

EFH Series

LED Flood Light

The Evolve® LED High Output Flood Light is our high-lumen solution to efficiently illuminate building facade, flag poles, billboard signage and many more traditional flood applications. Designed to replace 250W-400W HPS and 400W-1000W Metal Halide Flood Lights.

Construction

Housing:	Aluminum die cast enclosure. Integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze Gray, White (RAL & custom colors available) Optional = Coastal Finish
Weight:	35 lbs (15.9 kgs)

Optical system

Lumens:	18,000 - 39,000
Distribution:	6x5, 6x6, 7x6, 7x7
Efficacy:	115 -140 LPW
CCT:	3000K, 4000K, 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V, 277-480V & 347-480V
Input Frequency:	50/60 Hz
Power Factor (PH):	> 90% at rated watts
Total Harmonic Distortion (THD):	< 20% at rated watts

Surge Protection

TYPICAL (120 STRIKES)

6kV/3kA*	10kV/5kA*	20kV/10kA*
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*Per ANSI C136.2-2015

Warranty

5 Year (Standard)

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

Lumen Codes	Distribution	LXX(10K) @ Hours		
		25,000 HR	50,000 HR	60,000 HR
AA, BB, CC, DD, EE	65, 66, 76, & 77	L95	L91	L90

Note: Projected Lxx based on LM80 (= 10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements

Luminaire Ambient Temperature Factor

Ambient Temp (°C)	Initial Flux Factor	Ambient Temp (°C)	Initial Flux Factor
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40° C to 50° C
Vibration:	3G - Trunnion Mount per Per ANSI C136.31-2010:
LM-79:	Testing in accordance with IESNA Standards

Controls

Dimming:	Standard - 0-10V Optional - DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available LightGrid and Daintree Compatible

CUSTOMER NAME

PROJECT NAME

DATE

TYPE

CATALOG NUMBER

Ordering Information

EFH1 01 7

PRODUCT ID	GEN	VOLTAGE	OPTIC CODE	DISTRIBUTION ³	CRI (MIN)	CCT	DIMMING	CONTROLS	MOUNTING	COLOR	OPTIONS
E= EVOLVE	01	0 = 120 - 277V ¹	AA= 20,000 lm	65 = NEMA 6x5	7 = 70 (min)	30= 3000K	A = ANS 136.41 7-Pin Receptacle ⁴	A = No Control	K1 = Knuckle Slipfitter: For 1.9 in. - 2.3 in OD Tenon ⁶	BLCK = Black	F= Fusing
F = Flood		H = 347-480V ¹	BB= 27,000 lm	66 = NEMA 6x6		40= 4000K	D = No receptacle, with external dimming 18/2 3 ft cable	D = Shorting Cap ⁵	K2 = Knuckle Slipfitter: For 1.9 in. - 2.3 in OD Tenon ²	DKBZ = Dark Bronze	H = Motion Sensor ⁹
H1 = High Output			CC= 30,000 lm	76 = NEMA 7x6		50= 5000K	N = No PE Receptacle & Non Dimmable	E = ANSI C136.41 7-pin with non-Dimming PE Control ⁶	S1 = Knuckle Slipfitter: For 2.3 in - 3.0 in OD Tenon ⁶	GRAY = Gray	H2 = Daintree enabled motion sensor ^{8,9}
		1 = 120V	DD= 35,000 lm	77 = NEMA 7x7			P = ANSI 7-Pin Receptacle with external dimming 18/2 3 ft cable ⁴		S2 = Knuckle Slipfitter: For 2.3 in. - 3.0 in OD Tenon ²	WHITE = White	M = NOM3 ¹¹
		2 = 208V	EE= 39,000 lm						T1 =Trunnion ²		P = Prewired with 6 ft #14/3 cable
		3 = 240V							V1 = Knuckle Wall Mount ⁶		R = Optional Secondary Enhanced SPD
		4 = 277V									T = Optional Secondary Extreme SPD
		D = 347V									U = DALI Programmable ^{7,8}
		5 = 480V									VO = 3 Position Terminal Block
											V1 = Variable output via Field Adjustable Module
											XXX = Special Options
											Y = Coastal Finish ¹

¹ Not Available with Fusing

² Supplied with 14/3 3ft power cable

³ Nominal IES Type classing subject to typical variation, individual units may differ.

