

Luminaire Schedule									
Project: Eegee's - Mesa, AZ									
Symbol	Qty	Label	Arrangement	Lum. Lumens	LLF	Description	Lum. Watts	Total Watts	BUG Rating
⬡	5	ECF4H	SINGLE	16372	0.850	ECF-S-48L-1A-WW-G2-4-R1S	160	800	BI-U0-G1
⬢	2	EW	SINGLE	629	0.850	PARROW LED SERIES	18	36	BI-U1-G1
⬢	15	D	SINGLE	1859	0.850	L6RCD20A210UVA-L6R20835VA-L6RDW	20	300	BI-U0-G1

ALL FIXTURE MOUNTING HEIGHTS ARE SHOWN ADJACENT TO FIXTURE LOCATIONS ON PLAN

Calculation Summary						
Project: Eegee's - Mesa, AZ						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
Building Perimeter FC	Illuminance	Fc	3.56	7.3	1.1	3.24
FC at Prop Line - 3ft AFG	Illuminance	Fc	0.23	0.5	0.0	N.A.
FC Beyond Prop Line at Grade	Illuminance	Fc	0.02	0.2	0.0	N.A.
Paved Area FC at Grade	Illuminance	Fc	2.51	8.6	0.3	8.37
Perimeter Grass Area FC	Illuminance	Fc	0.97	4.4	0.0	N.A.
Under Canopy FC	Illuminance	Fc	5.03	7.1	2.6	1.93

ALL VALUES SHOWN ARE HORIZONTAL MAINTAINED FOOTCANDLES AT FINISHED GRADE (U.O.N.)
FIXTURE DISTRIBUTION TEMPLATES ARE SHOWN AT 0.5 MFC FOR REFERENCE USE ONLY
VALUES DO NOT INCLUDE CONTRIBUTION FROM ADJACENT PROPERTIES OR DECORATIVE LIGHTING NOT SHOWN
FOOTCANDLE VALUES DO NOT INCLUDE OBSTRUCTIONS FROM TREES, SHRUBS, LANDSCAPING, VEHICLES OR FENCING
VALUES DO NOT INCLUDE WALL MOUNTED GOOSENECK FIXTURES OVER MENU DISPLAYS ON BUILDING PERIMETER (BY OTHERS)

88030-03064-R1

EEGEE'S - MESA, AZ - LED SITE LIGHTING PHOTOMETRIC PLAN

Scale: 1 inch= 30 Ft.

...
...
...
R1	REVISED PER NEW BACKGROUND PROVIDED	DA	12-21-2020
REVISION	DESCRIPTION	BY	DATE



LIAS - LIGHTING APPLICATION SUPPORT

The calculations and data herein are based on project specifications provided to SIGNIFY / PHOTON. Actual or measured values may differ from requested results due to tolerances in calculation methods, testing procedures, component performance, component performance, measurement techniques and varying field conditions and use. The user assumes responsibility for the accuracy of the calculations and the use of the data herein. The user assumes responsibility for the accuracy of the calculations and the use of the data herein. The user assumes responsibility for the accuracy of the calculations and the use of the data herein.

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DRAWN BY:	DA	DATE:	11-11-2020
SALESPERSON:	PETE CONTOSIS	SALES AGENT :	...
SIGNIFY TEAM:	NATIONAL ACCTS - WEST	DRAWING SCALE:	AS NOTED

DRAWING NUMBER:	88030-03064
SALES FORCE ID:	400440428

DRAWING TITLE:	EEGEE'S - MESA. AZ LED SITE LIGHTING PHOTOMETRIC PLAN
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L6R Round Downlight

Lightolier LyteCaster LED Downlights are ideal general purpose downlighting solution, providing comfortable, quality light. Available in new construction and remodeler frame with interchangeable light engine that is offered in two lumen packages. The downlight is wet location listed and comes in 3 standard option.

Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Complete product = Frame-in kit + Light engine + Trim (order each separately)

Frame-In kit

Example: L6RAE1VA

Series	Lumens ¹	Frame type	Dimming	Input voltage	Version
L6R					VA
L6R LyteCaster 6" Round	blank 1500	A AirSeal IC, New Construction, Screw	E ELV dimming	1 120V	VA Version A ²
	20 2000	AN AirSeal IC, New Construction, Nail	Z10 0-10V	U Universal	
	15 1500	R AirSeal IC, Remodeler			
	20 2000				

Light engine

Example: L6R15827VA

Series	Lumens ¹	CRI	CCT	Version
L6R				VA
L6R LyteCaster 6" Round	15 1500 20 2000	8 80	27 2700K	VA Version A ²
			30 3000K	
			35 3500K	
			40 4000K	
		9 90	27 2700K	

Trim

Example: L6RDW

Series	Luminaire type	Finish
L6R		
L6R LyteCaster 6" Round	D Open Downlight	D Clear diffuse (with white flange)
	B Baffle Downlight	W White (with white flange)
		W White (with white flange)

- When ordering a Frame-in kit and a Light engine, the lumen package code must match.
- Version A (VA) frames and light engines are not compatible with previous versions.

Note: Lumen output is calculated based on 80 CRI and 3500K CCT.

Please consult adjustment factors table on page 5 for other lumen outputs.



Open Downlight (white)



Baffle Downlight (white)



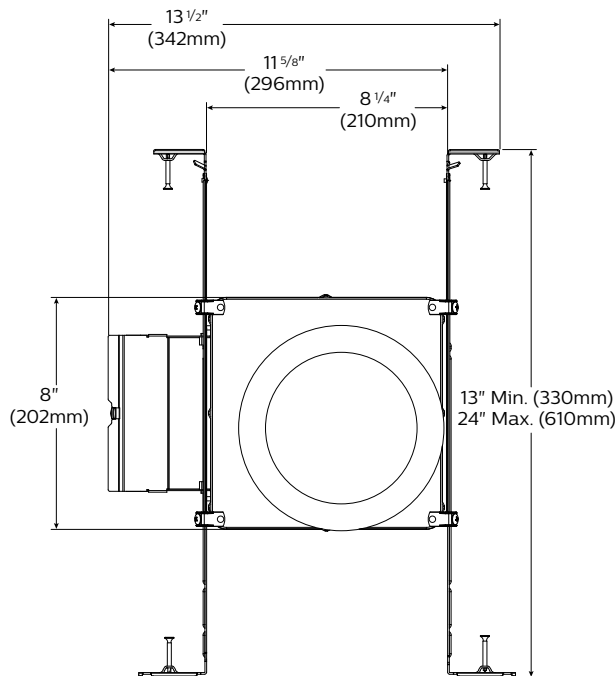
Open Downlight (clear diffuse)

L6R LyteCaster LED 6"

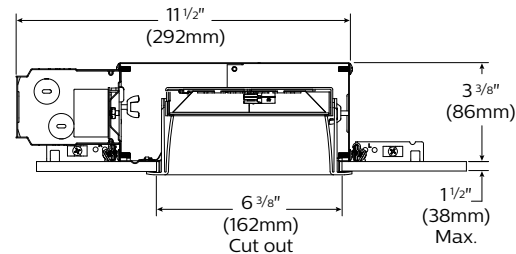
Round Downlight

New construction frame-in kit

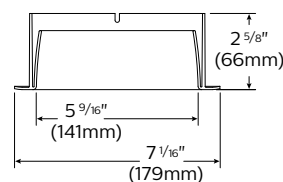
Bottom view



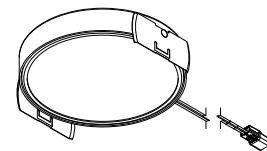
Side view



Downlight trim



Light engine



Features

- Housing:** .026" galvanized steel. UL listed for direct contact with thermal insulation. Airseal® housing minimizes air leakage to less than 2 CFM at 1.57PSF (or 75PA), which complies with the International Energy Conservation Code, and Washington State Energy Code (Section 502.4). This reduces heat loss and condensation in ceiling. Access door for inspection of junction box.
- Lower frame and top cover:** .026" galvanized steel. Accommodates ceilings up to 1½" (38mm) thick. 3/8" (9.5mm) deep integral lip with four notches at 90° apart to simplify alignment. Locks into position along length of mounting bars with locking screws.
- Junction Box:** 2.5" X 5 3/8" X 2" (27 cu. in) .032" galvanized steel. UL listed 90° supply conductors. Rated for branch circuit wiring supplying connected luminaires (daisy chaining).
- Retaining clips:** Permit easy and fast installation of light engine/trim.
- Mounting bars:** .059" galvanized steel. Bars pivot for easy attachment and wire-in below ceiling line. Bars extend to accommodate 16" (406mm) to 24" (610mm) O.C. joist spacing. Bars can accommodate 12" (305mm) O.C. joist spacing after a slight field modification (see Instruction sheet). Features integral self tapping phillips/square drive screws for secure attachment to wood or metal construction. Also available with integral nails. Attaches to T-bar ceilings without the need of accessories. Bars installed on shortest dimension of frame, but can be easily repositioned 90 degrees from original position.
- Driver: ELV:** 120V, 50/60Hz. RoHS compliant, Class 2 power supply. Complies with FCC rules per Title 47 Part 15 (Class B) for EMI / RFI (conducted & radiated). Class A sound rating.
0-10V: 120/277V, 50/60Hz. RoHS compliant, Class 2 power supply. Complies with FCC rules per Title 47 Part 15 (Class A) for EMI / RFI (conducted & radiated). Class A sound rating.
- Ceiling cutout:** 6 3/8" (162mm).

