



Gardco OptiForm site and area luminaires are available in three sizes: small, medium and large. Featuring the latest in LED technology, OptiForm achieves up to 192 lumens per watt. Eleven optical distributions are available, suitable for a range of outdoor lighting applications. OptForm features a unique mounting system with a two-piece housing for hassle-free installation. Mounting options include a standard arm, mast arm, and wall mount bracket. Service Tag is a standard feature with every OptiForm luminaire, providing maintenance or upgrade assistance throughout the life of the product.

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

Ordering guide

example: OPF-S-A01-840-T4M-AR1-120-BL50-L3-BZ

Luminaire	Area Configuration (nom. lumens)			Color Temperature		Distribution			Mounting		Voltage		
OPF-S													
OPF-S OptiForm Small Area Light	Site and Area		Precision Plus ¹⁶ (T2M, T3M, T4M, T5M only)		827'	80CRI 2700K	AFR	Autofront row	LCL	LEED corner optic left	AR ^{12,17} Arm mount (standard) MAR ³ Mast arm WAL Wall mount MOS ⁴ Mounting ordered separately	120	120V
					830	80CRI 3000K	T2M	Type 2 medium	LCL	LEED corner optic right		208	208V
	A01	7,000 lumens	P01	2,500 lumens	840	80CRI 4000K	T3M	Type 3 medium	BLC	Back light control		240	240V
	A02	9,000 lumens	P02	4,000 lumens	727'	70CRI 2700K	T4M	Type 4 medium	2RL	Type 2 rotated left 90°		277	277V
	A03	11,000 lumens	P03	6,500 lumens	730	70CRI 3000K	T4W	Type 4 wide	2RR	Type 2 rotated right 270°		347	347V
	A04	15,000 lumens	P04	9,000 lumens	740	70CRI 4000K	T5M	Type 5 medium	3RL	Type 3 rotated left 90°		480	480V
	A05	17,000 lumens	P05	11,500 lumens	750	70CRI 5000K	T5N	Type 5 narrow	3RR	Type 3 rotated right 270°		UNV	120-277V
	A06	19,000 lumens	P06	14,000 lumens			T5W	Type 5 wide	4RL ¹	Type 4 rotated left 90°		HVU ¹⁶	347-480V
	A07	20,000 lumens	P07	16,500 lumens					4RR ¹	Type 4 rotated right 270°			
			P08	19,000 lumens									
		P09	22,000 lumens										
Dimming Controls				Sensing		Options (electrical, mechanical, etc)			Emergency		Finish		
The following options include 0-10V Driver				L2 PIR sensor, #2 lens (Required if BL50 is selected)		None Surge protector 10kV/10kA standard			EM ^{12,14,15} Emergency Battery Pack (0-40 °C)		Standard textured finish		
none	0-10V dimming driver		SP2 Surge protector 20kV/10kA (option)			BK Black							
DLEA ^{5,10}	Dimming leads externally accessible (controls by others)		FS1 ¹¹ Single fuse (120, 277, or 347VAC)			WH White							
FAWS ^{5,6,10}	Field adjustable wattage selector		FS2 ¹¹ Double fuse (208, 240, or 480V)			BZ Bronze							
BL50 ^{5,7,10}	Bi-level with motion sensor		PCB ^{11,12} Photocontrol button connected to 0-10V driver			DG Dark Gray							
The following options include SR/DALI Driver						TR5 NEMA Twist-lock 5-pin receptacle connected to 0-10V driver					MG Medium Gray		
SRDR ^{5,8,13}	SR driver connected to Zhaga socket (D4i)		TR7 ¹³ 7-pin twist lock receptacle connected to D4i compliant driver			Customer specified							
OMSR ^{5,8,13}	Outdoor multi-sensor		TLP ^{11,13} 7-pin twist lock receptacle connected to D4i compliant driver w/ 3-pin photocell										
DynaDimmer: Automatic Profile Dimming								EHS Housing machined to accept external house side shield for field install. Must be combined with OPF-S-EHS-1 accessory.					
CS50 ^{5,13}	Security 50% dimming, 7 hours												
CM50 ^{5,13}	Median 50% dimming, 8 hours												
CS30 ^{5,13}	Security 30% dimming, 7 hours												
CM30 ^{5,13}	Median 30% dimming, 8 hours												

- Extended leadtime applies. Consult factory for details.
- Mounts to a square pole with knockout for 4-5" OD round pole.
- Mounts to a 2-3/8" x 5" tenon.
- Must be ordered with mounting accessory.
- Not available with other dimming control options (mutually exclusive).
- Not available with motion sensor (physical restriction).
- Must be specified with a motion sensor lens (L2).
- Not available with PCB, TR5.
- Must be specified with a motion sensor LW, LB.
- Not available with TR7, TLP.
- Must specify input voltage.

