



by Signify

Site & Area

EcoForm

ECF-L large area luminaire



Gardco EcoForm Gen-2 combines economy with performance in an LED area luminaire. Capable of delivering up to 42,000 lumens or more in a compact, low profile LED luminaire, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems available for further energy savings. Includes Service Tag, our innovative way to provide assistance throughout the life of the product.

Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Ordering guide

example: ECF-L-96L-1A-CW-AR-AFR-90-120-DD-PCB-F1-SP1-TB-RPA-HIS-BK

							Options							
Prefix	Number of LEDs	Drive Current	LED Color - Generation	Mounting	Distribution	Voltage	Dimming controls	Motion sensing lens	Photo-sensing	Electrical	Luminaire	Finish		
ECF-L														
ECF-L EcoForm site and area, large	80L 80 LEDs (5 modules)	900 900 mA 1A 1050 mA 1.2A 1200 mA	WW-G2 Warm White 3000K, 70CRI Generation 2 NW-G2 Neutral White 4000K, 70CRI Generation 2 CW-G2 Cool White 5000K, 70CRI Generation 2	AR Arm Mount (standard) ²	Type 2 2 Type 2 2-90 Rotated left 90° 2-270 Rotated right 270°	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V (50/60Hz) HVU 347-480V (50/60Hz)	DD 0-10V External dimming (by others) ⁴ DCC Dual Circuit Control ^{4,5,6} FAWS Field Adjustable Wattage Selector ^{4,5} SW Interface module for SiteWise ^{6,7} LLC Integral wireless module ^{4,6,8} BL Bi-level functionality ⁴ DynaDimmer: Automatic Profile Dimming CS50 Safety 50% Dimming, 7 hours ^{4,8} CM50 Median 50% Dimming, 8 hours ^{4,8} CE50 Economy 50% Dimming, 9 hours ^{4,8} DA50 All Night 50% Dimming ^{4,8} CS30 Safety 30% Dimming, 7 hours ^{4,8} CM30 Median 30% Dimming, 8 hours ^{4,8} CE30 Economy 30% Dimming, 9 hours ^{4,8} DA30 All Night 30% Dimming ^{4,8}	IMR13 Integral with #3 lens ¹⁵ IMR17 Integral with #7 lens ¹⁶ IMRO Pole mounted motion sensor ¹⁵ (see accessories)	PCB Photocontrol Button ^{8,9} TLRD5 Twist Lock Receptacle 5 Pin ¹⁰ TLRD7 Twist Lock Receptacle 7 Pin ¹⁰ TLRPC Twist Lock Receptacle w/ Photocell ^{9,11}	Fusing F1 Single (120, 277, 347VAC) ⁹ F2 Double (208, 240, 480VAC) ⁹ Pole Mount Fusing FP1 Single (120, 277, 347VAC) ⁹ FP2 Double (208, 240, 480VAC) ⁹ FP3 Canadian Double Pull (208, 240, 480VAC) ⁹ Surge Protection (10kA standard) SP2 Increased 20kA	Square Pole Adapter included in standard product TB Terminal Block ¹² RPA Round Pole Adapter (fits to 3"-3.9" O.D. pole) ¹³ HIS Internal Housing Side Shield ¹⁴	Textured BK Black WH White BZ Bronze DGY Dark Gray MGY Medium Gray Customer specified RAL Specify optional color or RAL (ex: RAL7024) CC Custom color (Must supply color chip for required factory quote)		
	96L 96 LEDs (6 modules)	800 800 mA 1A 1050 mA 1.2A 1200 mA			The following mounting kits must be ordered separately (See accessories) SF Slip Fitter Mount ³ (fits to 2 3/8" O.D. tenon) WS Wallmount with surface conduit rear entry permitted RAM Retrofit arm mount kit ²								Type 3 3 Type 3 3-90 Rotated left 90° 3-270 Rotated right 270° Type 4 4 Type 4 4-90 Rotated left 90° 4-270 Rotated right 270° Type 5 5 Type 5 5W Type 5W AFR Auto Front Row AFR-90 Auto Front Row, Rotated left 90° AFR-270 Auto Front Row, Rotated right 270°	

- BL-IMR13/7 equipped with out-boarded sensor housing when voltage is HVU (347-480V)
- Mounts to a 4" round pole with adapter included for square poles.
- Limited to a maximum of 45 degrees aiming above horizontal.
- Not available with other dimming control options.
- Not available with motion sensor.
- Not available with photocontrol.

- Available only in 120 or 277V.
- Not available in 347 or 480V
- Must specify input voltage.
- Dimming will not be connected to NEMA receptacle if ordering with other control options.
- Not available in 480V.
- Not available with DCC.
- Not available with SF and WS. RPAs provided with black finish standard.