Electrical

Lifetime: Expected lifetime 50,000 hours and backed by a 5-year warranty. (see Philips.com/warranties for details)

Recommended dimmers

See LED-DIM Specification Sheet.

Labels

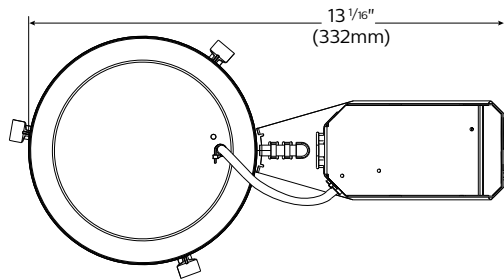
cULus Listed Type I.C. frames are suitable for damp location. Trims are cULus suitable for wet location (no shower lens unit required). Complies with Air Leakage. Energy Star certified.

L6R LyteCaster LED 6"

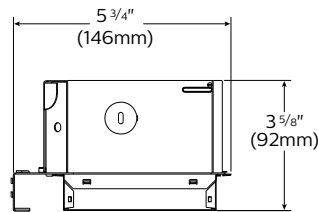
Round Downlight

Remodeler kit

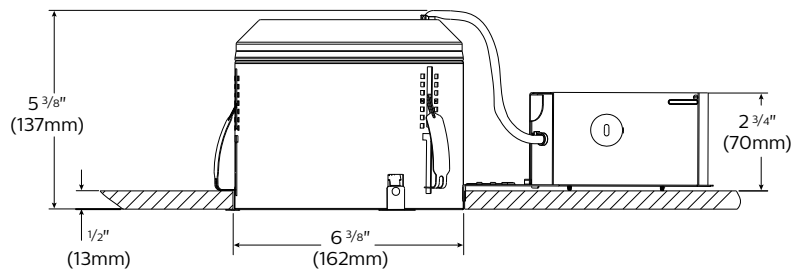
Bottom view



Side view



Side view



Features

1. **Housing:** .032 Aluminum. UL listed for direct contact with thermal insulation. Integral retaining spring secures housing to ceilings up to 2" thick. Removable for access to junction box and ceiling plenum. 5 1/2" maximum for use in 2" x 6" joist construction and shallow plenum applications. Airseal® housing minimizes air leakage to less than 2 CFM at 1.57PSF (or 75PA), which complies with the International Energy Conservation Code, and Washington State Energy Code (Section 502.4). This reduces heat loss and condensation in ceiling.
2. **Junction Box:** 2 1/2" x 2 1/2" x 4 7/8" (29 cu in.). .031" galvanized steel. UL listed for 90°C supply conductors. Rated for branch circuit wiring supplying connected fixtures.
3. **Retaining clips:** Permit easy and fast installation of light engine/trim.
4. **Driver:** **ELV / Triac:** 120V, 50/60Hz. RoHS compliant, Class 2 power supply. Complies with FCC rules per Title 47 Part 15 (Class B) for EMI / RFI (conducted & radiated). Class A sound rating.
0-10V: 120/277V, 50/60Hz. RoHS compliant, Class 2 power supply. Complies with FCC rules per Title 47 Part 15 (Class A) for EMI / RFI (conducted & radiated). Class A sound rating.
5. **Ceiling cutout:** 6 3/8" (162mm).

Electrical

Lifetime: Expected lifetime 50,000 hours and backed by a 5-year warranty. (see Philips.com/warranties for details)

Recommended dimmers

See LED-DIM Specification Sheet.

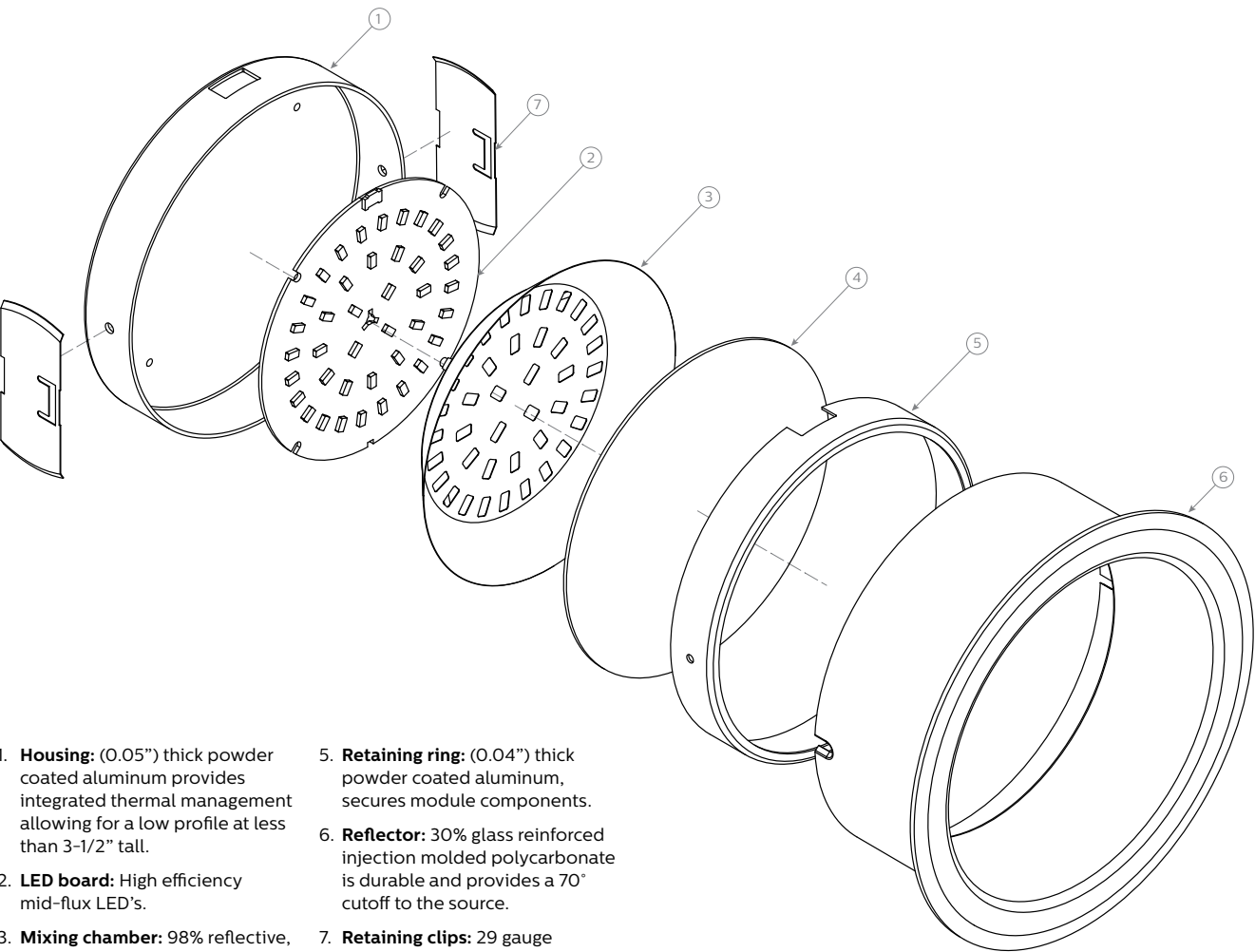
Labels

cULus Listed Type I.C., frames are suitable for damp location. Trims are cULus suitable for wet location (no shower lens unit required). Complies with Air Leakage. Energy Star certified.

