



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: ONSI MUNSTER

Location: MUNSTER, IN

Cat.No: OPFSA02830T3MARIUNV

Type:

Lamps: Qty:

Notes:

Ordering guide

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

Luminaire	Configuration (nom. lumens)		Color Temperature	Distribution			Mounting	Voltage
OPF-S	A02		830	T3M			AR1	UNV
OPF-S OptiForm Small Area	Site and Area	Precision Plus [®] (T2M, T3M, T4M, T5M only)	827 ¹ 80CRI 2700K 830 80CRI 3000K 840 80CRI 4000K 727 ¹ 70CRI 2700K 730 70CRI 3000K 740 70CRI 4000K 750 70CRI 5000K	AFR Autofront row T2M Type 2 medium T3M Type 3 medium T4M Type 4 medium T4W Type 4 wide T5N Type 5 narrow T5M Type 5 medium T5W Type 5 wide	LCL LEED corner optic left LCR LEED corner optic right BLC Back light control 2RL Type 2 rotated left 90° 2RR Type 2 rotated right 270° 3RL Type 3 rotated left 90° 3RR Type 3 rotated right 270° 4RL ¹ Type 4 rotated left 90° 4RR ¹ Type 4 rotated right 270°	AR1 ^{2,17} Arm mount (standard) MAR ³ Mast arm WAL Wall mount MOS ⁴ Mounting ordered separately	120 120V 208 208V 240 240V 277 277V 347 347V 480 480V UNV 120-277V HVU ¹⁶ 347-480V	
	A01 7,000 lumens	P01 2,500 lumens						
	A02 9,000 lumens	P02 4,000 lumens						
	A03 11,000 lumens	P03 6,500 lumens						
	A04 15,000 lumens	P04 9,000 lumens						
	A05 17,000 lumens	P05 11,500 lumens						
	A06 19,000 lumens	P06 14,000 lumens						
	A07 20,000 lumens	P07 16,500 lumens						
		P08 19,000 lumens						
		P09 22,000 lumens						
Dimming Controls			Sensing	Options (electrical, mechanical, etc)			Emergency	Finish
The following options include 0-10V Driver				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)	Available with precision plus optics P01-P03 only		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)	Available with precision plus optics P01-P03 only		BZ Bronze	
BL50 ^{5,7}	Bi-level with motion sensor		L2 PIR sensor, #2 lens (Required if BL50 is selected) L3 PIR sensor, #3 lens (Required if BL50 is selected)	PCB ^{11,12} Photocontrol button connected to 0-10V driver			DG Dark Gray	
The following options include SR/DALI Driver			WIAP sensor options	TR5 NEMA Twist-lock 5-pin receptacle connected to 0-10V driver	Available with precision plus optics P01-P03 only		MG Medium Gray	
WIAP ^{5,8,13}	Wireless Interact (includes SR drive and SR receptacle)		LB Low (7'-15' mounting height) sensor, black color housing, wireless Interact, integral	TR7 ¹³ 7-pin twist lock receptacle connected to D4i compliant driver			Customer specified	
SRDR ^{5,8,13}	SR driver connected to Zhaga socket (D4i)		LW Low (7'-15' mounting height) sensor, white color housing	TLP ^{11,13} 7-pin twist lock receptacle connected to D4i compliant driver w/ 3-pin photocell	Available with precision plus optics P01-P03 only		OC Special optional color or RAL, consult factory	
DynaDimmer: Automatic Profile Dimming			HB ¹ High (15'-40' mounting height) sensor, black color housing	EHS Housing machined to accept external house side shield for field install. Must be combined with OPF-S-EHS-1 accessory.			SC Special color (must supply color chip, requires factory quote)	
CS50 ^{5,13}	Security 50% dimming, 7 hours		HW ¹ High (15'-40' mounting height) sensor, white color housing	BAC ¹¹⁸ Meets the requirements of the Buy American Act of 1933 (BAA)				
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 horizontal 2-3/8" OD x 5" Long tenon.
- Must be ordered with mounting accessory. Photocell option (TR7) must be selected with mounting accessory. See Page 2 for options.
- 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 HVU [347-480V].
- Not available with lumen packages P01, P02 in UNV [120-277] and with lumen packages A01-A03, P01-P05 in HVU [347-480].
- Not available for lumen packages P04-P09.
- Not available with Dynadimmer, SRDR, FAWS, FS1, FS2, 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.
- Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.

OPF-S OptiForm small

Site & area luminaire

Shielding Accessory Kits (order separately)

One shield kit per luminaire

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

*Must select EHS option on luminaire options section

**Not available for Precision Plus (P01-P09)

*** Standard internal house shields (HIS) can be used for rotated optics

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

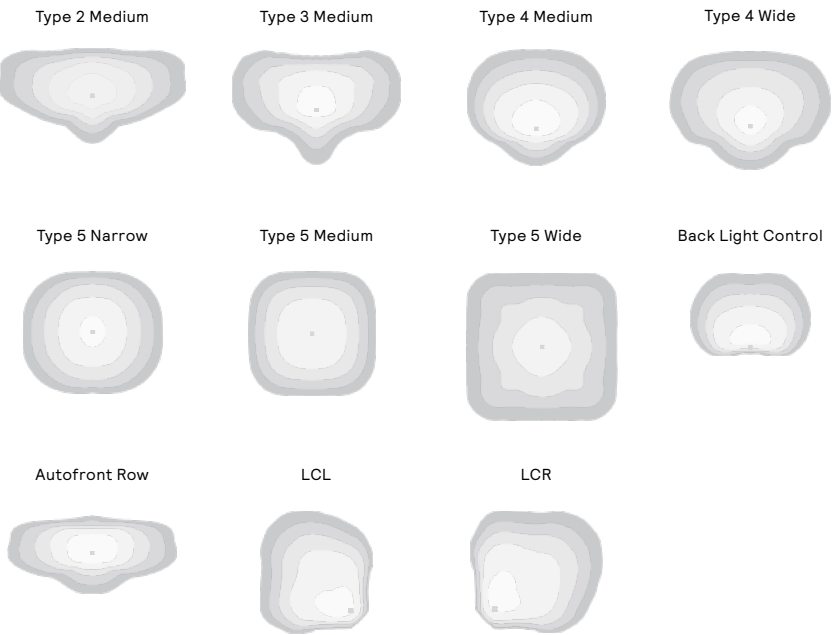
Mountings (boxed and shipped separately)

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

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



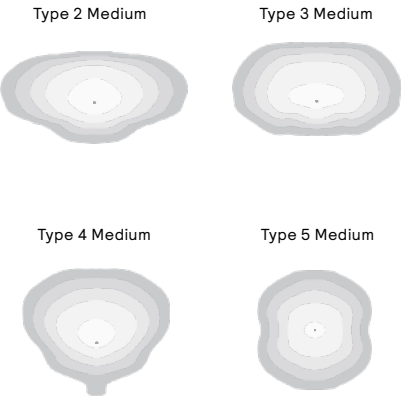
Mounting Accessories

OPF-RMB	Retrofit Mounting Bolster Plate for attaching OptiForm to existing poles. Recommended for retrofit applications.
OPF-RPA	Round Pole Adapter. Fits to 3"- 3.9" O.D. pole. Painted black.