- Not available in 347, 480, or HVU.
- Not available with lumen packages P01, P02 in 120-277 voltages or lumen packages A01-A03, P01-P05 in 347, 480, or HVU.
- Only available with P01-P03 at 120-277V or UNV.
- Not available with Dynadimmer, SRDR, FAWS, FS1, FS2, OMSR, DLEA, BL50 (physical restriction).
- Precision Plus Optics (P01-P09) available only with T2M, T3M, T4M, and T5M optical distributions and are non-rotatable.
- OPF-RMB accessory recommended for retrofit applications.



OPF-S OptiForm small

Site & area luminaire

Shielding Accessories (order separately)

- OPF-S-EHS-1* External house side shield (field installed)
- OPF-S-HIS-1** Internal house side shield, qty 1
- OPF-S-HIS-T4-1** Internal house side shield, Type 4 only, qty 1

*Must select EHS option on luminaire
**Not available for Precision Plus (P01-P09)

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)
FP3	Pole mount double fuse canadian double pull (208V, 240V, or 480V)
Photocell Accessories	
P400S	Shorting cap

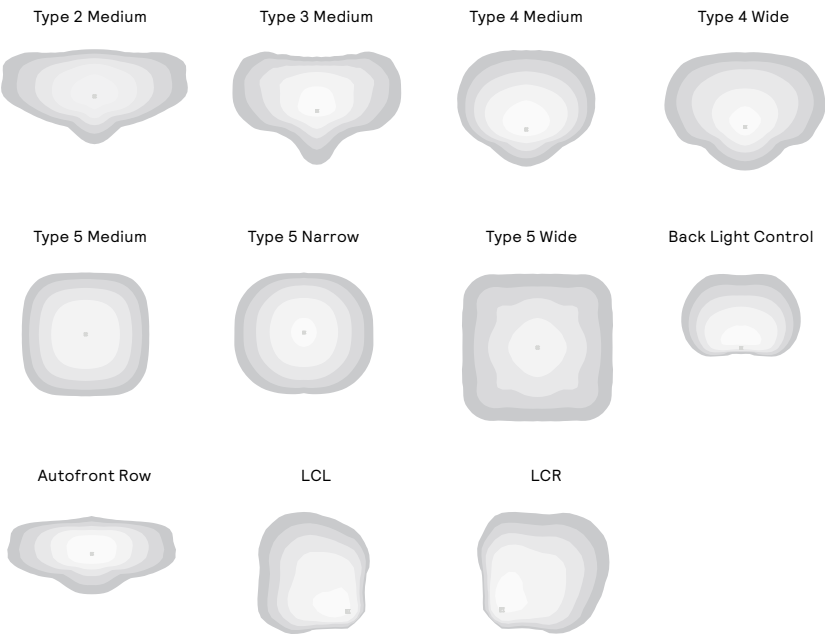
Mountings (boxed and shipped separately)

Must choose MOS mounting ordered separately for mounting option on luminaire.
(F) Must specify finish

Standard Arm	
OPF-AR1-(F) ^{2,17}	Standard arm mount
OPF-AR1-TR7-(F) ^{2,13,17}	Mast arm mount with 7-pin (TR7) receptacle
Wall Mount	
OPF-WAL-(F)	Wall mount bracket
OPF-WAL-TR7-(F) ¹³	Wall mount with 7-pin (TR7) receptacle
Mast Arm	
OPF-MAR-(F) ³	Mast arm mount
OPF-MAR-TR7-(F) ^{3,13}	Mast arm mount with 7-pin (TR7) receptacle