L6R LyteCaster LED 6"

Round Downlight

Reflector: Round downlight



1. **Housing:** (0.05") thick powder coated aluminum provides integrated thermal management allowing for a low profile at less than 3-1/2" tall.

2. **LED board:** High efficiency mid-flux LED's.

3. **Mixing chamber:** 98% reflective, highly diffuse film.

4. **Diffusion lens:** (0.06") thick acrylic opal lens provides an even source of illumination.
5. **Retaining ring:** (0.04") thick powder coated aluminum, secures module components.

6. **Reflector:** 30% glass reinforced injection molded polycarbonate is durable and provides a 70° cutoff to the source.

7. **Retaining clips:** 29 gauge Stainless Steel, allows tool-less installation of light engine to trim.

Electrical specifications

Frame-in kit / Remodeler

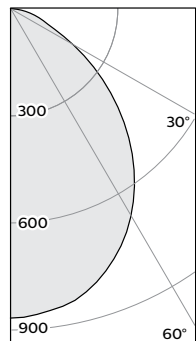
	Lumens	Input volts	Input freq.	Input current	LED drive current	Input power	LED power	THD factor	Power factor
L6RAE1VA / L6R15RE1VA	1500	120V	50/60Hz	0.14A	350mA	16W	13W	<20%	>0.9
L6RAZ10UVA / L6R15RZ10UVA	1500	120V	50/60Hz	0.14A	350mA	17W	13W	<10%	>0.9
		277V	50/60Hz	0.07A	350mA	17W	15W	<15%	>0.9
L6R20AE1VA / L6R20RE1VA	2000	120V	50/60Hz	0.175A	470mA	19W	16W	<20%	>0.9
L6R20AZ10UVA / L6R20R10UVA	2000	120V	50/60Hz	0.26A	470mA	20W	16W	<10%	>0.95
		277V	50/60Hz	0.11A	470mA	20W	16W	<15%	>0.95

L6R LyteCaster LED 6"

Round Downlight

80 CRI, 1500 lumens

Candela Curves



Angle	Mean CP	Lumens
0	730	
5	724	
10	412	69
15	698	
20	671	197
25	634	
30	596	292
35	538	
40	473	336
45	397	
50	314	304
55	235	
60	161	210
65	107	
70	80	111
75	59	
80	37	62
85	16	
90	0	18

Single unit data

Height to Lighted Plane	Initial Center Beam Foot-Candles	Beam Dia. (ft)*
5'	29	6.0'
6'	20	7.2'
7'	15	8.4'
8'	11	9.6'
9'	9	10.8'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial Center Beam Foot-Candles	Watts per Sq. Ft.
5'	66.8	0.71
6'	43.8	0.47
7'	31.3	0.33
8'	26.1	0.28
9'	20.9	0.22

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106
	1	110	106	102	99	104	97	100	94	96	92
	2	102	94	88	83	92	82	89	80	86	79
	3	94	84	77	71	83	71	80	69	77	68
	4	86	76	68	62	74	61	72	60	70	60
	5	80	68	60	54	67	54	65	53	63	53
	6	74	62	54	48	61	48	59	47	58	47
	7	69	57	48	43	56	43	54	42	53	42
	8	65	52	44	38	51	38	50	38	49	38
	9	60	48	40	35	47	35	46	35	45	34
	10	57	44	37	32	44	32	43	32	42	31

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	5558	34.6%
0-40	893	55.9%
0-60	1408	88.1%
0-90	1599	100.0%

CRI and CCT adjustment factors

90CRI 2700K: = 0.71
80CRI 2700K: = 0.89
80CRI 3000K: = 0.97
80CRI 3500K: = 1.00

Frame: L6RAE1VA / L6RAZ10UVA / L6R15RE1VA / L6R15RZ10UVA
Light engine: L6R15835VA
Trim: L6RDW

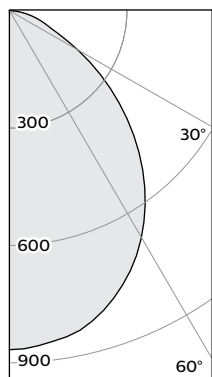
Report no³: 686GFR

Output lumens: 1599lm
Input Watts: 16W
Spacing Criterion: 1.2

Efficacy: 99.9lm/W
CCT²: 3500K
CRI: ≥80

80 CRI, 2000 lumens

Candela Curves



Angle	Mean CP	Lumens
0	863	
5	856	
10	843	81
15	818	
20	778	230
25	730	
30	671	336
35	604	
40	529	377
45	448	
50	365	345
55	284	
60	205	254
65	137	
70	98	141
75	70	
80	43	74
85	19	
90	0	22

Single unit data

Height to Lighted Plane	Initial Center Beam Foot-Candles	Beam Dia. (ft)*
5'	35	5.5'
6'	24	6.6'
7'	18	7.7'
8'	13	8.8'
9'	11	9.9'

* Beam diameter is where foot-candles drop to 50% of maximum.

Multiple unit data - RCR 2

Spacing on center	Initial Center Beam Foot-Candles	Watts per Sq. Ft.
5'	77.5	0.88
6'	50.8	0.58
7'	36.3	0.41
8'	30.3	0.34
9'	24.2	0.27

38'x38'x10' Room, Workplane 2.5' above floor, 80/50/20% Reflectances

Coefficients of utilization

Ceiling	80%				70%		50%		30%		0%
Wall	70	50	30	10	50	10	50	10	50	10	0
RCR	Zonal cavity method - Effective floor reflectance = 20%										
Room Cavity Ratio	0	119	119	119	119	116	116	111	111	106	106
	1	110	106	102	99	104	97	100	94	96	91
	2	101	94	88	83	92	82	89	80	86	78
	3	93	84	77	71	82	70	79	69	77	68
	4	86	75	67	61	74	61	72	60	69	59
	5	80	68	60	54	67	53	65	53	63	52
	6	74	62	53	47	61	47	59	47	57	46
	7	69	56	48	42	55	42	54	42	53	42
	8	64	52	44	38	51	38	50	38	48	38
	9	60	48	40	35	47	35	46	34	45	34
	10	57	44	37	32	44	32	43	31	42	31

Zonal lumens & percentages

Zone	Lumens	%Luminaire
0-30	647	34.8%
0-40	1023	55.1%
0-60	1622	87.3%
0-90	1859	100.0%

CRI and CCT adjustment factors

90CRI 2700K: = 0.71
80CRI 2700K: = 0.89
80CRI 3000K: = 0.97
80CRI 3500K: = 1.00

Frame: L6R20AZ20UVA / L6R20AE1VA / L6R20RZ10UVA / L6R20RE1VA
Light engine: L6R20835VA
Trim: L6RDW

Report no³: 891GFR

Output lumens: 1859lm
Input Watts: 19.8W
Spacing Criterion: 1.1

Efficacy: 93.9lm/W
CCT²: 3500K
CRI: ≥80

1. Wattage: controlled to within ± 5%
2. Correlated Color Temperature: within specs as defined in ANSI_NEMA_ANSI C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
3. Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

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





Exit/Emergency

Patron

LED die-cast aluminum
wall light/unit



Project: _____

Location: _____

Cat.No: _____

Type: _____

Lamps: _____ Qty: _____

Notes: _____

Example: PLEMBZ-BAC

Catalog Number	Operation	Volts	LED	Housing Finish	Lamp Type	Accessories (order separately)
PLACBZ	AC only		8-3W	Dark Bronze	700 Lumen Output	PLHTR WG4 Option BAC
PLEMBZ	EM only	6	8-3W	Dark Bronze	500 Lumen Output	Patron Heater Kit
PLEMW	EM only	6	8-3W	White	500 Lumen Output	Wire Guard
PLACBZ*	AC/EM	6	8-3W	Dark Bronze	700/500 Lumen Output	Buy American Compliant
PLACEMW*	AC/EM	6	8-3W	White	700/500 Lumen Output	
PLACBZ-BAC	AC only	6	8-3W	Dark Bronze	700 Lumen Output	*AC mode for general lighting with an integral nicad battery for emergency illumination. **Must provide RAL# for custom color.
PLACW-BAC	AC only	6	8-3W	White	700 Lumen Output	
PLACB-BAC	AC only	6	8-3W	Black	700 Lumen Output	
PLACTT-BAC	AC only	6	8-3W	Titanium	700 Lumen Output	
PLACCC-BAC**	AC only	6	8-3W	Custom Color	700 Lumen Output	
PLEMBZ-BAC	EM only	6	8-3W	Dark Bronze	500 Lumen Output	
PLEMW-BAC	EM only	6	8-3W	White	500 Lumen Output	
PLEMB-BAC	EM only	6	8-3W	Black	500 Lumen Output	
PLEMTT-BAC	EM only	6	8-3W	Titanium	500 Lumen Output	
PLEMCC-BAC**	EM only	6	8-3W	Custom Color	500 Lumen Output	
PLACBZ-BAC*	AC/EM	6	8-3W	Dark Bronze	700/500 Lumen Output	
PLACEMW-BAC*	AC/EM	6	8-3W	White	700/500 Lumen Output	
PLACB-BAC*	AC/EM	6	8-3W	Black	700/500 Lumen Output	
PLACTT-BAC*	AC/EM	6	8-3W	Titanium	700/500 Lumen Output	
PLACEMCC-BAC**	AC/EM	6	8-3W	Custom Color	700/500 Lumen Output	