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

Performance Package	System Watts	Distribution Type	70 CRI			70 CRI			70 CRI		
			3000K			4000K			5000K		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
A01	42	T2M	6991	B2-U0-G2	167	7391	B2-U0-G2	176	7391	B2-U0-G2	176
		T3M	6935	B2-U0-G2	166	7332	B2-U0-G2	175	7332	B2-U0-G2	175
		T4M	7028	B1-U0-G2	168	7431	B1-U0-G2	177	7431	B1-U0-G2	177
		T5M	7244	B3-U0-G1	173	7659	B3-U0-G1	183	7659	B3-U0-G1	183
		AFR	7241	B2-U0-G2	173	7655	B2-U0-G2	183	7655	B2-U0-G2	183
		T4W	6692	B1-U0-G2	160	7075	B1-U0-G2	169	7075	B1-U0-G2	169
		T5N	7193	B3-U0-G1	172	7605	B3-U0-G1	182	7605	B3-U0-G1	182
		T5W	6926	B3-U0-G2	165	7322	B3-U0-G2	175	7322	B3-U0-G2	175
		LCL	3804	B1-U0-G1	91	4021	B1-U0-G1	96	4021	B1-U0-G1	96
		LCR	3804	B1-U0-G1	91	4021	B1-U0-G1	96	4021	B1-U0-G1	96
		BLC	4874	B0-U0-G1	116	5153	B0-U0-G1	123	5153	B0-U0-G1	123
A02	54	T2M	8941	B2-U0-G2	165	9452	B2-U0-G2	175	9452	B2-U0-G2	175
		T3M	8869	B2-U0-G2	164	9377	B2-U0-G2	173	9377	B2-U0-G2	173
		T4M	8989	B1-U0-G2	166	9503	B1-U0-G2	176	9503	B1-U0-G2	176
		T5M	9265	B3-U0-G2	171	9795	B3-U0-G2	181	9795	B3-U0-G2	181
		AFR	9260	B2-U0-G2	171	9790	B2-U0-G2	181	9790	B2-U0-G2	181
		T4W	8558	B2-U0-G2	158	9048	B2-U0-G2	167	9048	B2-U0-G2	167
		T5N	9200	B3-U0-G1	170	9726	B3-U0-G1	180	9726	B3-U0-G1	180
		T5W	8858	B3-U0-G2	164	9365	B3-U0-G2	173	9365	B3-U0-G2	173
		LCL	4864	B1-U0-G1	90	5143	B1-U0-G1	95	5143	B1-U0-G1	95
		LCR	4864	B1-U0-G1	90	5143	B1-U0-G1	95	5143	B1-U0-G1	95
		BLC	6234	B0-U0-G2	115	6591	B0-U0-G2	122	6591	B0-U0-G2	122
A03	64	T2M	10438	B2-U0-G2	164	11035	B2-U0-G2	174	11035	B3-U0-G3	174
		T3M	10354	B2-U0-G2	163	10947	B2-U0-G2	172	10947	B2-U0-G2	172
		T4M	10494	B2-U0-G2	165	11094	B1-U0-G2	174	11094	B2-U0-G2	174
		T5M	10816	B3-U0-G2	170	11435	B3-U0-G2	180	11435	B3-U0-G2	180
		AFR	10811	B3-U0-G3	170	11429	B2-U0-G2	180	11429	B3-U0-G3	180
		T4W	9991	B2-U0-G3	157	10563	B2-U0-G2	166	10563	B2-U0-G3	166
		T5N	10740	B3-U0-G2	169	11355	B3-U0-G1	179	11355	B3-U0-G2	179
		T5W	10341	B4-U0-G2	163	10933	B3-U0-G2	172	10933	B4-U0-G2	172
		LCL	5679	B1-U0-G1	89	6004	B1-U0-G1	94	6004	B1-U0-G1	94
		LCR	5679	B1-U0-G1	89	6004	B1-U0-G1	94	6004	B1-U0-G1	94
		BLC	7278	B1-U0-G2	114	7694	B0-U0-G2	121	7694	B1-U0-G2	121
A04	91	T2M	14465	B3-U0-G3	160	15293	B3-U0-G3	169	15293	B3-U0-G3	169
		T3M	14350	B3-U0-G3	158	15171	B3-U0-G3	167	15171	B3-U0-G3	167
		T4M	14543	B2-U0-G2	160	15375	B2-U0-G2	170	15375	B2-U0-G2	170
		T5M	14990	B4-U0-G2	165	15848	B4-U0-G2	175	15848	B4-U0-G2	175
		AFR	14982	B3-U0-G3	165	15840	B3-U0-G3	175	15840	B3-U0-G3	175
		T4W	13847	B2-U0-G3	153	14639	B2-U0-G3	161	14639	B2-U0-G3	161
		T5N	14884	B4-U0-G2	164	15736	B4-U0-G2	174	15736	B4-U0-G2	174
		T5W	14331	B4-U0-G3	158	15151	B4-U0-G3	167	15151	B4-U0-G3	167
		LCL	7870	B1-U0-G2	87	8321	B1-U0-G2	92	8321	B1-U0-G2	92
		LCR	7870	B1-U0-G2	87	8321	B1-U0-G2	92	8321	B1-U0-G2	92
		BLC	10086	B1-U0-G2	111	10663	B1-U0-G2	118	10663	B1-U0-G2	118