Optical Distributions

Site and Area Optics



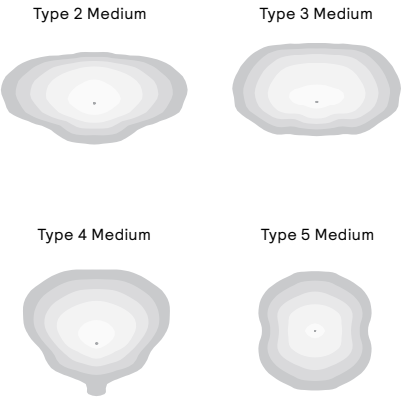
Retrofit Mounting

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

Pole Top Fitters

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°

Precision Plus Optics



OPF-S OptiForm small

Site & area luminaire

OPF-S Area Optic Lumen values

3000K, 70CRI

Ordering Code	Color Temp	Average System Wattage (W)	Type 2M			Type 3M			Type 4M			Type 5M		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
OPF-S-A01-730-x	3000	42	6991	B2-U0-G2	167	6935	B2-U0-G2	166	7028	B1-U0-G2	168	7244	B3-U0-G1	173
OPF-S-A02-730-x	3000	54	8941	B2-U0-G2	165	8869	B2-U0-G2	164	8989	B1-U0-G2	166	9265	B3-U0-G2	171
OPF-S-A03-730-x	3000	64	10438	B2-U0-G2	164	10354	B2-U0-G2	163	10494	B2-U0-G2	165	10816	B3-U0-G2	170
OPF-S-A04-730-x	3000	91	14465	B3-U0-G3	160	14350	B3-U0-G3	158	14543	B2-U0-G2	160	14990	B4-U0-G2	165
OPF-S-A05-730-x	3000	104	16226	B3-U0-G3	156	16096	B3-U0-G3	154	16313	B2-U0-G3	156	16814	B4-U0-G2	161
OPF-S-A06-730-x	3000	122	18441	B3-U0-G3	151	18294	B3-U0-G3	150	18540	B3-U0-G3	152	19110	B4-U0-G2	156
OPF-S-A07-730-x	3000	136	20034	B3-U0-G3	147	19874	B3-U0-G3	146	20142	B3-U0-G3	148	20761	B4-U0-G2	152

3000K, 70CRI (cont'd)

Ordering Code	Color Temp	Average System Wattage (W)	AFR			Type 4W			Type 5N			Type 5W		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
OPF-S-A01-730-x	3000	42	7241	B2-U0-G2	173	6692	B1-U0-G2	160	7193	B3-U0-G1	172	6926	B3-U0-G2	165
OPF-S-A02-730-x	3000	54	9260	B2-U0-G2	171	8558	B2-U0-G2	158	9200	B3-U0-G1	170	8858	B3-U0-G2	164
OPF-S-A03-730-x	3000	64	10811	B3-U0-G3	170	9991	B2-U0-G3	157	10740	B3-U0-G2	169	10341	B4-U0-G2	163
OPF-S-A04-730-x	3000	91	14982	B3-U0-G3	165	13847	B2-U0-G3	153	14884	B4-U0-G2	164	14331	B4-U0-G3	158
OPF-S-A05-730-x	3000	104	16806	B3-U0-G3	161	15532	B3-U0-G3	149	16696	B4-U0-G2	160	16075	B4-U0-G3	154
OPF-S-A06-730-x	3000	122	19100	B3-U0-G3	156	17652	B3-U0-G3	144	18975	B4-U0-G2	155	18270	B5-U0-G3	150
OPF-S-A07-730-x	3000	136	20750	B3-U0-G3	152	19178	B3-U0-G3	141	20615	B4-U0-G2	151	19848	B5-U0-G3	146