codes and standards

- ETL Listed to UL924 Standard
- ETL Listed to UL1598 for wet locations
- NFPA 70 (National Electric Code)
- NFPA 101 (Life Safety Code)
- "ARRA" Buy American Compliant (when -BAC suffix is specified)
- ADA Compliant
- LM-79 Compliant
- LM-80 Compliant

construction

- Marine grade die cast aluminum housing with miro reflector to provide excellent photometrics. UV Stable polycarbonate lens and neoprene gasket to protect from moisture and rain.
- Polyester powder coat for superior protection. Choice of white or dark bronze. Consult factory for custom finishes.
- Standard optics design provides a linear and forward throw light distribution pattern to meet most of the exterior egress code requirements to the public way.

installation

- Universal J-box pattern on back or rigid conduit entry on top of housing for mounting flexibility

PL Patron LED die-cast aluminum wall light/unit

electronics

- The charger system includes low voltage disconnect to prevent deep discharge of battery . AC lockout to prevent battery drain prior to the energizing of utility power , and brownout protection which will automatically switch unit into emergency mode if the utility power sags below 80% of nominal . Solid-state , fully automatic charging circuit is protected with a moisture resistant coating . All units are provided with Self-Test/Self Diagnostics .
- 120/277VAC dual voltage input , selectable input .
- Patron LED available in AC only , Emergency only , and AC with integral ni-cad battery operation may be switched on or off to operate as a mini wall light providing 700 lumens in AC mode . AC with integral ni-cad battery and emergency only will provide 500 lumens in emergency mode .
- self-diagnostic/self-test

This feature provides automatic testing and continuous monitoring of the unit and indicates any faults via a dual-color LED lamp . The low-profile test button with easily visible status indicator is located beneath the lens .

This innovative circuitry monitors battery disconnection , charger failure , lamp failure and transformer fault every 5 seconds without discharging the battery or illuminating the lamps . It will automatically indicate lamp , battery , and charger status by dual-color LED lamp .

The LED lamp indicator shows the following status :

- Green - ON: Unit is ready .
- Blinking : Unit is self-testing .
- Red - Service Alert (see fault indications)

Fault Indications : (Red LED lamp indicator)

- One blink ON/pause 4 seconds : Battery not connected .
- Two blinks ON/pause 4 seconds : Battery is shorted or battery voltage drops below the accepted value .
- Three blinks ON/pause 4 seconds : Charger board circuit fault .
- Four blinks ON/pause 4 seconds : Transformer fault .
- Five blinks ON/pause 4 seconds : Lamp fault .

The unit will automatically initiate a self-test as follows :

- One minute self-test each month .
- 30 minute self-test on the 6th month following installation .
- 90 minute self-test on the 12th month following installation .

Manual testing of the unit can be accomplished by pressing the test button as follows :

- Once - 1 minute test
- Twice - 5 minute test
- Three - 30 minute test
- Four - 90 minute test

lamps

- 8-3W LED lamps provide 700 lumens in the AC mode and the same LEDs provide 500 initial lumens in the emergency mode . If one LED lamp fails , the remaining stay illuminated . Color temperature is 4500K and provides over 50 , 000 hours of life in normal usage .

battery

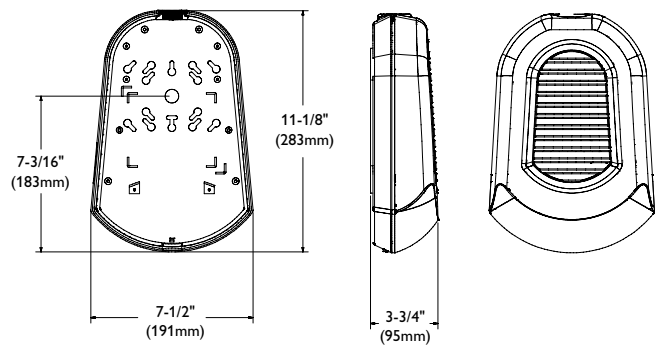
- AC with integral ni-cad battery and emergency units contain a 6V maintenance free sealed nickel cadmium battery with an expected service life of 8-12 years and an operating temperature of -4°F (-20°C) to 122°F (50°C) . Units with a battery provide a minimum of 90 minutes emergency illumination . Units with a heater will operate in temperatures as low as -20°F (-29°C) .

warranty

- Five full year warranty on units

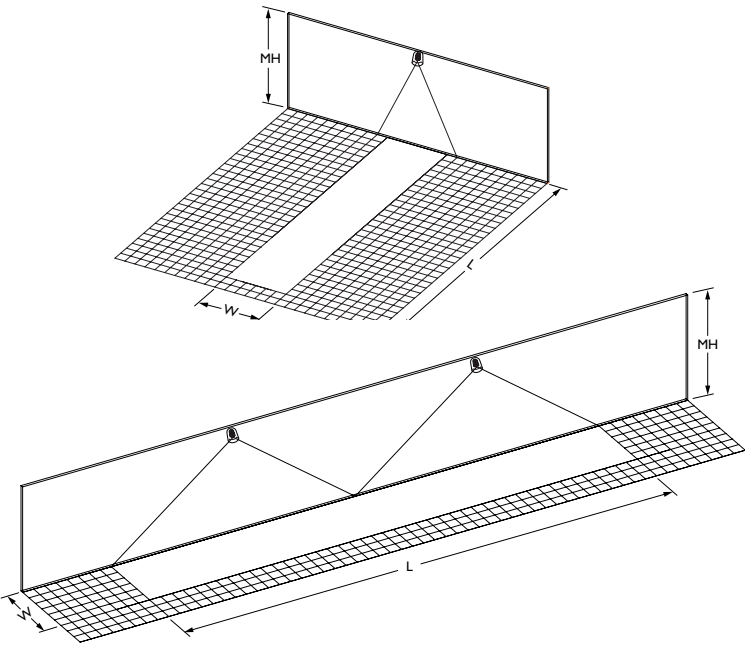
PL Patron LED die-cast aluminum wall light/unit

dimensions



Single Unit Forward Path of Egress

	MH	W	L	
	Mounting Height	Path of Egress		Average Footcandle
		Width	Length	
Outdoor	10'	6'	24'	2.35
	12'	6'	27'	1.78
	14'	6'	37'	1.11



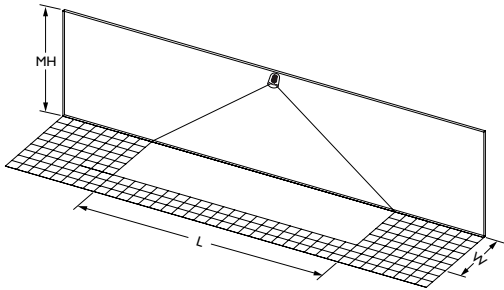
photometrics

Meets Life Safety Code standard minimum illuminance of 0.1 FC and average illuminance of 1.0 FC. Indoor performance based on 80/50/20 reflectance and assumes open space with no obstructions. Refer to charts for mounting height. Add 1' to mounting height for ceiling height. Outdoor performance based on 0/30/10 reflectance. Analysis based on independently tested photometrics.