- HIS not available with Type 5 and 5W optics.
- Available only with SW, LLC, and BL control options.
- Available only with SW and BL control options.



P&Z
PZ17-12000016
10/28/2020

ECF-L EcoForm large

Area luminaire

EcoFormAccessories (ordered separately, field installed)

Controls Accessories



Pole Mount Motion Sensor

MS-A-120V 120V Input
MS-A-277V 277V Input

Wireless system

Remote mount module

LLCR3-(F) #3 lens

Central Remote Motion Response

(used connected to SiteWise main panel)

MS2-A-FVR-3

MS2-A-FVR-7

Shielding Accessories



HouseSide shield

Standard optic orientation:

HIS-80-H¹⁴ Internal House Side Shield for 80 LEDs (5 modules)

HIS-96-H¹⁴ Internal House Side Shield for 96 LEDs (6 modules)

Optic at 90 or 270 orientation:

HIS-80-V¹⁴ Internal House Side Shield for 80 LEDs (5 modules)

HIS-96-V¹⁴ Internal House Side Shield for 96 LEDs (6 modules)

14. Not available with Type 5 or 5W optics

Luminaire Accessories



ECF-BD-G2

Bird deterrent

ECF-RAM-G2-(F)

Retrofit Arm mount kit

ECF-SF-G2-(F)

Slip Fitter Mount (fits to 2 3/8" O.D. tenon)

ECF-WS-G2-(F)

Wallmount with surface conduit rear entry permitted

EcoFormPTF2

(pole top fitter fits 23/8-21/2" OD x 4" depth tenon)

PTF2-ECF-S/L-1-90-(F) 1 luminaire at 90°

PTF2-ECF-S/L-2-90-(F) 2 luminaires at 90°

PTF2-ECF-S/L-2-180-(F) 2 luminaires at 180°

PTF2-ECF-S/L-3-90-(F) 3 luminaires at 90°

PTF2-ECF-S/L-4-90-(F) 4 luminaires at 90°

PTF2-ECF-S/L-3-120-(F) 3 luminaires at 120°

EcoFormPTF3

(pole top fitter fits 3-31/2" OD x 6" depth tenon)

PTF3-ECF-S/L-1-90-(F) 1 luminaire at 90°

PTF3-ECF-S/L-2-90-(F) 2 luminaires at 90°

PTF3-ECF-S/L-2-180-(F) 2 luminaires at 180°

PTF3-ECF-S/L-3-90-(F) 3 luminaires at 90°

PTF3-ECF-S/L-4-90-(F) 4 luminaires at 90°

PTF3-ECF-S/L-3-120-(F) 3 luminaires at 120°

EcoFormPTF4

(pole top fitter fits 31/2-4" OD x 6" depth tenon)

PTF4-ECF-S/L-1-90-(F) 1 luminaire at 90°

PTF4-ECF-S/L-2-90-(F) 2 luminaires at 90°

PTF4-ECF-S/L-2-180-(F) 2 luminaires at 180°

PTF4-ECF-S/L-3-90-(F) 3 luminaires at 90°

PTF4-ECF-S/L-4-90-(F) 4 luminaires at 90°

PTF4-ECF-S/L-3-120-(F) 3 luminaires at 120°

(F) = Specify finish

Predicted Lumen Depreciation Data

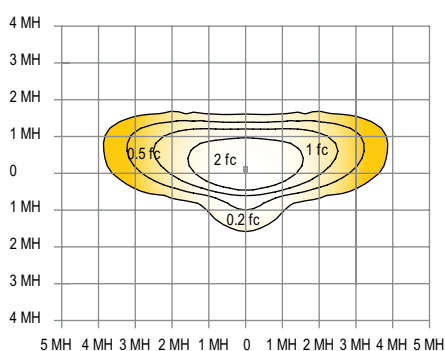
Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology.