4000K, 70CRI

Ordering Code	Color Temp	Average System Wattage (W)	Type 2M			Type 3M			Type 4M			Type 5M		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
OPF-S-A01-740-x	4000	42	7391	B2-U0-G2	176	7332	B2-U0-G2	175	7431	B1-U0-G2	177	7659	B3-U0-G1	183
OPF-S-A02-740-x	4000	54	9452	B2-U0-G2	175	9377	B2-U0-G2	173	9503	B1-U0-G2	176	9795	B3-U0-G2	181
OPF-S-A03-740-x	4000	64	11035	B3-U0-G3	174	10947	B2-U0-G2	172	11094	B2-U0-G2	174	11435	B3-U0-G2	180
OPF-S-A04-740-x	4000	91	15293	B3-U0-G3	169	15171	B3-U0-G3	167	15375	B2-U0-G2	170	15848	B4-U0-G2	175
OPF-S-A05-740-x	4000	104	17155	B3-U0-G3	164	17018	B3-U0-G3	163	17247	B2-U0-G3	165	17777	B4-U0-G2	170
OPF-S-A06-740-x	4000	122	19496	B3-U0-G3	160	19341	B3-U0-G3	158	19601	B3-U0-G3	160	20203	B4-U0-G2	165
OPF-S-A07-740-x	4000	136	21181	B3-U0-G3	156	21012	B3-U0-G3	154	21294	B3-U0-G3	156	21949	B4-U0-G2	161

4000K, 70CRI (cont'd)

Ordering Code	Color Temp	Average System Wattage (W)	AFR			Type 4W			Type 5N			Type 5W		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
OPF-S-A01-740-x	4000	42	7655	B2-U0-G2	183	7075	B1-U0-G2	169	7605	B3-U0-G1	182	7322	B3-U0-G2	175
OPF-S-A02-740-x	4000	54	9790	B2-U0-G2	181	9048	B2-U0-G2	167	9726	B3-U0-G1	180	9365	B3-U0-G2	173
OPF-S-A03-740-x	4000	64	11429	B3-U0-G3	180	10563	B2-U0-G3	166	11355	B3-U0-G2	179	10933	B4-U0-G2	172
OPF-S-A04-740-x	4000	91	15840	B3-U0-G3	175	14639	B2-U0-G3	161	15736	B4-U0-G2	174	15151	B4-U0-G3	167
OPF-S-A05-740-x	4000	104	17768	B3-U0-G3	170	16421	B3-U0-G3	157	17652	B4-U0-G2	169	16995	B4-U0-G3	163
OPF-S-A06-740-x	4000	122	20193	B3-U0-G3	165	18662	B3-U0-G3	153	20061	B4-U0-G2	164	19315	B5-U0-G3	158
OPF-S-A07-740-x	4000	136	21938	B3-U0-G3	161	20275	B3-U0-G3	149	21794	B4-U0-G2	160	20984	B5-U0-G3	154

OPF-S OptiForm small

Site & area luminaire

OPF-S Area Optic Lumen values (cont'd)

5000K, 70CRI

Ordering Code	Color Temp	Average System Wattage (W)	Type 2M			Type 3M			Type 4M			Type 5M		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
OPF-S-A01-750-x	5000	42	7391	B2-U0-G2	176	7332	B2-U0-G2	175	7431	B1-U0-G2	177	7659	B3-U0-G1	183
OPF-S-A02-750-x	5000	54	9452	B2-U0-G2	175	9377	B2-U0-G2	173	9503	B1-U0-G2	176	9795	B3-U0-G2	181
OPF-S-A03-750-x	5000	64	11035	B3-U0-G3	174	10947	B2-U0-G2	172	11094	B2-U0-G2	174	11435	B3-U0-G2	180
OPF-S-A04-750-x	5000	91	15293	B3-U0-G3	169	15171	B3-U0-G3	167	15375	B2-U0-G2	170	15848	B4-U0-G2	175
OPF-S-A05-750-x	5000	104	17155	B3-U0-G3	164	17018	B3-U0-G3	163	17247	B2-U0-G3	165	17777	B4-U0-G2	170
OPF-S-A06-750-x	5000	122	19496	B3-U0-G3	160	19341	B3-U0-G3	158	19601	B3-U0-G3	160	20203	B4-U0-G2	165
OPF-S-A07-750-x	5000	136	21181	B3-U0-G3	156	21012	B3-U0-G3	154	21294	B3-U0-G3	156	21949	B4-U0-G2	161

5000K, 70CRI (cont'd)

