



Gardco PowerForm LED area luminaires provide up to 1,000W HID replacement while significantly reducing energy and maintenance costs. PowerForm features an architecturally styled, modular housing design available in five different sizes for a range of commercial, retail, industrial, and other large area outdoor applications. PowerForm is available with multiple lumen packages delivering approximately 33,400 to 109,200 lumens.

Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

Ordering guide

example: PFAS-184L-1A-NW-G2-AR-5W-120-PCB-120-BZ

Prefix	Number of LEDs	Drive Current	Color Temperature	Mounting	Distribution	Voltage
PFAS						
PFAS PowerForm Area Site	92L 92 LEDs (2 modules)	900 900mA 1A 1 Amp	WW-G2 Warm White 3000K, 70 CRI Generation 2	AR Arm Mount SF¹ Slip Fitter Mount (fits to 2-3/8" O.D. tenon)	2 Type 2 3 Type 3 4 Type 4 5W Type 5W AFR Auto Front Row AFR-90 Auto Front Row, Rotated 90° AFR-270 Auto Front Row, Rotated 270°	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V HVU 347-480V
	138L 138 LEDs (3 modules)	700 700mA 900 900mA 1A 1 Amp	NW-G2 Neutral White 4000K, 70 CRI Generation 2			
	184L 184 LEDs (4 modules)	900 900mA 1A 1 Amp				
	230L 230 LEDs (5 modules)	900 900mA 1A 1 Amp				
	276L 276 LEDs (6 modules)	900 900mA				

Options		Motion sensing lens		Photo-sensing		Electrical		Luminaire		Finish	
Diming Controls											
None² leave blank		IMRI3⁵ Integral with #3 lens (up to 20' MH)		PCB^{9,13,15} Photocontrol Button	TB¹ Terminal Block	SPA¹ Square Pole Adaptor	BK Black				
DD^{2,3} 0-10V external dimming (controls by others)		IMRI7⁵ Integral with #7 lens (up to 40' MH)		TLRD5^{9,10,13} Twist Lock Receptacle 5-pin	Fusing	HIS¹⁴ Internal Housing Side Shield	WH White				
DCC^{1,3} Dual Circuit Control				TLRD7^{9,10,13} Twist Lock Receptacle 7-pin	F1⁸ Single (120, 277, 347VAC)	Side Rails	BZ Bronze				
FAWS^{3,4} Field Adjustable Wattage Selector				TLRPC^{9,11,12,13} Twist Lock 5-pin Receptacle with 3-pin photocell	F2⁸ Double (208, 240, 480VAC)	blank standard anodized, no finish	DGY Dark Gray				
BL^{3,5,6} Bi-level functionality					F3⁸ Canadian Double Pull (208, 240, 480VAC)	PSR Painted Side Rails, painted same finish to match luminaire finish	MGY Medium Gray				
DynaDimmer: Automatic Profile Dimming					Pole Mount Fusing		RAL Optional Color (specify optional color or RAL)				
CS50^{3,7} Safety 50% Dimming, 7 hours					FP1⁸ Single (120, 277, 347VAC)		CC Custom Color (must supply color chip, requires factory quote)				
CM50^{3,7} Median 50% Dimming, 8 hours					FP2⁸ Double (208, 240, 480VAC)						
					FP3⁸ Canadian Double Pull (208, 240, 480VAC)						
					Surge Protection (10kA standard)						
					SP2 Increased 20kA						
					BAC^{15,16} Meets the requirements of the Buy American Act of 1933 (BAA)						

- Dual Circuit Control (DCC), Terminal Block (TB) and Square Pole Adaptor (SPA) options not available with Slip Fitter Mount (SF).
- Product comes equipped with dimming drivers as standard. Only include DD if dimming leads need to be accessed external to the product.
- Not available with other dimming control options.
- Not available with motion sensor.
- IMRI3/7 option not available with 230L-1A or 276L-900 due to wattage restriction. Not available with DD, DCC, and FAWS dimming control options.
- Must specify a motion sensing lens.
- Available in 120-277 (UNV) only.
- Must specify specific input voltage.
- Max. aiming angle 45°. Works with 3 pin NEMA photocell.
- Dimming pins will not work if ordered with DD, FAWS, BL, or CS/CM50.
- Not available in 480V or HVU.
- Uses a 5-pin receptacle. Dimming pins will not work if ordered with DD, FAWS, BL, or CS/CM50.
- Not available with Dual Circuit Control (DCC).
- HIS option not available with 5W, AFR-90 and AFR-270 (see AFRES accessory).
- Extended lead times apply. Contact factory for details.
- Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies



