

# Evolve™ LED Flood Lighting

EFH1



**current**  
powered by GE



## Product Features

The GE Evolve™ LED High Output Flood Light is our brightest solution to efficiently illuminate building façade, flag poles, billboard signage and many more traditional flood applications. Designed to replace 250W-400W HPS and 400W-1000W Metal Halide flood lights, the EFH1 provides significant operating cost benefits over the life of each fixture with reduced energy consumption and a long rated life that virtually eliminates ongoing maintenance expenses.

### Applications

- Site, area, and general lighting applications utilizing advanced LED reflective optical system.



### Housing

- Die-cast aluminum housing.
- Slim architectural design incorporates an integral heat sink and light engine, ensuring maximum heat transfer, long LED life.
- Meets 2G vibration with knuckle mount and 3G with trunnion mount.

### Optical System

- Evolve™ light engine consisting of reflective technology designed to optimize application efficiency and minimize glare.
- LM-79 tests and reports are performed in accordance with IESNA standards.
- 70 CRI at 3000K, 4000K and 5000K typical
- NEMA Distributions: 6x5, 6x6, 7x6 and 7x7.

### Ratings

-   listed, suitable for wet locations.
- IP66 optical enclosure per ANSI C136.25-2009
- Temperature Rated at -40°C to +50°C
- Complies with the material restrictions of RoHS.



DLC Premium qualified models available. Please refer to <http://www.designlights.org/QPL> for complete information.

### Lumen Maintenance

Ambient Temp.	Optical Code	Projected <sup>1</sup>		Calculated <sup>2</sup>	
		25K Hour	50K Hour	88K Hour	100K Hour
5°C (41°F)	AA, BB, CC, DD, EE	0.964	0.945	0.918	0.910
10°C (50°F)		0.961	0.940	0.909	0.900
15°C (59°F)		0.958	0.934	0.899	0.888
20°C (68°F)		0.954	0.927	0.887	0.875
25°C (77°F)		0.950	0.920	0.875	0.861
35°C (95°F)		0.926	0.885	0.827	0.809
40°C (104°F)		0.914	0.863	0.790	0.768

Note: Based on 10,000 hours LM-80 data. For details, see [http://www.energystar.gov/ia/partners/prod\\_development/new\\_specs/downloads/luminaires/ENERGY\\_STAR\\_Final\\_Lumen\\_Maintenance\\_Guidance.pdf](http://www.energystar.gov/ia/partners/prod_development/new_specs/downloads/luminaires/ENERGY_STAR_Final_Lumen_Maintenance_Guidance.pdf).

<sup>1</sup> In accordance with IESNA TM-21-11, Projected Values represent interpolated values based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip.

<sup>2</sup> In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip.

### Mounting

#### Option K

- K1 = Knuckle Slipfitter for 1.9 in. - 2.3 in. OD Tenon, with wires exiting tenon.
- K2 = Knuckle Slipfitter for 1.9 in. - 2.3 in. OD Tenon, external 3ft #14/3 power cable.

#### Option S

- S1 = Knuckle Slipfitter for 1.9 in. - 3.0 in. (48-76mm) OD Tenon.
- S2 = Knuckle Slipfitter for 1.9 in. - 3.0 in. (48-76mm) OD Tenon, with external 3ft #14/3 power cable.

#### Option V

- V1 = Knuckle Wall Mount. Lead wires exiting tenon.

#### Option T

- T1 = Trunnion, with external 3ft #14/3 power cable.

### Finish

- Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
- Standard colors: Dark Bronze, Black, White and Gray.
- RAL & custom colors available.

### Electrical

- 120-277 VAC and 347-480 VAC available.
- System power factor is >90% and THD <20%.
- ANSI C136.41 PE Socket Standard. Light Grid compatible.
- Dimming:
  - 0-10V continuous dimming standard.
  - DALI digital dimming available. Contact manufacturer.
- DALI compatible drivers available in 120-277 VAC.
- Surge Protection; per ANSI C136.2-2015.
  - - 6kV/3kA "Basic" surge protection, standard.
  - - 10kV/5kA "Enhanced" surge protection, optional.
- EMI: Title 47 CFR Part 15 Class A