OPF-S OptiForm small

Site & area luminaire

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

Performance Package	System Watts	Distribution Type	70 CRI			70 CRI			70 CRI		
			3000K			4000K			5000K		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
A05	104	T2M	16226	B3-U0-G3	156	17155	B3-U0-G3	164	17155	B3-U0-G3	164
		T3M	16096	B3-U0-G3	154	17018	B3-U0-G3	163	17018	B3-U0-G3	163
		T4M	16313	B2-U0-G3	156	17247	B2-U0-G3	165	17247	B2-U0-G3	165
		T5M	16814	B4-U0-G2	161	17777	B4-U0-G2	170	17777	B4-U0-G2	170
		AFR	16806	B3-U0-G3	161	17768	B3-U0-G3	170	17768	B3-U0-G3	170
		T4W	15532	B3-U0-G3	149	16421	B3-U0-G3	157	16421	B3-U0-G3	157
		T5N	16696	B4-U0-G2	160	17652	B4-U0-G2	169	17652	B4-U0-G2	169
		T5W	16075	B4-U0-G3	154	16995	B4-U0-G3	163	16995	B4-U0-G3	163
		LCL	8828	B1-U0-G2	85	9333	B1-U0-G2	89	9333	B1-U0-G2	89
		LCR	8828	B1-U0-G2	85	9333	B1-U0-G2	89	9333	B1-U0-G2	89
		BLC	11314	B1-U0-G2	108	11961	B1-U0-G2	115	11961	B1-U0-G2	115
A06	122	T2M	18441	B3-U0-G3	151	19496	B3-U0-G3	160	19496	B3-U0-G3	160
		T3M	18294	B3-U0-G3	150	19341	B3-U0-G3	158	19341	B3-U0-G3	158
		T4M	18540	B3-U0-G3	152	19601	B3-U0-G3	160	19601	B3-U0-G3	160
		T5M	19110	B4-U0-G2	156	20203	B4-U0-G2	165	20203	B4-U0-G2	165
		AFR	19100	B3-U0-G3	156	20193	B3-U0-G3	165	20193	B3-U0-G3	165
		T4W	17652	B3-U0-G3	144	18662	B3-U0-G3	153	18662	B3-U0-G3	153
		T5N	18975	B4-U0-G2	155	20061	B4-U0-G2	164	20061	B4-U0-G2	164
		T5W	18270	B5-U0-G3	150	19315	B5-U0-G3	158	19315	B5-U0-G3	158
		LCL	10033	B2-U0-G2	82	10607	B2-U0-G2	87	10607	B2-U0-G2	87
		LCR	10033	B2-U0-G2	82	10607	B2-U0-G2	87	10607	B2-U0-G2	87
		BLC	12858	B1-U0-G2	105	13594	B1-U0-G2	111	13594	B1-U0-G2	111
A07	136	T2M	16776	B3-U0-G3	123	20034	B3-U0-G3	147	21181	B3-U0-G3	156
		T3M	16642	B3-U0-G3	122	19874	B3-U0-G3	146	21012	B3-U0-G3	154
		T4M	16866	B2-U0-G3	124	20142	B3-U0-G3	148	21294	B3-U0-G3	156
		T5M	17384	B4-U0-G2	128	20761	B4-U0-G2	152	21949	B4-U0-G2	161
		AFR	17375	B3-U0-G3	128	20750	B3-U0-G3	152	21938	B3-U0-G3	161
		T4W	16058	B3-U0-G3	118	19178	B3-U0-G3	141	20275	B3-U0-G3	149
		T5N	17262	B4-U0-G2	127	20615	B4-U0-G2	151	21794	B4-U0-G2	160
		T5W	16620	B4-U0-G3	122	19848	B5-U0-G3	146	20984	B5-U0-G3	154
		LCL	9127	B1-U0-G2	67	10900	B2-U0-G2	80	11524	B2-U0-G2	85
		LCR	9127	B1-U0-G2	67	10900	B2-U0-G2	80	11524	B2-U0-G2	85
		BLC	11697	B1-U0-G2	86	13969	B1-U0-G2	103	14768	B1-U0-G2	108

OPF-S OptiForm small

Site & area luminaire

OPF-S Precision Plus Optic Lumen values

Performance Package	System Watts	Distribution Type	70 CRI			70 CRI			70 CRI		
			3000K			4000K			5000K		
			Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
P01	15	T2M	2691	B1-U0-G1	182	2845	B1-U0-G1	192	2845	B1-U0-G1	192
		T3M	2718	B1-U0-G1	184	2874	B1-U0-G1	194	2874	B1-U0-G1	194
		T4M	2665	B1-U0-G1	180	2817	B1-U0-G1	190	2817	B1-U0-G1	190
		T5M	2610	B2-U0-G1	176	2759	B2-U0-G1	186	2759	B2-U0-G1	186
P02	23	T2M	4022	B1-U0-G1	178	4252	B1-U0-G1	189	4252	B1-U0-G1	189
		T3M	4062	B1-U0-G1	180	4295	B1-U0-G1	191	4295	B1-U0-G1	191
		T4M	3983	B1-U0-G1	177	4211	B1-U0-G1	187	4211	B1-U0-G1	187
		T5M	3900	B2-U0-G1	173	4124	B2-U0-G1	183	4124	B2-U0-G1	183
P03	38	T2M	6465	B2-U0-G2	169	6835	B2-U0-G2	179	6835	B2-U0-G2	179
		T3M	6530	B2-U0-G2	171	6904	B2-U0-G2	181	6904	B2-U0-G2	181
		T4M	6402	B1-U0-G2	168	6768	B1-U0-G2	177	6768	B1-U0-G2	177
		T5M	6269	B3-U0-G2	164	6629	B3-U0-G2	174	6629	B3-U0-G2	174
P04	53	T2M	8759	B2-U0-G2	165	9261	B2-U0-G2	174	9261	B2-U0-G2	174
		T3M	8848	B2-U0-G2	166	9355	B2-U0-G2	176	9355	B2-U0-G2	176
		T4M	8674	B2-U0-G2	163	9171	B2-U0-G2	172	9171	B2-U0-G2	172
		T5M	8495	B3-U0-G2	160	8982	B3-U0-G2	169	8982	B3-U0-G2	169
P05	66	T2M	11253	B2-U0-G2	172	11898	B2-U0-G2	182	11898	B2-U0-G2	182
		T3M	11366	B3-U0-G3	173	12018	B3-U0-G3	183	12018	B3-U0-G3	183
		T4M	11143	B2-U0-G3	170	11782	B2-U0-G3	180	11782	B2-U0-G3	180
		T5M	10913	B3-U0-G2	167	11539	B3-U0-G2	176	11539	B3-U0-G2	176
P06	76	T2M	13987	B3-U0-G3	183	14788	B3-U0-G3	194	14788	B3-U0-G3	194
		T3M	14128	B3-U0-G3	185	14937	B3-U0-G3	196	14937	B3-U0-G3	196
		T4M	13850	B2-U0-G3	182	14644	B2-U0-G3	192	14644	B2-U0-G3	192
		T5M	13564	B4-U0-G3	178	14342	B4-U0-G3	188	14342	B4-U0-G3	188
P07	94	T2M	15850	B3-U0-G3	168	16758	B3-U0-G3	178	16758	B3-U0-G3	178
		T3M	16010	B3-U0-G3	170	16927	B3-U0-G3	180	16927	B3-U0-G3	180
		T4M	15696	B3-U0-G3	167	16595	B3-U0-G3	176	16595	B3-U0-G3	176
		T5M	15372	B4-U0-G3	163	16253	B4-U0-G3	172	16253	B4-U0-G3	172
P08	113	T2M	19800	B3-U0-G3	176	20934	B3-U0-G3	186	20934	B3-U0-G3	186
		T3M	19999	B3-U0-G3	178	21145	B3-U0-G3	188	21145	B3-U0-G3	188
		T4M	19607	B3-U0-G3	174	20730	B3-U0-G3	184	20730	B3-U0-G3	184
		T5M	19202	B4-U0-G3	171	20302	B4-U0-G3	180	20302	B4-U0-G3	180
P09	133	T2M	21655	B3-U0-G3	163	22896	B3-U0-G3	172	22896	B3-U0-G3	172
		T3M	21874	B3-U0-G3	164	23127	B3-U0-G3	174	23127	B3-U0-G3	174
		T4M	21444	B3-U0-G4	161	22673	B3-U0-G4	171	22673	B3-U0-G4	171
		T5M	21002	B4-U0-G3	158	22205	B4-U0-G3	167	22205	B4-U0-G3	167

OPF-S OptiForm small

Site & area luminaire

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

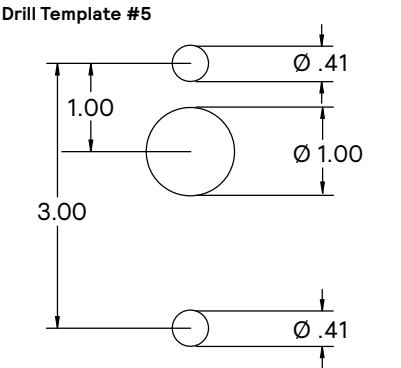
Predicted Lumen Depreciation Data

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

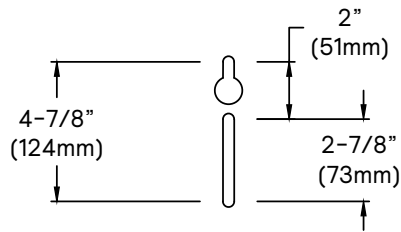
Ambient Temp°C	Lumen Package	Calculated L70 Hours	L70 per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	A06-A07	>77,000 hours	>77,000 hours	90%
25°C	All others	>100,000 hours	>100,000 hours	96%

