



Gardco Form 10 LED square arm mount luminaires are cutoff area luminaires featuring LED arrays. These products provide performance excellence and feature advanced Gardco LED thermal management technology. High performance Class 1 LED systems offer the potential for energy savings up to 50 % when compared to HID systems. The EH units are manufactured from mitered extruded aluminum and finished in an Architectural Class 1 anodizing. The H style luminaires are die formed aluminum with a thermoset polyester finish. Form 10 LED square luminaires provide full cutoff performance and feature a flat glass lens.

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

### Ordering guide

example: EH14L-32L-450-NW-G2-AR1-2-120-DD-BK

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Mounting	Distr.	Voltage	Controls	Electrical	Luminaire	Finish
<b>EH14L</b> 14" Square Extruded Luminaire LED	<b>32L</b> 32 LEDs	<b>450</b> 450mA	<b>NW-G2</b> Neutral White 4000K, 70CRI Generation 2	<b>Arm mounts</b> <b>AR1</b> for 3"-4.5" round pole <sup>1</sup>	<b>2</b> Type 2	<b>120</b> 120V	<b>DD</b> 0-10V Dimming Driver	<b>Fusing</b> <b>F1</b> Single (120, 277, 347VAC) <sup>3</sup>	<b>HIS</b> Internal House Side Shield <sup>5</sup>	<b>EH Style</b> <b>BRA</b> Bronze Anodized <b>BLA</b> Black Anodized <b>NA</b> Natural Anodized <b>H or EH Style</b> <b>BK</b> Black paint <b>BZ</b> Bronze paint <b>WH</b> White paint <b>MGY</b> Medium Gray paint <b>Customer specified (EH only)</b> <b>RAL</b> Specify optional color (ex: RAL7024) <b>CC</b> Custom color (Must supply color chip for required factory quote)
<b>H14L</b> 14" Square Fabricated Luminaire LED	<b>48L</b> 48 LEDs	<b>700</b> 700mA	<b>WW-G2</b> Warm White 3000K, 70CRI Generation 2	<b>AR2</b> for 4.5"+ round pole <sup>1</sup>	<b>3</b> Type 3	<b>208</b> 208V	<b>Photoelectric/Receptacle Systems</b> (Twist Lock Receptacle)	<b>F2</b> Double (208, 240, 480VAC) <sup>3</sup>		
<b>EH19L</b> 19" Square Extruded Luminaire LED	<b>48L</b> 48 LEDs	<b>900</b> 900mA	<b>CW-G2</b> Cool White 5700K, 70CRI Generation 2	<b>AR3</b> for square pole <sup>1</sup>	<b>4</b> Type 4	<b>240</b> 240V	<b>TLRD5</b> Twist Lock Receptacle 5 Pin <sup>4</sup>	<b>F3</b> Canadian Double Pull (208, 240, 480VAC) <sup>3</sup>		
<b>H19L</b> 19" Square Fabricated Luminaire LED	<b>96L</b> 96 LEDs	<b>560</b> 560mA		<b>Wall mount</b>	<b>5</b> Type 5	<b>277</b> 277V	<b>TLRPC</b> Twist Lock Receptacle with Photocell <sup>3,4</sup>	<b>Pole Mount Fusing</b> <b>FP1</b> Single (120, 277, 347VAC) <sup>3</sup>		
		<b>650</b> 650mA		<b>WM1</b> with arm <sup>1</sup>		<b>347</b> 347V		<b>FP2</b> Double (208, 240, 480VAC) <sup>3</sup>		
				<b>WM2</b> without arm <sup>1</sup>		<b>480</b> 480V		<b>FP3</b> Canadian Double Pull (208, 240, 480VAC) <sup>3</sup>		
				<b>Mast Arm Fitter</b>		<b>UNV</b> 120-277V 50hz/60hz		<b>Surge Protection</b> <b>SP1</b> Standard 10KVA <b>SP2</b> Increased 20KVA		
				<b>MA</b> Mounts to a 2-3/8" O.D. mast arm <sup>1</sup>		<b>HVU</b> 347-480V 50hz/60hz				