PFAS PowerForm

Site & Area

PowerForm Accessories^{1,3} (ordered separately, field installed)

Shielding Accessories

Internal house side shield

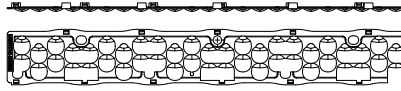
HIS-PFAS-92	92 LEDs (2 modules)
HIS-PFAS-138	138 LEDs (3 modules)
HIS-PFAS-184	184 LEDs (4 modules)
HIS-PFAS-230	230 LEDs (5 modules)
HIS-PFAS-276	276 LEDs (6 modules)

Photocell accessories

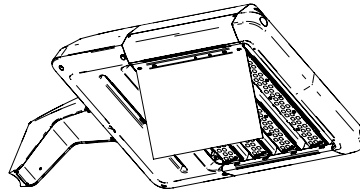
P400S	Shorting cap
P400E	Photocontrol 480V

External shield auto front row 90° or 270°²

AFRES-PFAS-92	92 LEDs (2 modules)
AFRES-PFAS-138	138 LEDs (3 modules)
AFRES-PFAS-184	184 LEDs (4 modules)
AFRES-PFAS-230	230 LEDs (5 modules)
AFRES-PFAS-276	276 LEDs (6 modules)



For use with Type 2, 3, 4, and AFR optics (not for use with AFR-90 or AFR-270 rotated optics). A set of internal shields can be ordered separately and is determined by total number of LED's per luminaire. One injection molded black polymer shield snap fits to each 46 LED module.



- Accessories must be ordered separately; requires field installation.
For additional information, see accessories information on following pages.
- AFRES for use only with AFR-90 and AFR-270 (use HIS for AFR non-rotated optics).
- Consult Signify to confirm whether specific accessories are BAA-compliant.

Mounting Accessories

PowerForm PTF2 (pole top fitter fits 2 3/8"-2 1/2" OD x 4" depth tenon)

PTF2-PFAS-1-90-(F)	1 luminaire at 90°
PTF2-PFAS-2-90-(F)	2 luminaires at 90°
PTF2-PFAS-2-180-(F)	2 luminaires at 180°
PTF2-PFAS-3-90-(F)	3 luminaires at 90°
PTF2-PFAS-4-90-(F)	4 luminaires at 90°
PTF2-PFAS-3-120-(F)	3 luminaires at 120°

PowerForm PTF3 (pole top fitter fits 3-3 1/2" OD x 6" depth tenon)

PTF3-PFAS-1-90-(F)	1 luminaire at 90°
PTF3-PFAS-2-90-(F)	2 luminaires at 90°
PTF3-PFAS-2-180-(F)	2 luminaires at 180°
PTF3-PFAS-3-90-(F)	3 luminaires at 90°
PTF3-PFAS-4-90-(F)	4 luminaires at 90°
PTF3-PFAS-3-120-(F)	3 luminaires at 120°

PowerForm PTF4 (pole top fitter fits 3 1/2"-4" OD x 6" depth tenon)

PTF4-PFAS-1-90-(F)	1 luminaire at 90°
PTF4-PFAS-2-90-(F)	2 luminaires at 90°
PTF4-PFAS-2-180-(F)	2 luminaires at 180°
PTF4-PFAS-3-90-(F)	3 luminaires at 90°
PTF4-PFAS-4-90-(F)	4 luminaires at 90°
PTF4-PFAS-3-120-(F)	3 luminaires at 120°

