguishes:**  
Used specifically for emergency lighting during "Black Out" periods, or times of extended power interruption. (Takes approximately 3 minutes for HID lamp to reach full brightness.)

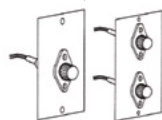
### Ballast Fusing

Voltage must be specified. Not available for MAF (marine listed) series.

**F-F1** Single Fuse, 120 / 277V

**F-F2** Double Fuse, 208 / 240 / 480V

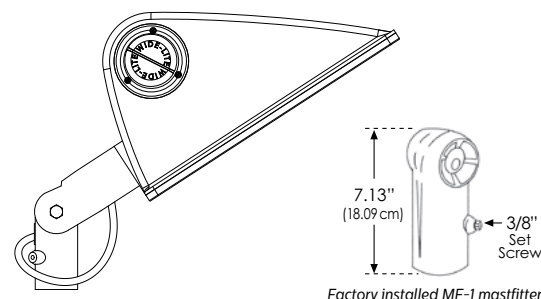
Fuses are KTK/KLK 30 amp unless otherwise specified.



### Mastfitter for remote mount ballast

Not available for MAF (marine listed) series or standard 1000W HPS unit.

**MF-1** Less ballast mastfitter mount Less ballast (remote ballast) option with MF-1 mastfitter for 2-3/8" O.D. vertical pipe tenon. (Requires a vertical tenon height of 4-5/8" minimum)



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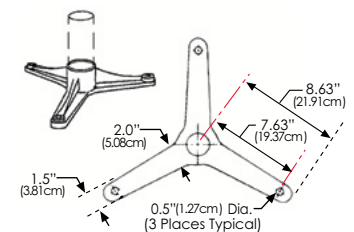
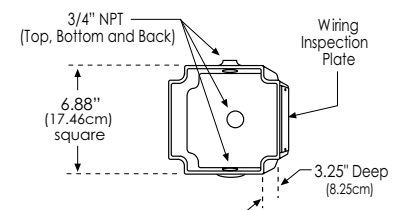
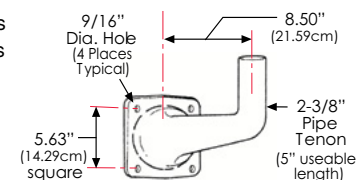
## Option details (Factory Installed)

TG	5 MIL Teflon® bonded to standard glass lens.	
50HZ	50 Hz ballast operation	Specified for applications outside the United States where 50 Hz operation is standard. Consult factory.
EXPY-CTD-GR	Gray epoxy coated	Recommended for coastal applications.
EXPY-CTD-WHT	White epoxy coated	Consult factory for color availability.
M(F)	Marine grade paint	LQ1 Emergency Quartz Operation

## Accessory details ( Shipped Separately)

(F) = Specify finish

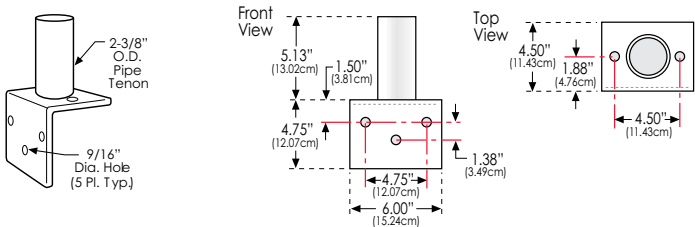
F-F1 KIT-(F)	Single fuse kit (120V/277V)	Fuses are field installed on wiring access plate.
F-F2 KIT-(F)	Double fuse kit (208V/240V/480V)	Fusing is not available with MAF series (marine listed) units.
PCM-1-(F)	Photocell receptacle mounting bracket	Bracket with standard twist-lock receptacle for models with integral ballasts. Threads into 1/2" NPT hole in ballast base or mastfitter. (Photocell not included.)
WB-1-(F)	Vertical wall mount	Cast aluminum wall bracket for vertical surfaces only. Designed to permit mounting of floodlights on flat vertical surfaces. Use in conjunction with WB-5 for surface mounted wiring.
WB-5-(F)	Wiring box for WB-1	Used in conjunction with WB-1 for surface mounted wiring. Tapped top, back and bottom for 3/4" conduit or pipe. Gasket provided for sealing surface wiring box to WB-1, vertical wall mounting bracket.
FB-1-(F)	Flat base mount	Cast aluminum mounting bracket for installing floodlights on flat surfaces. For use with 2-3/8" O.D. pipe tenon (by others). Limit height to 8.0" (20.32cm).



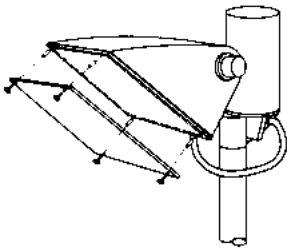
# AF1000 Series Aktra Cutoff Floodlight, 400-1000W HID

**Accessory details** ( Shipped Separately)  
(F) = Specify finish

**PX-1-(F)**      **Cross-arm bracket**      Cast aluminum angle bracket with 2" pipe stub. For installing floodlights on wooden or steel cross-arms. "L" base.



**AL-10-AF**      **Auxiliary polymer lens**      Auxiliary lens for Aktra series floodlights. 1/4" thick impact-resistant polymer lens, furnished with mounting hardware and standoffs. Provides additional protection of the glass lens. Useful life is limited by UV discoloration from sunlight.



Wood pole mounting kits are suitable for mounting up to four luminaires with mastfitters to 6.0"-12.0" O.D. wood poles. Shipped as components for field assembly.

- |             |  |
|-------------|--|
| <b>PM-1</b> | <b>Wood pole mounting kit for single luminaire, with 1 U-arm</b><br>Shipping weight: 6 lbs (2.7 kgs)   |
| <b>PM-2</b> | <b>Wood pole mounting kit for two luminaires, with 2 U-arms</b><br>Shipping weight: 9 lbs (4.05 kgs)   |
| <b>PM-3</b> | <b>Wood pole mounting kit for three luminaires, with 3 U-arms</b><br>Shipping weight: 12 lbs (5.4 kgs) |
| <b>PM-4</b> | <b>Wood pole mounting kit for four luminaires, with 4 U-arms</b><br>Shipping weight: 15 lbs (6.8 kgs)  |