Ordering Code	Color Temp	Average System Wattage (W)	AFR			Type 4W			Type 5N			Type 5W		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
OPF-S-A01-750-x	5000	42	7655	B2-U0-G2	183	7075	B1-U0-G2	169	7605	B3-U0-G1	182	7322	B3-U0-G2	175
OPF-S-A02-750-x	5000	54	9790	B2-U0-G2	181	9048	B2-U0-G2	167	9726	B3-U0-G1	180	9365	B3-U0-G2	173
OPF-S-A03-750-x	5000	64	11429	B3-U0-G3	180	10563	B2-U0-G3	166	11355	B3-U0-G2	179	10933	B4-U0-G2	172
OPF-S-A04-750-x	5000	91	15840	B3-U0-G3	175	14639	B2-U0-G3	161	15736	B4-U0-G2	174	15151	B4-U0-G3	167
OPF-S-A05-750-x	5000	104	17768	B3-U0-G3	170	16421	B3-U0-G3	157	17652	B4-U0-G2	169	16995	B4-U0-G3	163
OPF-S-A06-750-x	5000	122	20193	B3-U0-G3	165	18662	B3-U0-G3	153	20061	B4-U0-G2	164	19315	B5-U0-G3	158
OPF-S-A07-750-x	5000	136	21938	B3-U0-G3	161	20275	B3-U0-G3	149	21794	B4-U0-G2	160	20984	B5-U0-G3	154

OPF-S Precision Plus Optic Lumen values

3000K, 70CRI

Ordering Code	Color Temp	Average System Wattage (W)	Type 2M			Type 3M			Type 4M			Type 5M		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
OPF-S-P01-730-x	3000	15	2691	B1-U0-G1	182	2718	B1-U0-G1	184	2665	B1-U0-G1	180	2610	B2-U0-G1	176
OPF-S-P02-730-x	3000	23	4022	B1-U0-G1	178	4062	B1-U0-G1	180	3983	B1-U0-G1	177	3900	B2-U0-G1	173
OPF-S-P03-730-x	3000	38	6465	B2-U0-G2	169	6530	B2-U0-G2	171	6402	B1-U0-G2	168	6269	B3-U0-G2	164
OPF-S-P04-730-x	3000	53	8759	B2-U0-G2	165	8848	B2-U0-G2	166	8674	B2-U0-G2	163	8495	B3-U0-G2	160
OPF-S-P05-730-x	3000	66	11253	B2-U0-G2	172	11366	B3-U0-G3	173	11143	B2-U0-G3	170	10913	B3-U0-G2	167
OPF-S-P06-730-x	3000	76	13987	B3-U0-G3	183	14128	B3-U0-G3	185	13850	B2-U0-G3	182	13564	B4-U0-G3	178
OPF-S-P07-730-x	3000	94	15850	B3-U0-G3	168	16010	B3-U0-G3	170	15696	B3-U0-G3	167	15372	B4-U0-G3	163
OPF-S-P08-730-x	3000	113	19800	B3-U0-G3	176	19999	B3-U0-G3	178	19607	B3-U0-G3	174	19202	B4-U0-G3	171
OPF-S-P09-730-x	3000	133	21655	B3-U0-G3	163	21874	B3-U0-G3	164	21444	B3-U0-G4	161	21002	B4-U0-G3	158

4000K, 70CRI

Ordering Code	Color Temp	Average System Wattage (W)	Type 2M			Type 3M			Type 4M			Type 5M		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
OPF-S-P01-740-x	4000	15	2845	B1-U0-G1	192	2874	B1-U0-G1	194	2817	B1-U0-G1	190	2759	B2-U0-G1	186
OPF-S-P02-740-x	4000	23	4252	B1-U0-G1	189	4295	B1-U0-G1	191	4211	B1-U0-G1	187	4124	B2-U0-G1	183
OPF-S-P03-740-x	4000	38	6835	B2-U0-G2	179	6904	B2-U0-G2	181	6768	B1-U0-G2	177	6629	B3-U0-G2	174
OPF-S-P04-740-x	4000	53	9261	B2-U0-G2	174	9355	B2-U0-G2	176	9171	B2-U0-G2	172	8982	B3-U0-G2	169
OPF-S-P05-740-x	4000	66	11898	B2-U0-G2	182	12018	B3-U0-G3	183	11782	B2-U0-G3	180	11539	B3-U0-G2	176
OPF-S-P06-740-x	4000	76	14788	B3-U0-G3	194	14937	B3-U0-G3	196	14644	B2-U0-G3	192	14342	B4-U0-G3	188
OPF-S-P07-740-x	4000	94	16758	B3-U0-G3	178	16927	B3-U0-G3	180	16595	B3-U0-G3	176	16253	B4-U0-G3	172
OPF-S-P08-740-x	4000	113	20934	B3-U0-G3	186	21145	B3-U0-G3	188	20730	B3-U0-G3	184	20302	B4-U0-G3	180
OPF-S-P09-740-x	4000	133	22896	B3-U0-G3	172	23127	B3-U0-G3	174	22673	B3-U0-G4	171	22205	B4-U0-G3	167

