



**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-L-A16-840-T4M-AR1-240-BL50-L3-TR7-BZ

Luminaire	Configuration (nom. lumens)		Color Temperature		Distribution		Mounting		Voltage	
<b>OPF-L</b>										
<b>OPF-L</b>	<b>A16</b> 35,000 lumens	<b>A24</b> 50,000 lumens	<b>827<sup>1</sup></b> 80CRI 2700K	<b>AFR</b> Autofront row	<b>LCL</b> LEED corner optic left	<b>AR1<sup>2,13</sup></b> Arm mount (standard)	<b>120</b> 120V			
OptiForm	<b>A17</b> 36,000 lumens	<b>A25</b> 52,000 lumens	<b>830</b> 80CRI 3000K	<b>T2M</b> Type 2 medium	<b>LCR</b> LEED corner optic right	<b>208</b> 208V				
Large Area	<b>A18</b> 38,000 lumens	<b>A26</b> 54,000 lumens	<b>840</b> 80CRI 4000K	<b>T3M</b> Type 3 medium	<b>BLC</b> Back light control	<b>MAR<sup>3</sup></b> Mast arm	<b>240</b> 240V			
	<b>A19</b> 40,000 lumens	<b>A27</b> 56,000 lumens	<b>727<sup>1</sup></b> 70CRI 2700K	<b>T4M</b> Type 4 medium	<b>2RL</b> Type 2 rotated left 90°	<b>WAL</b> Wall mount	<b>277</b> 277V			
	<b>A20</b> 42,000 lumens	<b>A28</b> 58,000 lumens	<b>730</b> 70CRI 3000K	<b>T4W</b> Type 4 wide	<b>2RR</b> Type 2 rotated right 270°	<b>MOS<sup>4</sup></b> Mounting ordered separately	<b>347</b> 347V			
	<b>A21</b> 44,000 lumens	<b>A29</b> 61,000 lumens	<b>740</b> 70CRI 4000K	<b>T5N</b> Type 5 narrow	<b>3RL</b> Type 3 rotated left 90°		<b>480</b> 480V			
	<b>A22</b> 46,000 lumens	<b>A30</b> 63,000 lumens	<b>750</b> 70CRI 5000K	<b>T5M</b> Type 5 medium	<b>3RR</b> Type 3 rotated right 270°		<b>UNV</b> 120-277V			
	<b>A23</b> 48,000 lumens			<b>T5W</b> Type 5 wide	<b>4RL<sup>1</sup></b> Type 4 rotated left 90°		<b>HVU</b> 347-480V			
					<b>4RR<sup>1</sup></b> Type 4 rotated right 270°					

Dimming Controls	Sensing	Options (electrical, mechanical, etc)	Finish
<b>The following options include 0-10V Driver</b>			
<b>none</b> 0-10V dimming driver		<b>None</b> Surge protector 10kV standard	<b>Standard textured finish</b>
<b>DLEA<sup>5</sup></b> Dimming leads externally accessible (controls by others)		<b>SP2</b> Surge protector 20kV (option)	<b>BK</b> Black
<b>FAWS<sup>5,6</sup></b> Field adjustable wattage selector		<b>FS1<sup>11</sup></b> Single fuse (120, 277, or 347VAC)	<b>WH</b> White
		<b>FS2<sup>11</sup></b> Double fuse (208, 240, or 480V)	<b>BZ</b> Bronze
<b>BL50<sup>5,7,12</sup></b> Bi-level with motion sensor	<b>L3</b> PIR sensor, #3 lens (Required if BL50 is selected)	<b>PCB<sup>10,11</sup></b> Photocontrol button connected to 0-10V driver	<b>DG</b> Dark Gray
	<b>L7</b> PIR sensor, #7 lens (Required if BL50 is selected)	<b>TR5</b> 5-pin twist lock receptacle connected to 0-10V driver	<b>MG</b> Medium Gray
		<b>TR7</b> 7-pin twist lock receptacle connected to D4i compliant driver	
<b>The following options include SR/DALI Driver</b>			
<b>SRDR<sup>5,8</sup></b> SR driver connected to Zhaga socket (D4i)		<b>TLP<sup>11</sup></b> 7-pin twist lock receptacle connected to D4i compliant driver w/ 3-pin Photocell	<b>Customer specified</b>
<b>OMSR<sup>5,8</sup></b> Outdoor multi-sensor			<b>OC</b> Special optional color or RAL, consult factory
<b>DynaDimmer: Automatic Profile Dimming</b>			<b>SC</b> Special color (must supply color chip, requires factory quote)
<b>CS50<sup>5</sup></b> Security 50% dimming, 7 hours			
<b>CM50<sup>5</sup></b> Median 50% dimming, 8 hours			
<b>CS30<sup>5</sup></b> Security 30% dimming, 7 hours			
<b>CM30<sup>5</sup></b> 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 or L3).