LED Wattage and Lumen Values - 3000K

Ordering Code	Total LEDs	System Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4			Type 5W			Type AFR		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
PFAS-92L-900-WW-G2-x	92	900	3000	264	34659	B3-U0-G4	131	32968	B3-U0-G4	125	31768	B3-U0-G4	120	33841	B5-U0-G4	128	34659	B3-U0-G4	131
PFAS-92L-1A-WW-G2-x	92	1050	3000	300	39303	B4-U0-G4	131	37681	B3-U0-G5	126	36027	B3-U0-G5	120	38376	B5-U0-G4	128	39303	B4-U0-G4	131
PFAS-138L-700-WW-G2-x	138	700	3000	295	43060	B4-U0-G4	146	40959	B3-U0-G5	139	39469	B4-U0-G5	134	42043	B5-U0-G4	143	43060	B4-U0-G4	146
PFAS-138L-900-WW-G2-x	138	900	3000	397	51987	B4-U0-G5	131	49452	B4-U0-G5	125	47652	B4-U0-G5	120	50761	B5-U0-G5	128	51987	B4-U0-G5	131
PFAS-138L-1A-WW-G2-x	138	1050	3000	452	58955	B4-U0-G5	130	56079	B4-U0-G5	124	54039	B4-U0-G5	120	57564	B5-U0-G5	127	58955	B4-U0-G5	130
PFAS-184L-900-WW-G2-x	184	900	3000	528	69316	B5-U0-G5	131	65936	B4-U0-G5	125	63536	B4-U0-G5	120	67681	B5-U0-G5	128	69316	B5-U0-G5	131
PFAS-184L-1A-WW-G2-x	184	1050	3000	600	78607	B5-U0-G5	131	74773	B5-U0-G5	125	72053	B4-U0-G5	120	76752	B5-U0-G5	128	78607	B5-U0-G5	131
PFAS-230L-900-WW-G2-x	230	900	3000	662	86645	B5-U0-G5	131	82419	B5-U0-G5	124	79421	B5-U0-G5	120	84600	B5-U0-G5	128	86645	B5-U0-G5	131
PFAS-230L-1A-WW-G2-x	230	1050	3000	754	98259	B5-U0-G5	130	93465	B5-U0-G5	124	90066	B5-U0-G5	119	95940	B5-U0-G5	127	98259	B5-U0-G5	130
PFAS-276L-900-WW-G2-x	276	900	3000	795	103975	B5-U0-G5	131	98903	B5-U0-G5	124	95305	B5-U0-G5	120	101521	B5-U0-G5	128	103975	B5-U0-G5	131

LED Wattage and Lumen Values - 4000K

Ordering Code	Total LEDs	System Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4			Type 5W			Type AFR		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
PFAS-92L-900-NW-G2-x	92	900	4000	264	36406	B4-U0-G4	138	34630	B3-U0-G4	131	33370	B3-U0-G5	126	35547	B5-U0-G4	135	36406	B4-U0-G4	138
PFAS-92L-1A-NW-G2-x	92	1050	4000	300	41285	B4-U0-G4	138	39581	B3-U0-G5	132	37843	B3-U0-G5	126	40311	B5-U0-G4	134	41285	B4-U0-G4	138
PFAS-138L-700-NW-G2-x	138	700	4000	295	45231	B4-U0-G4	153	43024	B4-U0-G5	146	41459	B4-U0-G5	141	44163	B5-U0-G5	150	45231	B4-U0-G4	153
PFAS-138L-900-NW-G2-x	138	900	4000	397	54608	B4-U0-G5	138	51945	B4-U0-G5	131	50055	B4-U0-G5	126	53320	B5-U0-G5	134	54608	B4-U0-G5	138
PFAS-138L-1A-NW-G2-x	138	1050	4000	452	61928	B5-U0-G5	137	58907	B4-U0-G5	130	56764	B4-U0-G5	126	60466	B5-U0-G5	134	61928	B5-U0-G5	137
PFAS-184L-900-NW-G2-x	184	900	4000	528	72811	B5-U0-G5	138	69260	B4-U0-G5	131	66740	B4-U0-G5	126	71093	B5-U0-G5	135	72811	B5-U0-G5	138
PFAS-184L-1A-NW-G2-x	184	1050	4000	600	82570	B5-U0-G5	138	78543	B5-U0-G5	131	75686	B4-U0-G5	126	80622	B5-U0-G5	134	82570	B5-U0-G5	138
PFAS-230L-900-NW-G2-x	230	900	4000	662	91014	B5-U0-G5	137	86575	B5-U0-G5	131	83425	B5-U0-G5	126	88866	B5-U0-G5	134	91014	B5-U0-G5	137
PFAS-230L-1A-NW-G2-x	230	1050	4000	754	103213	B5-U0-G5	137	98178	B5-U0-G5	130	94607	B5-U0-G5	125	100777	B5-U0-G5	134	103213	B5-U0-G5	137
PFAS-276L-900-NW-G2-x	276	900	4000	795	109217	B5-U0-G5	137	103890	B5-U0-G5	131	100110	B5-U0-G5	126	106640	B5-U0-G5	134	109217	B5-U0-G5	137

Values from photometric tests performed in accordance with IESNA LM-79 and are representative of the configurations shown. Actual performance may vary due to installation and environmental variables, LED and driver tolerances, and field measurement considerations. It is highly recommended to confirm performance with a photometric layout.

NOTE: Some data may be scaled based on tests of similar (but not identical) luminaires.