OPF-S OptiForm small

Site & area luminaire

OPF-S Area Optic Lumen values (cont'd)

5000K, 70CRI

Ordering Code	Color Temp	Average System Wattage (W)	Type 2M			Type 3M			Type 4M			Type 5M		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
OPF-S-P01-750-x	5000	15	2845	B1-U0-G1	192	2874	B1-U0-G1	194	2817	B1-U0-G1	190	2759	B2-U0-G1	186
OPF-S-P02-750-x	5000	23	4252	B1-U0-G1	189	4295	B1-U0-G1	191	4211	B1-U0-G1	187	4124	B2-U0-G1	183
OPF-S-P03-750-x	5000	38	6835	B2-U0-G2	179	6904	B2-U0-G2	181	6768	B1-U0-G2	177	6629	B3-U0-G2	174
OPF-S-P04-750-x	5000	53	9261	B2-U0-G2	174	9355	B2-U0-G2	176	9171	B2-U0-G2	172	8982	B3-U0-G2	169
OPF-S-P05-750-x	5000	66	11898	B2-U0-G2	182	12018	B3-U0-G3	183	11782	B2-U0-G3	180	11539	B3-U0-G2	176
OPF-S-P06-750-x	5000	76	14788	B3-U0-G3	194	14937	B3-U0-G3	196	14644	B2-U0-G3	192	14342	B4-U0-G3	188
OPF-S-P07-750-x	5000	94	16758	B3-U0-G3	178	16927	B3-U0-G3	180	16595	B3-U0-G3	176	16253	B4-U0-G3	172
OPF-S-P08-750-x	5000	113	20934	B3-U0-G3	186	21145	B3-U0-G3	188	20730	B3-U0-G3	184	20302	B4-U0-G3	180
OPF-S-P09-750-x	5000	133	22896	B3-U0-G3	172	23127	B3-U0-G3	174	22673	B3-U0-G4	171	22205	B4-U0-G3	167

LED Wattage and Lumen Values (Emergency Mode)

Ordering Code	CCT	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

Predicted Lumen Depreciation Data

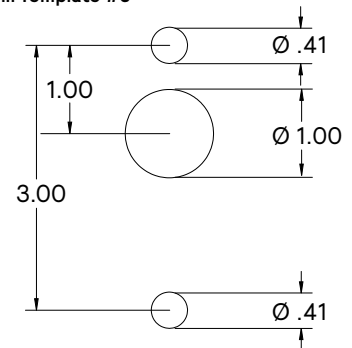
Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions. L70 is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA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

Ambient Temp°C	Lumen Package	Calculated L70 Hours	L70 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%