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

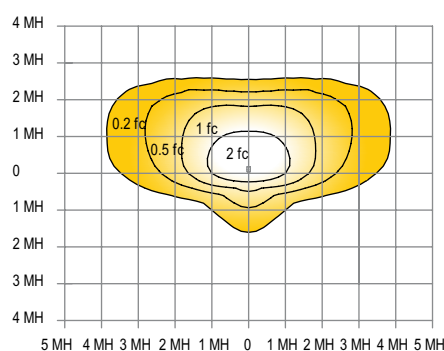
Ambient Temperature °C	Driver mA	Calculated L ₇₀ Hours	L ₇₀ per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1200 mA	>100,000 hours	>60,000 hours	>88%

Optical distribution

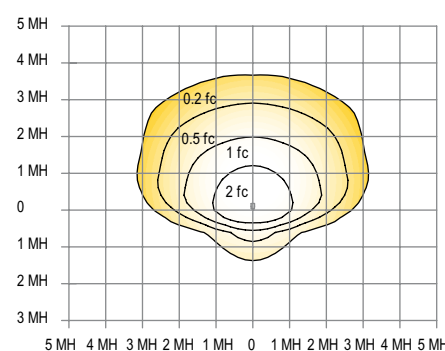
Based on configuration ECF-L-96L-1.2A-NW-G2 (265W) mounted at 40ft.



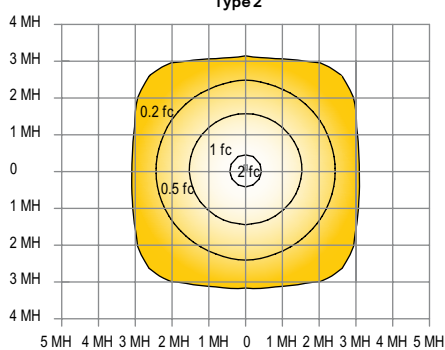
Type 2



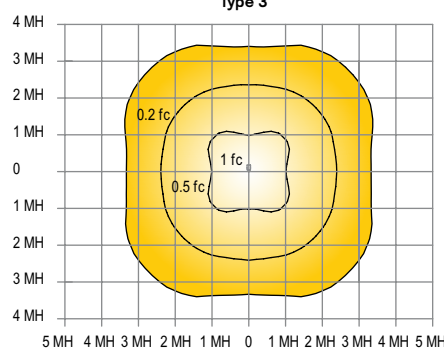
Type 3



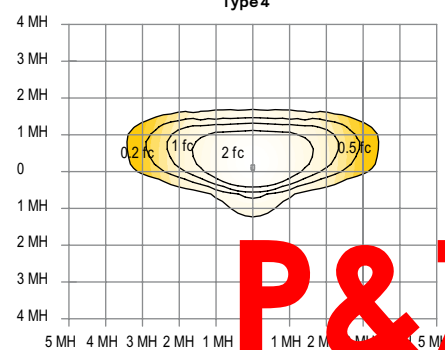
Type 4



Type 5



Type 5W



AFR

ECF-L EcoForm large

Area luminaire

3000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-L-80L-900-WW-G2-x	80	900	3000	225	24,424	B3-U0-G3	109	24,018	B3-U0-G4	107	24,460	B3-U0-G4	109
ECF-L-80L-1A-WW-G2-x	80	1050	3000	265	27,548	B3-U0-G3	104	27,090	B3-U0-G4	102	27,589	B3-U0-G4	104
ECF-L-80L-1.2A-WW-G2-x	80	1200	3000	289	30,387	B4-U0-G4	105	29,882	B3-U0-G4	103	30,433	B3-U0-G5	105
ECF-L-96L-800-WW-G2-x	96	800	3000	238	26,378	B3-U0-G3	111	25,939	B3-U0-G4	109	26,417	B3-U0-G4	111
ECF-L-96L-1A-WW-G2-x	96	1050	3000	316	32,839	B4-U0-G4	104	32,293	B3-U0-G5	102	32,888	B3-U0-G5	104
ECF-L-96L-1.2A-WW-G2-x	96	1200	3000	365	35,721	B4-U0-G4	98	35,127	B3-U0-G5	96	35,775	B3-U0-G5	98

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 5			Type 5W			Type AFR		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-L-80L-900-WW-G2-x	80	900	3000	225	25,080	B3-U0-G2	112	25,849	B5-U0-G3	115	25,574	B5-U0-G4	114
ECF-L-80L-1A-WW-G2-x	80	1050	3000	265	28,288	B4-U0-G3	107	29,156	B5-U0-G4	110	28,845	B5-U0-G4	109
ECF-L-80L-1.2A-WW-G2-x	80	1200	3000	289	31,203	B4-U0-G3	108	32,160	B5-U0-G4	111	31,818	B5-U0-G4	110
ECF-L-96L-800-WW-G2-x	96	800	3000	238	27,086	B3-U0-G3	114	27,917	B5-U0-G3	117	27,620	B5-U0-G4	116
ECF-L-96L-1A-WW-G2-x	96	1050	3000	316	33,721	B4-U0-G3	107	34,755	B5-U0-G4	110	34,385	B5-U0-G4	109
ECF-L-96L-1.2A-WW-G2-x	96	1200	3000	365	40,755		112	37,805	B5-U0-G4	104	37,403	B5-U0-G4	102