⁴ Restricted aiming angle of 0-45°

⁵ Can only be ordered with “A” or “P” Dimming Options

⁶ Supplied with leads

⁷ Compatible with LightGrid System

⁸ Not available in 347V, 480V OR 347-480V

⁹ Only available in K1 or S1 mount

¹⁰ Recommended for installations within 750 feet from coast. Lead time varies, check with factory.

¹¹ Contact Manufacturer

For additional information on EFH files, please refer to LED.com

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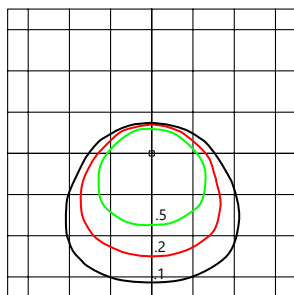
CATALOG NUMBER

OPTIC CODE	DIST CODE	CLASSIFICATION	TYPICAL INITIAL LUMENS			TYPICAL SYSTEM WATTAGE	3000K	
			3000K	4000K	5000K	120-277 & 347-480V	120-277V	347-480V
AA	77	7x7	18900	19300	19500	150	EFH101_AA77730	
BB			26300	28600	27100	194	EFH101_BB77730_	
CC			29100	29700	30000	218	EFH101_CC77730_	
DD			34000	34700	35000	266	EFH101_DD77730_	
EE			37900	38700	39000	297	EFH101_EE77730_	
AA	76	7x6	18500	18800	19000	150	EFH101_AA76730	
BB			25700	26200	26500	194	EFH101_BB76730_	
CC			28400	29000	29300	218	EFH101_CC76730_	
DD			33200	33900	34200	266	EFH101_DD76730_	
EE			37100	37800	38100	297	EFH101_EE76730_	
AA	66	6x6	18200	18600	18800	150	EFH101_AA66730	
BB			25400	25900	26200	194	EFH101_BB66730_	
CC			28100	28700	29000	218	EFH101_CC66730_	
DD			32800	33500	33800	266	EFH101_DD66730_	
EE			36600	37400	37700	297	EFH101_EE66730_	
AA	65	6x5	17300	17700	17900	150	EFH101_AA65730	
BB			24100	24600	24800	194	EFH101_BB65730_	
CC			26700	27200	27500	218	EFH101_CC65730_	
DD			31200	31800	32100	266	EFH101_DD65730_	
EE			34800	35500	35800	297	EFH101_EE65730_	

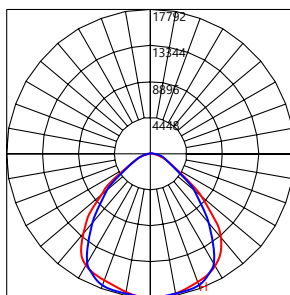
Not all products on this document are DLC qualified, please visit <https://www.designlights.org/search/>

77-EE

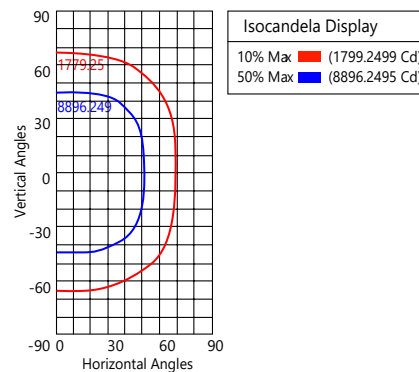
38,700 Lumens, 4000K
EFH101_EE77740__IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade



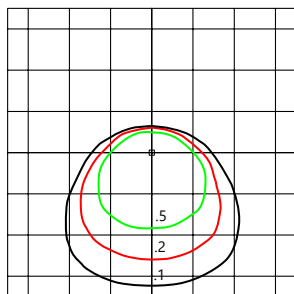
- Vertical Axel Candela Distribution
- Horizontal Axel Candela Distribution