### Warranty

- 5yr standard warranty

### Accessories

- Top & Side Visor
- Wire Guard
- Vandal Shield
- Barn Door Assembly

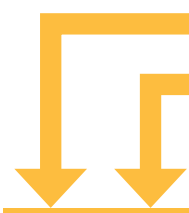
# Ordering Number Logic

## Evolve™ LED High Output Flood Light (EFH1)



**EFH1 01**      **7**

PROD. ID	GENERATION	VOLTAGE	OPTICAL CODE	DISTRIBUTION	CRI	CCT	DIMMING	CONTROLS	MOUNTING	FINISH	OPTIONS
<b>E</b> = Evolve <b>FH</b> = Flood H-Series <b>1</b> = Standard	<b>01</b> = 1st Generation	<b>0</b> = 120-277* <b>1</b> = 120 <b>2</b> = 208 <b>3</b> = 240 <b>4</b> = 277 <b>5</b> = 480 <b>D</b> = 347 <b>H</b> = 347-480*	<b>65</b> = NEMA 6x5 <b>66</b> = NEMA 6x6 <b>76</b> = NEMA 7x6 <b>77</b> = NEMA 7x7	<b>7</b> = 70 (min)	<b>30</b> = 3000K <b>40</b> = 4000K <b>50</b> = 5000K	<b>A</b> = ANSI C136.41 7-pin Receptacle++ <b>D</b> = External Dimming 18/2 3ft cable+ <b>N</b> = Non-Dimmable+ <b>P</b> = External Dimming 18/2 3ft cable with 7-pin Receptacle++  + No PE Receptacle (Unrestricted Aiming Angle). ++ All Units with option A and P have restricted Aiming Angle.	<b>A</b> = No Control <b>D</b> = Shorting Cap  Contact manufacturer for dimming PE and standard PE control options. Must order separately.	<b>K1</b> = Knuckle Slipfitter for 1.9 in. - 2.3 in. OD Tenon.* <b>S1</b> = Knuckle Slipfitter for 1.9 in. - 3.0 in. (48-76mm) OD Tenon. <b>K2</b> = Knuckle Slipfitter for 1.9 in. - 2.3 in. OD Tenon, with external 3ft #14/3 power cable. <b>S2</b> = Knuckle Slipfitter for 1.9 in. - 3.0 in. (48-76mm) OD Tenon, with external 3ft #14/3 power cable. <b>V1</b> = Knuckle Wall Mount* <b>T1</b> = Trunnion, with external 3ft #14/3 power cable.  * Lead wires exiting tenon.	<b>GRAY</b> = Gray <b>BLCK</b> = Black <b>DKBZ</b> = Dark Bronze <b>WHITE</b> = White	<b>F</b> = Fusing <b>L</b> = Tool-Less Entry <b>R</b> = Enhanced Surge Protection (10kV/5kA) <b>M</b> = NOM31* <b>U</b> = Universal DALI digital dimming+# <b>V</b> = 3-position Terminal Block <b>XXX</b> = Special Options  * Contact manufacturer + Compatible with Light Grid 2.0 nodes. # Not compatible at 347-480V.	



