GARDCO

Site and Area

OptiForm

OPF-S Small

Gardco OptiForm site and area luminaires combine high performance and versatility in four sizes—small through extra-large—to meet a wide range of outdoor lighting needs. Delivering up to **192 lm/W** with **11 precision optical distributions,** OptiForm ensures efficient, uniform illumination for diverse applications. Its **innovative two-piece housing design** simplifies installation, while multiple mounting options—arm, mast arm, wall, post-top, and slip fitter—provide flexibility to adapt seamlessly to any site & area condition.

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

Ordering guide

Example: OPF-S-7L-840-T4M-AR1-120-BL50-L3-BZ

Luminaire

OPF-S

OPF-S
OptiForm Small Area Light

Configuration (nom. lumens)

Site and Area

7L	7,000 lm
9L	9,000 lm
12L	12,000 lm
16L	16,000 lm
20L[17]	20,000 lm

Precision Plus[13] (T2M, T3M, T4M, T5M only)

P2L	2,500 lm
P4L	4,000 lm
P6L	6,500 lm
P9L	9,000 lm
P11L	11,500 lm
P14L	14,000 lm
P16L	16,500 lm
P19L	19,000 lm
P22L	22,000 lm

Color Temp.

827[1]	80CRI 2700K
830	80CRI 3000K
840	80CRI 4000K
727[1]	70CRI 2700K
730	70CRI 3000K
740	70CRI 4000K
750	70CRI 5000K

Distribution

Autofront row	
AFR	Autofront row
AFR-90	Rotated left 90°
AFR-270	Rotated left 270°
Type 2	
T2M	Type 2 medium
T2M-90	Rotated left 90°
T2M-270	Rotated left 270°
Type 3	
T3M	Type 3 medium
T3M-90	Rotated left 90°
T3M-270	Rotated left 270°
Type 4 Medium	
T4M	Type 4 medium
T4M-90	Rotated left 90°
T4M-270	Rotated left 270°
Type 4 Wide	
T4W	Type 4 wide
T4W-90	Rotated left 90°
T4W-270	Rotated left 270°
Type 5	
T5N	Type 5 narrow
T5M	Type 5 medium
T5W	Type 5 wide
LEED Optics	
LCL	LEED corner left
LCR	LEED corner right
BLC	Back light control
BLC-90	Rotated left 90°
BLC-270	Rotated left 270°

Mounting

AR1[2,14]	Arm mount (standard)
MAR[3]	Mast arm
WAL	Wall mount
POS	Single post top
MOS[4]	Mounting (ordered separately)

Adjustable mountings[17]

SF2	2-3/8" slip fitter
SF3	3" slip fitter
ARA[2,14]	Arm Mount
MAA	Mast arm
POA	Post top

Voltage

120	120V
208	208V
240	240V
277	277V
347	347V
480	480V
UNV	120-277V
HVU	347-480V

Dimming Controls (only one may be selected)

The following options include 0-10V Driver

None	0-10V dimming driver (standard)
DLEA[5]	Dimming leads externally accessible (controls by others)
FAWS[5,6]	Field adjustable wattage selector
BL50L2[5]	PIR motion response dim to 50% L2 lens (8'-15')
BL50L3[5]	PIR motion response dim to 50% L3 lens (20'-40')

The following options include D4i Certified DALI/SR Driver[19]

D4ID[5,10]	D4i Certified DALI/SR Driver
ZD4I[5]	Zhaga-D4i Certified Fixture (includes Zhaga 4-pin receptacle)
WIAPLW[5,7,10]	Wireless Interact outdoor low mounting (7-15'), white housing
WIAPLB[5,7,10]	Wireless Interact outdoor low mounting (7-15'), black housing
WIAPHW[5,7,10]	Wireless Interact outdoor high mounting (15-40'), white housing
WIAPHB[5,7,10]	Wireless Interact outdoor high mounting (15-40'), black housing

DynaDimmer: Automatic Profile Dimming

CS50[5,10]	Security 50% dimming, 7 hours
CM50[5,10]	Median 50% dimming, 8 hours
CS30[5,10]	Security 30% dimming, 7 hours
CM30[5,10]	Median 30% dimming, 8 hours

Lighting Controls and Sensing (only one may be selected)

None	-
PCB[8,9]	Photocontrol Button
TR7[18]	NEMA 7-pin Twist Lock Receptacle
TLP[18]	NEMA 7-pin Twist Lock Receptacle with 3-pin photocell
OMS[5,10,15]	Outdoor Multisensor

Options

None -

Emergency

EM[9,11,12] Emergency Battery Pack (0-40 °C) (Available with Precision Plus optics P2L-P6L only)

Surge protection

None	Surge protector 10kV/10kA (standard)
SP2	Surge protector 20kV/10kA (option)

Fusing

FS1[8]	Single Fuse (120, 277, or 347VAC)
FS2[8]	Double Fuse (208V, 240V, 480V)

House shield

EHS Housing machined to accept external house side shield for field install (must be combined with OPF-S-EHS-1 accessory)

Finish

Standard textured

BK	Black
WH	White
BZ	Bronze
DG	Dark Gray
MG	Medium Gray

Customer specified[1]

OC	Specify optional color or RAL (consult factory)
SC	Special color (must supply color chip, requires factory quote)
MP	Marine grade paint (must also specify one of the finish colors from list above [Ex: BK-MP], requires factory quote)

Footnotes on page 2.