PFAS PowerForm

Site & Area

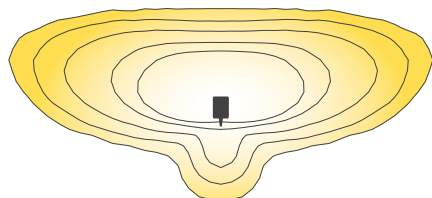
Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L₇₀ hours limited to 6 times actual LED test hours

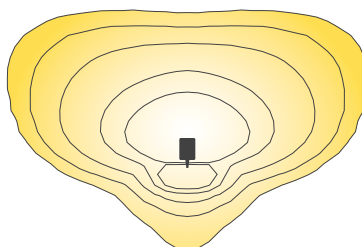
Ambient Temperature °C	Driver mA	Calculated L ₇₀ Hours	L ₇₀ per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1050 mA	>100,000 hours	>60,000 hours	>92%

Distributions

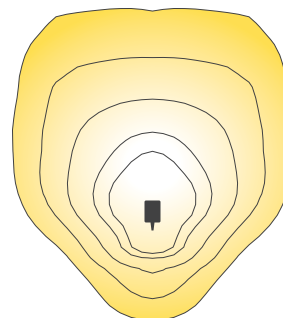
Type 2



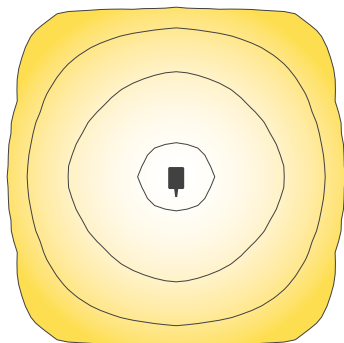
Type 3



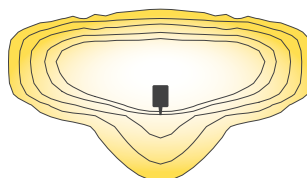
Type 4



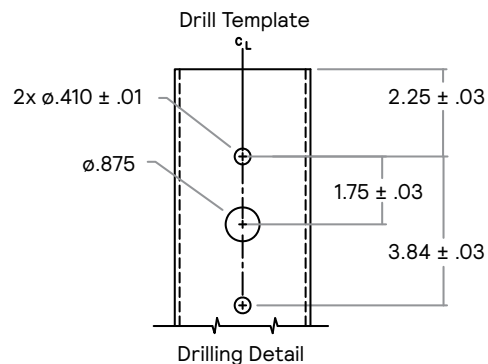
Type 5W



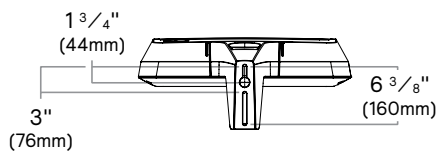
Type AFR



Drill Template



Arm Mount Details



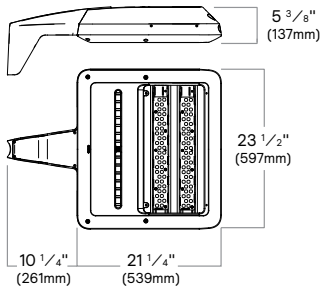
PowerForm standard Arm features an elongated bolt mounting pattern with key slot feature to aid in ease of mounting. Designed to fit a large number of existing pole drillings.

PFAS PowerForm

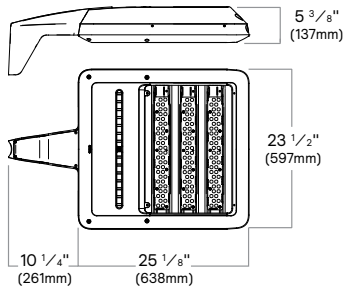
Site & Area

Dimensions – Standard Arm (AR)

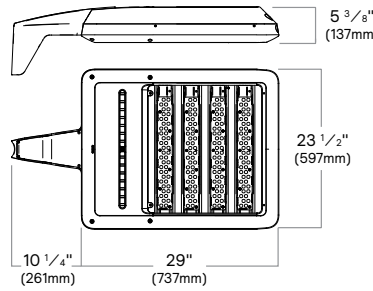
2 Module (92L)



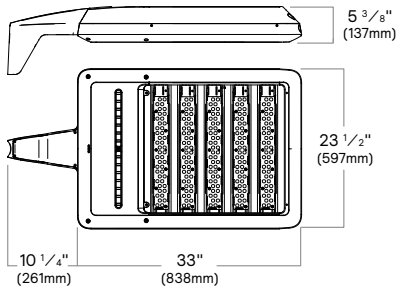
3 Module (138L)