OPTICAL CODE	DISTRIBUTION CODE	NEMA CLASSIFICATION	TYPICAL INITIAL LUMENS			TYPICAL SYSTEM WATTAGE		IES FILE NUMBER		
			3000K	4000K	5000K	120-277V 347-480V	3000K	4000K	5000K	
AA	77	7 X 7	18900	19300	19500	150	EFH101_AA77730_____IES	EFH101_AA77740_____IES	EFH101_AA77750_____IES	
BB	77	7 X 7	26300	26800	27100	194	EFH101_BB77730_____IES	EFH101_BB77740_____IES	EFH101_BB77750_____IES	
CC	77	7 X 7	29100	29700	30000	218	EFH101_CC77730_____IES	EFH101_CC77740_____IES	EFH101_CC77750_____IES	
DD	77	7 X 7	34000	34700	35000	266	EFH101_DD77730_____IES	EFH101_DD77740_____IES	EFH101_DD77750_____IES	
EE	77	7 X 7	37900	38700	39000	297	EFH101_EE77730_____IES	EFH101_EE77740_____IES	EFH101_EE77750_____IES	
AA	76	7 X 6	18500	18800	19000	150	EFH101_AA76730_____IES	EFH101_AA76740_____IES	EFH101_AA76750_____IES	
BB	76	7 X 6	25700	26200	26500	194	EFH101_BB76730_____IES	EFH101_BB76740_____IES	EFH101_BB76750_____IES	
CC	76	7 X 6	28400	29000	29300	218	EFH101_CC76730_____IES	EFH101_CC76740_____IES	EFH101_CC76750_____IES	
DD	76	7 X 6	33200	33900	34200	266	EFH101_DD76730_____IES	EFH101_DD76740_____IES	EFH101_DD76750_____IES	
EE	76	7 X 6	37100	37800	38100	297	EFH101_EE76730_____IES	EFH101_EE76740_____IES	EFH101_EE76750_____IES	
AA	66	6 X 6	18200	18600	18800	150	EFH101_AA66730_____IES	EFH101_AA66740_____IES	EFH101_AA66750_____IES	
BB	66	6 X 6	25400	25900	26200	194	EFH101_BB66730_____IES	EFH101_BB66740_____IES	EFH101_BB66750_____IES	
CC	66	6 X 6	28100	28700	29000	218	EFH101_CC66730_____IES	EFH101_CC66740_____IES	EFH101_CC66750_____IES	
DD	66	6 X 6	32800	33500	33800	266	EFH101_DD66730_____IES	EFH101_DD66740_____IES	EFH101_DD66750_____IES	
EE	66	6 X 6	36600	37400	37700	297	EFH101_EE66730_____IES	EFH101_EE66740_____IES	EFH101_EE66750_____IES	
AA	65	6 X 5	17300	17700	17900	150	EFH101_AA65730_____IES	EFH101_AA65740_____IES	EFH101_AA65750_____IES	
BB	65	6 X 5	24100	24600	24800	194	EFH101_BB65730_____IES	EFH101_BB65740_____IES	EFH101_BB65750_____IES	
CC	65	6 X 5	26700	27200	27500	218	EFH101_CC65730_____IES	EFH101_CC65740_____IES	EFH101_CC65750_____IES	
DD	65	6 X 5	31200	31800	32100	266	EFH101_DD65730_____IES	EFH101_DD65740_____IES	EFH101_DD65750_____IES	
EE	65	6 X 5	34800	35500	35800	297	EFH101_EE65730_____IES	EFH101_EE65740_____IES	EFH101_EE65750_____IES	

### PE Accessories (to be ordered separately)

SAP Number	Part Number	Description
93029237	PED-MV-LED-7	ANSI C136.41 Dimming PE, 120-277V
93029238	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V

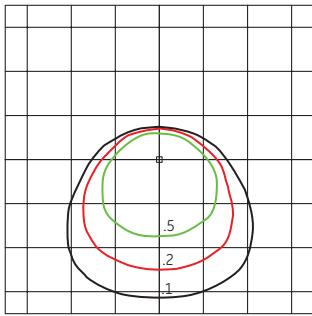
SAP Number	Part Number	Description
28299	PECOTL	STANDARD 120-277V
28294	PEC5TL	STANDARD 480V
80436	PECDTL	STANDARD 347V
73251	SCCL-PECTL	Shorting cap

# Photometrics

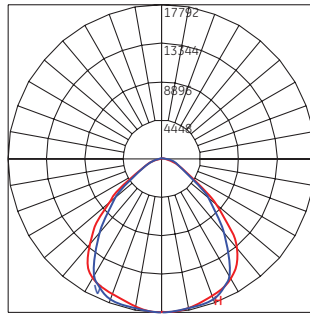
## Evolve™ LED High Output Flood Light (EFH1)

77-EE

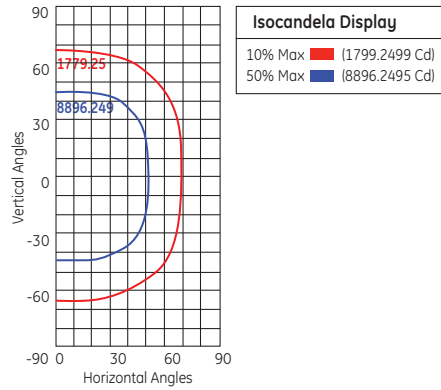
38,700 Lumens, 4000K (EFH101\_EE77740\_\_.ies)



Grid Distance in Units of Mounting Height at 35° and 45° Tilt Initial Footcandle Values at Grade