DARKSKY APPROVED Reduces light pollution Certified by DarkSky.org

interact ready.

OPF-S OptiForm small

Site & area luminaire

Ordering guide footnotes

1. Extended leadtime applies. Consult factory for details.
2. Mounts to a square pole with knockout for 4-5" OD round pole.
3. Mounts to a horizontal 2-3/8" OD x 5" Long tenon.
4. Photocell option TR7 must be selected with mounting accessory. See page 2 for options.
5. Not available with other dimming control options (mutually exclusive).
6. Not available with motion sensor (physical restriction).
7. Not available with PCB, TR7.
8. Must specify input voltage.
9. Not available in HVU [347-480V].
10. Not available with lumen packages P2L & P6L in UNV.
11. Not available for lumen packages P9L-P22L.
12. Not available with Dynadimmer, ZD4i, FAWS, FS1, FS2, DLEA, BL50 (physical restriction).
13. Precision Plus Optics (P2L-P22L) available only with T2M,T3,T4M, and T5M optical distributions and are non-rotable.
14. OPF-RMB accessory recommended for retrofit applications. Provided by default with AR1 and ARA.
15. ZD4i Driver option must be selected with OMS.
16. 20L lumens small housing option not available with BLC optics.
17. Tilt recommendation no more than 10° for Site & Area optics. See page 8, Dark Sky compliance.
18. TR7 and TLP receptacle pins 4-7 are capped off when ordered with any of the Dimming controls BL50, DLEA or FAWS.
19. D4ID and ZD4I not available with combination of HVU and 7L, 9L, or 12L configurations.

Shielding Accessory Kits (order separately)

One shield kit per luminaire

OPF-S-EHS-1[1]	External house side shield (field installed)
OPF-S-HIS-1[2,3]	Internal house side shields for Area optic types T2M, T3M, and T5N, qty 5
OPF-S-HIS-T4-1[2,3]	Internal house side shield for Area optic types T4M and T4W, qty 1
OPF-S-HIS-5M/5W-1[2,3]	Internal house side shield for Area optic types T5M and T5W. qty 1

1. Must select EHS option on luminiare options section
2. Not available for Precision Plus (P2L-P22L)
3. Standard internal house shields (HIS) can be used for rotated optics

Mounting Accessories

OPF-RMB	Retrofit Mounting Bolster Plate for attaching OptiForm to existing poles. Recommended for retrofit applications.

Pole Top Fitters

(F) Must specify finish

PTF2 - Pole top fitter fits 2 3/8 - 2 1/2" OD x 4" depth tenon	
PTF2-1-90-(F)	1 luminaire at 90°
PTF2-2-90-(F)	2 luminaires at 90°
PTF2-3-90-(F)	3 luminaires at 90°
PTF2-4-90-(F)	4 luminaires at 90°
PTF2-2-180-(F)	2 luminaires at 180°
PTF2-3-120-(F)	3 luminaires at 120°
PTF3 - Pole top fitter fits 3-3 1/2" OD x 6" depth tenon	
PTF3-1-90-(F)	1 luminaire at 90°
PTF3-2-90-(F)	2 luminaires at 90°
PTF3-3-90-(F)	3 luminaires at 90°
PTF3-4-90-(F)	4 luminaires at 90°
PTF3-2-180-(F)	2 luminaires at 180°
PTF3-3-120-(F)	3 luminaires at 120°

Luminaire Accessories (order separately)

Pole Mount Fusing	
FP1	Pole mount single fuse (120V, 277V, or 347V)
FP2	Pole mount double fuse (208V, 240V, or 480V)
Photocell Accessories	
TSC	Twist-lock shorting cap

Mountings (boxed and shipped separately)

Must choose Mounting Ordered Separately (MOS) selection for mounting option of luminaire. Useful for attachment of arm to pole prior to luminaire installation. (F) Must specify finish.

Standard Arm	
OPF-AR1-(F)[2,15]	Standard arm mount
OPF-AR1-TR7-(F)[2,11,15]	Standard arm mount with 7-pin (TR7) receptacle
OPF-ARA-(F)	Adjustable arm mount
OPF-ARA-TR7-(F)	Adjustable arm mount with 7-pin (TR7) receptacle
Wall Mount	
OPF-WAL-(F)	Wall mount bracket
OPF-WAL-TR7-(F)[11]	Wall mount with 7-pin (TR7) receptacle
Mast Arm	
OPF-MAR-(F)[3]	Mast arm mount
OPF-MAR-TR7-(F)[3,11]	Mast arm mount with 7-pin (TR7) receptacle
OPF-MAA-(F)	Adjustable mast arm
OPF-MAA-TR7-(F)	Adjustable mast arm with 7-pin (TR7) receptacle
Post Top	
OPF-POS-(F)	Post top
OPF-POS-TR7-(F)	Post top with 7-pin (TR7) receptacle
OPF-POA-(F)	Adjustable post top
OPF-POA-TR7-(F)	Adjustable post top with 7-pin (TR7) receptacle
Slip Fitter	
OPF-SF2-(F)	Adjustable 2-3/8" slip fitter
OPF-SF3-(F)	Adjustable 3" slip fitter