### Retrofit kit ordering guide

Prefix	Number of LEDs	Drive Current	LED Color - Generation	Distr. <sup>2</sup>	Voltage	Controls	Electrical
<b>EH/H14L-RK</b> 14" Square Retrofit Kit	<b>32L</b> 32 LEDs	<b>450</b> 450mA	<b>NW-G2</b> Neutral White 4000K, 70CRI Generation 2	<b>2</b> Type 2	<b>120 347</b> 120V 347V	<b>DD</b> 0-10V Dimming Driver	<b>Surge Protection</b> <b>SP1</b> Standard 10KVA <b>SP2</b> Increased 20KVA
		<b>900</b> 900mA	<b>WW-G2</b> Warm White 3000K, 70CRI Generation 2	<b>3</b> Type 3	<b>208 480</b> 208V 480V		
				<b>4</b> Type 4	<b>240 UNV</b> 240V 120-277V 50hz/60hz		
<b>EH/H19L-RK</b> 19" Square Retrofit Kit	<b>48L</b> 48 LEDs	<b>900</b> 900mA	<b>CW-G2</b> Cool White 5700K, 70CRI Generation 2	<b>5</b> Type 5	<b>277 HVU</b> 277V 347-480V 50hz/60hz		
	<b>96L</b> 96 LEDs	<b>560</b> 560mA					

1. Shipped as a separate accessory.
2. Types 2,3, and 4 optics are field rotatable; Type 5 optics feature unitized lens.
3. Must specify input voltage.
4. Works with 3-pin or 5-pin NEMA photocell/dimming device.
5. Not available in Type 5.

# EH/H14L & EH/H19L Form Ten LED luminaires

## Site & Area – Square Arm Mount

### Accessories (order separately)

#### Pole top fitters (one per pole):

##### PTF2-(F)

Pole top fitter fits 2 3/8-2 1/2" OD x 4" depth tenon with 1, 2, 3 or 4 luminaires at 90°. Requires AR1. programming is required. If desired, only one is needed per job.

##### PTF3-(F)

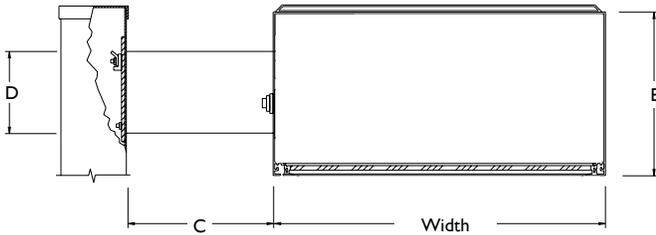
Pole top fitter fits 3-3 1/2" OD x 6" depth tenon with 1, 2, 3 or 4 luminaires at 90°. Requires AR2.

##### PTF4-(F)

Pole top fitter fits 3 1/2-4" OD x 6" depth tenon with 1, 2, 3 or 4 luminaires at 90°. Requires AR2.

(F) Specify finish

### Dimensions and EPA



Size	Width	B	C	D
EH14	14" / 35.56 cm	7" / 17.78 cm	6" / 15.24 cm	5" / 12.70 cm
H14	14" / 35.56 cm	7" / 17.78 cm	6" / 5.08 cm	5" / 12.70 cm
EH19	19" / 48.26 cm	10" / 5.40 cm	9" / 22.86 cm	5" / 12.70 cm
H19	19" / 48.26 cm	10" / 25.40 cm	9" / 5.08 cm	5" / 12.70 cm

Size	Effective Projected Area (EPA)			Approx. Weight Single
	Single	Twin	3/4	
14"	1.1 ft <sup>2</sup> / .10 m <sup>2</sup>	2.3 ft <sup>2</sup> / .21 m <sup>2</sup>	2.9 ft <sup>2</sup> / .27 m <sup>2</sup>	30 lbs / 13.61 kg
19"	2.1 ft <sup>2</sup> / .20 m <sup>2</sup>	4.0 ft <sup>2</sup> / .37 m <sup>2</sup>	5.5 ft <sup>2</sup> / .51 m <sup>2</sup>	55 lbs / 24.95 kg

### LED Wattage and Lumen Values Form 10 EH/H14L & EH/H19L

Order Code	LED Qty	System Current (mA)	Color Temp (K)	Ave System Watts <sup>1</sup> (W)	Type 2			Type 3			Type 4			Type 5		
					Lumen Output <sup>2,3</sup>	BUG Rating	Efficacy (lm/W)	Lumen Output <sup>2,3</sup>	BUG Rating	Efficacy (lm/W)	Lumen Output <sup>2,3</sup>	BUG Rating	Efficacy (lm/W)	Lumen Output <sup>2,3</sup>	BUG Rating	Efficacy (lm/W)
H14L-32L-450-NW-G2-x	32	450	4000	47	5256	B1-U0-G1	111	5037	B1-U0-G1	106	5203	B1-U0-G1	110	5141	B3-U0-G1	108
H14L-32L-900-NW-G2-x	32	900	4000	96	9331	B2-U0-G2	98	8942	B2-U0-G2	93	9236	B2-U0-G2	97	9126	B4-U0-G2	95
H14L-48L-700-NW-G2-x	48	700	4000	110	11448	B2-U0-G2	104	10971	B2-U0-G2	100	11332	B2-U0-G2	103	11197	B4-U0-G2	102
H19L-48L-900-NW-G2-x	48	900	4000	144	14334	B3-U0-G2	100	13840	B2-U0-G2	96	14008	B2-U0-G2	97	14269	B4-U0-G2	99
H19L-96L-560-NW-G2-x	96	560	4000	171	19274	B3-U0-G2	113	18610	B3-U0-G3	109	18836	B3-U0-G3	110	19187	B5-U0-G3	112
H19L-96L-650-NW-G2-x	96	650	4000	199	21852	B3-U0-G3	110	21099	B3-U0-G3	106	21355	B3-U0-G3	108	21753	B5-U0-G3	110