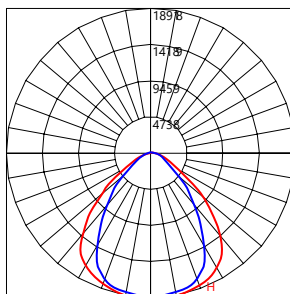
76-EE

37,800 Lumens, 4000K
EFH101_EE76740__IES

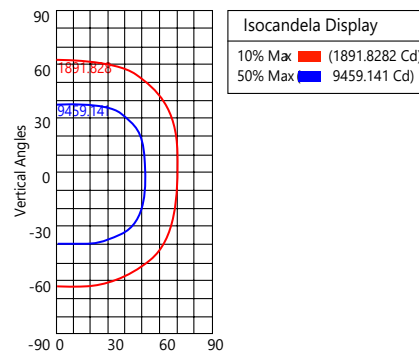
³ This optic is designed to address a Roadway Photometric Application and may classify as Type II or III.



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

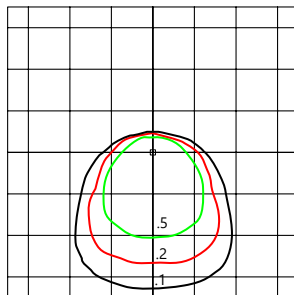


- Vertical Axel Candela Distribution
- Horizontal Axel Candela Distribution

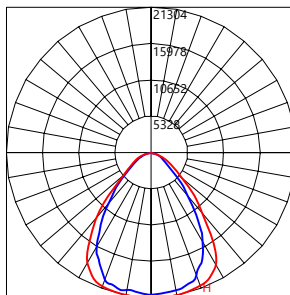


66-EE

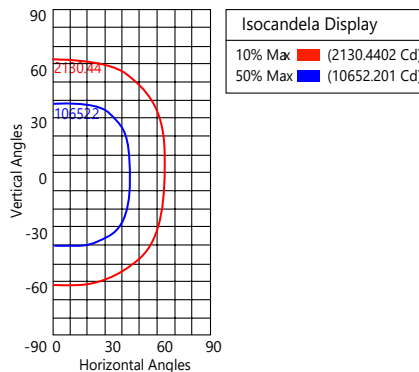
37,400 Lumens, 4000K
EFH101_EE66740__IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

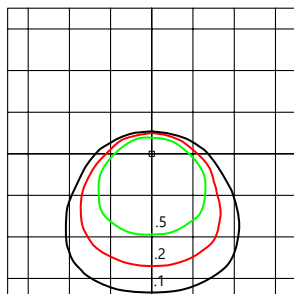


- Vertical Axel Candela Distribution
- Horizontal Axel Candela Distribution

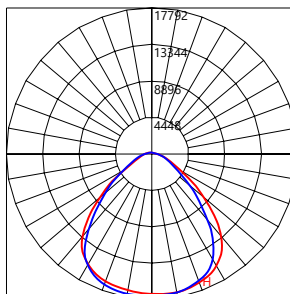


65-EE

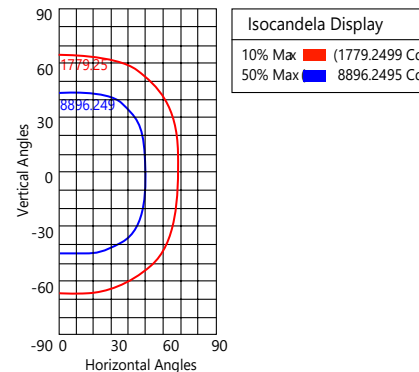
35,500 Lumens, 4000K
EFH101_EE65740__IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

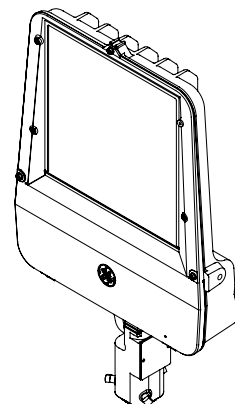
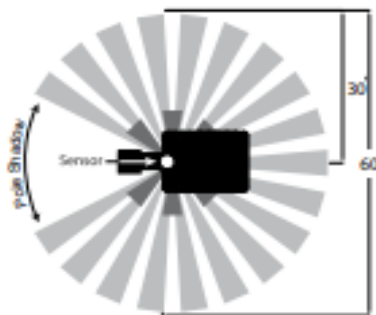