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Optical Distributions

Site and Area Optics

Type 2 Medium

Type 3 Medium

Type 4 Medium

Type 4 Wide

Type 5 Narrow

Type 5 Medium

Type 5 Wide

Back Light Control

Autofront Row

LCL

LCR

Precision Plus Optics

Type 2 Medium

Type 3 Medium

Type 4 Medium

Type 5 Medium

OPF-S OptiForm small

Site & area luminaire

OPF-S Area Optic Lumen Values

Lumen Package	System Watts	Distribution Type	70 CRI 3000K			70 CRI 4000K			70 CRI 5000K		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
7L	42	T2M	6937	B2-U0-G2	165	7221	B2-U0-G2	172	7206	B2-U0-G2	172
		T3M	6827	B2-U0-G2	163	7107	B2-U0-G2	169	7092	B2-U0-G2	169
		T4M	6738	B1-U0-G2	160	7014	B1-U0-G2	167	7000	B1-U0-G2	167
		T4W	6706	B1-U0-G2	160	6981	B1-U0-G2	166	6966	B1-U0-G2	166
		T5N	7165	B3-U0-G1	171	7459	B3-U0-G1	178	7443	B3-U0-G1	177
		T5M	7139	B3-U0-G1	170	7432	B3-U0-G1	177	7416	B3-U0-G1	177
		T5W	6883	B3-U0-G2	164	7165	B3-U0-G2	171	7150	B3-U0-G2	170
		AFR	7204	B2-U0-G2	172	7499	B2-U0-G2	179	7484	B2-U0-G2	178
		LCL	3441	B1-U0-G1	82	3582	B1-U0-G1	85	3575	B1-U0-G1	85
		LCR	3374	B1-U0-G1	80	3512	B1-U0-G1	84	3505	B1-U0-G1	84
		BLC	4879	B0-U0-G2	116	5079	B0-U0-G2	121	5068	B0-U0-G2	121
9L	54	T2M	8976	B2-U0-G2	166	9344	B2-U0-G2	173	9324	B2-U0-G2	173
		T3M	8833	B2-U0-G2	164	9195	B2-U0-G2	170	9176	B2-U0-G2	170
		T4M	8718	B2-U0-G2	161	9076	B2-U0-G2	168	9057	B2-U0-G2	168
		T4W	8677	B2-U0-G3	161	9032	B2-U0-G3	167	9014	B2-U0-G3	167
		T5N	9271	B3-U0-G1	172	9651	B3-U0-G2	179	9631	B3-U0-G2	178
		T5M	9237	B3-U0-G2	171	9616	B3-U0-G2	178	9596	B3-U0-G2	178
		T5W	8906	B3-U0-G3	165	9271	B4-U0-G3	172	9252	B4-U0-G3	171
		AFR	9321	B2-U0-G2	173	9703	B2-U0-G2	180	9683	B2-U0-G2	179
		LCL	4452	B1-U0-G1	82	4635	B1-U0-G1	86	4625	B1-U0-G1	86
		LCR	4366	B1-U0-G1	81	4545	B1-U0-G1	84	4535	B1-U0-G1	84
		BLC	6313	B0-U0-G2	117	6572	B0-U0-G2	122	6558	B0-U0-G2	121
12L	63	T2M	10457	B2-U0-G2	166	10886	B2-U0-G2	173	10863	B2-U0-G2	172
		T3M	10291	B2-U0-G3	163	10713	B2-U0-G3	170	10691	B2-U0-G3	170
		T4M	10157	B2-U0-G2	161	10573	B2-U0-G3	168	10551	B2-U0-G3	168
		T4W	10109	B2-U0-G3	161	10523	B2-U0-G3	167	10501	B2-U0-G3	167
		T5N	10801	B3-U0-G2	171	11243	B3-U0-G2	179	11220	B3-U0-G2	178
		T5M	10761	B3-U0-G2	171	11203	B4-U0-G2	178	11179	B4-U0-G2	177
		T5W	10375	B4-U0-G3	165	10801	B4-U0-G3	171	10778	B4-U0-G3	171
		AFR	10859	B3-U0-G2	172	11305	B3-U0-G3	179	11281	B3-U0-G3	179
		LCL	5187	B1-U0-G1	82	5400	B1-U0-G1	86	5388	B1-U0-G1	86
		LCR	5086	B1-U0-G1	81	5295	B1-U0-G1	84	5283	B1-U0-G1	84
		BLC	7355	B1-U0-G2	117	7656	B1-U0-G2	122	7640	B1-U0-G2	121

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Site & area luminaire

OPF-S Area Optic Lumen Values (continued)