- Not available with PCB, TR5.
- Must be specified with a motion sensor LW, LB, HW, HB.
- Not available in 347, 480, or HVU.
- Must specify input voltage.
- Not available with TR7, TLP.
- OPF-RMB accessory recommended for retrofit applications.
- Consult factory for shielding for with T5M and T5W.



# OPF-L OptiForm large

## Site & area luminaire

### Shielding Accessory Kits (order separately)

- OPF-L-HIS-4** Internal house side shields. For optic Types T2M, T3M, and T5N. qty 4
- OPF-L-HIS-T4-4** Internal house side shield for optic types T4M and T4W. qty 4
- OPF-L-HIS-5M/5W** Internal house side shield for optic types T5M and T5W. qty 4

### Luminaire Accessories (order separately)

#### Pole Mount Fusing

- FP1<sup>1</sup>** Pole mount single fuse (120V, 277V, or 347V)
- FP2<sup>1</sup>** Pole mount double fuse (208V, 240V, or 480V)
- FP3<sup>1</sup>** 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. (F) Must specify finish

#### Standard Arm

- OPF-AR1-(F)<sup>2,13</sup>** Standard arm mount
- OPF-AR1-TR7-(F)<sup>2,13</sup>** Standard arm mount with 7-pin (TR7) receptacle

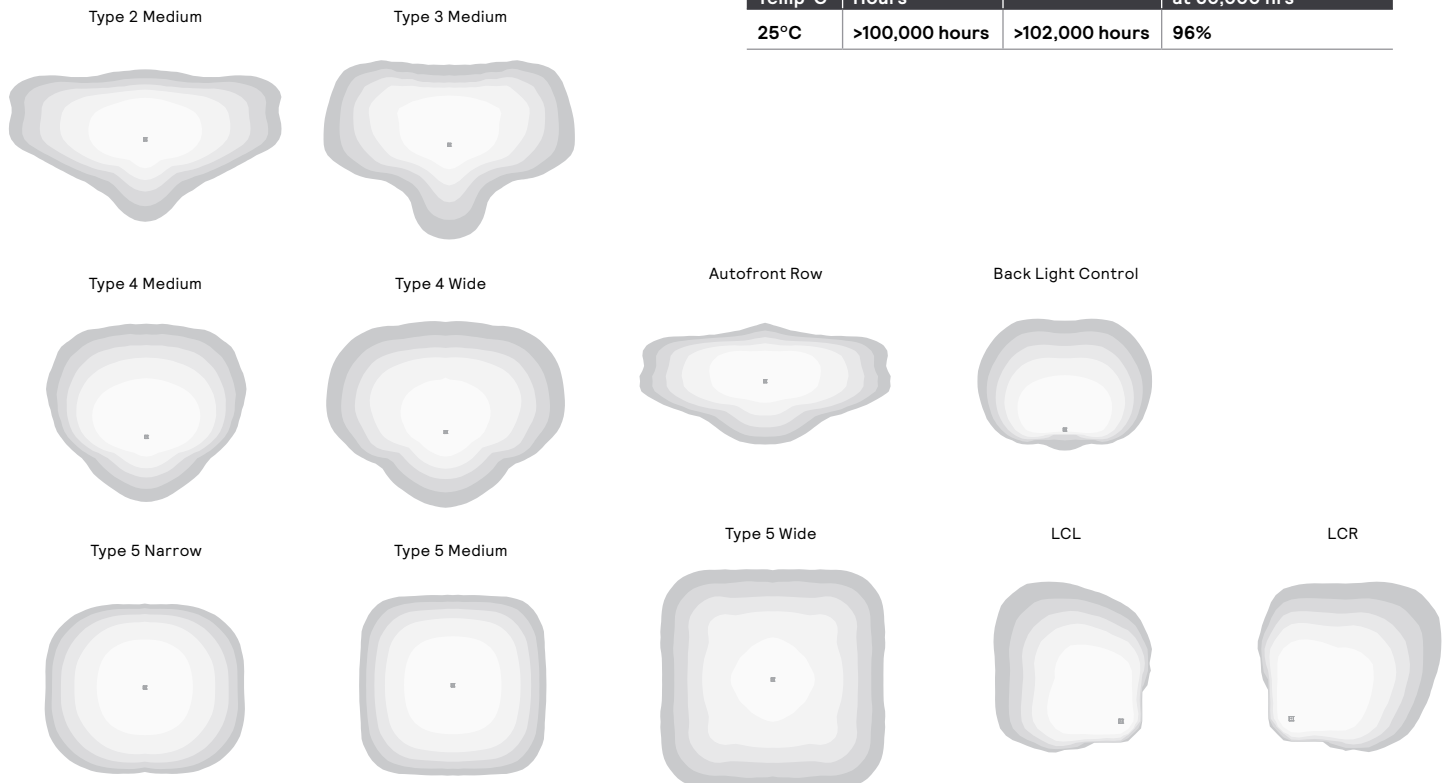
#### Wall Mount

- OPF-WAL-(F)** Wall mount bracket
- OPF-WAL-TR7-(F)** Wall mount with 7-pin (TR7) receptacle