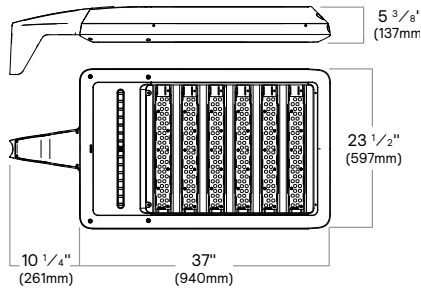
4 Module (184L)



5 Module (230L)



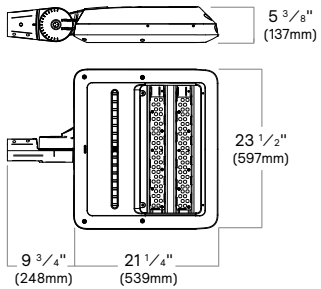
6 Module (276L)



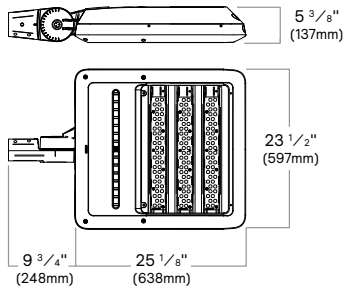
No. of Modules	Effective Projected Area (EPA-ft ²) ¹			Weight of single luminaire
	Single	Twin@180	3 or 4	
2	0.560	1.120	1.457	48 lbs (21.8 kg)
3	0.647	1.294	1.631	59 lbs (26.8 kg)
4	0.739	1.478	1.816	68 lbs (30.8 kg)
5	0.836	1.672	2.009	78 lbs (35.4 kg)
6	0.938	1.876	2.214	86 lbs (39.0 kg)

Dimensions – Slip Fitter Mount (SF)

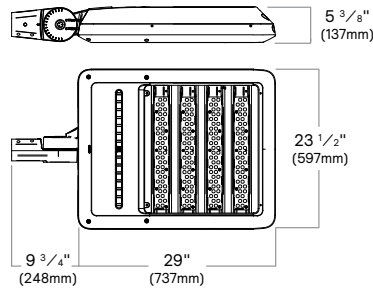
2 Module (92L)



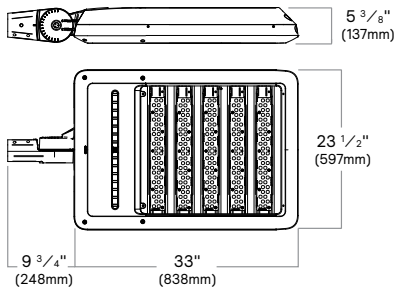
3 Module (138L)



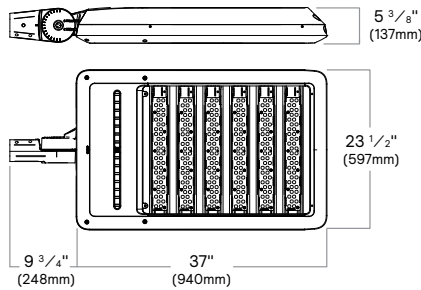
4 Module (184L)



5 Module (230L)



6 Module (276L)



No. of Modules	Effective Projected Area (EPA-ft ²) ¹			EPA table with Slipfitter mounted on horizontal tenon			Weight of single luminaire
	Single	Twin@180	3 or 4	0° Aim	45° Aim	90° Aim	
2	0.560	1.120	1.457	0.560	1.913	2.706	58 lbs (26.3 kg)
3	0.647	1.294	1.631	0.647	2.311	3.269	68 lbs (30.8 kg)
4	0.739	1.478	1.816	0.739	2.681	3.792	78 lbs (35.4 kg)
5	0.836	1.672	2.009	0.836	3.021	4.273	88 lbs (39.9 kg)
6	0.938	1.876	2.214	0.938	3.337	4.720	98 lbs (44.5 kg)

1. Applies to values as shown for quantity of single, twin at 180, three or four luminaires; all with 0 deg aiming at horizontal.
2. Applies to single PFAS luminaire with (SF) slipfitter mount at following angles when mounted on a horizontal tenon. 0° is horizontal to ground when mounted on a horizontal tenon. 90° is vertical to ground when mounted on a horizontal tenon.