Reflectance
Indoor: 80/50/20
Outdoor: 0/30/10

Single Unit

	MH	W	L	
	Mounting Height	Path of Egress		Average Footcandle
		Width	Length	
Indoor	9'	10'	41'	1.22
	11'	6'	43'	1.25
Outdoor	9'	10'	39'	1.17
	11'	6'	41'	1.20



Two Units Center-to-Center Spacing

	MH	W	L	
	Mounting Height	Path of Egress		Average Footcandle
		Width	Length	
Indoor	8'	6'	49'	1.76
	11'	6'	62'	1.04
	11'	10'	47'	1.07
	14'	6'	54'	1.17
Outdoor	9'	6'	43'	1.55
	11'	6'	55'	1.00
	11'	10'	42'	1.00
	14'	6'	40'	1.14





Gardco EcoForm Gen-2 combines economy with performance in an LED area luminaire. Capable of delivering up to 27,800 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-S-64L-900-NW-G2-AR-5-120-HIS-MGY

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Mounting	Distribution	Voltage	Options					Finish		
							Dimming controls	Motion sensing lens	Photo-sensing	Electrical	Luminaire			
ECF-S														
ECF-S EcoForm site and area, small	32L 32 LEDs (2 modules)	365 365mA 530 530mA 700 700mA 1A 1050mA 1.2A 1200mA	WW-G2 Warm White 3000K, 70 CRI Generation 2 NW-G2 Neutral White 4000K, 70 CRI Generation 2 CW-G2 Cool White 5000K, 70 CRI Generation 2	AR Arm Mount (standard) ² The following mounting kits must be ordered separately (See accessories) SF Slip Fitter Mount ³ (fits to 2 3/8" O.D. tenon) WS Wall mount with surface conduit rear entry permitted RAM Retrofit arm mount kit ²	Type 2 2 Type 2 2-90 Rotated left 90° 2-270 Rotated right 270° 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°	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 ^{4,6,7} LLC Integral wireless module ^{4,6,8,17} BL Bi-level functionality ^{4,17} DynaDimmer: Automatic Profile Dimming CS50 Safety 50% Dimming, 7 hours ^{4,8} CM50 Median 50% Dimming, 8 hours ^{4,8} CS30 Safety 30% Dimming, 7 hours ^{4,8} CM30 Median 30% Dimming, 8 hours ^{4,8}	IMR13 Integral with #3 lens ¹⁵ IMR17 Integral with #7 lens ¹⁶	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)		
	48L 48 LEDs (3 modules)	900 900mA 1A 1050mA 1.2A 1200mA												
	64L 64 LEDs (4 modules)	900 900mA 1A 1050mA												

House Side shield

Standard optic orientation:

HIS-32-H¹⁸

Internal House Side Shield for 32 LEDs (2 modules)

HIS-48-H¹⁸

Internal House Side Shield for 48 LEDs (3 modules)

HIS-64-H¹⁸

Internal House Side Shield for 64 LEDs (4 modules)

House Side shield

Standard optic orientation:

HIS-32-H¹⁸ Internal House Side Shield for 32 LEDs (2 modules)

HIS-48-H¹⁸ Internal House Side Shield for 48 LEDs (3 modules)

HIS-64-H¹⁸ Internal House Side Shield for 64 LEDs (4 modules)

- 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. Order photocell separately with TLRD5/7.
- 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.
- Not available with DD, DCC, and FAWS dimming control options.
- Not available with DD, DCC, FAWS and LLC dimming control options.
- Must specify a motion sensor lens.



ECF-S EcoForm small

Area luminaire

EcoForm Accessories (ordered separately, field installed)

Shielding Accessories

House Side shield

Standard optic orientation:

- HIS-32-H¹⁸ Internal House Side Shield for 32 LEDs (2 modules)
- HIS-48-H¹⁸ Internal House Side Shield for 48 LEDs (3 modules)
- HIS-64-H¹⁸ Internal House Side Shield for 64 LEDs (4 modules)

Optic at 90 or 270 orientation:

- HIS-32-V¹⁸ Internal House Side Shield for 32 LEDs (2 modules)
- HIS-48-V¹⁸ Internal House Side Shield for 48 LEDs (3 modules)
- HIS-64-V¹⁸ Internal House Side Shield for 64 LEDs (4 modules)

18. 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) Wall mount with surface conduit rear entry permitted

EcoForm PTF2
(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°

(F) = Specify finish

EcoForm PTF3
(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°

EcoForm PTF4
(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°

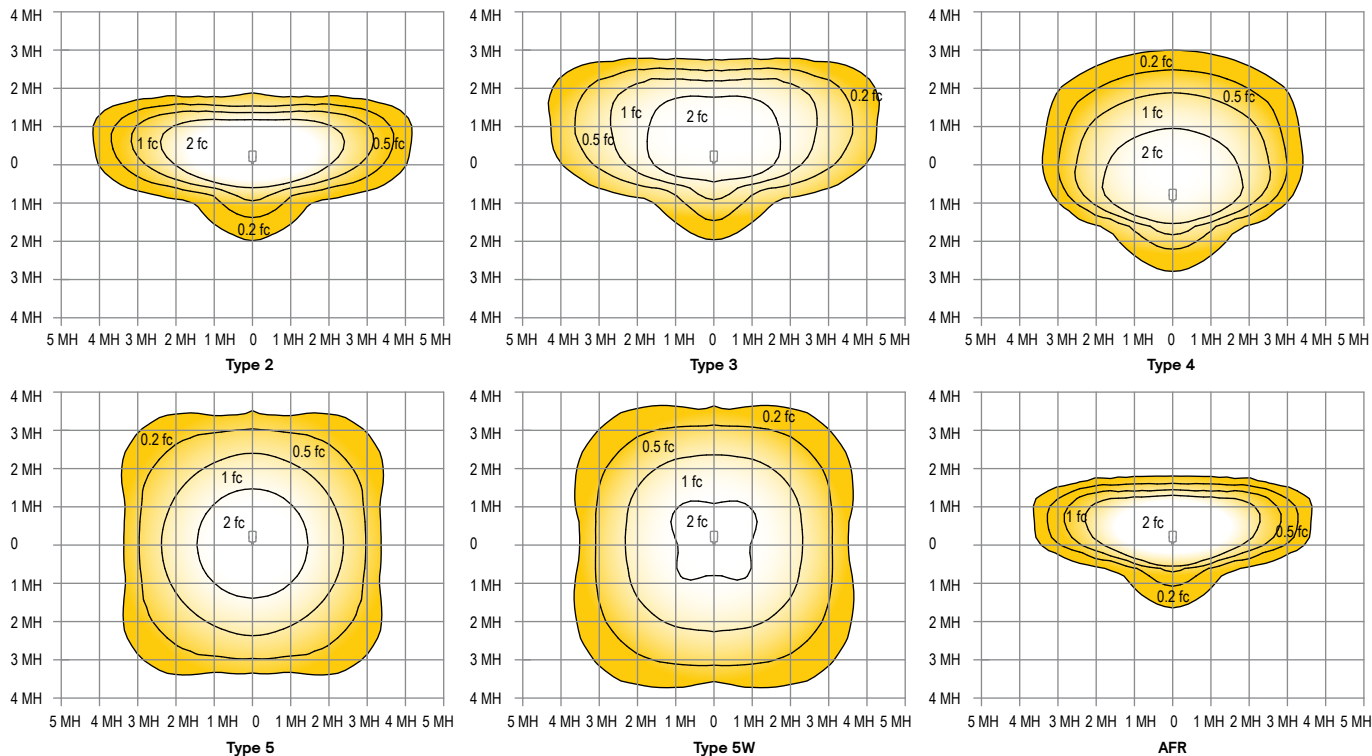
Predicted Lumen Depreciation Data

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 L70 Hours	L70 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-S-48L-1A-NW-G2 (159W) mounted at 20ft.