4000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp. ³	Average System Watts	Type 2			Type 3			Type 4		
					Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)
ECF-L-80L-900-NW-G2-x	80	900	4000	225	27,138	B3-U0-G3	121	26,686	B3-U0-G4	119	27,178	B3-U0-G4	121
ECF-L-80L-1A-NW-G2-x	80	1050	4000	265	30,609	B4-U0-G4	116	30,100	B3-U0-G4	114	30,655	B3-U0-G5	116
ECF-L-80L-1.2A-NW-G2-x	80	1200	4000	289	33,764	B4-U0-G4	117	33,202	B3-U0-G5	115	33,814	B3-U0-G5	117
ECF-L-96L-800-NW-G2-x	96	800	4000	238	29,309	B3-U0-G3	123	28,821	B3-U0-G4	121	29,353	B3-U0-G4	124
ECF-L-96L-1A-NW-G2-x	96	1050	4000	316	36,488	B4-U0-G4	115	35,881	B3-U0-G5	113	36,543	B3-U0-G5	115
ECF-L-96L-1.2A-NW-G2-x	96	1200	4000	365	39,690	B4-U0-G4	109	39,030	B3-U0-G5	107	39,749	B3-U0-G5	109

Ordering Code	Total LEDs	LED Current (mA)	Color Temp. ³	Average System Watts	Type 5			Type 5W			Type AFR		
					Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)	Lumen Output ^{1,2}	BUG Rating	Efficacy (LPW)
ECF-L-80L-900-NW-G2-x	80	900	4000	225	28,721	B5-U0-G4	128	28,415	B5-U0-G4	126	27,866	B4-U0-G3	124
ECF-L-80L-1A-NW-G2-x	80	1050	4000	265	32,395	B5-U0-G4	122	32,050	B5-U0-G4	121	31,431	B4-U0-G3	119
ECF-L-80L-1.2A-NW-G2-x	80	1200	4000	289	35,733	B5-U0-G4	124	35,353	B5-U0-G4	122	34,670	B4-U0-G3	120
ECF-L-96L-800-NW-G2-x	96	800	4000	238	31,019	B5-U0-G4	131	30,688	B5-U0-G4	129	30,096	B4-U0-G3	127
ECF-L-96L-1A-NW-G2-x	96	1050	4000	316	38,617	B5-U0-G4	122	38,206	B5-U0-G5	121	37,468	B4-U0-G3	118
ECF-L-96L-1.2A-NW-G2-x	96	1200	4000	365	42,006	B5-U0-G4	115	41,558	B5-U0-G5	114	40,755	B4-U0-G4	112

5000K LED Wattage and Lumen Values

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 2			Type 3			Type 4		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-L-80L-900-CW-G2-x	80	900	5000	225	26,324	B3-U0-G3	117	25,886	B3-U0-G4	115	26,363	B3-U0-G4	121
ECF-L-80L-1A-CW-G2-x	80	1050	5000	265	29,691	B4-U0-G4	112	29,197	B3-U0-G4	110	29,735	B3-U0-G5	116
ECF-L-80L-1.2A-CW-G2-x	80	1200	5000	289	32,751	B4-U0-G4	113	32,206	B3-U0-G5	111	32,800	B3-U0-G5	117
ECF-L-96L-800-CW-G2-x	96	800	5000	238	28,430	B3-U0-G3	120	27,957	B3-U0-G4	118	28,472	B3-U0-G4	124
ECF-L-96L-1A-CW-G2-x	96	1050	5000	316	35,394	B4-U0-G4	112	34,805	B3-U0-G5	110	35,446	B3-U0-G5	115
ECF-L-96L-1.2A-CW-G2-x	96	1200	5000	365	38,499	B4-U0-G4	105	37,859	B3-U0-G5	104	38,557	B3-U0-G5	109

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type 5			Type 5W			Type AFR		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-L-80L-900-CW-G2-x	80	900	5000	225	27,030	B4-U0-G3	120	27,859	B5-U0-G4	124	27,563	B5-U0-G4	123
ECF-L-80L-1A-CW-G2-x	80	1050	5000	265	30,488	B4-U0-G3	115	31,423	B5-U0-G4	119	31,089	B5-U0-G4	117
ECF-L-80L-1.2A-CW-G2-x	80	1200	5000	289	33,630	B4-U0-G3	116	34,661	B5-U0-G4	120	34,292	B5-U0-G4	119
ECF-L-96L-800-CW-G2-x	96	800	5000	238	29,193	B4-U0-G3	123	30,088	B5-U0-G4	127	29,768	B5-U0-G4	125
ECF-L-96L-1A-CW-G2-x	96	1050	5000	316	36,344	B4-U0-G3	115	37,459	B5-U0-G4	118	37,060	B5-U0-G5	117
ECF-L-96L-1.2A-CW-G2-x	96	1200	5000	365	39,533	B4-U0-G4	108	40,745	B5-U0-G4	112	40,312	B5-U0-G5	110

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. Contact factory for configurations not shown.