- Vertical Axel Candela Distribution
- Horizontal Axel Candela Distribution



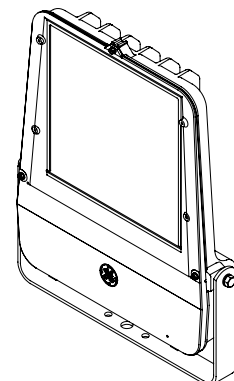
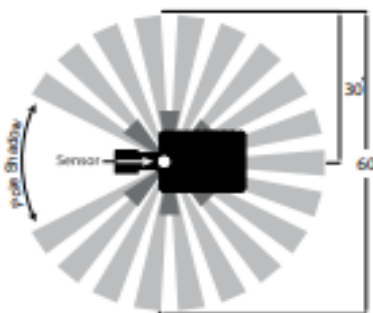
H - Motion Sensing Option

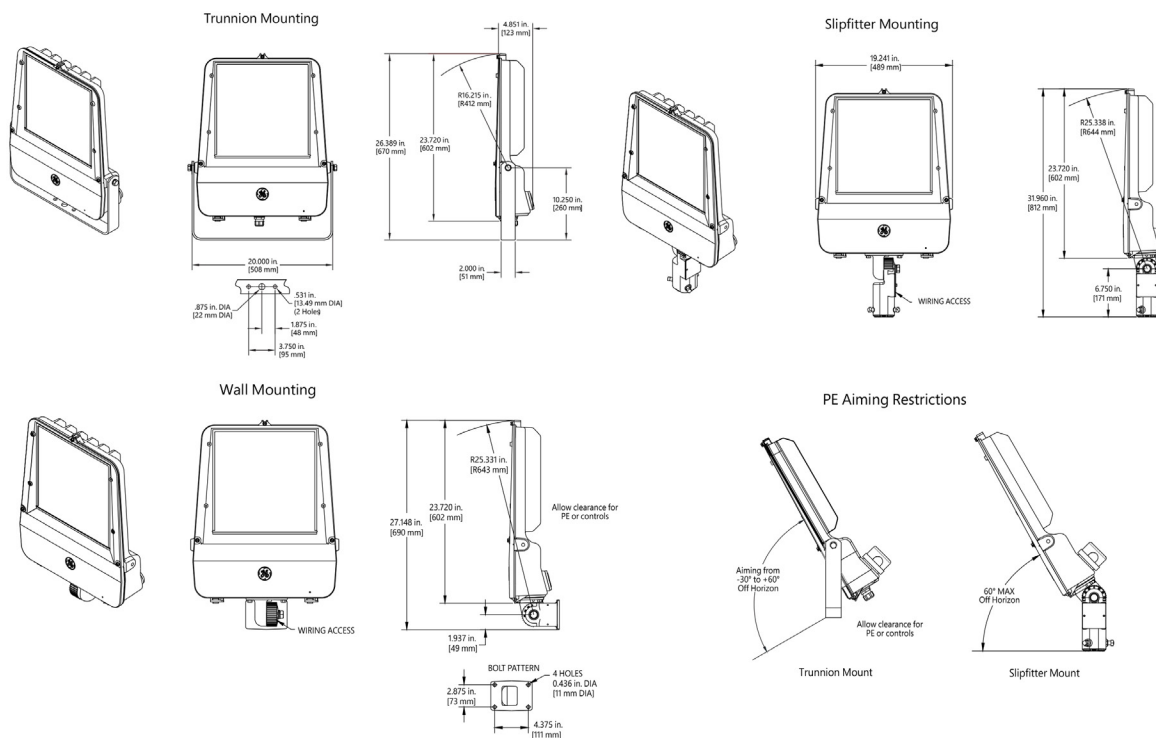
Recommended Mounting Height:	15-30' (4.6-9.1m)
Coverage Radius:	15-20' (4.6-6.1m)
Lateral Coverage:	300°
Total Harmonic Distortion:	≤ 20% at rated watts
Default Settings:	
Output:	Occupied - 100%/Unoccupied - 50%
PE Sensor:	None
Ramp/Fade:	5 Minutes/5 Minutes
Adds:	< 1W to fixture power rating
Field:	Programmable using FSIR-100 hand held programmer