Dimensions

Standard Drill Pattern



Standard Arm Mounting Hole Pattern



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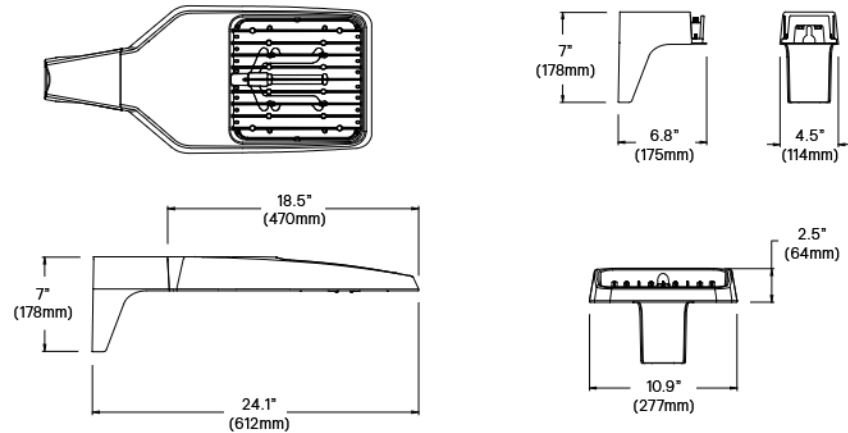
Site & area luminaire

Dimensions

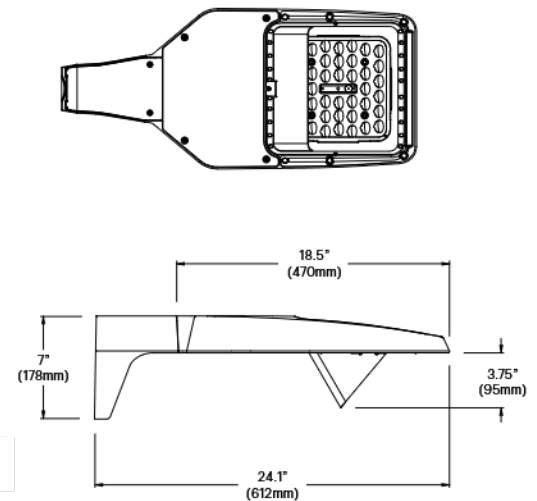
OptiForm Standard Arm

Weight: 11 lb (5.0 kg)

EPA: 0.2 ft² (0.018 m²)

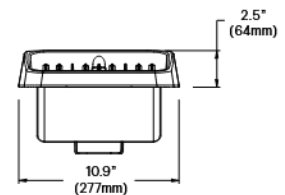
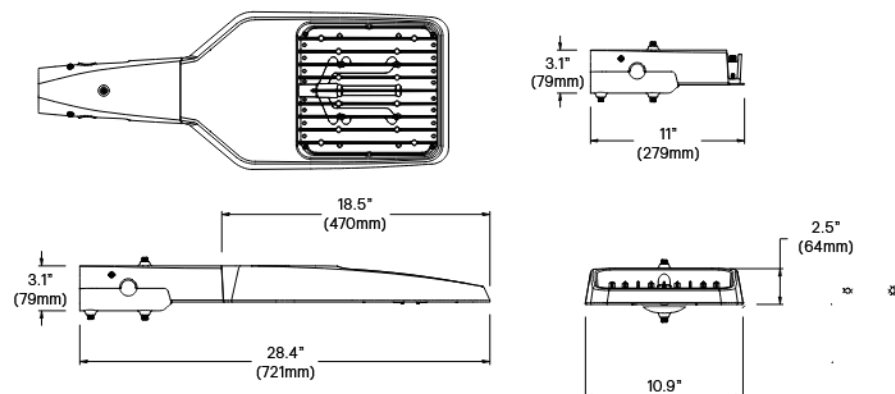


OptiForm External Housing Shield



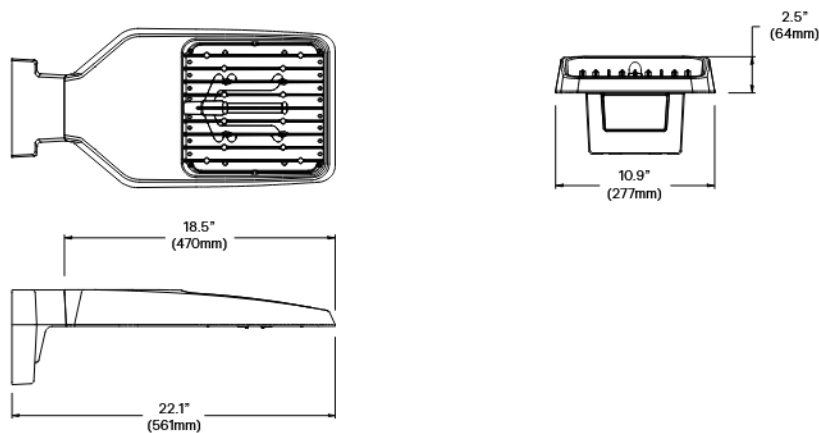
OptiForm Mast Arm

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. OptiForm carries and impact rating of IK08.

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. 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%

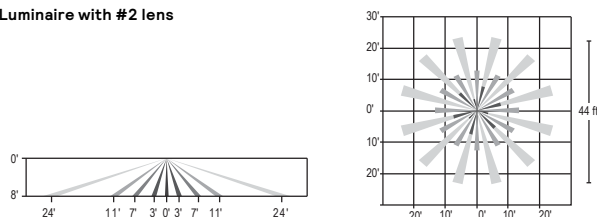
Note: Typical value accuracy $\pm$ 5%

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 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:

Luminaire with #2 lens



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Site & area luminaire

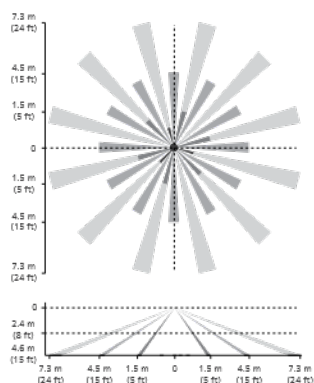
Specifications (cont'd)

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.

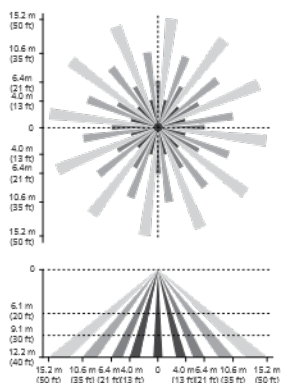
For more information on Interact Pro visit:

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

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.

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

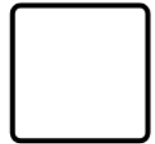
Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidyl isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BZ), black (BK), white (WH), dark gray (DGY), and medium gray (MGY). Consult Factory 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.