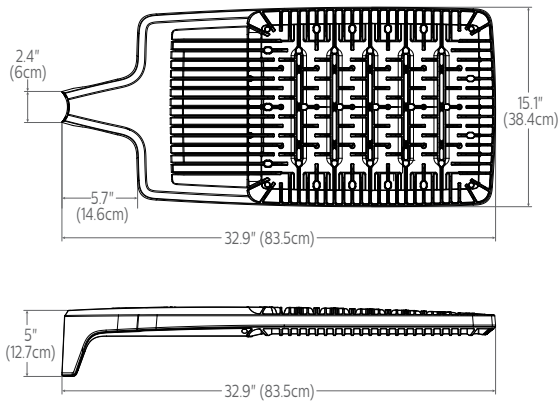
ECF-L EcoFormlarge

Area lumineuse

Dimensions

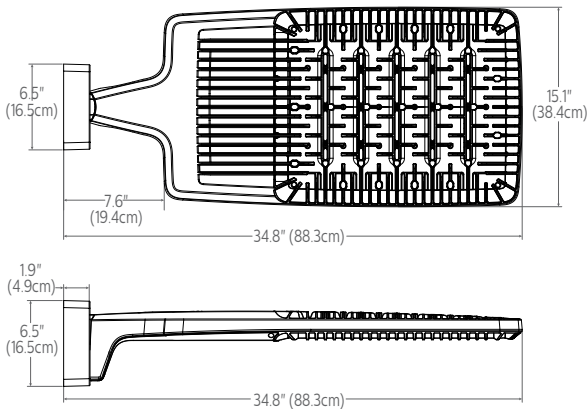
Standard Arm (AR)

Weight: 27 Lbs (12.2 Kg)EPA: 0.24ft² (.022m²)



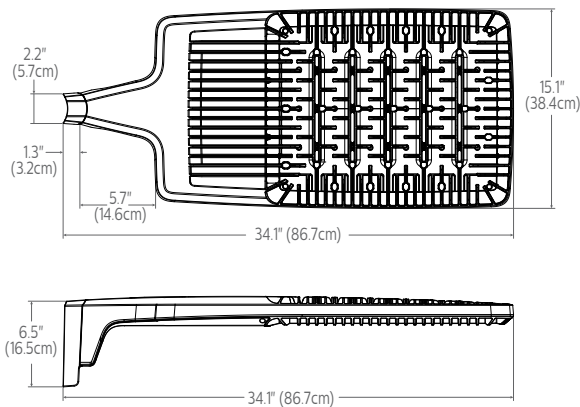
Wall (WS)

Weight: 31Lbs. (14.1Kg) EPA: 0.31ft² (.028m²)



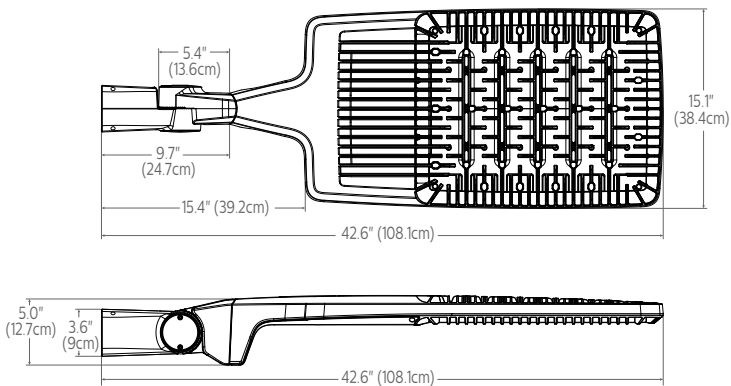
Retrofit Arm (RAM)

Weight: 29 Lbs. (13.1Kg) EPA: 0.27ft² (.025m²)

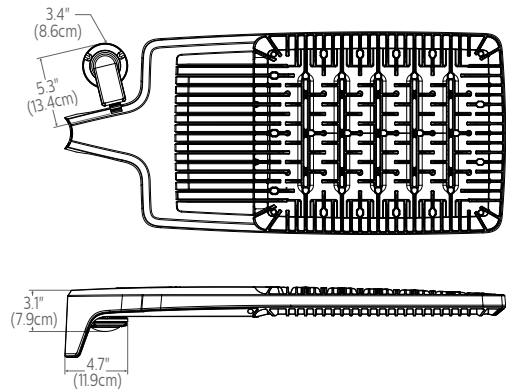


Slip fitter (SF)