1. Wattage may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.
2. Values shown are for luminaires without the DL options. Contact outdoorlighting.applications@signify.com if any approximate estimates are required for design purposes.
3. Lumen values based on tests performed in compliance with IESNA LM-79.

# EH/H14L & EH/H19L Form Ten LED luminaires

## Site & Area – Square Arm Mount

### Specifications

#### General Description

The Gardco Form 10 LED square arm mounted products are cutoff luminaires featuring LED arrays. Form 10 LED square luminaires provide performance excellence and advanced Gardco LED thermal management technology. High performance Class 1 LED systems offer the potential for energy savings up to 50 % when compared to HID systems. The EH units are manufactured from mitered extruded aluminum and finished in an Architectural Class 1 anodizing. The H style luminaires are die formed aluminum with a thermoset polyester finish. Form 10 LED square luminaires provide full cutoff performance and feature a flat glass lens.

#### Housing

Extruded housings (EH style) are composed of precisely mitered anodized aluminum extrusions. Fabricated (H style) units are one piece, multi-formed aluminum with an integral reinforcing spline and a single concealed joint. Pressure injected silicone provides a continuous weather tight seal at all miters and points of material transition.

#### Arm

Extruded aluminum arm is secured to prewired fixture by contractor. Assembly is suitable for mounting to pole without requiring access to luminaire.

#### Lens

Mitered, extruded anodized aluminum door frame retains the optically clear, heat and impact resistant tempered flat glass in a sealed manner using hollow section, high compliance, memory retentive extruded silicone rubber. Concealed stainless steel latch and hinge permit easy toolless access to the luminaire.

#### Thermal Management

Form 10 LED square luminaires utilize extruded aluminum integral thermal radiation fins to provide the excellent thermal management so critical to long LED system life.

#### LED Optical System

LED arrays are set to achieve IES Type II, Type III, Type IV and Type V distributions. Individual LED arrays are replaceable. Optical systems are field rotatable. Luminaires feature high performance Class 1 LED systems.

#### Electrical

Luminaires include a complete prewired LED driver assembly, provided as part of the optical assembly. Luminaires include an LED driver that accepts 120V through 277V, or 347V through 480V, 50hz to 60hz, input. Driver output is based on the LED wattage selected. Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600 VAC at 302°F / 150°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher. Power factor is not less than 90%. Luminaires consume 0.0 watts in the off state. Surge protector 10KA standard per ANSI/IEEE C62.41.2 or 20KA optional.

#### Finish

Extruded housings (EH style) are standard with natural, bronze, or black Aluminum Association Architectural Class I anodized finish. Special color polyester finishes are available in EH housings only. Formed housings (H style) are standard with a chromatic acid pretreatment. The finish coat is a thermosetting polyester baked at 450°F / 232°C to achieve an H-2H hardness measure.

#### Labels

UL/cUL listed to the UL 1598 standard, suitable for Wet Locations. Suitable for use in ambients from -40° to 40°C (-40° to 104°F). The quality systems of this facility have been registered by UL to the ISO 9001 series standards. Most Form 10 configurations are DesignLights Consortium® qualified. Consult DLC Qualified Products list for more details.

#### Limited Warranty

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

#### Predicted Lumen Depreciation Data

Ambient Temperature °C	System Current	LED Current	Calculated L <sub>70</sub> hrs <sup>1,2</sup>	L <sub>70</sub> per TM21 <sup>2,3</sup>	Lumen Maintenance @ 60,000hrs
25 °C	900 mA	900 mA	>100,000	>60,000	98%

1. 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.
2. L70 is the predicted time when LED performance depreciates to 70% of initial lumen output.
3. Calculated per IESNA TM 21-11. Published L70 hours limited to 6 times actual LED test hours.