The Gardco SSS Straight Square Steel pole consists of a one-piece high tensile carbon steel tube welded and secured to the carbon steel base plate providing excellent strength and integrity. The poles are finished with an electrostatically applied, thermally cured polyester powdercoat. All poles include base cover, hand hole, ground lug and top cap. Anchor bolts and templates are ordered as a separate accessory.

Project: **ONSI PHASE 2**

Location:

Cat.No: **SSSCB4723D1DT5WH**

Type:

Lumens: Qty: **5**

Notes:

Ordering guide
example: SSS-CB-4-11-12-D1-DT1-BK-FES

Family	Base	Pole Shaft Size (in.)	Pole Gauge/Wall Thickness	Height (ft) ⁵	Drilling/Tenon Config. ¹	Drilling Template ²	Finish	Options ³
SSS	CB	4	7	23	D1	DT	WH	
SSS	CB Carbon Steel Base w/ Base Cover	4	11 11 ga. / 0.120"	10	D1 1 Way D1@180 1 Way @ 180 D2 2 Way @ 180 D2@90 2 Way @ 90 D3 3 Way @ 90 D4 4 Way @ 90	DT1 Drill Template 1 DT2 Drill Template 2 DT3 Drill Template 3 DT4 Drill Template 4 DT5 Drill Template 5 DT6 Drill Template 6 [DTX-xxx] ^{6,7} Custom Template See drill template chart for details.	BK Black	FES⁸ Festoon Outlet
				12			BZ Bronze	VDA Vibration Dampener
				14			WH White	AHH⁸ Additional Hand Hole
				15			DG Dark Grey	DR^{8,a} Duplex
				16			MG Medium Grey	Receptacle
				18			GY3⁸ Light Grey, Smooth	VPA Vandalproof Screws
L/SSS	CB Carbon Steel Base w/ Base Cover	4	11 11 ga. / 0.120"	20	T2D4L 2-3/8" OD x 4" length T2D6L⁸ 2-3/8" OD x 6" length T3D4L 3" OD x 4" length T4D6L 4" OD x 6" length	N No Drilling Template (for Tenon and Plain Top Options)	SSDGY⁸ SolarForm Dark Grey (RAL 7011)	GFI^{8,b} DR with GFI (120V only)
				25			GV Galvanized (No Paint)	BAC⁹ Buy American Compliant
				30			FP/GV Finished Textured Paint over Galvanized (Specify, ex: MG/GV)	CL1/2⁸ Coupling 1/2"
				35			OC Optional Color Paint (ex: RAL7024)	CL3/4⁸ Coupling 3/4"
				40			SC⁶ Special/Custom Color (Specify, must supply color chip)	CL1⁸ Coupling 1"
								CL1-1/4⁸ Coupling 1-1/4"
L/SSS	CB Carbon Steel Base w/ Base Cover	4	7 7 ga. / 0.180"	20	No Drilling/No Tenon	P Plain Top		CL1-1/2⁸ Coupling 1-1/2"
				25				NL1/2⁸ Nipple 1/2"
				30				NL3/4⁸ Nipple 3/4"
				35				NL1⁸ Nipple 1"
				40				NL1-1/4⁸ Nipple 1-1/4"
								NL1-1/2⁸ Nipple 1-1/2"

1. See Drilling Configurations on Page 3.

2. See Luminaire Drilling Templates on Page 3

3. Not all options available with all configurations. Consult factory for more details

4. Options listed with **gray text** will be shipped with the Legacy SSS design. Use the L/SSS family code whenever these options are specified.

5. Pole heights can be cut to length. Specify as a whole number in ft. (ex. 11, 13) or to the inch as a decimal (ex. 15.33 = 15' 4") or as "15FT 4IN" for Legacy designs.

6. Option must be specified, including install location, by the customer before order release. FES, DR, GFI, AHH options typically must be placed 12-18" away from standard hand hole (20" or 12" above base).

7. Custom drill templates (DTX) require factory quote.

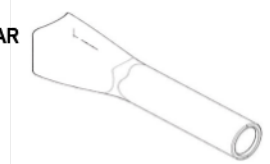
8. Option not available with Legacy SSS designs.

9. Failure to properly select the "BAC" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.

10. Consult Signify to confirm whether specific accessories are BAA-compliant.

Accessories ¹⁰

Service	Pole Size	12NC	Description (Diameter x Length x Hook)	AB Template Only
Anchor Bolts + Templates				
For shipment with the pole (order 1 per pole)	4" Poles	912401597397	AB 3/4x24x3-G DEC w/ 8.5 BC ABT	(Template included w/ AB set)
	5" Poles (SSS)	912401613107	AB 1x33x3-G DEC w/ 11 BC ABT	(Template included w/ AB set)
	5" Poles (L/SSS)	912400207384	AB 3/4x17x3 (SET OF 4 & HW)	912401482125 - ABT SSS5 ABT-DS330-5 w/ 11" BC
	6" Poles	912401597401	AB 1x33x3-G DEC w/ 12 BC ABT	(Template included w/ AB set)
For Pre-Ship service (order 1 per pole)	4" Poles	912401596529	AB 3/4x24x3-G DEC (SET OF 4 & HW)	912401482124 - ABT SSS4 ABT-DS330-4 w/ 8.5" BC
	5" Poles (SSS)	912401596530	AB 1x33x3-G DEC (SET OF 4 & HW)	912401482125 - ABT SSS5 ABT-DS330-5 w/ 11" BC
	5" Poles (L/SSS)	912401596528	AB 3/4x17x3-G DEC (SET OF 4 & HW)	912401482125 - ABT SSS5 ABT-DS330-5 w/ 11" BC
	6" Poles	912401596530	AB 1x33x3-G DEC (SET OF 4 & HW)	912401482126 - ABT SSS6 ABT-DS330-6 w/ 12" BC
Part No.	Description			
RLAR-1A-SQ4+ - (finish)	Cast aluminum mounting arm, 15" long with DT6 drill pattern (order 1 per luminaire). For use with Lumec Roadway and Gardco SolarForm luminaires (for SolarForm: use RLAR bracket to mount horizontally, use T2D6L tenon to mount vertically). Specify finish to match pole.			