Lumen Package	System Watts	Distribution Type	70 CRI 3000K			70 CRI 4000K			70 CRI 5000K		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
16L	103	T2M	16061	B3-U0-G3	156	16720	B3-U0-G3	162	16685	B3-U0-G3	162
		T3M	15807	B3-U0-G3	154	16455	B3-U0-G3	160	16420	B3-U0-G3	159
		T4M	15601	B2-U0-G3	152	16240	B2-U0-G3	158	16206	B2-U0-G3	157
		T4W	15527	B3-U0-G3	151	16163	B3-U0-G3	157	16129	B3-U0-G3	157
		T5N	16589	B4-U0-G2	161	17269	B4-U0-G2	168	17233	B4-U0-G2	167
		T5M	16529	B4-U0-G2	161	17207	B4-U0-G2	167	17171	B4-U0-G2	167
		T5W	15936	B4-U0-G3	155	16590	B4-U0-G3	161	16555	B4-U0-G3	161
		AFR	16680	B3-U0-G3	162	17363	B3-U0-G3	169	17327	B3-U0-G3	168
		LCL	7967	B1-U0-G2	77	8294	B1-U0-G2	81	8276	B1-U0-G2	80
		LCR	7812	B1-U0-G2	76	8132	B1-U0-G2	79	8115	B1-U0-G2	79
		BLC	11297	B1-U0-G2	110	11760	B1-U0-G2	114	11735	B1-U0-G2	114
20L	139	T2M	20492	B3-U0-G3	147	21332	B3-U0-G3	154	21287	B3-U0-G3	153
		T3M	20167	B3-U0-G3	145	20994	B3-U0-G4	151	20950	B3-U0-G4	151
		T4M	19904	B3-U0-G4	143	20720	B3-U0-G4	149	20677	B3-U0-G4	149
		T4W	19809	B3-U0-G4	143	20622	B3-U0-G4	148	20579	B3-U0-G4	148
		T5N	21165	B4-U0-G2	152	22033	B4-U0-G2	159	21987	B4-U0-G2	158
		T5M	21089	B4-U0-G2	152	21953	B4-U0-G2	158	21907	B4-U0-G2	158
		T5W	20332	B5-U0-G4	146	21166	B5-U0-G4	152	21122	B5-U0-G4	152
		AFR	21281	B3-U0-G3	153	22153	B3-U0-G3	159	22107	B3-U0-G3	159
		LCL	10165	B1-U0-G2	73	10581	B1-U0-G2	76	10559	B1-U0-G2	76
		LCR	9967	B1-U0-G2	72	10375	B1-U0-G2	75	10354	B1-U0-G2	75
		BLC	14413	B1-U0-G3	104	15003	B1-U0-G3	108	14972	B1-U0-G3	108

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Site & area luminaire

LED Wattage and Lumen Values (Emergency Mode)

Ordering Code	CCT (K)	CRI	Avg. System Wattage (W)	Type 2M		Type 3M		Type 4M	
				Lumen Output	BUG Rating	Lumen Output	BUG Rating	Lumen Output	BUG Rating
OPF-S-PXX-740-X-EM	4000	70	6	1000	B0-U0-G0	1014	B0-U0-G1	838	B0-U0-G0
OPF-S-PXX-750-X-EM	5000	70	6	960	B0-U0-G0	973	B0-U0-G1	804	B0-U0-G0
OPF-S-PXX-830-X-EM	3000	80	6	856	B0-U0-G0	868	B0-U0-G1	717	B0-U0-G0
OPF-S-PXX-840-X-EM	4000	80	6	887	B0-U0-G0	899	B0-U0-G1	743	B0-U0-G0

Emergency Battery Backup (EM): Emergency battery pack included integral to the luminaire, allowing for a consistent look between emergency and non-emergency luminaires. EM is suitable for use in ambient temperature conditions from 0°C (32°F) to 50°C (122°F). Not available for lumen packages P9L-P22L. The system is designed to have a secondary driver with relay to immediately detect AC power loss to power luminaire for a minimum of 90 minutes from the time power is lost. Available with 120-277V, or 'UNV' only.

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.L_{70} is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11. Published L_{70} hours limited to 6 times actual LED test hours.

Ambient Temp°C	Lumen Package	Calculated L_{70} Hours	L_{70} per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	A06-A07	>77,000 hours	>77,000 hours	90%
25°C	All others	>100,000 hours	>100,000 hours	96%

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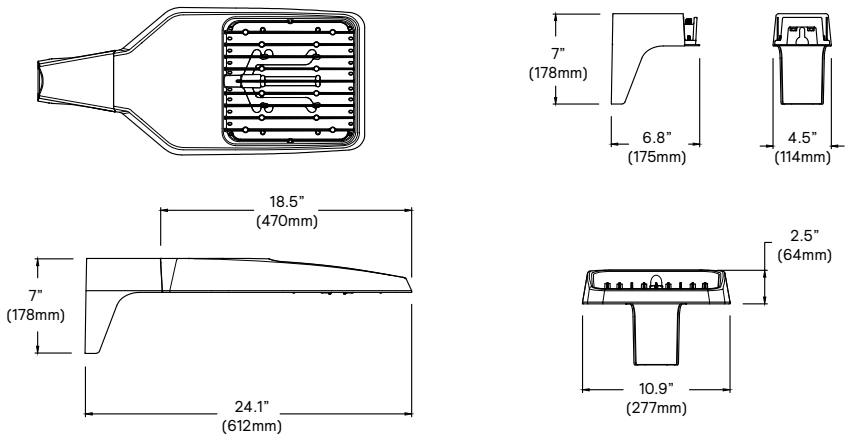
Site & area luminaire