#### Mast Arm

- OPF-MAR-(F)<sup>3</sup>** Mast arm mount
- OPF-MAR-TR7-(F)<sup>3</sup>** Mast arm mount with 7-pin (TR7) receptacle

### Optical Distributions



### 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

(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°

### 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	Calculated L70 Hours	L70 per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	>100,000 hours	>102,000 hours	96%

# OPF-L OptiForm large

## Site & area luminaire

### OPF-L 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)
A16	195	T2M	34055	B4-U0-G4	175	36004	B4-U0-G4	185	36004	B4-U0-G4	185
		T3M	33783	B4-U0-G4	174	35716	B4-U0-G4	184	35716	B4-U0-G4	184
		T4M	34238	B3-U0-G4	176	36197	B3-U0-G4	186	36197	B3-U0-G4	186
		T5M	35290	B5-U0-G3	181	37309	B5-U0-G3	192	37309	B5-U0-G3	192
		AFR	35272	B4-U0-G4	181	37290	B4-U0-G4	192	37290	B4-U0-G4	192
		T4W	32598	B3-U0-G5	167	34464	B3-U0-G5	177	34464	B3-U0-G5	177
		T5N	35041	B5-U0-G3	180	37047	B5-U0-G3	190	37047	B5-U0-G3	190
		T5W	33739	B5-U0-G4	173	35669	B5-U0-G4	183	35669	B5-U0-G4	183
		LCL	18529	B2-U0-G3	95	19589	B2-U0-G3	101	19589	B2-U0-G3	101
		LCR	18529	B2-U0-G3	95	19589	B2-U0-G3	101	19589	B2-U0-G3	101
BLC	23745	B1-U0-G4	122	25104	B1-U0-G4	129	25104	B1-U0-G4	129		
A17	210	T2M	35876	B4-U0-G4	171	37929	B4-U0-G4	180	37929	B4-U0-G4	180
		T3M	35590	B4-U0-G4	169	37626	B4-U0-G4	179	37626	B4-U0-G4	179
		T4M	36068	B3-U0-G4	171	38133	B3-U0-G4	181	38133	B3-U0-G4	181
		T5M	37177	B5-U0-G3	177	39305	B5-U0-G4	187	39305	B5-U0-G4	187
		AFR	37158	B4-U0-G4	177	39284	B4-U0-G4	187	39284	B4-U0-G4	187
		T4W	34342	B3-U0-G5	163	36307	B3-U0-G5	173	36307	B3-U0-G5	173
		T5N	36915	B5-U0-G3	176	39028	B5-U0-G3	186	39028	B5-U0-G3	186
		T5W	35543	B5-U0-G4	169	37577	B5-U0-G4	179	37577	B5-U0-G4	179
		LCL	19519	B2-U0-G3	93	20637	B2-U0-G3	98	20637	B2-U0-G3	98
		LCR	19519	B2-U0-G3	93	20637	B2-U0-G3	98	20637	B2-U0-G3	98
BLC	25015	B1-U0-G4	119	26446	B1-U0-G4	126	26446	B1-U0-G4	126		
A18	223	T2M	37982	B4-U0-G4	170	40155	B4-U0-G4	180	40155	B4-U0-G4	180
		T3M	37679	B4-U0-G4	169	39835	B4-U0-G4	178	39835	B4-U0-G4	178
		T4M	38185	B3-U0-G5	171	40371	B3-U0-G5	181	40371	B3-U0-G5	181
		T5M	39359	B5-U0-G4	176	41612	B5-U0-G4	186	41612	B5-U0-G4	186
		AFR	39339	B4-U0-G4	176	41590	B4-U0-G4	186	41590	B4-U0-G4	186
		T4W	36357	B3-U0-G5	163	38438	B3-U0-G5	172	38438	B3-U0-G5	172
		T5N	39082	B5-U0-G3	175	41319	B5-U0-G3	185	41319	B5-U0-G3	185
		T5W	37629	B5-U0-G4	169	39782	B5-U0-G4	178	39782	B5-U0-G4	178
		LCL	20665	B2-U0-G3	93	21848	B3-U0-G3	98	21848	B3-U0-G3	98
		LCR	20665	B2-U0-G3	93	21848	B2-U0-G3	98	21848	B2-U0-G3	98
BLC	26483	B1-U0-G4	119	27998	B1-U0-G4	125	27998	B1-U0-G4	125		
A19	235	T2M	39792	B4-U0-G4	169	42069	B4-U0-G4	179	42069	B4-U0-G4	179
		T3M	39474	B4-U0-G4	168	41733	B4-U0-G4	177	41733	B4-U0-G4	177
		T4M	40005	B3-U0-G5	170	42295	B3-U0-G5	180	42295	B3-U0-G5	180
		T5M	41235	B5-U0-G4	175	43595	B5-U0-G4	185	43595	B5-U0-G4	185
		AFR	41214	B4-U0-G4	175	43572	B4-U0-G4	185	43572	B4-U0-G4	185
		T4W	38090	B3-U0-G5	162	40270	B3-U0-G5	171	40270	B3-U0-G5	171
		T5N	40945	B5-U0-G4	174	43288	B5-U0-G4	184	43288	B5-U0-G4	184
		T5W	39422	B5-U0-G4	168	41679	B5-U0-G4	177	41679	B5-U0-G4	177
		LCL	21650	B3-U0-G3	92	22889	B3-U0-G3	97	22889	B3-U0-G3	97
		LCR	21650	B2-U0-G3	92	22889	B2-U0-G3	97	22889	B2-U0-G3	97
BLC	27745	B1-U0-G4	118	29333	B1-U0-G4	125	29333	B1-U0-G4	125		