RLAR


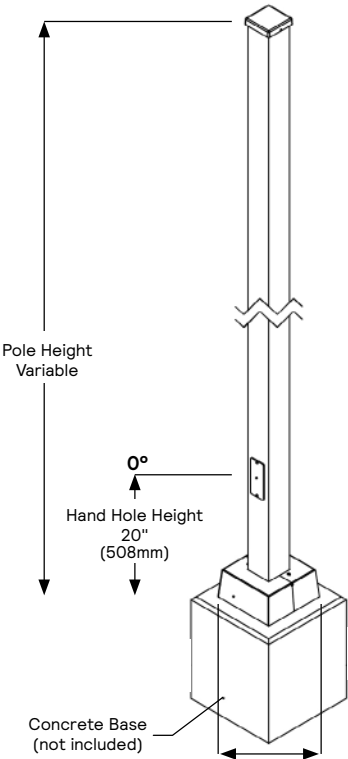
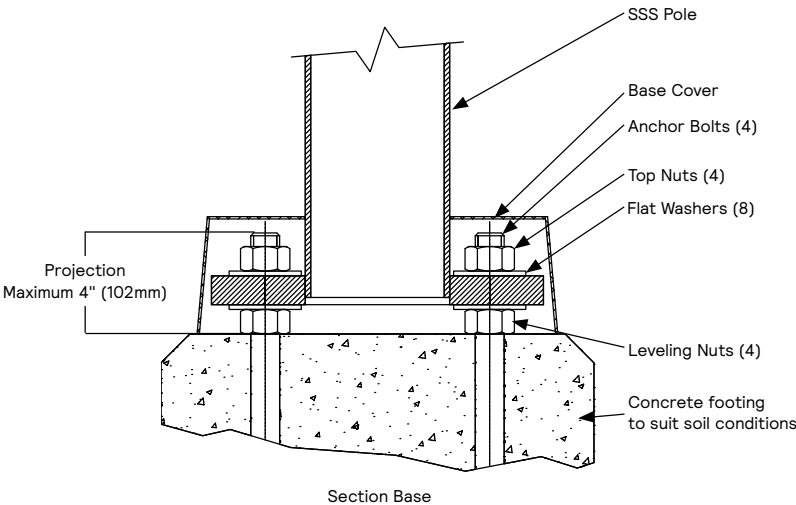
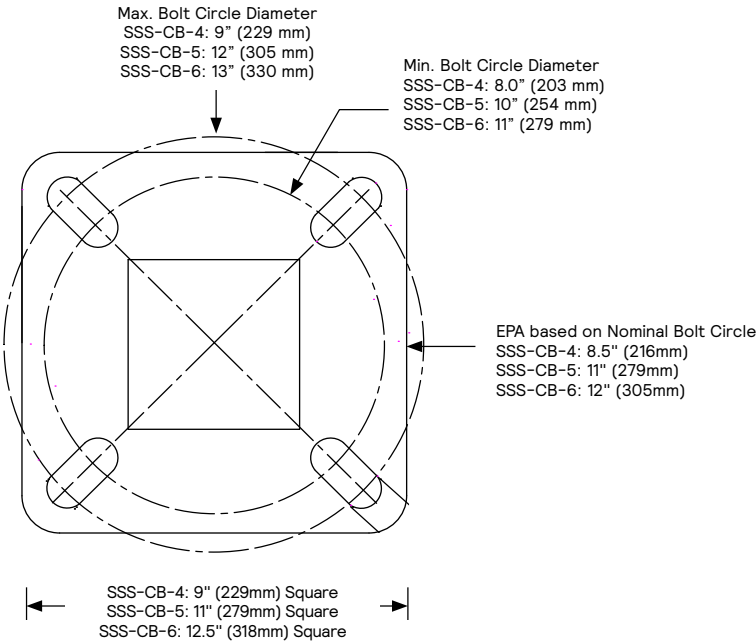
Poles Straight Square Steel

Quick Ship ordering guide

example: SSS-CB-4-11-20-D1-DT5-BZ-RS

Family	Base	Pole Shaft Size (in.)	Pole Gauge/ Wall Thickness	Height (ft.) ⁵	Drilling Configuration	Drilling Template	Finish	Options
SSS Straight Square Steel	CB Carbon Steel Base w/ Cover	4	11 11 ga. / 0.120"	20 25	D1 1 Way D1@180 1 Way @ 180 D2 2 Way @ 180 D2@90 2 Way @ 90 D3 3 Way @ 90 D3@120 3 Way @ 120 D4 4 Way @ 90	DT5 Drill Template 5	BZ Bronze MG Medium Grey BK Black	RS RapidShip*
			7 7 ga. / 0.18"	25 30				

Dimensions



Base Cover Dimensions (L x W x H)
SSS-CB-4: 9.80" x 9.80" x 4.58" (245mm x 245mm x 116mm)
SSS-CB-5: 11.80" x 11.80" x 4.58" (300mm x 300mm x 116mm)
SSS-CB-6: 13.30" x 13.30" x 4.58" (338mm x 338mm x 116mm)

SSS Legacy Design not shown.
Base Cover: Square
Hand Hole: 12" Above Base

* Anchor Bolt Lock Washers are not normally required and are not included in standard anchor bolt sets. They are available upon request at additional cost.

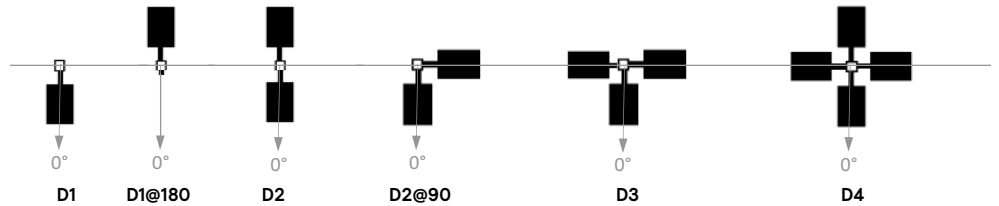
**Grouting should include a drainage slot or tube (by others) to permit water to drain from the base of the pole. Failure to provide drainage may weaken the pole base structure over time and may result in pole base failure, for which Gardco is not responsible.

NOTE: Factory supplied template must be used when setting anchor bolts. Gardco will not honor any claim for incorrect anchorage placement from failure to use factory supplied templates.

Poles Straight Square Steel

Drilling Configuration

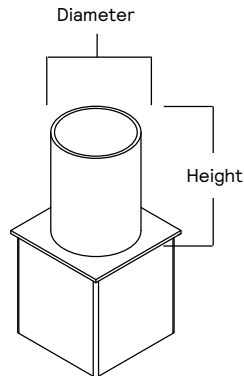
Code	Description
D1	Single luminaire
D1@180	Single luminaire @ 180
D2	Two luminaires @ 180
D2@90	Two luminaires @ 90
D3	Three luminaires @ 90
D4	Four luminaires @ 90



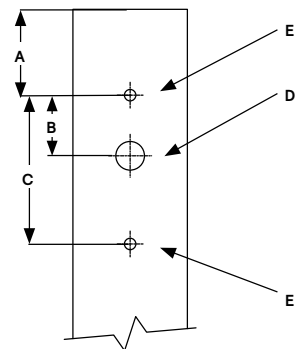
Ref. access door at 0° for all
Legacy design places access door at 180°

Tenon Dimensions

Tenon	Diameter	Height
T2D4L	2.375" (60mm)	4" (102mm)
T2D6L	2.375" (60mm)	6" (152mm)
T3D4L	3" (76mm)	4" (102mm)
T4D6L	4" (102mm)	6" (152mm)