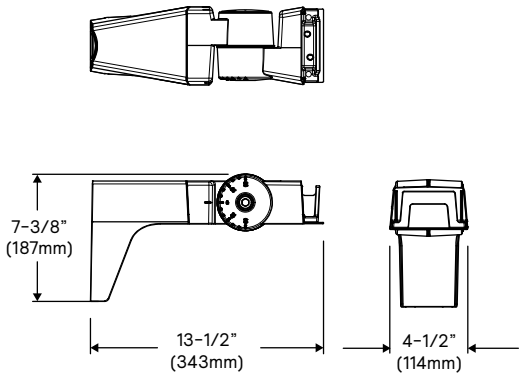
Dimensions

OptiForm Standard Arm

Weight: 11 lb (5.0 kg)
EPA: 0.2 ft^2 (0.018 m^2)

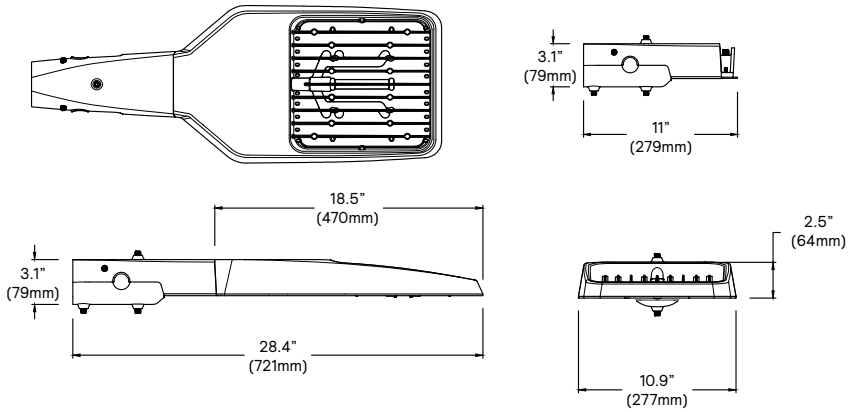


OptiForm Adjustable Arm Mount

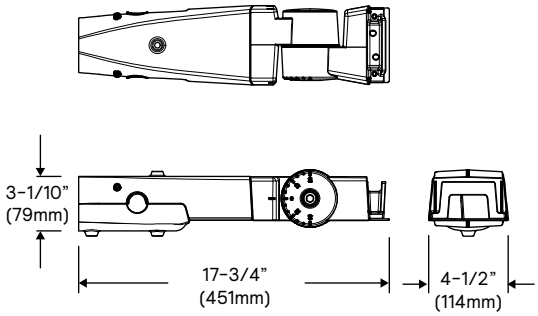


OptiForm Mast Arm

Weight: 12.6 lb (5.7 kg)

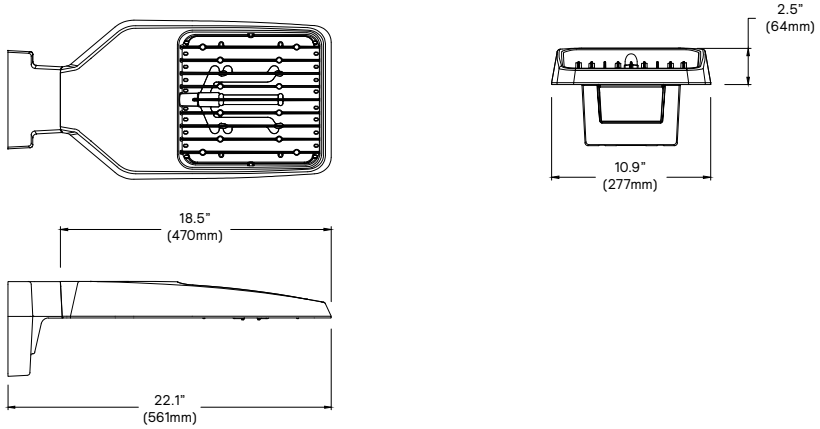


OptiForm Adjustable Mast Arm



OptiForm Wall Mount

Weight: 11.5 lb (5.2 kg)



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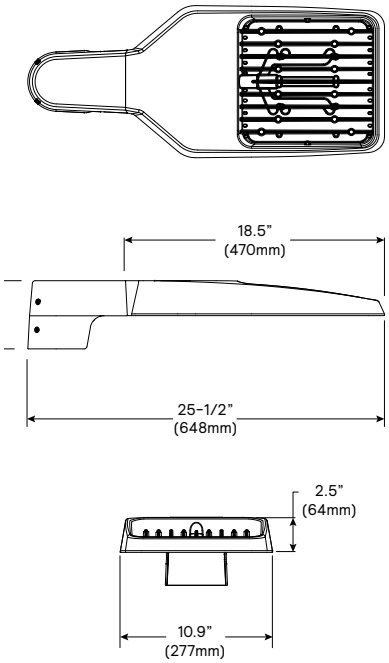
Site & area luminaire

