

# 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 Listed.

Please refer to the DLC QPL website for the latest and most complete information.  
[www.designlights.org/QPL](http://www.designlights.org/QPL)

### 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 (IDUT) 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 (IDUT) 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 2.3 in. - 3.0 in. OD Tenon. Lead wires exiting tenon.
- S2 = Knuckle Slipfitter for 2.3 in. - 3 in. 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.

### Warranty

- 5yr standard warranty

### Accessories

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

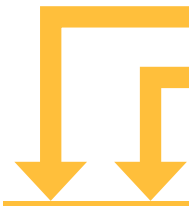
# Ordering Number Logic

## 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<br><b>FH</b> = Flood<br>H-Series<br><b>1</b> = Standard | <b>01</b> = 1st Generation | <b>0</b> = 120-277*<br><b>1</b> = 120<br><b>2</b> = 208<br><b>3</b> = 240<br><b>4</b> = 277<br><b>5</b> = 480<br><b>D</b> = 347<br><b>H</b> = 347-480* | <b>65</b> = NEMA 6x5<br><b>66</b> = NEMA 6x6<br><b>76</b> = NEMA 7x6<br><b>77</b> = NEMA 7x7 | <b>7</b> = 70 (min) | <b>30</b> = 3000K<br><b>40</b> = 4000K<br><b>50</b> = 5000K | <b>A</b> = ANSI C136.41 7-pin Receptacle++<br><b>D</b> = External Dimming 18/2 3ft cable+<br><b>N</b> = Non-Dimmable+<br><b>P</b> = External Dimming 18/2 3ft cable with 7-pin Receptacle++<br><br>+ No PE Receptacle (Unrestricted Aiming Angle).<br>++ All Units with option A and P have restricted Aiming Angle. | <b>A</b> = No Control<br><b>D</b> = Shorting Cap<br><br>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.*<br><b>S1</b> = Knuckle Slipfitter for 2.3 in. - 3.0 in. OD Tenon.*<br><b>K2</b> = Knuckle Slipfitter for 1.9 in. - 2.3 in. OD Tenon, with external 3ft #14/3 power cable.<br><b>S2</b> = Knuckle Slipfitter for 2.3 in. - 3 in. OD Tenon, with external 3ft #14/3 power cable.<br><br><b>V1</b> = Knuckle Wall Mount*<br><b>T1</b> = Trunnion, with external 3ft #14/3 power cable.<br><br>* Lead wires exiting tenon. | <b>GRAY</b> = Gray<br><b>BLCK</b> = Black<br><b>DKBZ</b> = Dark Bronze<br><b>WHITE</b> = White | <b>F</b> = Fusing<br><b>L</b> = Tool-Less Entry<br><b>M</b> = NOM31*<br><b>P</b> = Prewired with 6 FT #14/3 cable**<br><b>R</b> = Enhanced Surge Protection (10kV/5kA)<br><b>T</b> = Elevated Surge Protection (20kV/10kA)#<br><b>U</b> = Universal DALI digital dimming+#<br><b>V</b> = 3-position Terminal Block<br><b>XXX</b> = Special Options<br><br>* Contact manufacturer<br>** When Dimming option is selected without Dimming PE, a #14-5 cable will be supplied at length above<br>+ Compatible with Light Grid 2.0 nodes.<br># 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<br>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     |

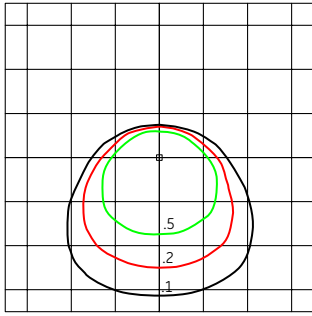
| SAP Number | Part Number | Description       |
|------------|-------------|-------------------|
| 28299      | PECOTL      | STANDARD 120-277V |
| 28294      | PEC5TL      | STANDARD 480V     |
| 80436      | PECDTL      | STANDARD 347V     |
| 73251      | SCCL-PECTL  | Shorting cap      |

# Photometrics

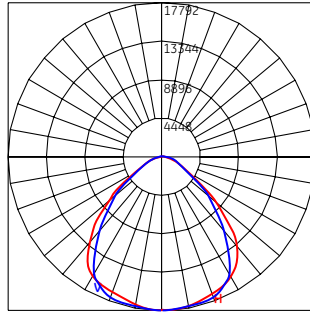
## Evolve™ LED High Output Flood Light (EFH1)