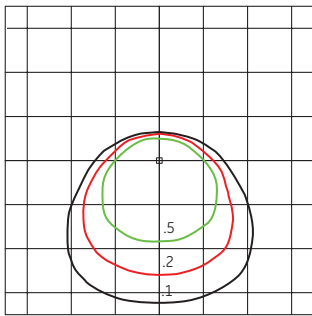


— Vertical Axel Candela Distribution  
— Horizontal Axel Candela Distribution

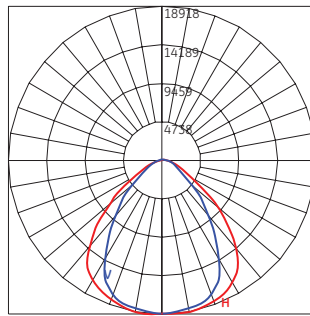


76-EE

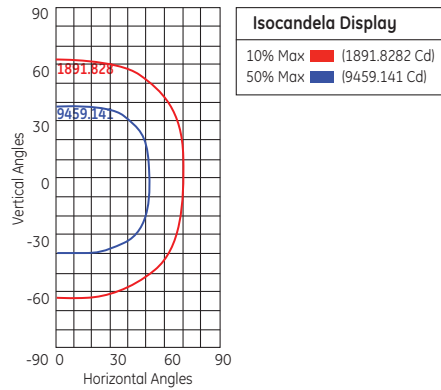
37,800 Lumens, 4000K (EFH101\_EE76740\_\_.ies)



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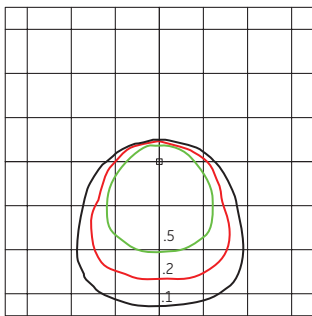


— Vertical Axel Candela Distribution  
— Horizontal Axel Candela Distribution

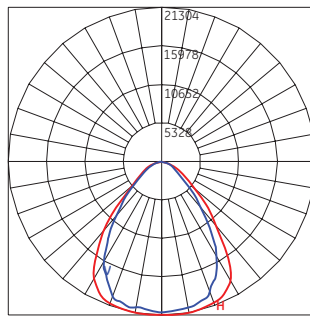


66-EE

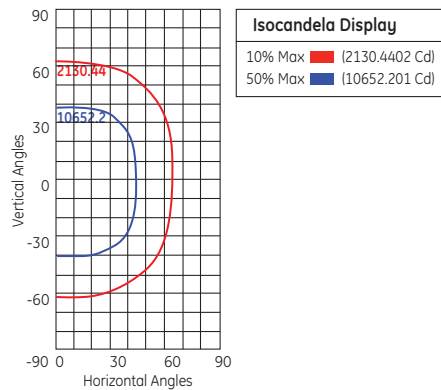
37,400 Lumens, 4000K (EFH101\_EE66740\_\_.ies)



Grid Distance in Units of Mounting Height at 35° and 45° Tilt Initial Footcandle Values at Grade

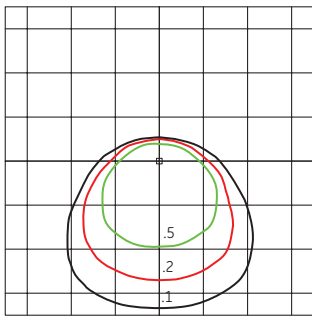


— Vertical Axel Candela Distribution  
— Horizontal Axel Candela Distribution

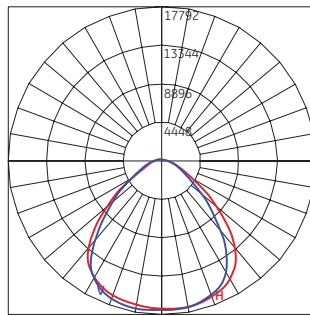


65-EE

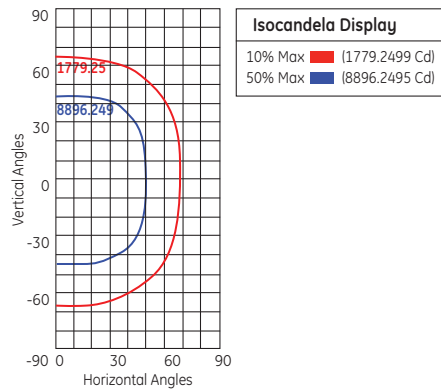
35,500 Lumens, 4000K (EFH101\_EE65740\_\_.ies)