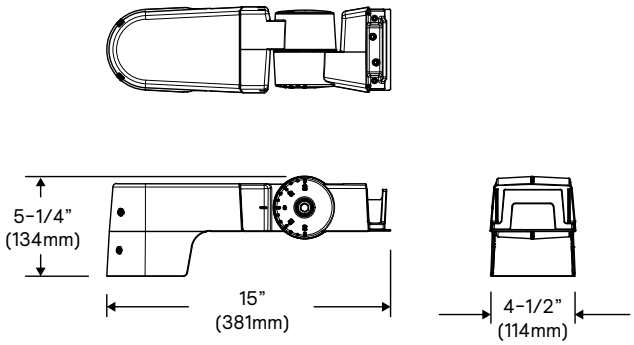
Adjustable Mount Dimensions

OptiForm Post Top

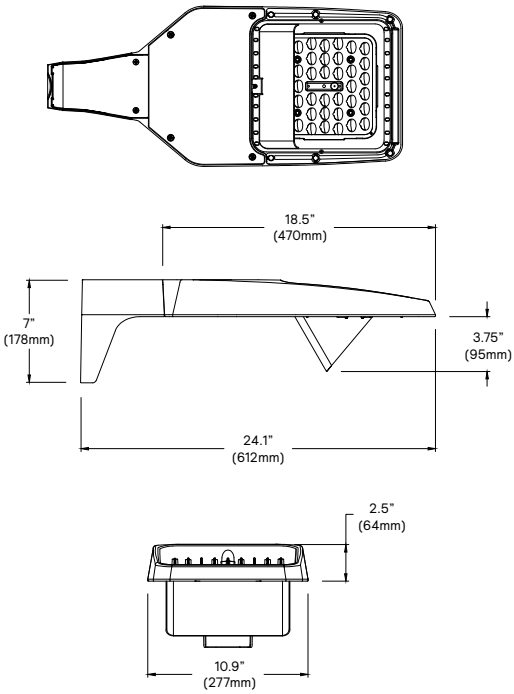
Weight: 11.5 lb (5.21 kg)



OptiForm Adjustable Post Top

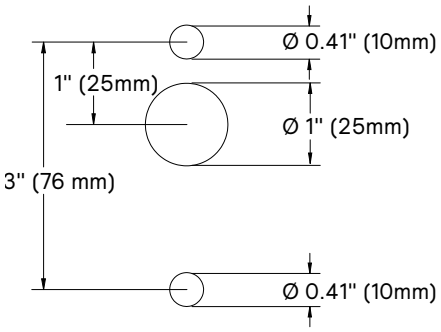


OptiForm External Housing Shield

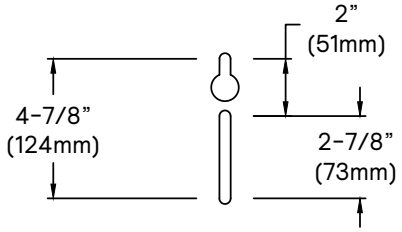


Standard Drill Pattern

Drill Template #5



Standard Arm Mounting Hole Pattern



OPF-S OptiForm small

Site & area luminaire

Specifications

Housing

Housing and door constructed of low copper die cast Aluminum alloy (A360) with detatchable arms for quick mounting. Heatsink is integral to the housing providing passive cooling of LEDs to maintain long LED life. Luminaire housing rated to IP65, LED Modules rated IP66 tested in accordance to Section 9 of IEC 60598-1. OptiForm carries and impact rating of IK08.

Vibration resistance

OptiForm SF2, SF3, POA, ARA, and MAA mounts are tested and rated to standards set forth in ANSI C136.31-2018 & 2023 Level 1 (1.5G) Normal.

Light engine

Sealed high-performance LED light engine with scalable modules

- **Small:** 1 module with 40 LEDs
- **Medium:** 2 modules with 80 LEDs
- **Large:** 4 modules with 160 LEDs
- **X-Large:** 6 modules with 240 LEDs

Color temperature as per ANSI/NEMA bin 2700 Kelvin nominal (2725 ±145K), 3000 Kelvin nominal (3045K +/- 175K) or 4000 Kelvin nominal (3985K +/- 275K), CRI 70 Min. 75 Typical. Other CCT/CRI also available, consult factory.

LED light engine is designed for durability with IP66 protection in accordance to Section 9 of IEC 60598-1 and RoHS-compliant construction.

Energy saving benefits

System efficacy up to 192 lms/W with significant energy savings over Pulse Start Metal Halide luminaires. Optional control options provide added energy savings during unoccupied periods.