ECF-S EcoForm small

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-S-32L-365-WW-G2-x	32	365	3000	40	5,508	B1-U0-G1	138	5,428	B1-U0-G2	136	5,637	B1-U0-G2	141
ECF-S-32L-530-WW-G2-x	32	530	3000	56	7,159	B2-U0-G2	129	7,055	B1-U0-G2	127	7,327	B1-U0-G2	132
ECF-S-32L-700-WW-G2-x	32	700	3000	73	9,234	B2-U0-G2	127	9,034	B2-U0-G2	124	9,452	B2-U0-G2	130
ECF-S-32L-1A-WW-G2-x	32	1050	3000	106	13,001	B3-U0-G2	123	12,719	B2-U0-G2	120	13,306	B2-U0-G3	126
ECF-S-32L-1.2A-WW-G2-x	32	1200	3000	122	14,421	B3-U0-G3	119	14,108	B2-U0-G3	116	14,760	B2-U0-G3	121
ECF-S-48L-900-WW-G2-x	48	900	3000	135	17,115	B3-U0-G3	127	16,744	B3-U0-G3	124	17,518	B2-U0-G3	130
ECF-S-48L-1A-WW-G2-x	48	1050	3000	159	19,381	B3-U0-G3	122	18,960	B3-U0-G3	119	19,836	B3-U0-G4	125
ECF-S-48L-1.2A-WW-G2-x	48	1200	3000	183	21,515	B3-U0-G3	118	21,048	B3-U0-G4	115	22,020	B3-U0-G4	121
ECF-S-64L-900-WW-G2-x	64	900	3000	178	22,652	B3-U0-G3	127	22,161	B3-U0-G4	125	23,185	B3-U0-G4	130
ECF-S-64L-1A-WW-G2-x	64	1050	3000	206	25,520	B3-U0-G3	124	24,966	B3-U0-G4	121	26,120	B3-U0-G4	127

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type AFR			Type 5			Type 5W		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-WW-G2-x	32	365	3000	40	5,706	B2-U0-G1	143	5,790	B3-U0-G1	145	5,604	B3-U0-G1	140
ECF-S-32L-530-WW-G2-x	32	530	3000	56	7,417	B2-U0-G1	133	7,526	B3-U0-G2	135	7,284	B3-U0-G2	131
ECF-S-32L-700-WW-G2-x	32	700	3000	73	9,567	B2-U0-G2	131	9,707	B4-U0-G2	133	9,395	B4-U0-G2	129
ECF-S-32L-1A-WW-G2-x	32	1050	3000	106	13,467	B3-U0-G2	128	13,665	B4-U0-G2	129	13,227	B4-U0-G2	125
ECF-S-32L-1.2A-WW-G2-x	32	1200	3000	122	14,939	B3-U0-G2	123	15,158	B4-U0-G2	125	14,671	B4-U0-G2	121
ECF-S-48L-900-WW-G2-x	48	900	3000	135	17,731	B3-U0-G2	131	17,990	B4-U0-G2	133	17,413	B5-U0-G3	129
ECF-S-48L-1A-WW-G2-x	48	1050	3000	159	20,076	B3-U0-G2	127	20,372	B5-U0-G3	128	19,717	B5-U0-G3	124
ECF-S-48L-1.2A-WW-G2-x	48	1200	3000	183	22,288	B3-U0-G2	122	22,616	B5-U0-G3	124	21,888	B5-U0-G3	120
ECF-S-64L-900-WW-G2-x	64	900	3000	178	23,465	B3-U0-G2	132	23,810	B5-U0-G3	134	23,045	B5-U0-G3	130
ECF-S-64L-1A-WW-G2-x	64	1050	3000	206	26,437	B4-U0-G3	128	26,150	B5-U0-G3	127	25,964	B5-U0-G4	126

4000K 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-S-32L-365-NW-G2-x	32	365	4000	40	5,798	B1-U0-G1	145	5,713	B1-U0-G2	143	5,934	B1-U0-G2	148
ECF-S-32L-530-NW-G2-x	32	530	4000	56	7,536	B2-U0-G2	135	7,426	B1-U0-G2	133	7,713	B1-U0-G2	138
ECF-S-32L-700-NW-G2-x	32	700	4000	73	9,720	B2-U0-G2	133	9,509	B2-U0-G2	130	9,949	B2-U0-G2	136
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	13,685	B3-U0-G2	130	13,388	B2-U0-G3	127	14,006	B2-U0-G3	133
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	15,180	B3-U0-G3	125	14,851	B2-U0-G3	122	15,537	B2-U0-G3	128
ECF-S-48L-900-NW-G2-x	48	900	4000	135	18,016	B3-U0-G3	133	17,625	B3-U0-G3	130	18,440	B3-U0-G3	136
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	20,401	B3-U0-G3	129	19,958	B3-U0-G4	126	20,880	B3-U0-G4	132
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	22,647	B3-U0-G3	124	22,156	B3-U0-G4	121	23,179	B3-U0-G4	127
ECF-S-64L-900-NW-G2-x	64	900	4000	178	23,844	B3-U0-G3	134	23,327	B3-U0-G4	131	24,405	B3-U0-G4	137
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	26,863	B3-U0-G3	130	26,280	B3-U0-G4	128	27,495	B3-U0-G4	134

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type AFR			Type 5			Type 5W		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-NW-G2-x	32	365	4000	40	6,006	B2-U0-G1	150	6,094	B3-U0-G1	152	5,898	B3-U0-G2	147
ECF-S-32L-530-NW-G2-x	32	530	4000	56	7,807	B2-U0-G1	140	7,922	B3-U0-G2	142	7,667	B3-U0-G2	138
ECF-S-32L-700-NW-G2-x	32	700	4000	73	10,070	B2-U0-G2	138	10,218	B4-U0-G2	140	9,889	B4-U0-G2	136
ECF-S-32L-1A-NW-G2-x	32	1050	4000	106	14,176	B3-U0-G2	134	14,384	B4-U0-G2	136	13,923	B4-U0-G2	132
ECF-S-32L-1.2A-NW-G2-x	32	1200	4000	122	15,725	B3-U0-G2	129	15,956	B4-U0-G2	131	15,443	B4-U0-G2	127
ECF-S-48L-900-NW-G2-x	48	900	4000	135	18664,	B3-U0-G2	138	18,937	B4-U0-G3	140	18,329	B5-U0-G3	136
ECF-S-48L-1A-NW-G2-x	48	1050	4000	159	21,133	B3-U0-G2	133	21,444	B5-U0-G3	135	20,755	B5-U0-G3	131
ECF-S-48L-1.2A-NW-G2-x	48	1200	4000	183	23,461	B3-U0-G2	128	23,806	B5-U0-G3	130	23,040	B5-U0-G3	126
ECF-S-64L-900-NW-G2-x	64	900	4000	178	24,700	B3-U0-G2	139	25,063	B5-U0-G3	141	24,258	B5-U0-G4	136
ECF-S-64L-1A-NW-G2-x	64	1050	4000	206	27,828	B4-U0-G3	135	27,526	B5-U0-G3	134	27,330	B5-U0-G4	133

ECF-S EcoForm small

Area luminaire

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-S-32L-365-CW-G2-x	32	365	5000	40	5,798	B1-U0-G1	145	5,713	B1-U0-G2	143	5,934	B1-U0-G2	148
ECF-S-32L-530-CW-G2-x	32	530	5000	56	75,36	B2-U0-G2	135	7,426	B1-U0-G2	133	7,713	B1-U0-G2	138
ECF-S-32L-700-CW-G2-x	32	700	5000	73	9,720	B2-U0-G2	133	9,509	B2-U0-G2	130	9,949	B2-U0-G2	136
ECF-S-32L-1A-CW-G2-x	32	1050	5000	106	13,685	B3-U0-G2	130	13,388	B2-U0-G3	127	14,006	B2-U0-G3	133
ECF-S-32L-1.2A-CW-G2-x	32	1200	5000	122	15,180	B3-U0-G3	125	14,851	B2-U0-G3	122	15,537	B2-U0-G3	128
ECF-S-48L-900-CW-G2-x	48	900	5000	135	18,016	B3-U0-G3	133	17,625	B3-U0-G3	130	18,440	B3-U0-G3	136
ECF-S-48L-1A-CW-G2-x	48	1050	5000	159	20,401	B3-U0-G3	129	19,958	B3-U0-G4	126	20,880	B3-U0-G4	132
ECF-S-48L-1.2A-CW-G2-x	48	1200	5000	183	22,647	B3-U0-G3	124	22,156	B3-U0-G4	121	23,179	B3-U0-G4	127
ECF-S-64L-900-CW-G2-x	64	900	5000	178	23,844	B3-U0-G3	134	23,327	B3-U0-G4	131	24,405	B3-U0-G4	137
ECF-S-64L-1A-CW-G2-x	64	1050	5000	206	26,863	B3-U0-G3	130	26,280	B3-U0-G4	128	27,495	B3-U0-G4	134