H2 - Daintree Enabled Motion Sensor Option

Recommended Mounting Height:	15-30' (4.6-9.1m)
Coverage Radius:	15-20' (4.6-6.1m)
Lateral Coverage:	300°
Total Harmonic Distortion:	≤ 20% at rated watts
Default Settings:	
Output:	Occupied - 100%/Unoccupied - 10%, 10 Minute Delayed Off
PE Sensor:	None
Ramp/Fade:	5 Minutes/5 Minutes
Requires Wide Area Control (WAC)	





Mounting

- Adjustable for 1.25 to 1 in. nominal mounting pipe
- Integral diecast mounting pipe stop
- Slipfitter with +/- 5 degrees of leveling adjustment

Effective Projected Area

- Vertical 3.52 sq ft (0.33 sq M) (aimed at horizon)
- Tilted 1.79 sq ft (0.17 sq M) (aimed down 45 degrees)

Accessories

SAP Number	Part Number	Description
93123552	WANSI - 277	ANSI 136.41 Dimming PE Daintree Enable, 105-305V
93123553	WANSI - 480	ANSI 136.41 Dimming PE Daintree Enable, 312-530V
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
28299	PECOTL	Standard 120-277V
28294	PEC5TL	Standard 480V
80436	PECCTL	Standard 347V
93147530	PECHTL	Long Life Standard PE, 347-480V
73251	SCCL-PECTL	Shorting Cap

CUSTOMER NAME

PROJECT NAME

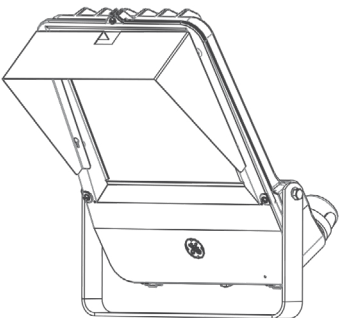
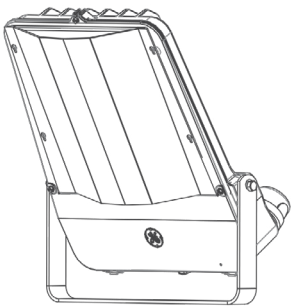
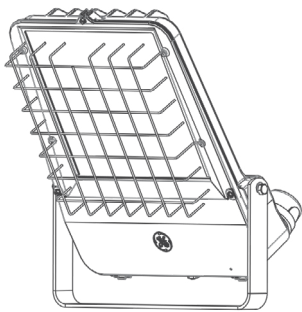
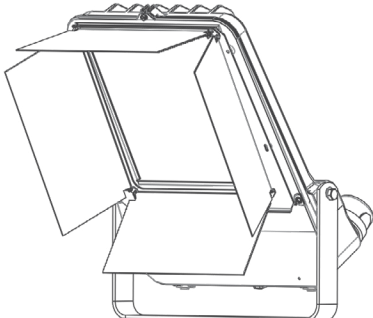
DATE

TYPE

DATE

CATALOG NUMBER

Shields

	SAP Number	Part Number	Description
	93033494	TSVBLCK-EFH	Top and Side Visor
	93033655	TSVDKBZ-EFH	Top and Side Visor
	93033493	TSVGRAY-EFH	Top and Side Visor
	93033656	TSVWHITE-EFH	Top and Side Visor
	93034260	VAN-EFH	Vandal Shield
	93034259	WG-EFH	Wire Guard
	93034837	BDABLCK-EFH	Barn Doors
	93034838	BDADKBZ-EFH	Barn Doors
	93034836	BDAGRAY-EFH	Barn Doors
	93034839	BDAWHITE-EFH	Barn Doors