Optical systems

Site and Area optical distributions include Types 2 Medium, 3 Medium, 4 Medium, 4 Wide, 5 Narrow, 5 Medium, 5 Wide, and Auto Front Row. LEED Corner Left, LEED Corner Right, and Backlight Control distributions also available to provide excellent cutoff to meet the most stringent requirements at property lines. Optional internal shields mount to LED optics and are available with Type 2M, 3M, and 4M distributions. Types 2M and 3M can be rotated at 90° or 270° when specified, and are factory set only. Site and Area optics shall be performance tested per LM-79 and TM-15 (IESNA) certifying their photometric performance. Luminaire designed with 0% uplight (U0 per IESNA TM-15).

Precision Plus optical distributions include Types 2, 3, 4 and 5 and are designed to illuminate pedestrian scale applications by providing lower glare, while still achieving desired distribution, optimized spacing, and excellent uniformity. Optics are made of optical grade polymer refractor lenses and shall be performance tested per LM-63, LM-79 and TM-15 (IESNA) certifying their photometric performance. Luminaire designed with 0% uplight (U0 per IESNA TM-15).

Mounting

Standard luminaire arm mounts to square poles with knock-out on the arm to allow for mounting to 4" O.D. round poles. Standard arm casting can accomodate existing bolt spacing from 2" to 4-7/8". It is recommended to use the bolster plate kit OPF RMB when it's not a new installation or if the mounting holes are larger than 0.41" (10mm).

OptiForm features a Mast Arm for Mounting to 2-3/8x4" tenon as well as wall mount casting for exterior building mount applications.

Adjustable Mounting

Recommended area luminaire tilt should be 0° for optimal optical performance and dark sky compliance.

SF2: Adjustable Slip Fitter with 18 AWG wires exiting through the Slip Fitter. Integral splice compartment for field wiring with cULus Wet Location rated access cover with seal around entire perimeter. Slip Fitter made of die cast Aluminum alloy (A380) for high resistance to corrosion, adjustable knuckle has 5 degree aiming increments with integral interlocking teeth and bolt to secure aiming in place, integral cast-in aiming marks. Fits a 2-3/8" tenon (60.3mm) O.D. SF2 mount meets the ANSI C136.31-2018 & 2023 specifications for Level 1 (1.5G) Normal applications.

SF3: Adjustable Slip Fitter with 18 AWG wires exiting through the Slip Fitter. Integral splice compartment for field wiring with cULus Wet Location rated access cover with seal around entire perimeter. Slip Fitter made of die cast Aluminum alloy (A380) for high resistance to corrosion, adjustable knuckle has 5 degree aiming increments with integral interlocking teeth and bolt to secure aiming in place, integral cast-in aiming marks. Fits a 3" tenon (72.6mm) O.D. SF3 mount meets the ANSI C136.31-2018 & 2023 specifications for Level 1 (1.5G) Normal applications.

ARA: Adjustable Arm Mount comes pre-wired with 18 AWG wires. Adjustable arm mount made of die cast Aluminum alloy (A380) for high resistance to corrosion. Adjustable knuckle has 5 degree aiming increments with integral interlocking teeth and bolt to secure aiming in place. Mounts to square poles with knock-out on the arm to allow for mounting to 4-5" O.D. round poles for small (OPF-S), medium (OPF-M), and large (OPF-L) sizes. X-large (OPF-XL) size only mounts to 4-5" O.D. round poles. Standard arm casting can accommodate existing bolt spacing from 2" to 4-7/8". It is recommended to use the bolster plate kit OFD-RMB (see Accessories) when it's not a new installation or if the mounting holes are larger than 0.41" (10mm).

MAA: Adjustable Mast Arm Mount comes pre-wired with 18 AWG wires. Adjustable mast arm mount made of Aluminum alloy (A356) with high resistance to corrosion. Adjustable knuckle has 5 degree aiming increments with integral interlocking teeth and bolt to secure aiming in place. For mounting to 2-3/8" x 5" tenon. Not intended to be installed on a vertical tenon, but instead a horizontal tenon. MAA mount meets the ANSI C136.31-2018 & 2023 specifications for Level 1 (1.5G) normal applications.

POA: Adjustable Post Top Mount comes pre-wired with 18 AWG wires. Adjustable post top mount made of die cast Aluminum alloy (A380) for high resistance to corrosion. Adjustable knuckle has 5 degree aiming increments with integral interlocking teeth and bolt to secure aiming in place. POA mount meets the ANSI C136.31-2018 & 2023 specifications for Level 1 (1.5G) Normal applications.

Control options

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

ZD4I Zhaga-D4i Certified Fixture (includes Zhaga 4-pin receptacle): With the **ZD4I** option (or **WIAP**), your luminaire comes Zhaga-D4i certified. Provides easy integration with D4i smart sensors and communication nodes, enabling plug-and-play IoT upgrades. Product equipped with D4i driver(s) connected to 4-pin Zhaga Book 18 compliant receptacle. Receptacle has IP66 rated assembly in a compact design that provides a sealed electrical interface and rated UV resistance, mounted on underside of the luminaire, protective dust cap included. When a controller not D4i certified is used, we cannot guarantee full compatibility.