Grid Distance in Units of Mounting Height at 35° and 45° Tilt Initial Footcandle Values at Grade



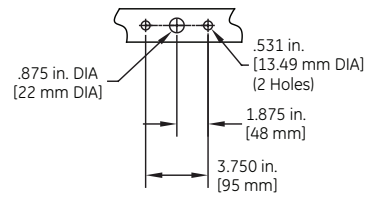
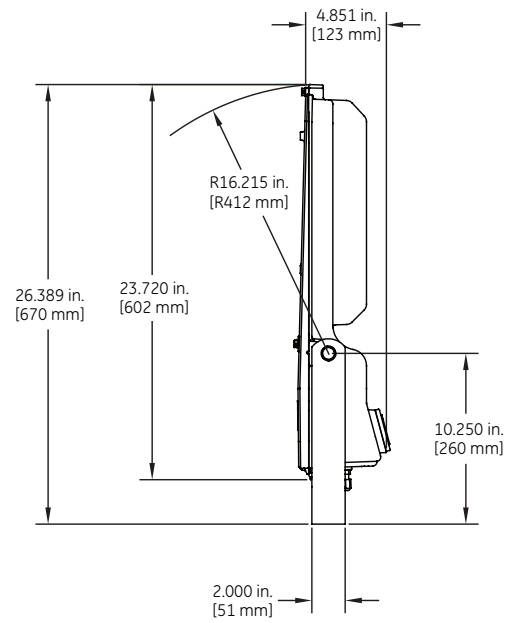
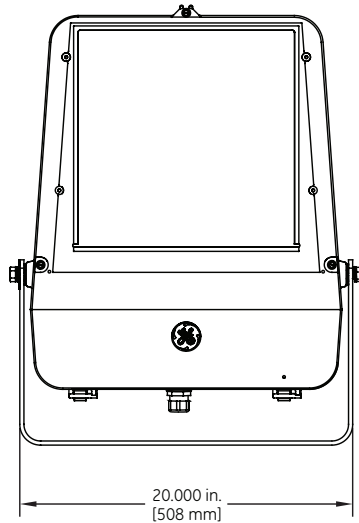
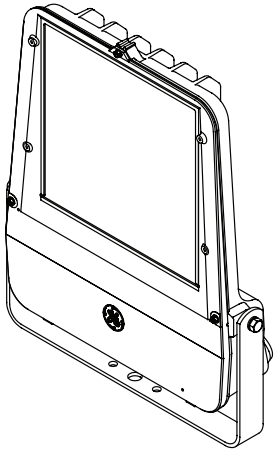
— Vertical Axel Candela Distribution  
— Horizontal Axel Candela Distribution



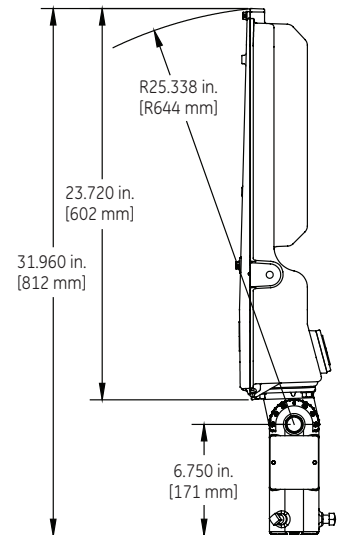
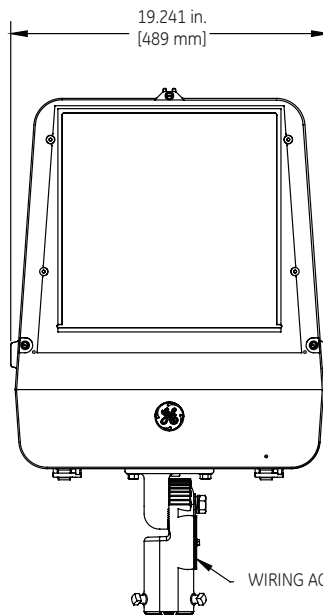
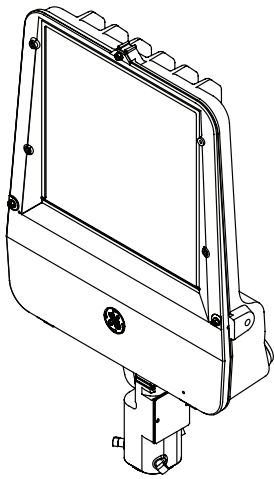
# Product Dimensions