Pole Top Drilling



Luminaire Drill Pattern

Code	Description	Luminaires	Pole Drilling				
			A To Pole Top	B	C Full Extent	D Wireway Hole	E Bolt Hole
DT1	Drill Template 1	Gardco SlenderForm Round SFRA	2.25" (57mm)	1.5" (38.1mm)	3" (76mm)	0.875" (22.2mm)	0.40" (10.2mm)
DT2	Drill Template 2	Gardco SlenderForm Square - SFA Gardco Gullwing - GL13, GL18 Gardco Form Ten - EH14L, EH19L, CAL17, CAL22, MAL17, MAL22	2.25" (57mm)	2.17" (55mm)	3.84" (98mm)	0.875" (22.2mm)	0.39" (9.9mm)
DT3	Drill Template 3	Gardco PowerForm PFAS	2.25" (57mm)	1.75" (44mm)	3.84" (98mm)	0.875" (22.2mm)	0.41" (10.4mm)
DT4	Drill Template 4	Gen1 Stonco/Keene AL150-G1, AL200-G1	2.5" (64mm)	1.7" (43mm)	3.5" (89mm)	0.875" (22.2mm)	0.41" (10.4mm)
DT5	Drill Template 5	Gardco EcoForm Gen2 - ECF-S, ECF-L Gardco PureForm Gen2 - P15, P20, P26, P34 Gardco OptiForm Small - OPF-S Gardco OptiForm Med - OPF-M Gardco OptiForm Large - OPF-L Stonco/Keene LytePro Area - LPA	3" (76mm)	1" (25mm)	3" (76mm)	1" (25mm)	0.41" (10.4mm)
DT6	Drill Template 6	Hole pattern drilled for the following: Gen2 Stonco/Keene AL70-G2 and AL150-G2, or to attach RLAR bracket accessory, suitable for use with: Lumec Capella CPLM, CPLS Lumec RoadStar GPLM, GPLS Lumec RoadFocus RFS, RFM, RFL Lumec RoadFocus Plus RPS Lumec RoadView RVM, RVS Lumec MiniView SVS Lumec StreetView SVM Gardco SolarForm BRP710	2.5" (64mm)	1" (25mm)	2" (50mm)	0.875" (22mm)	0.5" (12.7mm)

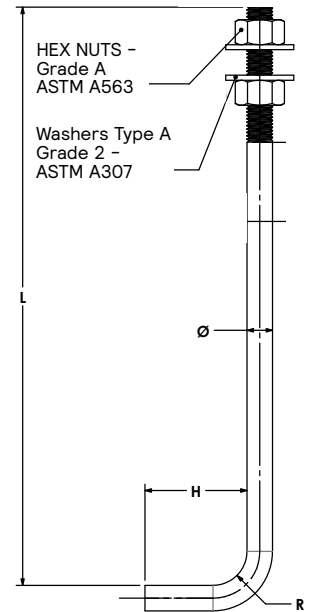
Poles Straight Square Steel

Pole Data

Product Catalog Number	Pole Specs				Anchor Bolt Data			
	Height (ft.)	Pole Diameter (in.)	Wall Thickness (in.)	Pole Weight (lbs)	Bolt Circle (in.)	Anchor Bolt Spec (in.)	Legacy Anchor Bolt Spec (in.)	Anchor Bolt Max Proj. (in.)
SSS-CB-4-11-10	10	4	0.12	63	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-4-11-12	12	4	0.12	76	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-4-11-14	14	4	0.12	88	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-4-11-15	15	4	0.12	94	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-4-11-16	16	4	0.12	101	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-4-11-18	18	4	0.12	113	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-4-11-20	20	4	0.12	126	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-4-11-25	25	4	0.12	157	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-4-7-20	20	4	0.18	185	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-4-7-25	25	4	0.18	232	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
● SSS-CB-4-7-30	30	4	0.18	278	8.5 (+/- 0.5)	3/4 x 24 x 3	3/4 x 24 x 3	4
SSS-CB-5-11-20	20	5	0.12	158	11 (+/- 1)	1 x 33 x 3	3/4 x 17 x 3	4
SSS-CB-5-11-25	25	5	0.12	197	11 (+/- 1)	1 x 33 x 3	3/4 x 17 x 3	4
● SSS-CB-5-11-30	30	5	0.12	237	11 (+/- 1)	1 x 33 x 3	3/4 x 17 x 3	4
SSS-CB-5-7-20	20	5	0.18	234	11 (+/- 1)	1 x 33 x 3	3/4 x 17 x 3	4
SSS-CB-5-7-25	25	5	0.18	292	11 (+/- 1)	1 x 33 x 3	3/4 x 17 x 3	4
● SSS-CB-5-7-30	30	5	0.18	350	11 (+/- 1)	1 x 33 x 3	3/4 x 17 x 3	4
● SSS-CB-5-7-35	35	5	0.18	409	11 (+/- 1)	1 x 33 x 3	3/4 x 17 x 3	4
● SSS-CB-6-7-30	30	6	0.18	423	12 (+/- 1)	1 x 33 x 3	1 x 33 x 3	4
● SSS-CB-6-7-35	35	6	0.18	493	12 (+/- 1)	1 x 33 x 3	1 x 33 x 3	4
● SSS-CB-6-7-40	40	6	0.18	564	12 (+/- 1)	1 x 33 x 3	1 x 33 x 3	4

● SSS Legacy Design

Standard Anchor Bolt



Pole Data (cont.)

Product Catalog Number	AASHTO 2001 - EPA ft ²								CSA - EPA ft ²							
	80 MPH	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH	300 Pa 79 MPH	400 Pa 91 MPH	500 Pa 102 MPH	600 Pa 111 MPH	700 Pa 120 MPH	800 Pa 129 MPH	900 Pa 136 MPH	1000 Pa 144 MPH
SSS-CB-4-11-10	30.00	26.82	21.25	17.13	13.99	11.55	9.62	8.07	30.00	27.03	21.10	17.15	14.34	12.23	10.59	9.27
SSS-CB-4-11-12	28.31	21.72	17.04	13.55	10.88	8.83	7.19	5.88	30.00	21.74	16.76	13.44	11.08	9.30	7.92	6.82
SSS-CB-4-11-14	23.54	17.83	13.77	10.77	8.48	6.69	5.26	4.15	24.79	17.66	13.40	10.53	8.51	6.98	5.79	4.85
SSS-CB-4-11-15	21.53	16.22	12.41	9.57	7.43	5.76	4.44	3.36	22.58	15.92	11.94	9.30	7.40	5.96	4.87	3.97
SSS-CB-4-11-16	19.70	14.69	11.12	8.48	6.47	4.91	3.65	2.66	20.58	14.37	10.65	8.16	6.37	5.05	4.03	3.19
SSS-CB-4-11-18	16.19	11.82	8.72	6.43	4.67	3.30	2.21	1.33	17.07	11.59	8.31	6.12	4.56	3.38	2.47	1.74
SSS-CB-4-11-20	13.29	9.46	6.72	4.67	3.13	1.92	N/A	N/A	14.07	9.20	6.29	4.34	2.95	1.90	1.10	N/A
SSS-CB-4-11-25	7.78	4.86	2.78	1.22	N/A	N/A	N/A	N/A	7.95	4.26	2.06	N/A	N/A	N/A	N/A	N/A
SSS-CB-4-7-20	22.23	16.63	12.62	9.65	7.40	5.65	4.26	3.15	23.05	15.94	11.67	8.83	6.78	5.26	4.09	3.15
SSS-CB-4-7-25	14.87	10.59	7.54	5.28	3.56	2.23	1.16	N/A	14.83	9.42	6.17	4.01	2.46	1.31	N/A	N/A
● SSS-CB-4-7-30	9.63	6.25	3.82	2.01	N/A	N/A	N/A	N/A	8.36	4.20	1.72	N/A	N/A	N/A	N/A	N/A
SSS-CB-5-11-20	22.64	16.51	12.13	8.89	6.43	4.51	2.99	1.76	24.95	17.04	12.29	9.10	6.84	5.14	3.82	2.76
SSS-CB-5-11-25	14.32	9.62	6.25	3.79	1.90	N/A	N/A	N/A	16.16	10.00	6.29	3.83	2.06	N/A	N/A	N/A
● SSS-CB-5-11-30	8.28	4.53	1.86	N/A	N/A	N/A	N/A	N/A	9.30	4.42	1.48	N/A	N/A	N/A	N/A	N/A
SSS-CB-5-7-20	30.00	27.78	21.37	16.63	13.01	10.21	7.97	6.17	30.00	28.15	21.16	16.51	13.19	10.71	8.77	7.21
SSS-CB-5-7-25	25.42	18.54	13.62	9.97	7.19	5.05	3.34	1.98	27.74	18.68	13.23	9.61	7.02	5.08	3.56	2.37
● SSS-CB-5-7-30	17.45	11.94	8.01	5.08	2.88	1.16	N/A	N/A	18.54	11.33	7.02	4.12	2.07	N/A	N/A	N/A
● SSS-CB-5-7-35	11.37	6.84	3.62	1.22	N/A	N/A	N/A	N/A	10.73	5.08	1.70	N/A	N/A	N/A	N/A	N/A
● SSS-CB-6-7-30	27.54	19.44	13.66	9.38	6.14	3.59	1.57	N/A	30.00	20.55	13.99	9.59	6.47	4.11	2.27	N/A
● SSS-CB-6-7-35	19.06	12.39	7.60	4.05	1.36	N/A	N/A	N/A	21.06	12.23	6.96	3.42	N/A	N/A	N/A	N/A
● SSS-CB-6-7-40	12.29	6.64	2.60	N/A	N/A	N/A	N/A	N/A	12.21	5.17	N/A	N/A	N/A	N/A	N/A	N/A