Ordering Code	Total LEDs	LED Current (mA)	Color Temp.	Average System Watts	Type AFR			Type 5			Type 5W		
					Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
ECF-S-32L-365-CW-G2-x	32	365	5000	40	6,006	B2-U0-G1	150	6,094	B3-U0-G1	152	5,898	B3-U0-G2	147
ECF-S-32L-530-CW-G2-x	32	530	5000	56	7,807	B2-U0-G1	140	7,922	B3-U0-G2	142	7,667	B3-U0-G2	138
ECF-S-32L-700-CW-G2-x	32	700	5000	73	10,070	B2-U0-G2	138	10,218	B4-U0-G2	140	9,889	B4-U0-G2	136
ECF-S-32L-1A-CW-G2-x	32	1050	5000	106	14,176	B3-U0-G2	134	14,384	B4-U0-G2	136	13,923	B4-U0-G2	132
ECF-S-32L-1.2A-CW-G2-x	32	1200	5000	122	15,725	B3-U0-G2	129	15,956	B4-U0-G2	131	15,443	B4-U0-G2	127
ECF-S-48L-900-CW-G2-x	48	900	5000	135	18,664	B3-U0-G2	138	18,937	B4-U0-G3	140	18,329	B5-U0-G3	136
ECF-S-48L-1A-CW-G2-x	48	1050	5000	159	21,133	B3-U0-G2	133	21,444	B5-U0-G3	135	20,755	B5-U0-G3	131
ECF-S-48L-1.2A-CW-G2-x	48	1200	5000	183	23,461	B3-U0-G2	128	23,806	B5-U0-G3	130	23,040	B5-U0-G3	126
ECF-S-64L-900-CW-G2-x	64	900	5000	178	24700	B3-U0-G2	139	25063	B5-U0-G3	141	24258	B5-U0-G4	136
ECF-S-64L-1A-CW-G2-x	64	1050	5000	206	27828	B4-U0-G3	135	27526	B5-U0-G3	134	27330	B5-U0-G4	133

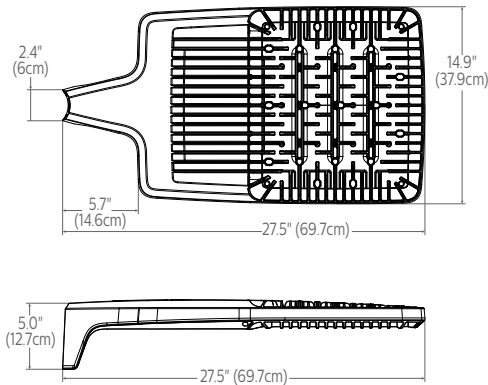
ECF-S EcoForm small

Area lumineuse

Dimensions

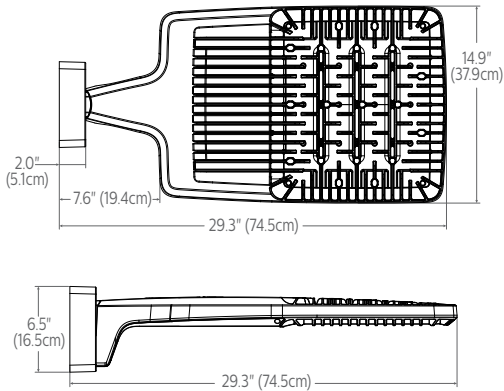
Standard Arm (AR)

Weight: 22 Lbs (9.9 Kg) EPA: 0.21ft² (.019m²)



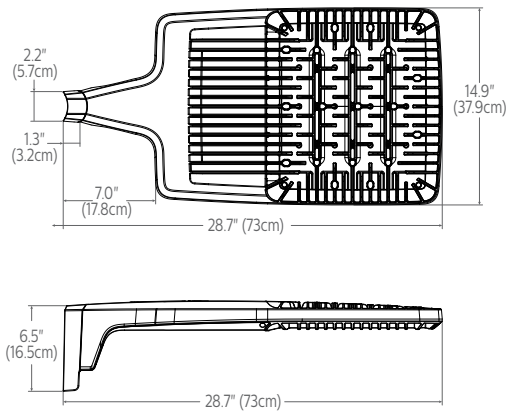
Wall (WS)

Weight: 27 Lbs. (12. 2Kg)EPA: 0.27ft² (.025m²)



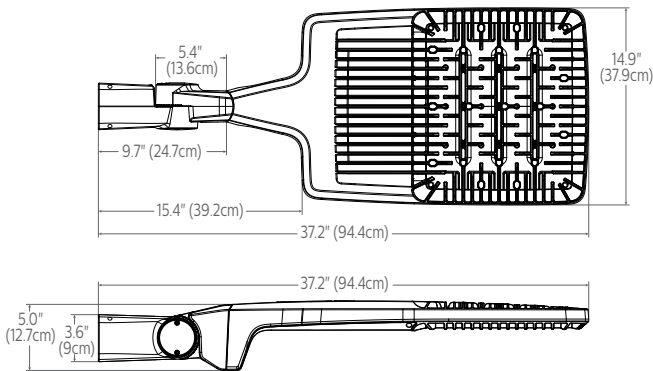
Retrofit Arm (RAM)

Weight: 24 Lbs (10.9 Kg) EPA: 0.24ft² (.022m²)

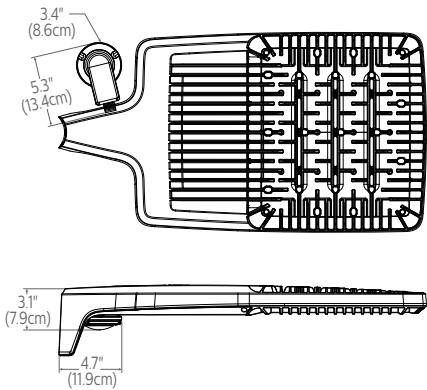


Slip fitter (SF)

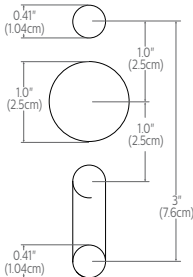
Weight: 27 Lbs (12.2 Kg) EPA: 0.33ft² (.031m²)



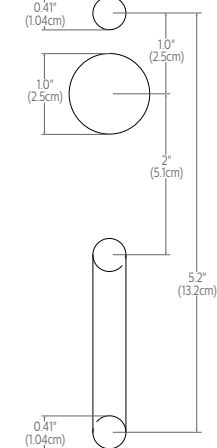
Outboard IMR-HVU sensor



Standard Arm (AR) drill pattern



Retrofit Arm (RAM) drill pattern



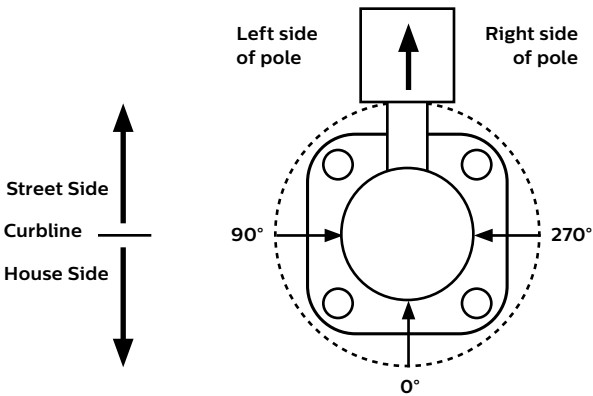
ECF-S EcoForm small

Area luminaire

Optical Orientation Information

Standard Optic Position

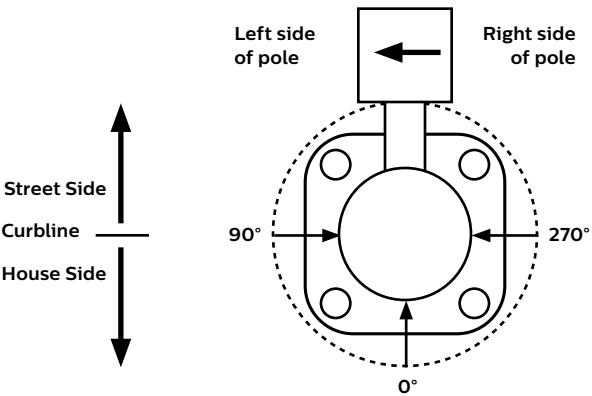
Luminaires ordered with asymmetric optical systems in the standard optic position will have the optical system oriented as shown below:



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

Optic Rotated Left (90°) Optic Position

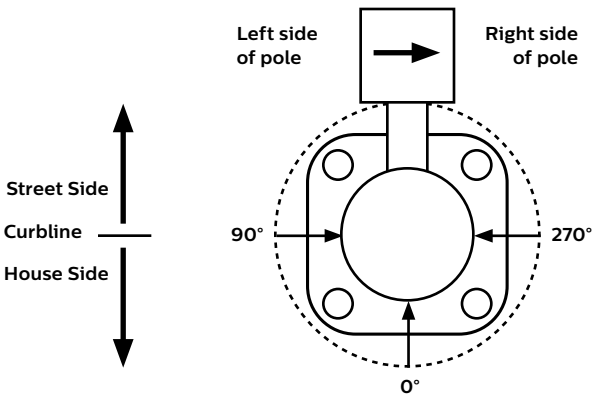
Luminaires ordered with optical systems in the Optic Rotated Left (90°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



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

Optic Rotated Right (270°) Optic Position

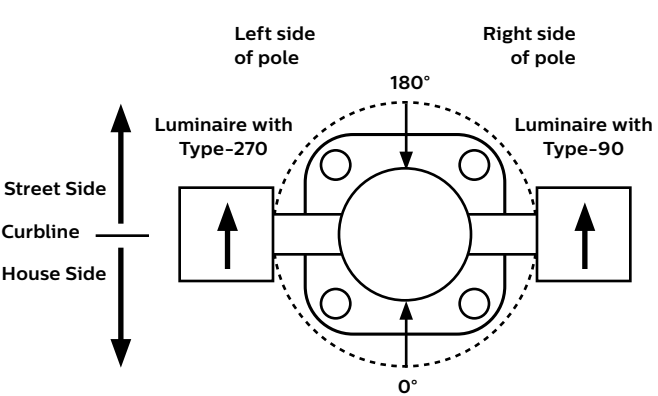
Luminaires ordered with optical systems in the Optic Rotated Right (270°) optic position will have the optical system oriented as shown below (Type 5 and 5W optics are not available with factory set rotatable optics):



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.

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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 2, 3, and 4 modules or 32, 48, and 64 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 133 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. Note that only fixed mounts (AR, RAM, WS) are required to meet IDA compliance. SF mounting will not meet IDA.

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 profiles provide flexibility towards energy savings goals while optimizing light levels during specific dark hours. Dimming profiles include two dimming settings including dim to 30% or 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/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)

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.

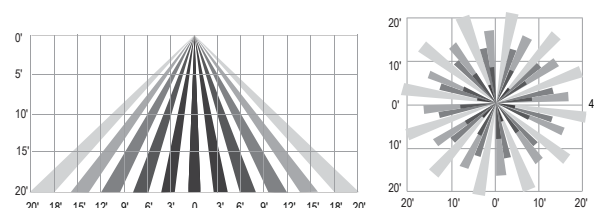
Field Adjustable Wattage Selector (FAWS): Luminaire equipped with the ability to manually adjust the wattage in the field to reduce total luminaire lumen output and light levels. Comes pre-set to the highest position at the lumen output selected. Use chart below to estimate reduction in lumen output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

FAWS 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).

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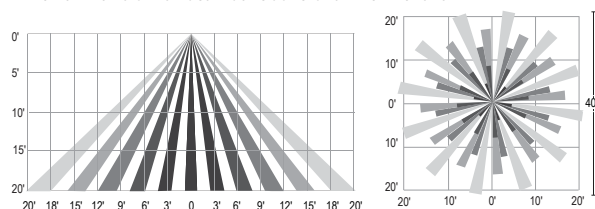
Area luminaire

Specifications

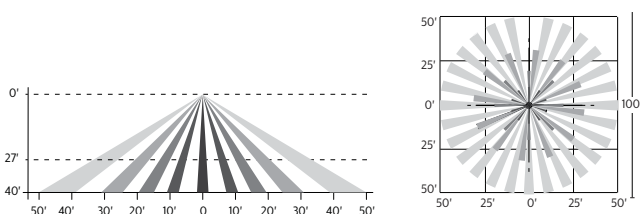
Infrared Motion Response with Other Controls: When used in combination with other controls (Automatic Dimming Profile and SiteWise), motion response device will simply override controller's schedule with the added benefits of a combined dimming profile and sensor detection. In this configuration, the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

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



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 (TLRD5 or TLRD7), photocell or shorting cap is not included. TLRPC is shipped standard with 5 pin.

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.

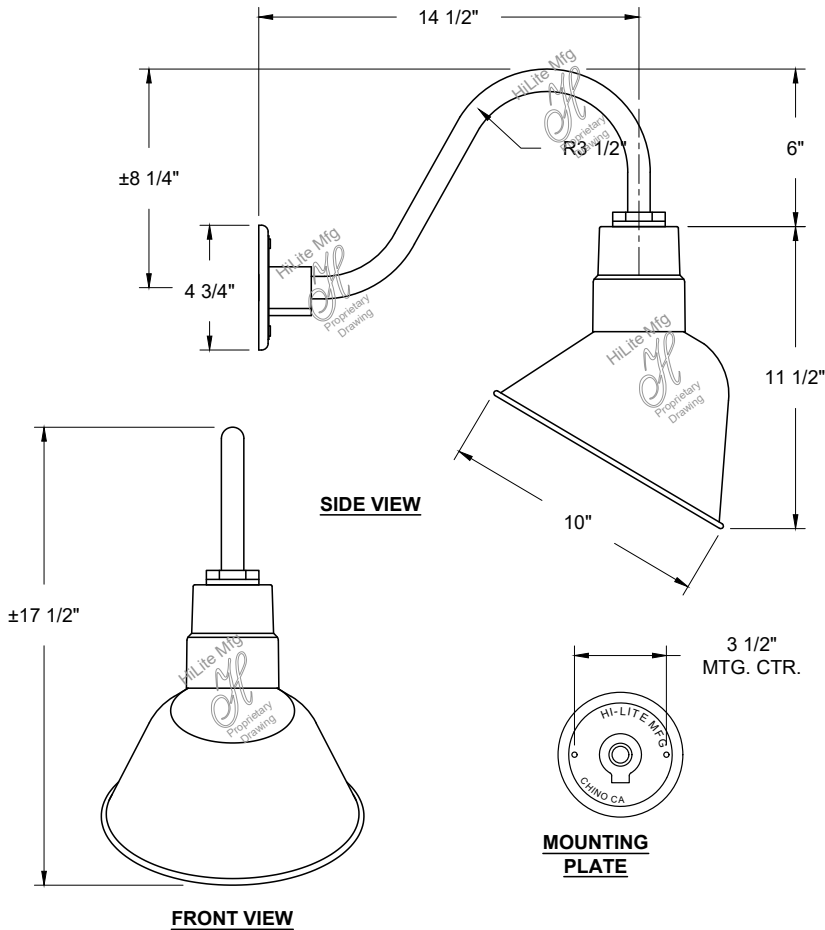




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JOB NAME:		
SCALE:	DATE:	TYPE:
N.T.S.	11/20/2020	
DRAWN BY:	QTY:	
S.M.-W		
SHEET:		REV:



Item Number	Wattage	Voltage
H-CDEE-B69-□	200W	120V
Finish	Mounting	Lamp/Socket
97-Red (Exterior of Fixture & Arm) 93-White (Interior of Fixture)	Wall Mount	1-Medium Base INC

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Customer:

Eegee's

Project:

Tanque Verde - Tucson, AZ

part number:

CDS28653

TYPE
ZA
LAMP

SATCO | NUVO

Project Name

Location

Prepared By



SATCO CDS28653

16.5A19LED/930/120V

Notes

[www] 11-02-2020 01:57:05

General

Status	Active
Watts	16.5
Incandescent Equivalent	100
Volts	120V
Shape	A19
Base	Medium
ANSI Base	E26
Finish	White
CCT (Kelvin)	3000
Temperature	Warm White
CRI	90
Lumens	1600
Beam Spread	220
Dimmable	Yes - Dimmable
Hours Rated	25000
Lamp Type	Type A
Technology	LED

Electrical

Operating Frequency	60 Hz
Dimming Type	Forward Phase & Reverse Phase
Power Factor	0.95
Operating Temperature	-25C (-13F) to a maximum of +45C (+113F)

Physical

MOL	4.65
MOD	2.36
Housing Color	White
Weight (lb.)	0.16

Additional Information

Rated For Enclosed Fixture	Yes
Warranty	5 Year Limited - 10 hr per day

Compliance

Safety Listing	cULus
Location Rating	Damp
Energy Star	Pending
CEC Status	Lawful for sale in California
RoHS Compliant	Yes
SDS Sheet	LED_Lamp

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