## Evolve™ LED High Output Flood Light (EFH1)

### Trunnion Mounting



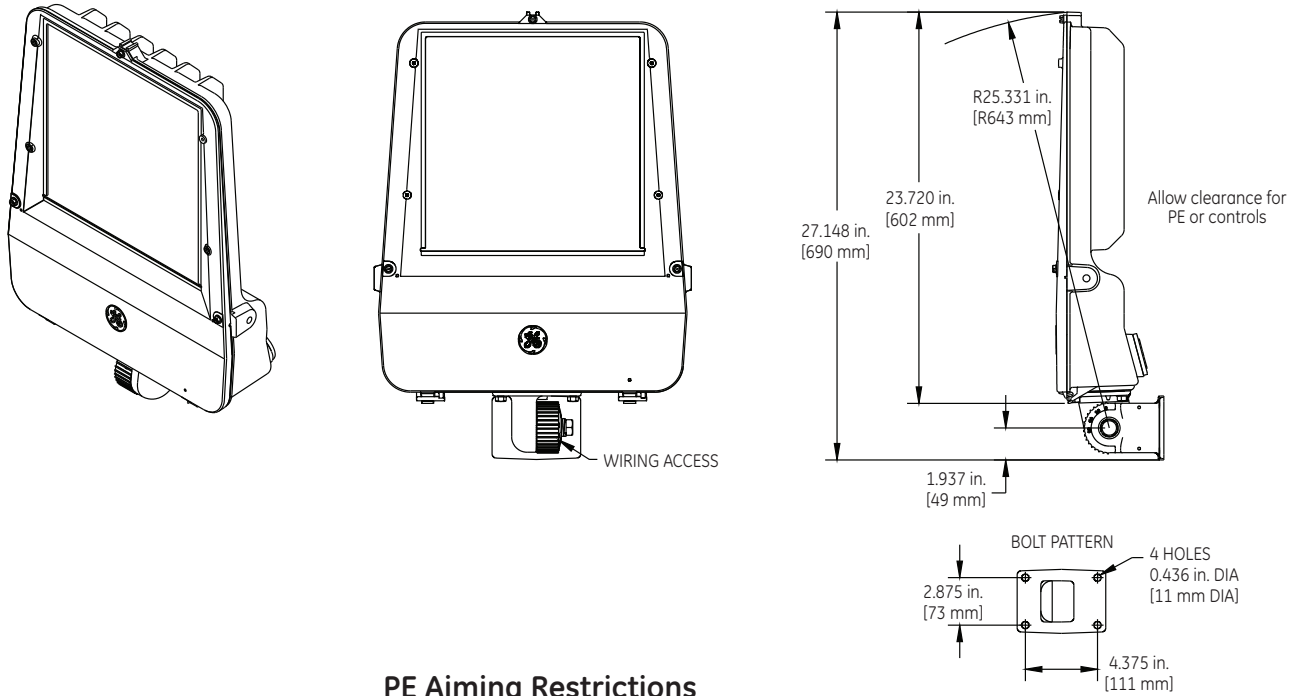
### Slipfitter Mounting



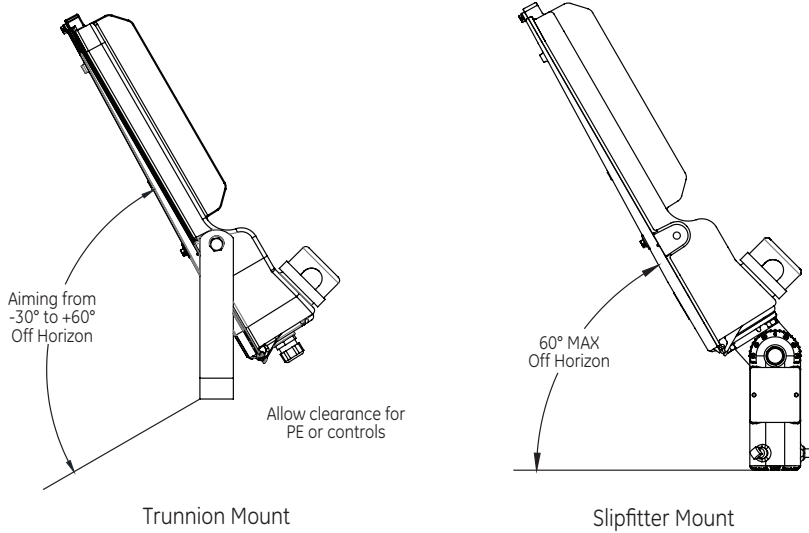
# Product Dimensions

## Evolve™ LED High Output Flood Light (EFH1)

### Wall Mounting



### PE Aiming Restrictions

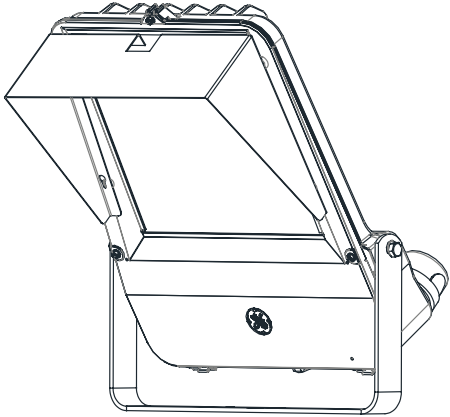


### DATA

- Approximate net weight: 35 lbs (15.9 kgs)
- Effective Projected Area:
  - Vertical 3.51 sq ft (0.33 sq M) (aimed at horizon)
  - Tilted 1.79 sqft (0.17 sq M) (aimed down 45 degrees)

