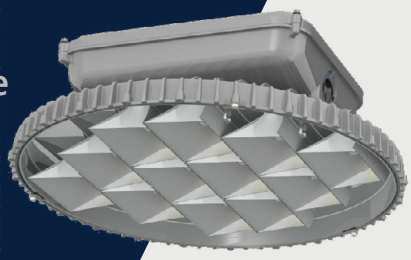
EVOLVE

ERHM Gen 03

High Mast LED Roadway Luminaire



Project Name _____

Date _____ Type _____

Notes _____

The **Evolve®** LED High Mast is an LED solution for expressway, freeway interchanges and other large area applications. Current's unique reflective optics are designed to optimize application efficiency and minimize glare. The ERHM luminaire is an efficient solution lowering energy consumption as compared to traditional HID fixtures providing operating cost savings.

CONSTRUCTION

Housing:	Cast aluminum optical and electrical housings.
Lens:	Impact resistant tempered glass
Paint:	Corrosion resistant powder paint, ≥ 2.0 mil thickness Standard = Gray (RAL & custom colors available) Optional = Coastal Finish
Weight:	~50 lbs. (~23 kgs.)

OPTICAL SYSTEM

Lumens:	28,800-110,000
Distribution:	Type II Narrow/Wide Type III Type III/IV Type V High Angle
Efficacy:	129 - 177 LPW
CCT:	3000K, 4000K & 5000K
CRI:	≥ 70

ELECTRICAL

Input Voltage:	120-277V or 277-480V
Input Frequency:	50/60Hz
Power Factor:	≥ 0.9% at rated watts
Total Harmonic Distortion:	≤ 20% at rated watts
EMI:	FCC 47 CFR Part 15 Class A

SURGE PROTECTION*

Standard	Optional
☐ 10kV/5kA	☐ Secondary 10kV/5kA (R Option) or ☐ Secondary 20kV/10kA (T Option)

*Per ANSI C136.2-2018

WARRANTY

☐ 5 Year (Standard) ☐ 10 Year (Optional)

LUMEN MAINTENANCE

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

SKU	Lumens	Distribution	LXX @ Hours		
			25,000 HR	50,000 HR	60,000 HR
ERHM	30-70	VW	99	99	98
	80,90	VW	98	95	94
	100	VW	96	92	90
	30-40	AA, A6, B6, C6, D6	99	99	98
	50	AA, A6, B6, C6, D6	94	87	84
	60	AA, A6, B6, C6, D6	97	95	94
	70	AA, A6, B6, C6, D6	93	86	83
	80	AA, A6, B6, C6, D6	96	93	91
	90	AA, A6, B6, C6, D6	90	80	76
	100	AA, A6, B6, C6, D6	84	70	65

NOTES: Projected Lxx based on LM-80 (≥12,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements.

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		

RATINGS

Operating Temperature:	-40°C to 40°C*
Vibration:	3G per ANSI C136.31
LM-79:	Tested in accordance with IES Standards
RoHS:	Complies with the material restrictions of RoHS

*Contact Manufacturer for units ≥ 100K lm

CONTROLS

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

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High Mast LED Roadway Luminaire

Catalog Logic

Project Name _____

Date _____ Type _____

Notes _____

E R H M 03 _ _ _ _ _ _ _ _ _ _ _ _ 7 _ _ _ _ _ _ _ _ 4B _ _ _ _ _ _ _

PROD. ID	GEN	VOLTAGE	LUMENS	DISTRIBUTION	CRI	CCT	DIMMING	CONTROLS PER ANSI C136.41	MOUNTING	COLOR	OPTIONS
E = Evolve	03	0 = 120-277[1]	30	AA = Type I	7 = 70[5]	30 = 3000K[2]	N = No Dimming Control Wiring	1 = None	4B = 4 Bolt (std)	GRAY = Gray	F = Fusing
R = Roadway		1 = 120	40	A6 = Type II Narrow		40 = 4000K	D = Dimming Control Wiring Included[4]	A = 7-Pin Receptacle		BLCK = Black	G = Internal Bubble Level
H = High		2 = 208	50	B6 = Type II Wide		50 = 5000K		D = 7-Pin Receptacle with Shorting Cap			R = Secondary 10kV/5kA SPD
M = Mast		3 = 240	60	C6 = Type III				E =7-Pin Receptacle with Long Life non-Dimming PE Control			T = Secondary 20kV/10kA SPD
		4 = 277	70	D6[6] = Type III/IV							U = DALI[6,8,9]
		5 = 480[8]	80	VW = Type V High Angle							V1 = Field Adjustable drive current feature (FAM)[1]
		D = 347[8]	90								Y = Coastal Finish[3]
		E = 277-480V[1]	10								XXX = Special Options
			11[6,7]								