77-EE

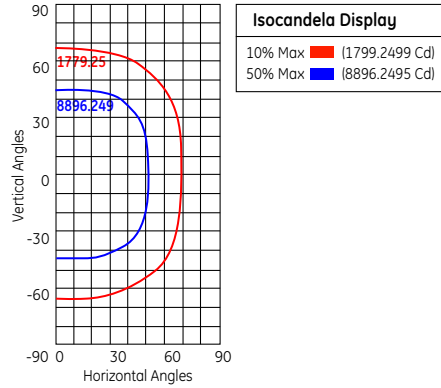
38,700 Lumens, 4000K (EFH101\_EE77740\_ies)



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



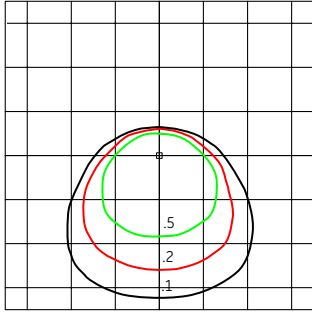
Vertical Axel Candela Distribution  
Horizontal Axel Candela Distribution



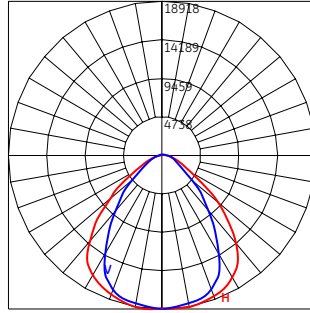
**Isocandela Display**  
10% Max (1779.2499 Cd)  
50% Max (8896.2495 Cd)

76-EE

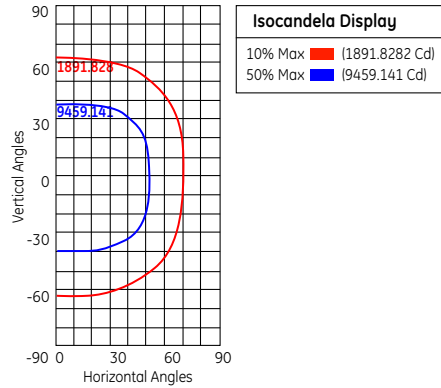
37,800 Lumens, 4000K (EFH101\_EE76740\_ies)



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



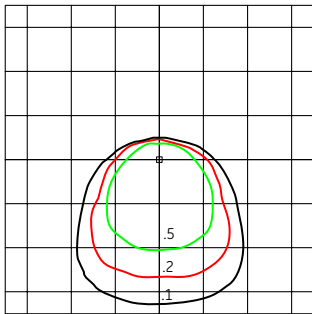
Vertical Axel Candela Distribution  
Horizontal Axel Candela Distribution



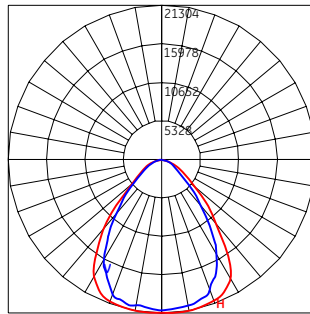
**Isocandela Display**  
10% Max (1891.8282 Cd)  
50% Max (9459.141 Cd)

66-EE

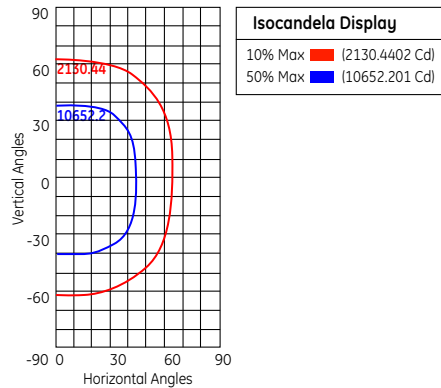
37,400 Lumens, 4000K (EFH101\_EE66740\_ies)



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



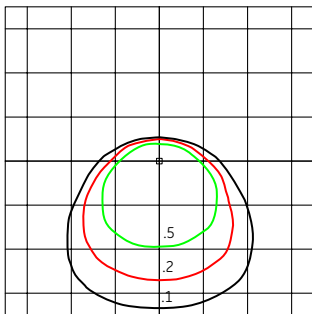
Vertical Axel Candela Distribution  
Horizontal Axel Candela Distribution