# OPF-L OptiForm large

## Site & area luminaire

OPF-L 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)
A20	247	T2M	41679	B4-U0-G4	168	44064	B4-U0-G4	178	44064	B4-U0-G4	178
		T3M	41347	B4-U0-G4	167	43713	B4-U0-G4	177	43713	B4-U0-G4	177
		T4M	41903	B3-U0-G5	169	44301	B3-U0-G5	179	44301	B3-U0-G5	179
		T5M	43191	B5-U0-G4	175	45662	B5-U0-G4	185	45662	B5-U0-G4	185
		AFR	43169	B4-U0-G4	174	45639	B4-U0-G4	184	45639	B4-U0-G4	184
		T4W	39897	B4-U0-G5	161	42180	B4-U0-G5	170	42180	B4-U0-G5	170
		T5N	42887	B5-U0-G4	173	45341	B5-U0-G4	183	45341	B5-U0-G4	183
		T5W	41292	B5-U0-G4	167	43655	B5-U0-G4	176	43655	B5-U0-G4	176
		LCL	22677	B3-U0-G3	92	23975	B3-U0-G3	97	23975	B3-U0-G3	97
		LCR	22677	B2-U0-G3	92	23975	B2-U0-G3	97	23975	B2-U0-G3	97
BLC	29061	B1-U0-G4	117	30724	B1-U0-G4	124	30724	B1-U0-G4	124		
A21	260	T2M	43501	B4-U0-G4	167	45991	B4-U0-G4	177	45991	B4-U0-G4	177
		T3M	43154	B4-U0-G5	166	45624	B4-U0-G5	176	45624	B4-U0-G5	176
		T4M	43735	B3-U0-G5	168	46238	B3-U0-G5	178	46238	B3-U0-G5	178
		T5M	45079	B5-U0-G4	174	47659	B5-U0-G4	183	47659	B5-U0-G4	183
		AFR	45056	B4-U0-G4	173	47634	B4-U0-G4	183	47634	B4-U0-G4	183
		T4W	41641	B4-U0-G5	160	44024	B4-U0-G5	169	44024	B4-U0-G5	169
		T5N	44762	B5-U0-G4	172	47323	B5-U0-G4	182	47323	B5-U0-G4	182
		T5W	43097	B5-U0-G4	166	45564	B5-U0-G4	175	45564	B5-U0-G4	175
		LCL	23668	B3-U0-G3	91	25023	B3-U0-G3	96	25023	B3-U0-G3	96
		LCR	23668	B2-U0-G3	91	25023	B2-U0-G3	96	25023	B2-U0-G3	96
BLC	30331	B1-U0-G4	117	32067	B1-U0-G4	123	32067	B1-U0-G4	123		
A22	273	T2M	45438	B4-U0-G4	167	48038	B4-U0-G4	176	48038	B4-U0-G4	176
		T3M	45075	B4-U0-G5	165	47655	B4-U0-G5	175	47655	B4-U0-G5	175
		T4M	45682	B3-U0-G5	168	48296	B3-U0-G5	177	48296	B3-U0-G5	177
		T5M	47086	B5-U0-G4	173	49781	B5-U0-G4	183	49781	B5-U0-G4	183
		AFR	47062	B4-U0-G4	173	49755	B4-U0-G4	183	49755	B4-U0-G4	183
		T4W	43495	B4-U0-G5	160	45984	B4-U0-G5	169	45984	B4-U0-G5	169
		T5N	46754	B5-U0-G4	172	49430	B5-U0-G4	181	49430	B5-U0-G4	181
		T5W	45016	B5-U0-G5	165	47592	B5-U0-G5	175	47592	B5-U0-G5	175
		LCL	24722	B3-U0-G3	91	26137	B3-U0-G3	96	26137	B3-U0-G3	96
		LCR	24722	B2-U0-G3	91	26137	B2-U0-G3	96	26137	B2-U0-G3	96
BLC	31682	B1-U0-G4	116	33495	B1-U0-G4	123	33495	B1-U0-G4	123		
A23	266	T2M	47490	B4-U0-G4	166	50208	B4-U0-G4	176	50208	B4-U0-G4	176
		T3M	47111	B4-U0-G5	165	49808	B4-U0-G5	174	49808	B4-U0-G5	174
		T4M	47745	B4-U0-G5	167	50478	B4-U0-G5	177	50478	B4-U0-G5	177
		T5M	49213	B5-U0-G4	172	52029	B5-U0-G4	182	52029	B5-U0-G4	182
		AFR	49187	B4-U0-G4	172	52002	B4-U0-G4	182	52002	B4-U0-G4	182
		T4W	45459	B4-U0-G5	159	48061	B4-U0-G5	168	48061	B4-U0-G5	168
		T5N	48866	B5-U0-G4	171	51663	B5-U0-G4	181	51663	B5-U0-G4	181
		T5W	47049	B5-U0-G5	165	49742	B5-U0-G5	174	49742	B5-U0-G5	174
		LCL	25839	B3-U0-G4	90	27317	B3-U0-G4	96	27317	B3-U0-G4	96
		LCR	25839	B3-U0-G4	90	27317	B3-U0-G4	96	27317	B3-U0-G4	96
BLC	33113	B1-U0-G4	116	35008	B1-U0-G4	122	35008	B1-U0-G4	122		