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Site & area luminaire

Specifications (continued)

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 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	FAWS Position	Percent of Typical Lumen Output
1	29%	6	80%
2	52%	7	83%
3	61%	8	93%
4	72%	9	98%
5	77%	10	100%

Note: Typical value accuracy +/- 5%

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.

- **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)

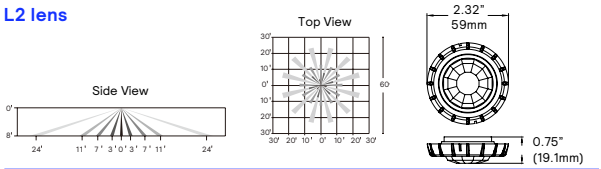
All above profiles are calculated from mid point of the night. Dimming is set for 6 hours after the mid point and 1 or 2 hours before depending of the duration of dimming. Cannot be used with other dimming control options.

Motion response options

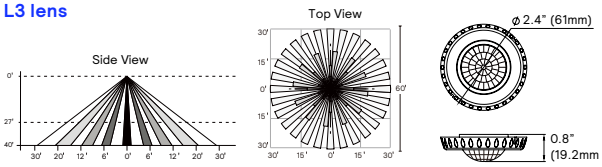
Bi-Level Infrared Motion Response (BL50): Motion Response module is mounted integral to luminaire factory pre-programmed to 50% dimming when not ordered with other control options. BL-IMRI is set/operates in the following fashion: The motion sensor is set to a constant 50%. When motion is detected by 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 (contact Technical Support for details).

Infrared Motion Response Lenses (L2): Infrared Motion Response Integral module is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges. Lens #2 is designed for mounting heights 8' to 15'. Lens #3 is designed for higher mounting heights up to 20' with a 40' diameter coverage area. See charts for approximate detection patterns:

L2 lens



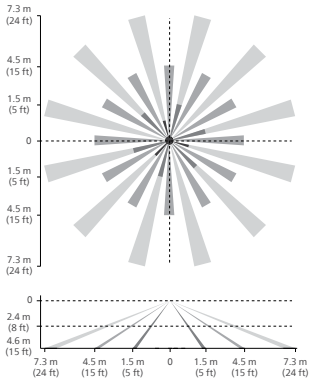
L3 lens



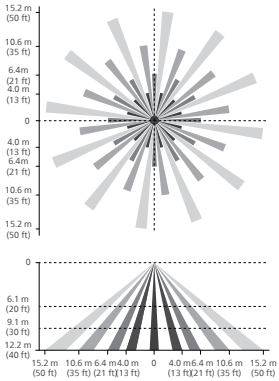
Outdoor Interact (WIAP): Connected sensor with integral occupancy and daylight sensing, supports wireless mesh connectivity. Sensor works in the standalone mode when configured without a gateway. When used with a gateway you are able to access additional functionalities such as energy monitoring, scheduling and BMS integration. Interact offers an App, a portal and a broad portfolio of Interact-ready Indoor and Outdoor luminaires, lamps and retrofit kits all working on the same system. The App provides flexibility to choose between a standalone or gateway mode. Setup with the gateway requires wired Internet access to the gateway. WIAP includes SR driver and SR receptacle. Daylight harvesting supported through dimming - activated via the Interact App. Sensors IP66 rated. For more information on Interact Pro visit:

www.interact-lighting.com/interactproscalablesystem

LB or LW low sensor



HB or HW high sensor



Note: The beam patterns shown are intended solely as a general guide and are not to scale. Sensing capabilities and coverage area depend on many factors including the size, speed and direction of travel of persons and vehicles; sensor mounting height; environmental and site conditions; etc.

Electrical

NEMA 7-pin Twist-Lock Receptacle (TR7/TLP): Twist-Lock Receptacle with 7 pins enabling dimming and additional functionality (by others) can be used with a 3-pin photocell (TLP) or a shorting cap (TR7 with OPF-TSC Accessory). Dimming Receptacle (7-pin) in accordance to ANSI C136.41. can be used with third-party control system. Receptacle located on top of luminaire arm. When specifying receptacle with twist-lock photoelectric cell (TLP), voltage must be specified. When ordering 7-pin twist-lock receptacle (TR7), all 6 pins are wired to respective pins with the D4i Certified DALI/SR driver, 5 pins for 0-10V driver if not ordered with any other dimming option.

Driver: High power factor of 90% min. 120-480V available (restrictions apply). Open/short circuit protection. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I or 2, THD of 20% max.

All drivers are 0-10V dimming to 10% power standard, except when using D4i drivers, which uses DALI protocol (options CS50/CM50/CS30/CM30,D4iD,ZD4i and TR7). Drivers are RoHS and FCC Title 47 CFR Part 15 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.

OPF-S OptiForm small

Site & area luminaire

Specifications (cont'd)

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). 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 (DG), and medium gray (MG). The finish achieves a minimum scribe rating of 6 per ASTM D1654 after a minimum of 3000 hours salt spray in accordance with testing performed per ASTM B117 standard. Consult Factory for specs on optional, custom colors, and marine grade paint.

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/servicetag

Warranty

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

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