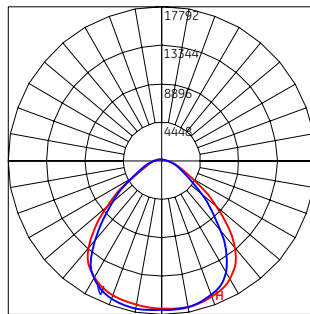
**Isocandela Display**  
10% Max (2130.4402 Cd)  
50% Max (10652.201 Cd)

65-EE

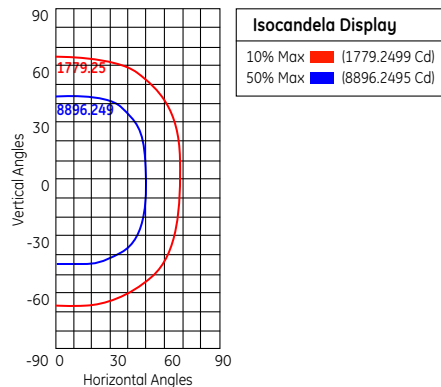
35,500 Lumens, 4000K (EFH101\_EE65740\_ies)



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

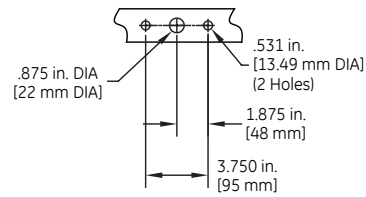
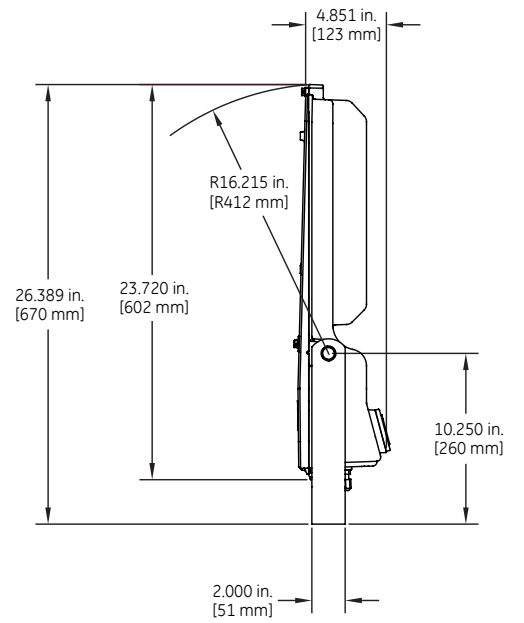
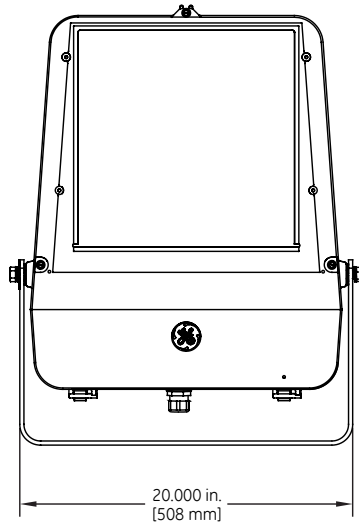
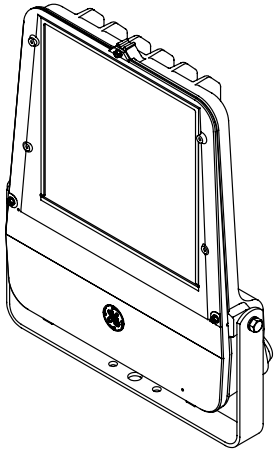