# OPF-L OptiForm large

## Site & area luminaire

OPF-L 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)
A24	298	T2M	49218	B4-U0-G4	165	52034	B4-U0-G4	175	52034	B4-U0-G4	175
		T3M	48825	B4-U0-G5	164	51619	B4-U0-G5	173	51619	B4-U0-G5	173
		T4M	49482	B4-U0-G5	166	52313	B4-U0-G5	175	52313	B4-U0-G5	175
		T5M	51003	B5-U0-G4	171	53921	B5-U0-G4	181	53921	B5-U0-G4	181
		AFR	50976	B5-U0-G4	171	53894	B5-U0-G4	181	53894	B5-U0-G4	181
		T4W	47113	B4-U0-G5	158	49809	B4-U0-G5	167	49809	B4-U0-G5	167
		T5N	50644	B5-U0-G4	170	53542	B5-U0-G4	180	53542	B5-U0-G4	180
		T5W	48761	B5-U0-G5	164	51551	B5-U0-G5	173	51551	B5-U0-G5	173
		LCL	26778	B3-U0-G4	90	28311	B3-U0-G4	95	28311	B3-U0-G4	95
		LCR	26778	B3-U0-G4	90	28311	B3-U0-G4	95	28311	B3-U0-G4	95
BLC	34317	B1-U0-G4	115	36281	B2-U0-G4	122	36281	B2-U0-G4	122		
A25	311	T2M	51001	B5-U0-G4	164	53920	B5-U0-G4	173	53920	B5-U0-G4	173
		T3M	50594	B4-U0-G5	163	53490	B4-U0-G5	172	53490	B4-U0-G5	172
		T4M	51275	B4-U0-G5	165	54209	B4-U0-G5	174	54209	B4-U0-G5	174
		T5M	52851	B5-U0-G4	170	55875	B5-U0-G4	180	55875	B5-U0-G4	180
		AFR	52824	B5-U0-G4	170	55847	B5-U0-G4	179	55847	B5-U0-G4	179
		T4W	48820	B4-U0-G5	157	51614	B4-U0-G5	166	51614	B4-U0-G5	166
		T5N	52479	B5-U0-G4	169	55482	B5-U0-G4	178	55482	B5-U0-G4	178
		T5W	50528	B5-U0-G5	162	53419	B5-U0-G5	172	53419	B5-U0-G5	172
		LCL	27749	B3-U0-G4	89	29337	B3-U0-G4	94	29337	B3-U0-G4	94
		LCR	27749	B3-U0-G4	89	29337	B3-U0-G4	94	29337	B3-U0-G4	94
BLC	35561	B2-U0-G4	114	37596	B2-U0-G5	121	37596	B2-U0-G5	121		
A26	324	T2M	52814	B5-U0-G4	163	55837	B5-U0-G4	172	55837	B5-U0-G4	172
		T3M	52393	B4-U0-G5	162	55391	B4-U0-G5	171	55391	B4-U0-G5	171
		T4M	53098	B4-U0-G5	164	56136	B4-U0-G5	173	56136	B4-U0-G5	173
		T5M	54730	B5-U0-G4	169	57862	B5-U0-G4	178	57862	B5-U0-G4	178
		AFR	54702	B5-U0-G4	169	57832	B5-U0-G5	178	57832	B5-U0-G5	178
		T4W	50556	B4-U0-G5	156	53449	B4-U0-G5	165	53449	B4-U0-G5	165
		T5N	54344	B5-U0-G4	168	57455	B5-U0-G4	177	57455	B5-U0-G4	177
		T5W	52324	B5-U0-G5	161	55318	B5-U0-G5	171	55318	B5-U0-G5	171
		LCL	28735	B3-U0-G4	89	30380	B3-U0-G4	94	30380	B3-U0-G4	94
		LCR	28735	B3-U0-G4	89	30380	B3-U0-G4	94	30380	B3-U0-G4	94
BLC	36825	B2-U0-G5	114	38932	B2-U0-G5	120	38932	B2-U0-G5	120		
A27	337	T2M	54641	B5-U0-G4	162	57768	B5-U0-G5	171	57768	B5-U0-G5	171
		T3M	54205	B4-U0-G5	161	57308	B4-U0-G5	170	57308	B4-U0-G5	170
		T4M	54935	B4-U0-G5	163	58078	B4-U0-G5	172	58078	B4-U0-G5	172
		T5M	56623	B5-U0-G4	168	59864	B5-U0-G4	177	59864	B5-U0-G4	177
		AFR	56594	B5-U0-G5	168	59833	B5-U0-G5	177	59833	B5-U0-G5	177
		T4W	52305	B4-U0-G5	155	55298	B4-U0-G5	164	55298	B4-U0-G5	164
		T5N	56224	B5-U0-G4	167	59442	B5-U0-G4	176	59442	B5-U0-G4	176
		T5W	54134	B5-U0-G5	160	57232	B5-U0-G5	170	57232	B5-U0-G5	170
		LCL	29729	B3-U0-G4	88	31431	B3-U0-G4	93	31431	B3-U0-G4	93
		LCR	29729	B3-U0-G4	88	31431	B3-U0-G4	93	31431	B3-U0-G4	93
BLC	38099	B2-U0-G5	113	40279	B2-U0-G5	119	40279	B2-U0-G5	119		