- Warning:** Additional wind loading, in terms of EPA, from banners, cameras, floodlights and other accessories attached to the pole, must be added to the luminaire(s) EPA before selecting the pole with the appropriate wind load capability. Specifying BAA or BAC compliant poles may result in different EPA ratings.
- Factory supplied template must be used when setting anchor bolts. Gardco will not honor any claim for incorrect anchorage placement resulting from failure to use factory supplied templates. Exact length of anchor bolts may vary.
- EPA ratings are based on the listed, optimal midpoint of the bolt circle. The bolt circle has limited variability but the EPA rating will change.

NOTE: Above EPA (Effective Projected Area) rating is in accordance with AASHTO 2001, with a 50 pound load (22.7 kg) placed at 1 foot (305mm) above its center.

Poles Straight Square Steel

Specifications

Pole shaft

The pole shaft is fabricated from a single piece of 11 ga (0.1196") or 7 ga (0.180") high tensile carbon steel. The formed steel plate is longitudinally welded providing minimum yield strength of 50 ksi. Shaft includes factory installed copper ground lug, 10-7 copper wire, and ground lug screw.

Anchor Base

The pole anchor base is fabricated from 44W structural quality carbon steel with a minimum yield strength of 44 ksi. The base plate is circumferentially welded on both top and bottom.

Anchor Bolts

Anchor bolts are fabricated from a commercial quality hot rolled carbon steel bar that meets or exceeds a minimum guaranteed yield strength of 55 ksi. Bolts have an "L" bend on one end and threaded on the opposite end. Anchor bolts are galvanized in accordance with ASTM A-153.6 C1.C. Four (4) properly sized bolts, each furnished with two (2) regular hex nuts and two (2) flat washers, are provided per pole (priced and ordered separately), unless otherwise specified. Conforms to AASHTO M 314 90 and ASTM F1554.

Customer Specified Options

The options, DTX, FES, DR, GFI, AHH, CL*, and NL* require factory quotation. Poles with custom drilling templates (DTX) are provided as a service, however Signify holds no liability for improper installation and safety when using non-Signify luminaires or attachments on Gardco poles via drilling, tenon mounting, or coupling and nipple mounting. It is the responsibility of the customer to ensure the pole is loaded and installed in a safe manner to the limitations of the pole structure. See "Warning" paragraph for more details.

Base Cover

A two-piece painted square aluminum base cover that completely conceals the entire base plate and anchorage. Base cover is provided standard. Legacy design is provided with a composite base cover.

Hand hole

The hand hole has a nominal rectangular 2"x4.5" inside opening in the pole shaft. Included is an aluminum cover plate, EPDM gasket, and captive attachment screws. The hand hole is located 20" above the base and 0° clockwise with respect to the luminaire arm when viewed from the top of the pole for one arm. For two arms the hand hole is located directly under one arm. Legacy design includes an easy to install, self-contained Swing Latch hand hole cover assembly. U.S. Patent Swing Latch cover is fabricated from durable polycarbonate/ABS blend plastic. All pole assemblies are provided with a 2.50" x 5.00" rectangular hand hole.

Pole Top Cap

Each pole assembly is provided with a removable aluminum pole top cap painted to match the specified pole and attached with two pressure screws. Legacy design is provided with a removable plastic top push cap. Finish is Black.

Finish

Poles are available with Gardco's standard textured color finishes - Black, White, Bronze, Dark Grey, Medium Grey, and Lumec GY3 for a match with roadway luminaire finishes. Optional Galvanized finish and custom colors also available. Legacy design is provided with gloss paint on standard finishes.

Couplings and Nipples

Couplings (NPSC standard internal threads) and Nipples (NPT standard external threads) are available to mount 3rd party objects to the pole. For most applications Couplings and Nipples must be at least 4' from the base of the pole. Lengths are as follows:

Couplings < 1" dia. = 1" length
Couplings >= 1" dia. = 1.5" length
Nipples < 1" dia. = 1.5" length
Nipples >= 1" dia. = 2" length

Legacy pole designs may deviate from specifications listed here. See "Customer Specified Options" paragraph for more details.

Duplex Receptacle (DR and GFI)

DR and GFI options are placed at 2' below the pole top on the same side as the hand hole unless otherwise specified. DR or GFI options cannot be placed within 1' of the the hand hole. Options can typically be placed 32" above base for utility purposes. Maximum output of the receptacles are 15A.

General Pole Information

Design

EPA specs conform to AASHTO 2001 standard. The poles as charted are designed to withstand dead loads and predicted dynamic loads developed by variable wind pressure with an additional 2.5 gust factor under the following conditions: The charted weights include luminaire(s) and/or mounting bracket(s). Poles installed in areas of known abnormal conditions may require special consideration. For example: coastal areas, airports and areas of special winds. Poles are designed for ground mounted applications. Poles mounted on structures (such as buildings and bridges) may also necessitate special consideration requiring Gardco's recommendation. Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the pole.

Warning

This design information is intended as a general guideline only. The customer is solely responsible for proper selection of pole, luminaire, accessory and foundation under the given site conditions and intended usage. The addition of any items to the pole, in addition to the luminaire, will dramatically impact the EPA load on that pole. It is strongly recommended that a qualified professional be consulted to analyze the loads given the user's specific needs to ensure proper selection of the pole, luminaire, accessories, and foundation. Gardco assumes no responsibility for such proper analysis or product selections. Failure to ensure proper site analysis, pole selection, loads and installation can result in pole failure, leading to serious injury or property damage.

Warranty

Gardco Steel poles are covered by a 3-year structural and finish warranty. Legacy designs are covered by a 1-year warranty. For more information visit signify.com/warranties