**Isocandela Display**  
10% Max (1779.2499 Cd)  
50% Max (8896.2495 Cd)

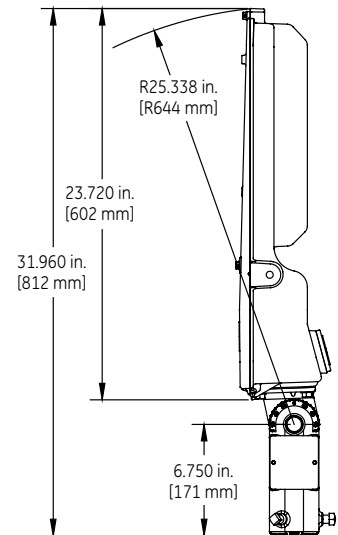
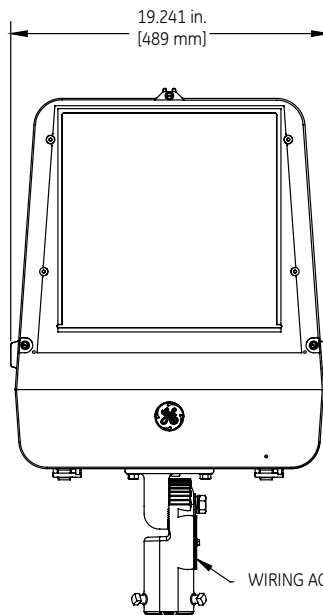
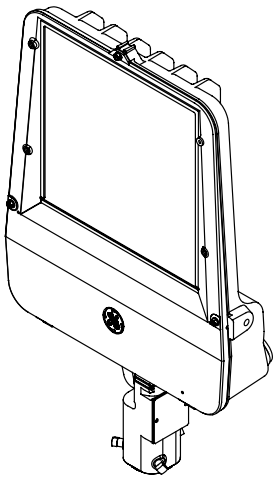
# Product Dimensions