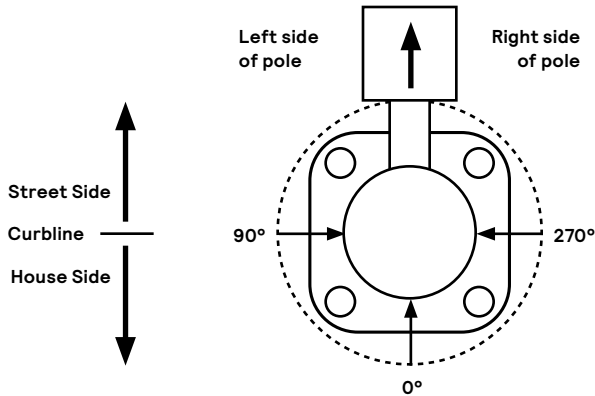
PFAS PowerForm

Site & Area

Optical Orientation Information

Standard Optic Position

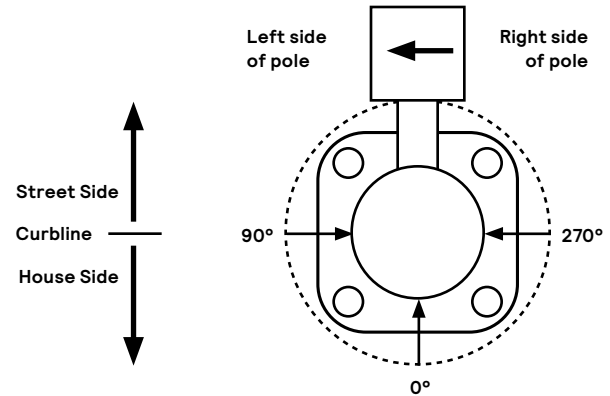
Luminaires ordered with asymmetric optical systems in the standard optic position will have the optical system oriented as shown below:



Note: The hand hole will normally be located on the pole at the 0° point.

AFR -90 Optic Rotated Left (90°) Optic Position

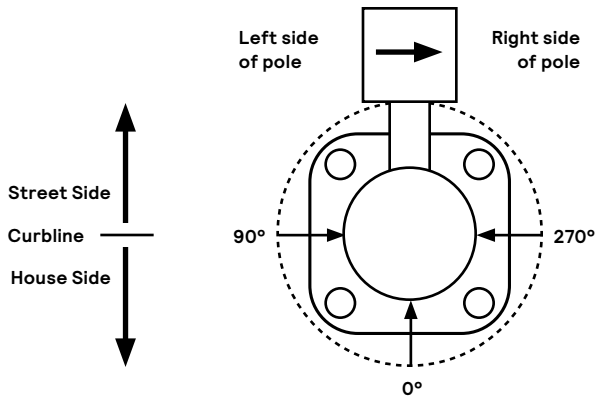
Luminaires ordered with AFR optical systems in the Optic Rotated Left (90°) optic position will have the optical system oriented as shown below (only AFR type optics are available with factory set rotatable optics.):



Note: The hand hole will normally be located on the pole at the 0° point.

AFR Optic Rotated Right (270°) Optic Position

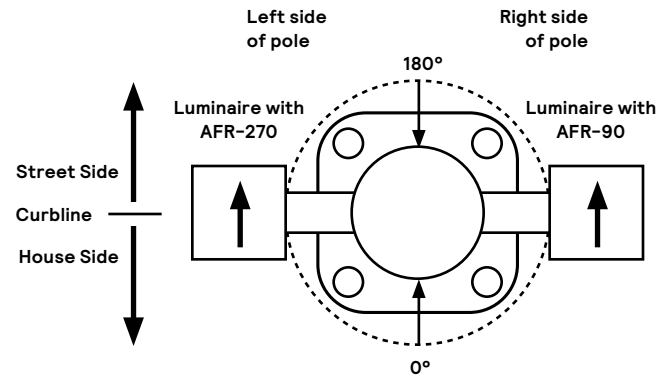
Luminaires ordered with AFR optical systems in the Optic Rotated Right (270°) optic position will have the optical system oriented as shown below (only AFR type optics are available with factory set rotatable optics.):



Note: The hand hole will normally be located on the pole at the 0° point.

Twin Luminaire Assemblies with AFR-90/AFR-270 Rotated Optical Systems

Twin luminaire assemblies installed with rotated AFR type optical systems are an excellent way to direct light toward the interior of the site (Street Side) without additional equipment. It is important, however, that care be exercised to insure that luminaires are installed in the proper location.



Luminaires with Optic Rotated Right (270°) are installed on the LEFT Side of Pole

Luminaires with Optic Rotated Left (90°) are installed on the RIGHT Side of Pole

Note: Luminaire location, in relation to the standard hand hole, will depend on the luminaire drilling configuration on the pole.