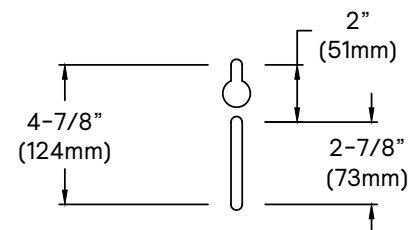
Dimensions

Standard Drill Pattern

Drill Template #5



Standard Arm Mounting Hole Pattern



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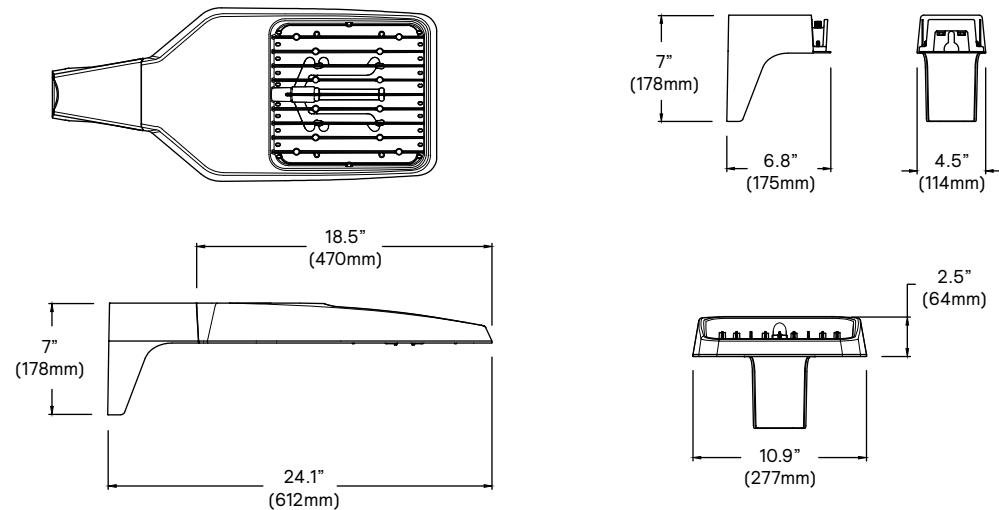
Site & area luminaire

Dimensions

OptiForm Standard Arm

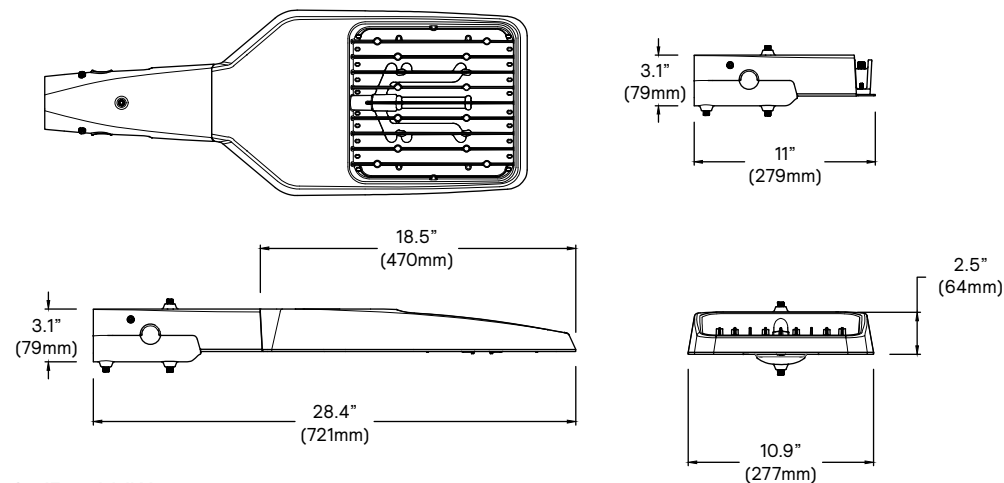
Weight: 11 lb (5.0 kg)

EPA: 0.2 ft² (0.018 m²)



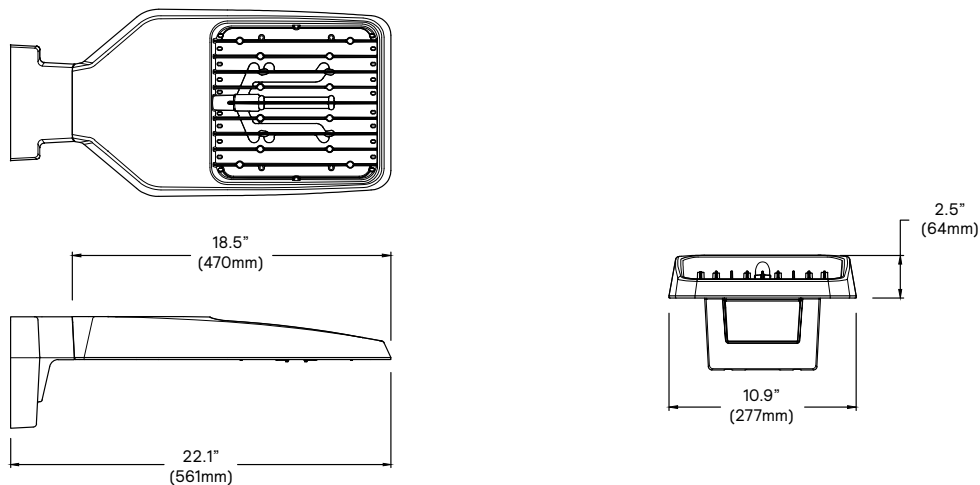
OptiForm Mast Arm

Weight: 12.6 lb (5.7 kg)