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

### Trunnion Mounting



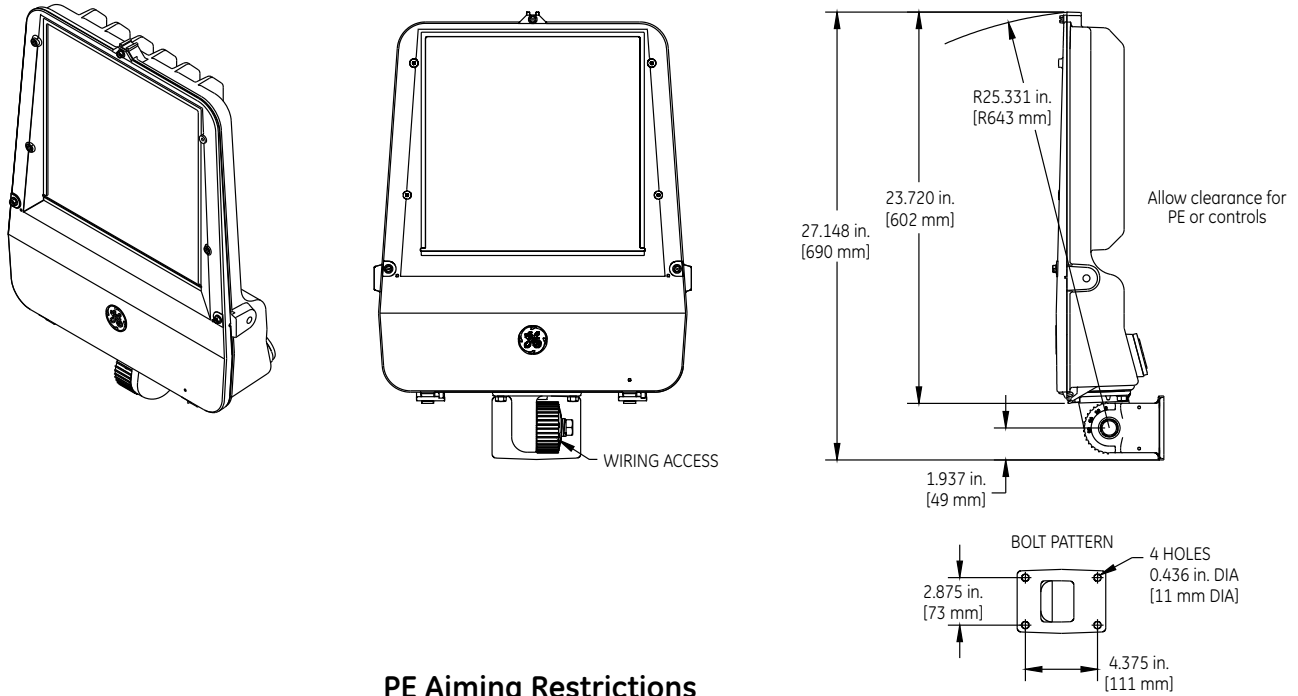
### Slipfitter Mounting



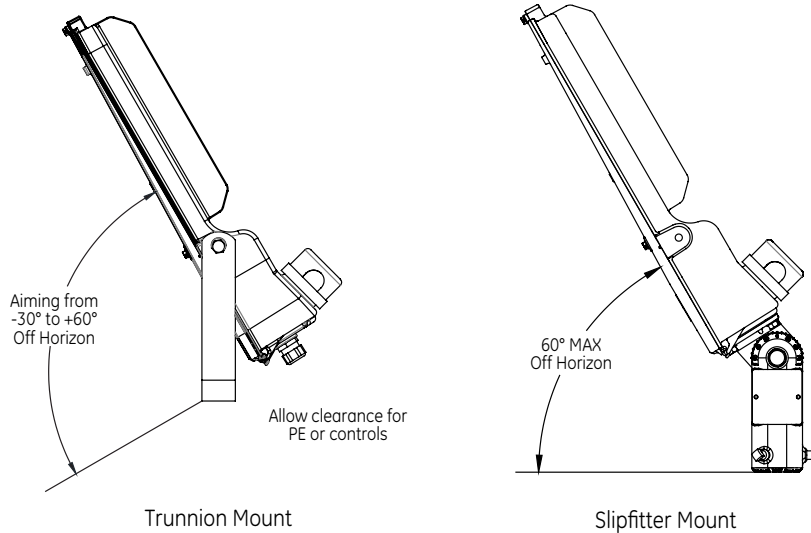
# Product Dimensions

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

### Wall Mounting



### PE Aiming Restrictions

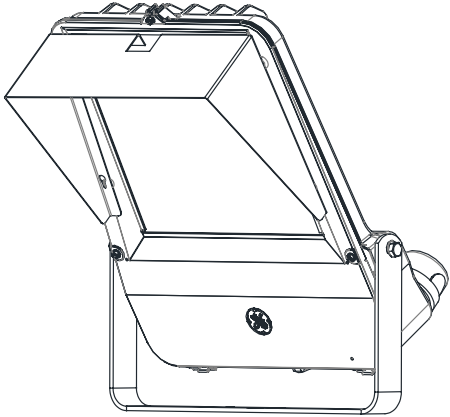


### DATA

- 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)

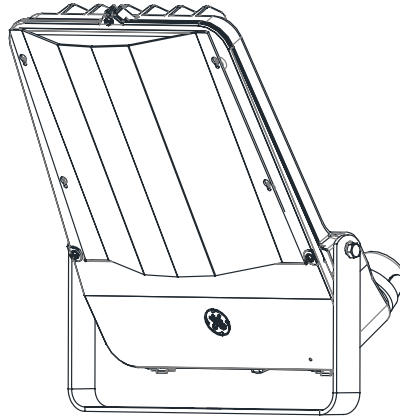
## Accessories

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



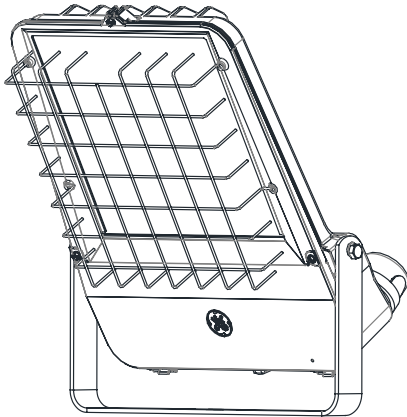
#### Top And Side Visor

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



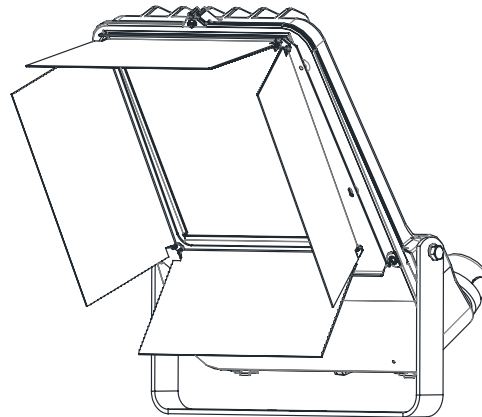
#### Vandal Shield

Ordering Logic: VAN-EFH



#### Wire Guard

Ordering Logic: WG-EFH



#### Barn Doors

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

**current**  
powered by GE

All trademarks are the property of their respective owners. Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions. Current, powered by GE is a business of the General Electric Company.  
© 2019 GE.

[www.currentbyge.com](http://www.currentbyge.com) | OLP3107 (Rev 02/18/19)