PFAS PowerForm

Site & Area

Specifications

Housing

Main body castings made of a low copper die cast Aluminum alloy (A360) for a high resistance to corrosion, 0.100" (2.5mm) minimum thickness. Main body extrusions made of corrosion resistant low copper extruded anodized aluminum alloy (Anodized 6063-T5). Driver/Electrical compartment designed for robust IP66 rated seal using one-piece silicone rubber gasket surrounding the entire perimeter of the electronics compartment. Door secured with four screws outside of gasket perimeter. Includes a lanyard to prevent accidental dropping if access is required.

Heat Sink

Anodized 6063-T5 Aluminum for a high resistance to corrosion, designed to ensure high efficacy and superior cooling by natural vertical convection. Air flow pattern always close to LEDs and driver optimizing their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling).

Vibration Resistance

PowerForm meets the ANSI C136.31, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications (Tested for 1.5G over 100,000 cycles by an independent lab).

Mounting

Arm Mount: Integrated die cast aluminum arm (AR), constructed of low copper alloy (A360) with access door. Ships fully assembled, ready to install and features an elongated bolt mounting pattern with key slot feature to aid in ease of mounting. Designed to fit a large number of existing pole drillings. Arm mounting radius is designed to fit onto 3.5"-6" nominal O.D. poles. (Note: nominal pole sizes vary). Must order optional square pole adaptor (SPA) for mounting onto square poles.

Slipfitter: Optional slipfitter (SF), adjustable knuckle mount, available for applications requiring up tilt aiming and used for surface wall mount with accessory brackets. Also serves for mast arm mounting on a horizontal tenon. Fits over 2 3/8" OD tenon.

Light Engine

Composed of 4 main components: Heat Sink / LED Module / Optical System / Driver. Electrical components are RoHS compliant. IP66 sealed light engines. LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan. Module is RoHS compliant. Color temperatures: 3000K +/-125K, 4000K +/- 200K. Minimum CRI of 70. LED light engine is rated IP66 in accordance to Section 9 of IEC 60598-1.

Energy Saving Benefits

System efficacy up to 153 lms/W with significant energy savings over Pulse Start Metal Halide luminaires. Optional control options provide added energy savings during unoccupied periods.

Optical System

The advanced LED optical systems provide IES Types 2, 3, 4 and 5W distributions. A dedicated automotive front row optic is also available. The AFR-90 and AFR-270 is specified and used as rotated (factory set only) when needed in specific applications. Composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. System is rated IP66. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. Dark sky compliant with 0% uplight and U0 per IESNA TM-15. Designed and tested to rating IK10 in accordance with European standard EN 62262 (equivalent of international standard IEC 62262 2002).

Control Options

0-10V dimming (DD): 0-10V dimming driver with leads supplied through back of luminaire (for secondary dimming controls by others).

Dual Circuit Control (DCC): Luminaire equipped with the ability to have two separate circuits controlling drivers and light engines independently. Permits separate switching of separate modules controlled by use of two sets of leads, one for each circuit. Not recommended to be used with other control options, motion response, or photocells. Available as an option with 2 through 6 modules. Not available with the Slip Fitter Mount (SF).

Automatic Profile Dimming (CS/CM): Standard dimming profiles provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. Dimming profiles include two dimming settings including dim to 50% of the total lumen output. When used in combination with not programmed motion response it overrides the controller's schedule when motion is detected. After 5 minutes with no motion, it will return to the automatic dimming profile schedule. Automatic dimming profile scheduled with the following settings:

- CS50: Security for 7 hours night duration (Ex., 11 PM - 6 AM)
- CM50: Median for 8 hours night duration (Ex., 10 PM - 6 AM)

All above profiles are calculated from mid point of the night. Dimming is set for 6 hours after the mid point and 1 or 2 hours before depending of the duration of dimming. Cannot be used with other dimming control options.

Field Adjustable Wattage Selector (FAWS): Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position at the lumen output selected. Use chart below to estimate reduction in lumen output desired. Cannot be used with other control options or motion response.

Motion Response Options

Bi-Level Infrared Motion Response (BL-IMRI): Motion Response module is mounted integral to luminaire factory pre-programmed to 50% dimming when not ordered with other control options. BL-IMRI is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected by the PIR sensor, the luminaire returns to full power/light output. Dimming on low is factory set to 50% with 5 minutes default in "full power" prior to dimming back to low. When no motion is detected for 5 minutes, the motion response system reduces the wattage by 50%, to 50% of the normal constant wattage reducing the light level. Other dimming settings can be provided if different dimming levels are required. Not available with 230L-1A or 276L-900 due to wattage restriction. This can also be done with FSIR-100 Wireless Remote Programming Tool (contact Technical Support for details).