1 Not available with fusing. Fusing requires discrete voltage selection to ensure proper fusing wiring.
2 Select 3000K CCT for IDA approved units.
3 Recommended for installations within 750 feet from coast. Lead time varies, check with factory.
4 Dimming control wiring included to connect dimming control external to the fixture.
5 70 CRI Typical.
6 Contact manufacturing for availability.
7 Available only in VW distribution.
8 May not be available in some configurations.
9 U Option may add ~1% on power Consumption.

IP66 Optical Enclosures

CONTROLS ENABLED

UL 1598 for WET LOCATIONS

SUGGESTED HID REPLACEMENT

- 28,800 - 40,000 lm to replace 400W HID & MH High Mast luminaires.
- 47,000 - 60,000 lm to replace 750W HID & MH High Mast luminaires.
- >60,000 lm to replace 1000W HID & MH High Mast luminaires.

Note: actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

Previous	Optical Pattern	Latest	New Optical Pattern
E1	Type II Med	B6	Type II Wide
G1	Type III Extra Wide	C6	Type III
F1	Type IV Wide	D6	Type III/IV
VS	Type V Short	VW	Type V High Angle
VM	Type V Med	VW	Type V High Angle

The information above is designed to provide a guideline to select the correct luminaire for a roadway application. The best and most accurate way to ensure the proper design is by doing a lighting layout.