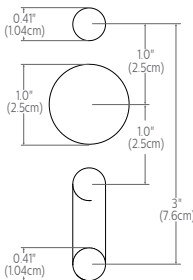
Weight: 32 Lbs (14.5 Kg) EPA: 0.36ft² (.033m²)



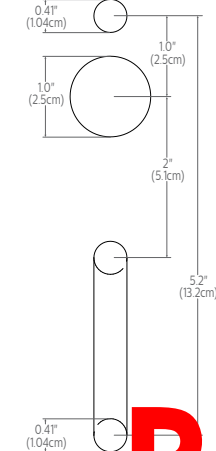
Outboard IMR-HVU sensor



Standard Arm (AR) drill pattern



Retrofit Arm (RAM) drill pattern



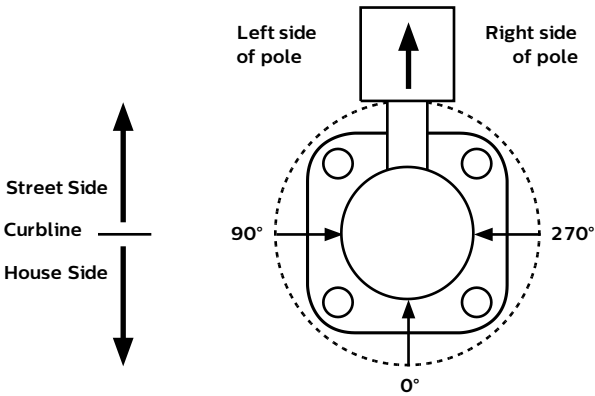
ECF-L EcoFormlarge

Area luminaire

Optical Orientation Information

Standard Optic Position

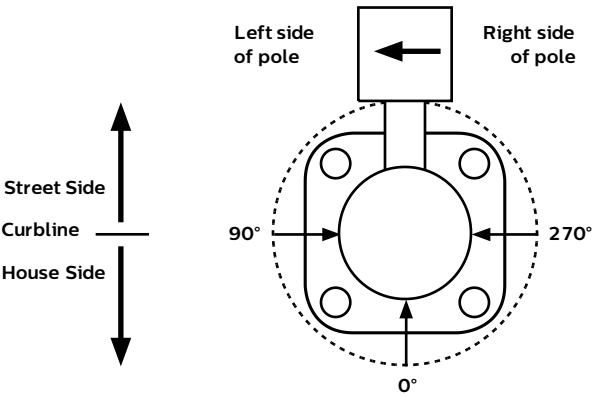
Luminaires ordered with asymmetric optical systems in the standard optic position will have the optical system oriented as shown below:



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

Optic Rotated Left (90°) Optic Position

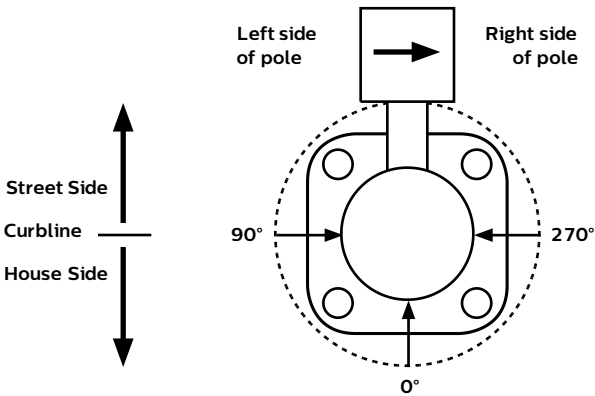
Luminaires ordered with optical systems in the Optic Rotated Left (90°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



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

Optic Rotated Right (270°) Optic Position

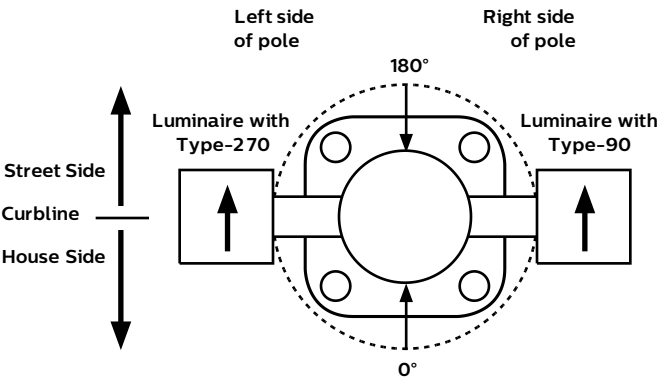
Luminaires ordered with optical systems in the Optic Rotated Right (270°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



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

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

Twin luminaire assemblies installed with rotated 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: The hand hole location will depend on the drilling configuration ordered for the pole.