# OPF-L OptiForm large

## Site & area luminaire

OPF-L 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)
A28	350	T2M	56342	B5-U0-G5	161	59566	B5-U0-G5	170	59566	B5-U0-G5	170
		T3M	55892	B4-U0-G5	160	59091	B4-U0-G5	169	59091	B4-U0-G5	169
		T4M	56644	B4-U0-G5	162	59886	B4-U0-G5	171	59886	B4-U0-G5	171
		T5M	58385	B5-U0-G4	167	61727	B5-U0-G4	176	61727	B5-U0-G4	176
		AFR	58355	B5-U0-G5	167	61695	B5-U0-G5	176	61695	B5-U0-G5	176
		T4W	53933	B4-U0-G5	154	57019	B4-U0-G5	163	57019	B4-U0-G5	163
		T5N	57974	B5-U0-G4	165	61292	B5-U0-G4	175	61292	B5-U0-G4	175
		T5W	55819	B5-U0-G5	159	59013	B5-U0-G5	168	59013	B5-U0-G5	168
		LCL	30655	B3-U0-G4	88	32409	B3-U0-G4	93	32409	B3-U0-G4	93
		LCR	30655	B3-U0-G4	88	32409	B3-U0-G4	93	32409	B3-U0-G4	93
BLC	39284	B2-U0-G5	112	41533	B2-U0-G5	119	41533	B2-U0-G5	119		
A29	378	T2M	59894	B5-U0-G5	159	63322	B5-U0-G5	168	63322	B5-U0-G5	168
		T3M	59416	B4-U0-G5	157	62817	B4-U0-G5	166	62817	B4-U0-G5	166
		T4M	60216	B4-U0-G5	159	63662	B4-U0-G5	169	63662	B4-U0-G5	169
		T5M	62066	B5-U0-G5	164	65618	B5-U0-G5	174	65618	B5-U0-G5	174
		AFR	62034	B5-U0-G5	164	65585	B5-U0-G5	174	65585	B5-U0-G5	174
		T4W	57333	B4-U0-G5	152	60614	B4-U0-G5	161	60614	B4-U0-G5	161
		T5N	61629	B5-U0-G4	163	65156	B5-U0-G4	173	65156	B5-U0-G4	173
		T5W	59338	B5-U0-G5	157	62734	B5-U0-G5	166	62734	B5-U0-G5	166
		LCL	32587	B3-U0-G4	86	34452	B3-U0-G4	91	34452	B3-U0-G4	91
		LCR	32587	B3-U0-G4	86	34452	B3-U0-G4	91	34452	B3-U0-G4	91
BLC	41761	B2-U0-G5	111	44151	B2-U0-G5	117	44151	B2-U0-G5	117		
A30	393	T2M	61735	B5-U0-G5	157	65268	B5-U0-G5	166	65268	B5-U0-G5	166
		T3M	61243	B4-U0-G5	156	64747	B4-U0-G5	165	64747	B4-U0-G5	165
		T4M	62066	B4-U0-G5	158	65618	B4-U0-G5	167	65618	B4-U0-G5	167
		T5M	63974	B5-U0-G5	163	67635	B5-U0-G5	172	67635	B5-U0-G5	172
		AFR	63941	B5-U0-G5	163	67600	B5-U0-G5	172	67600	B5-U0-G5	172
		T4W	59095	B4-U0-G5	150	62477	B4-U0-G5	159	62477	B4-U0-G5	159
		T5N	63524	B5-U0-G5	162	67159	B5-U0-G5	171	67159	B5-U0-G5	171
		T5W	61162	B5-U0-G5	156	64662	B5-U0-G5	165	64662	B5-U0-G5	165
		LCL	33589	B3-U0-G4	85	35511	B3-U0-G4	90	35511	B3-U0-G4	90
		LCR	33589	B3-U0-G4	85	35511	B3-U0-G4	90	35511	B3-U0-G4	90
BLC	43045	B2-U0-G5	110	45508	B2-U0-G5	116	45508	B2-U0-G5	116		