OptiForm Wall Mount

Weight: 11.5 lb (5.2 kg)



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Site & area luminaire

Specifications

Housing

Housing and door constructed of low copper die cast Aluminum alloy (A360) with detachable 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.

Vibration resistance

OptiForm is tested and rated to standards set forth in ANSI C136.31-2018 Level 2 for Bridge and Overpass applications.

Light engine

Light engine comprises of a module of 40-LED aluminum metal clad board fully sealed with optics: Medium = 2 Modules with 80 LEDs, Large = 4 modules with 160 LEDs. Module is RoHS compliant. Color temperature as per ANSI/NEMA bin 2700 Kelvin nominal (2725 \pm 145K), 3000 Kelvin nominal (3045K \pm 175K) or 4000 Kelvin nominal (3985K \pm 275K), CRI 70 Min. 75 Typical. Other CCT/CRI also available, consult factory. LED light engine is rated IP66 in accordance to Section 9 of IEC 60598-1.

Energy saving benefits

System efficacy up to 182 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 accommodate 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.

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.

Sensor Ready Zhaga Socket Connector (SRDR): Product is D4i Certified and equipped with Sensor Ready drivers connected to 4-pin Zhaga Book 18 compliant receptacle designed for sensor and other control system applications. Receptacle is rated IP66 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 provided by Signify is used with Sensor Ready Zhaga socket connector, the controller must be certified to work with the Xitanium SR LED drivers as part of the SR certified program. SRDR can be used with NEMA 7-pin twist lock receptacle, which is mounted on top of the luminaire.

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 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	25%	6	80%
2	50%	7	85%
3	55%	8	90%
4	65%	9	95%
5	75%	10	100%

Note: Typical value accuracy \pm 5%

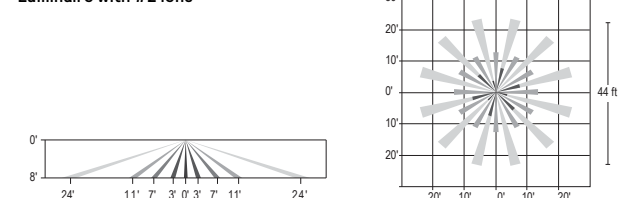
Motion response options

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 with Other Controls: When used in combination with other controls (Automatic Dimming Profile), 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 (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 (L2) is designed for mounting heights up to up to 8 ft with a 24' diameter coverage area. See charts for approximate detection patterns:

Luminaire with #2 lens



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Site & area luminaire

Specifications (cont'd)

Electrical

Twist-Lock Receptacle (TR5/TR7): 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 7-pin Twist-lock receptacle (TR7), all 7 pins are wired to respective pins with the Sensor Ready (SR) driver, and photocell or shorting cap is not included. When ordering a twist-lock receptacle with a photocell (TLP), the receptacle used is a 7-pin receptacle, with pins 6 and 7 connected to SR DALI driver. 0-10V dimming leads (pins 4 and 5) are connected if not ordered with any other dimming option.

Driver: Driver efficiency (>90% standard). 120-480V available (restrictions apply). Open/short circuit protection. All drivers are 0-10V dimming to 10% power standard, except when using Sensor Ready (SR) drivers, which uses DALI protocol (options CS50/CM50/CS30/CM30, SRDR, 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.

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.

Buy American Act of 1933 (BAA):

This product is manufactured in one of our US factories and, as of the date of this document, this product was considered a commercially available off-the-shelf (COTS) item meeting the requirements of the BAA. This BAA designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies. Prior to ordering, please visit www.signify.com/baa to view a current list of BAA-compliant products to confirm this product's current compliance.

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). All Optiform configurations are qualified under Design Lights Consortium Premium classification. 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, 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

Warranty

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