P&Z

PZ19-12000016
10/28/2020

ECF-L EcoForm large

Area luminaire

Specifications

Housing

One-piece die cast aluminum housing with integral arm and separate, self-retained hinged, one-piece die cast door frame. Luminaire housing rated to IP66, tested in accordance to Section 9 of IEC 60598-1.

Vibration resistance

Luminaire is tested and rated 3G over 100,000 cycles conforming to standards set forth by ANSI C136.31-2010. Testing includes vibration in three axes, all performed on the same luminaire.

Light engine

Light engine comprises of a module of 16-LED aluminum metal clad board fully sealed with optics offered in multiples of 5 and 6 modules or 80 and 96 LEDs. Module is RoHS compliant. Color temperatures: 3000K +/-125K, 4000K, 5000K +/- 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 129 lms/W with significant energy savings over Pulse Start Metal Halide luminaires. Optional control options provide added energy savings during unoccupied periods.

Optical systems

Type 2, 3, 4, 5, 5W, and AFR distributions available. Internal Shield option mounts to LED optics and is available with Type 2, 3, 4, and AFR distributions. Types 2, 3, 4, and AFR when specified and used as rotated, are factory set only. Performance tested per LM-79 and TM-15 (IESNA) certifying its photometric performance. Luminaire designed with 0% uplight (U0 per IESNA TM-15).

Mounting

Standard luminaire arm mounts to 4" O.D. round poles. Can also be used with 5" O.D. poles. Square pole adapter included with every luminaire. Round Pole Adapter (RPA) required for 3-3.9" poles. EcoForm features a retrofit arm kit. When specified with the retrofit arm (RAM) option, EcoForm seamlessly simplifies site conversions to LED by eliminating the need for additional pole drilling on most existing poles. RAM will be boxed separately. Also optional are slipfitter and wall mounting accessories.

Control options

0-10V dimming (DD): Access to 0-10V dimming leads supplied through back of luminaire (for secondary dimming controls by others). Cannot be used with other control options.

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.

SiteWise (SW): SiteWise system includes a controller fully integrated in the luminaire that enables the luminaires to communicate with a dimming signal transmitter cabinet located on site using patented central dimming technology. A locally accessible mobile app allows users to access the system and set functionalities such as ON/OFF, dimming levels and scheduling. SiteWise is available with motion response options in order to bring the light back to 100% when motion is detected. Cannot be used with other control options or photocell options. Additional functionalities are available such as communication with indoor lighting and connection to BMS systems. Complete information on the control system can be found on the SiteWise website at philips.com/sitewise.

Automatic Profile Dimming (CS/CM/CE/CA): Standard dimming profile of 30% or 50% provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. 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/CS30: Security for 7 hours night duration (Ex., 11 PM - 6 AM)
- CM50/CM30: Median for 8 hours night duration (Ex., 10 PM - 6 AM)
- CE50/CE30: Economy for 9 hours night duration (Ex., 9 PM - 6 AM)
- CA50/CA30: for all night (during all dark hours)

All above profiles are calculated from mid point of the night. Dimming is set for 6 hours after the mid point and 1, 2, or 3 hours before depending of the duration of dimming. Cannot be used with other dimming control options.

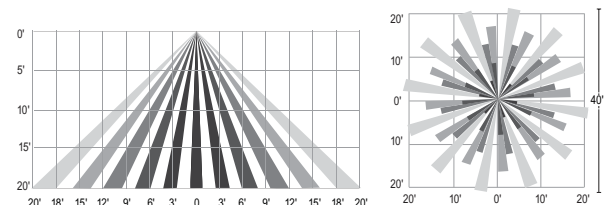
Field Adjustable Wattage Selector (FAWS): Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position at the lumen output selected. Use chart below to estimate reduction in lumen output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

F AWS Position	Percent of Typical Lumen Output
1	25%
2	50%
3	55%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

Note: Typical value accuracy +/-5%

Wireless system (LLC): Optional wireless controller integral to luminaire ready to be connected to a Limelight system (sold by others). The system allows you to wirelessly manage the entire site, independent lighting groups or individual luminaires while on-site or remotely. Based on a high-density mesh network with an easy to use web-based portal, you can conveniently access, monitor and manage your lighting network remotely. Wireless controls can be combined with site and area, pedestrian, and parking garage luminaires as well, for a completely connected outdoor solution. Equipped with motion response with #3 lens for 8-25' mounting heights. Also available with remote pod accessory where pod is mounted separate from luminaire to pole or wall.