# OPF-L OptiForm large

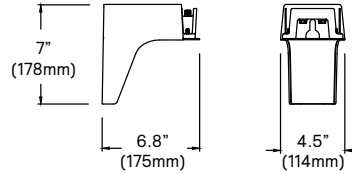
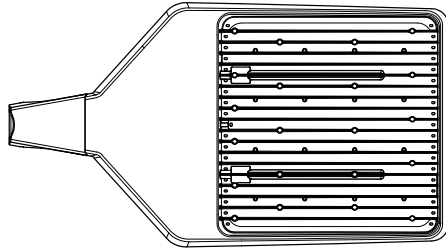
## Site & area luminaire

### Dimensions

#### OptiForm Standard Arm

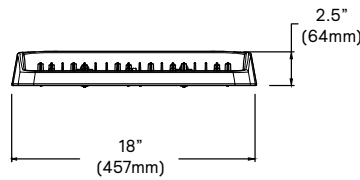
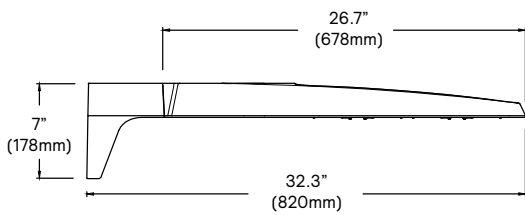
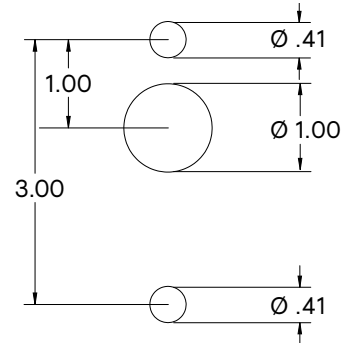
Weight: 25 lb (11.3 kg)

EPA: 0.15 ft<sup>2</sup> (0.014 m<sup>2</sup>)

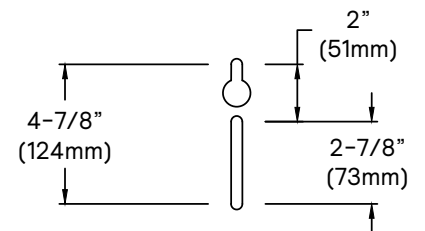


### Standard Drill Pattern

#### Drill Template #5

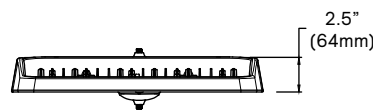
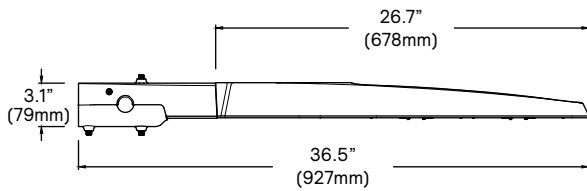
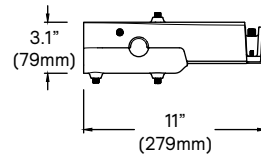
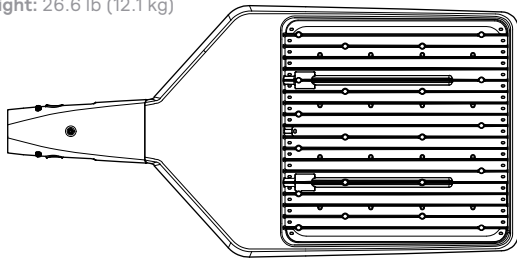