FAWS Position	Percent of Typical Lumen Output		
	92L	138L/184L	230L/276L
1	25%	10%	15%
2	45%	20%	35%
3	55%	30%	45%
4	65%	40%	60%
5	70%	45%	70%
6	80%	55%	85%
7	85%	60%	100%
8	90%	70%	100%
9	95%	80%	100%
10	100%	100%	100%

Note: Typical value accuracy +/- 5%

Infrared Motion Response with Other Controls: When used in combination with other controls (Automatic Dimming Profile and SiteWise), motion response device will simply override controller's schedule with the added benefits of a combined dimming profile and sensor detection. In this configuration, the motion response device cannot be re-programmed with FSIR-100 Wireless Remote Programming Tool. The profile can only be re-programmed via the controller.

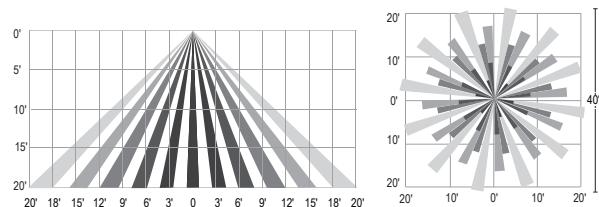
PFAS PowerForm

Site & Area

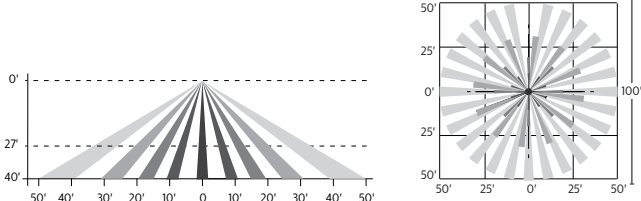
Specifications continued

Infrared Motion Response Lenses (IMRI3/IMRI7): Infrared Motion Response Integral module is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges. Lens #3 (IMRI3) is designed for mounting heights up to 20' with a 40' diameter coverage area. Lens #7 is designed for higher mounting heights up to 40' with larger coverage areas up to 100' diameter coverage area. See charts for approximate detection patterns:

IMRI3 Luminaire with #3 lens



IMRI7 Luminaire with #7 lens



Electrical

Driver: High power factor of 90% min. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC or 347 to 480 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min).

Twist-Lock Receptacle (TLRD5/TLRD7/ TLRPC): Twist Lock Receptacle with 5 pins enabling dimming or with 7 pins with additional functionality (by others) can be used with a twistlock photoelectric cell or a shorting cap. Dimming Receptacle Type B (5-pin) and Type D-24 (7-pin) in accordance to ANSI C136.41. Can be used with third-party control system. Receptacle located on top of luminaire housing. When specifying receptacle with twistlock photoelectric cell, voltage must be specified. When ordering Twist-lock receptacle (TLRD5 or TLRD7), photocell or shorting cap is not included. Receptacle pins 4 and 5 are connected to dimming driver's dimming leads whenever no Dimming Controls are selected; if Dimming Controls are selected then receptacle pins 4 and 5 are capped off because driver's dimming leads are used with Dimming Controls. Pins 6 and 7 on TLRD7 are also not connected unless used with SR drivers. Contact factory for more details.

Button Photocontrol (PCB): Button style design for internal luminaire mounting applications. The photocontrol is constructed of a high impact UV stabilized polycarbonate housing. Rated voltage of 120V or 208-277V with a load rating of 1000 VA. The photocell will turn on with 1-4Fc of ambient light.

Surge protection (SP1/SP2): Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and NeutralGround, and in accordance with DOE MSSLC Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/10kA. 20kV / 10kA surge protection device that provides extra protection beyond the SP1 10kV/10kA level.

Finish

Five standard colors offered in textured black, white, bronze, dark gray and medium gray. RAL and custom color matching available. Color in accordance with the AAMA 2604 standard. Application of polyester powder coat paint (2.5 mil minimum). The thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard.

Certifications and Compliance

UL/cUL wet location listed to the UL 1598 standard, suitable for use in ambient temperatures from -40° to 40°C (-40° to 104°F). Most PowerForm configurations are qualified under Premium and Standard DesignLights Consortium® categories. Consult DLC Qualified Products list to confirm your specific luminaire selection is approved.

Limited Warranty

5-year limited warranty. See [signify.com/warranties](https://www.signify.com/warranties) for details and restrictions. Visit our eCatalog or contact your local sales representative for more information.