LLC wireless controller with #3 lens



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. This can also be done with FSIR-100 Wireless Remote Programming Tool (contact Technical Support for details).

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.

P&Z

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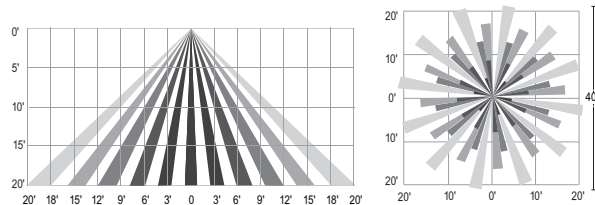
ECF-L EcoForm large

Area luminaire

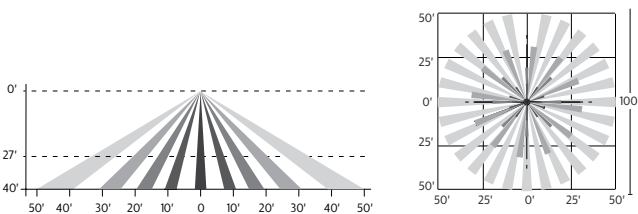
Specifications

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:

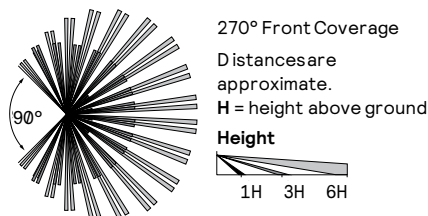
IMRI3 Luminaire or remote mount controller with #3 lens



IMRI7 Luminaire or remote mount controller with #7 lens



Infrared Motion Response Outboard (IMRO): Infrared Motion Response Outboard can be used in combination with automatic profile dimming and stand alone motion response. The pole mounted motion sensor is a PIR (passive infrared) device that can be mounted to a pole. One motion sensor per pole is required. Sensor finish is white Wattstopper EW-200-120-W or the EW-200-277-W. Order MS-A-120 or MS-A-277 separately. IMRO sensors require single voltage 120V or 277V input. If motion is detected during the time that the luminaire is operating at profile dimming mode specified, the luminaire returns to 100% power and light output. The luminaire remains on high until no motion is detected for the duration period, after which the luminaire returns back to automatic profile dimming. Duration period is factory set at 15 minutes, and is field adjustable from 5 minutes up to 15 minutes. The area motion detector provides coverage equal to up to 6 times the sensor height above ground, 270° from the front-center of the sensor (see chart for approximate detection patterns).



Pole Details: IMRO requires that the pole include additional hand hole 15 feet above the pole base, normally oriented 180° to the standard hand hole. For Gardco poles, order the pole with the Motion Sensor Mounting (MSM) option

which includes the hand hole and a special hand hole cover plate for the sensor with a 1/2" NPT receptacle centered on the hand hole cover plate into which the motion sensor mounts. Once the motion sensor is connected to the hand hole cover plate, then wiring connections are completed in the pole. The plate (complete with motion sensor attached and wired) is then mounted to the hand hole. If poles are supplied by others, the customer is responsible for providing suitable mounting accommodations for the motion sensor in the pole (see Gardco Poles specification sheets for more information).

Electrical

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 (TLRD 5 or TLRD 7), photocell or shorting cap is not included.

Driver: Driver efficiency (>90% standard). 120-480V available (restrictions apply). Open/short circuit protection. Optional 0-10V dimming to 10% power. RoHS compliant.

Button Photocontrol (PCB): Button style design for internal luminaires 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 Neutral-Ground, 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.

Listings

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 EcoForm configurations are qualified under Premium and Standard DesignLights Consortium® categories. Consult DLC Qualified Products list to confirm your specific luminaire selection is approved. CCTs 3000K and warmer are Dark Sky Approved.

Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BZ), black (BK), white (WH), dark gray (DGY), and medium gray (MGY). Consult factory for specs on optional or custom colors.

Service Tag

Each individual luminaire is uniquely identifiable, thanks to the Service tag application. With a simple scan of a QR code, placed on the inside of the mast door, you gain instant access to the luminaire configuration, making installation and maintenance operations faster and easier, no matter what stage of the luminaire's lifetime. Just download the APP and register your product right away. For more details visit: signify.com

Warranty

EcoForm luminaires feature a 5-year limited warranty. See signify.com/warranties for complete details and exclusions.

The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.