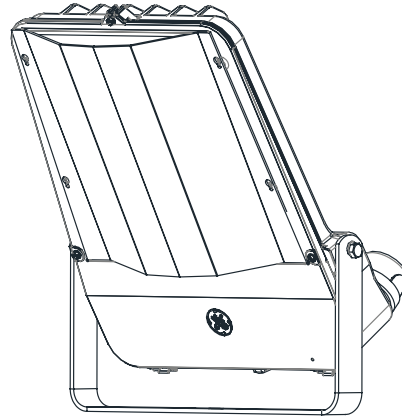
## Accessories

### Evolve™ LED High Output Flood Light (EFH1)



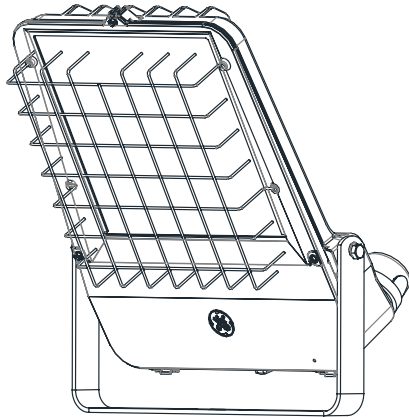
#### Top And Side Visor

Ordering Logic: TSVGGRAY-EFH  
TSVBLCK-EFH  
TSVDKBZ-EFH  
TSVWHITE-EFH



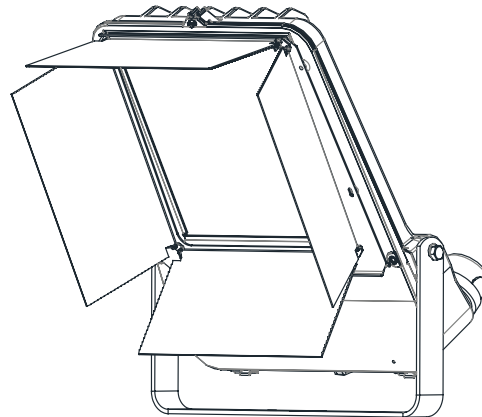
#### Vandal Shield

Ordering Logic: VAN-EFH



#### Wire Guard

Ordering Logic: WG-EFH



#### Barn Doors

Ordering Logic: BDAGRAY-EFH  
BDABLCK-EFH  
BDADKBZ-EFH  
BDAWHITE-EFH



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