### Standard Arm Mounting Hole Pattern



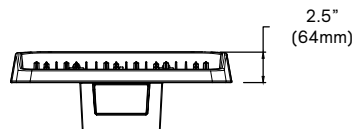
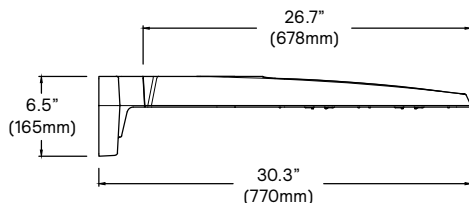
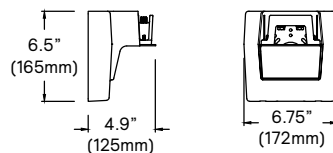
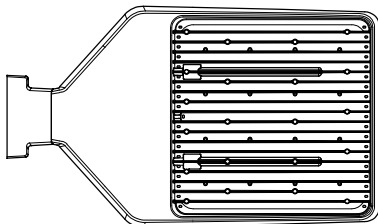
#### OptiForm Mast Arm

Weight: 26.6 lb (12.1 kg)



#### OptiForm Wall Mount

Weight: 25.5lb (11.6 kg)



# OPF-L OptiForm large

## 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 ±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 rated IP66 in accordance to Section 9 of IEC 60598-1.

#### 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

Type 2M, 3M, 4M, 4W, 5, 5M, 5W, AFR, LCL, LCR, and BLC distributions available. Internal shield option mounts to LED optics and is available with Type 2M, 3M, and 4M distributions, including a dedicated BLC and L/R Corner optics to provide the best backlight control possible for stringent requirements around property lines. Types 2M, 3M, and 4M when specified and used as rotated, are factory set only. Performance tested per LM-79 and TM-15 (IESNA) certifying its photometric performance. Luminaire designed with 0% uplight (U0 per IESNA TM-15).

#### Mounting

Standard luminaire arm mounts to 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 dimming control options.

**Sensor Ready Zhaga Socket Connector (SRDR):** Product utilizes D4i Certified components and is 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 D4i certified to guarantee proper functionality at system level. 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.

#### Motion response options

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%

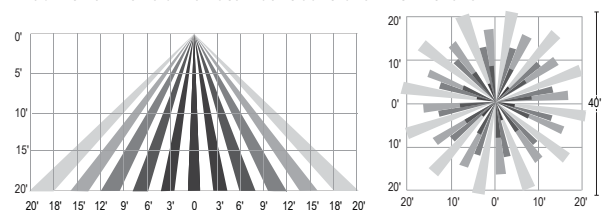
Note: Typical value accuracy +/- 5%

**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. BL50 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).

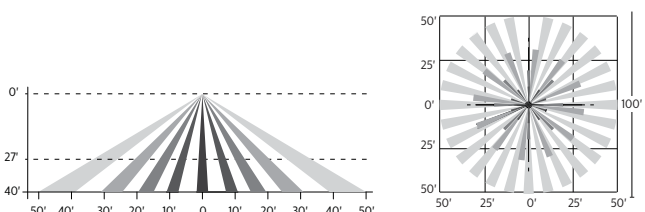
**Infrared Motion Response with Other Controls:** When used in combination with other controls (Automatic Dimming Profile), motion response device will simply override controller's schedule with the added benefits of a combined dimming profile and sensor detection. In this configuration, the motion response 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 (BL50-L3/BL50-L7):** Infrared Motion Response Integral module is available with two different sensor lens types to accommodate various mounting heights and occupancy detection ranges. Lens #3 (L3) is designed for higher mounting heights up to 20' with a 40' diameter coverage area. Lens #7 (L7) is designed for higher mounting heights up to 40' with larger coverage areas up to 100' diameter coverage area. See charts for approximate detection patterns:

BL50-L3 Luminaire or remote mount controller with #3 lens



BL50-L7 Luminaire or remote mount controller with #7 lens





# OPF-L OptiForm large

## Site & area luminaire

### Specifications (cont'd)

#### Electrical

**Twist-Lock Receptacle (TR7/TLP):** Twist-Lock Receptacle with 7 pins enabling dimming with additional functionality (by others) can be used with a twist-lock photoelectric cell or a shorting cap. Dimming Receptacle 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 arm. When specifying receptacle with twist-lock 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, but pins 6 and 7 are not connected (no SR driver). 0-10V dimming leads (pins 4 and 5) are connected if not ordered with any other dimming option.

**Twist-Lock Receptacle (TR5/TR7):** Twist-Lock Receptacle with 7 pins enabling dimming with additional functionality (by others) can be used with a twist-lock photoelectric cell or a shorting cap. Dimming Receptacle 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 arm. When specifying receptacle with twist-lock 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 (TRP), the receptacle used is a 7-pin receptacle, but pins 6 and 7 are not connected (no SR 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.

### **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](http://www.signify.com/baa) to view a current list of BAA-compliant products to confirm this product's current compliance.

**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 Compliant.

#### 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). 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](http://signify.com)

#### Warranty

OptiForm luminaires feature a 5-year limited warranty. See [signify.com/warranties](http://signify.com/warranties) for complete details and exclusions.