EVOLVE

ERHM Gen 03

High Mast LED Roadway Luminaire

Spec Tables

Project Name _____

Date _____ Type _____

Notes _____

LUMEN OUTPUT	DISTRIBUTION	INITIAL LUMENS		TYPICAL SYSTEM	PRELIMINARY BUG RATINGS	
		5000K/4000K	3000K	WATTS	4000K	3000K
30	AA	30,000	28800	195	B4-U0-G4	B4-U0-G4
	A6	30,000	28800	195	B3-U0-G3	B3-U0-G3
	B6	30,000	28800	195	B3-U0-G4	B3-U0-G4
	C6	30,000	28800	195	B3-U0-G5	B3-U0-G4
	D6	30,000	28800	195	B3-U0-G4	B2-U0-G4
	VW	31,500	30200	183	B5-U0-G4	B5-U0-G4
40	AA	41,900	40200	291	B5-U0-G5	B5-U0-G5
	A6	41,900	40200	291	B4-U0-G4	B4-U0-G4
	B6	41,900	40200	291	B4-U0-G5	B4-U0-G5
	C6	41,900	40200	291	B4-U0-G5	B3-U0-G5
	D6	41,900	40200	291	B3-U0-G5	B3-U0-G5
	VW	42,000	40300	244	B5-U0-G5	B5-U0-G5
50	AA	53,000	49900	381	B5-U0-G5	B5-U0-G5
	A6	53,000	49900	381	B4-U0-G5	B4-U0-G5
	B6	53,000	49900	381	B4-U0-G5	B4-U0-G5
	C6	53,000	49900	381	B4-U0-G5	B4-U0-G5
	D6	53,000	49900	381	B3-U0-G5	B3-U0-G5
	VW	52,400	50300	308	B5-U0-G5	B5-U0-G5
60	AA	62,500	60000	447	B5-U0-G5	B5-U0-G5
	A6	62,500	60000	447	B4-U0-G5	B4-U0-G5
	B6	62,500	60000	447	B4-U0-G5	B4-U0-G5
	C6	62,500	60000	447	B4-U0-G5	B4-U0-G5
	D6	62,500	60000	447	B3-U0-G5	B3-U0-G5
	VW	61,800	59300	368	B5-U0-G5	B5-U0-G5
70	AA	71,800	68900	529	B5-U0-G5	B5-U0-G5
	A6	71,800	68900	529	B5-U0-G5	B5-U0-G5
	B6	71,800	68900	529	B4-U0-G5	B4-U0-G5
	C6	71,800	68900	529	B4-U0-G5	B4-U0-G5
	D6	71,800	68900	529	B3-U0-G5	B3-U0-G5
	VW	72,000	69100	447	B5-U0-G5	B5-U0-G5
80	AA	83,400	80000	611	B5-U0-G5	B5-U0-G5
	A6	83,400	80000	611	B5-U0-G5	B5-U0-G5
	B6	83,400	80000	611	B5-U0-G5	B5-U0-G5
	C6	83,400	80000	611	B5-U0-G5	B4-U0-G5
	D6	83,400	80000	611	B4-U0-G5	B4-U0-G5
	VW	83,400	80000	525	B5-U0-G5	B5-U0-G5
90	AA	92,000	88300	692	B5-U0-G5	B5-U0-G5
	A6	92,000	88300	692	B5-U0-G5	B5-U0-G5
	B6	92,000	88300	692	B5-U0-G5	B5-U0-G5
	C6	92,000	88300	692	B5-U0-G5	B5-U0-G5
	D6	92,000	88300	692	B4-U0-G5	B4-U0-G5
	VW	94,000	90200	603	B5-U0-G5	B5-U0-G5
10	AA	102,000	96900	782	B5-U0-G5	B5-U0-G5
	A6	102,000	96900	782	B5-U0-G5	B5-U0-G5
	B6	102,000	96900	782	B5-U0-G5	B5-U0-G5
	C6	102,000	96900	782	B5-U0-G5	B5-U0-G5
	D6	102,000	96900	782	B4-U0-G5	B4-U0-G5
	VW	104,000	99800	675	B5-U0-G5	B5-U0-G5
11	VW	110,000	105600	742	B5-U0-G5	B5-U0-G5

For additional information on ERHM IES files, please click on the link: ERHM

ERHM Gen 03

High Mast LED Roadway Luminaire

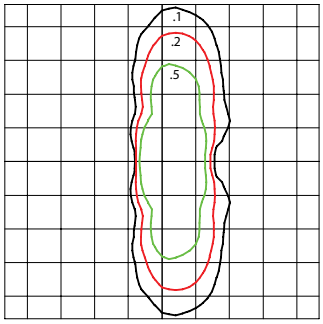
Photometric Plots

Project Name _____

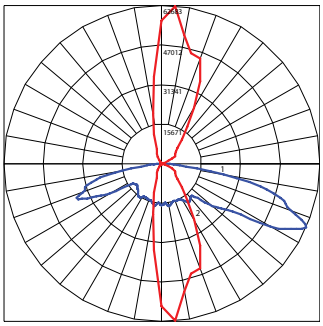
Date _____ Type _____

Notes _____

ERHM03
Type II Narrow
70,000 Lumens
4000K
ERHM3_70A6740___.IES

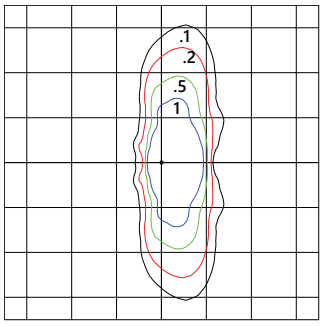


Grid Distance in Units
of Mounting Height at 60' Initial
Footcandle Values at Grade

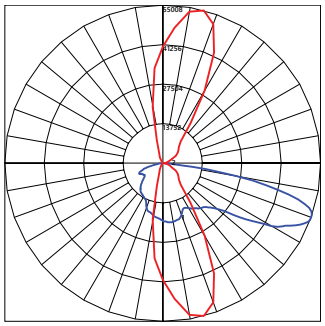


Vertical plane through horizontal angle of maximum candlepower at 85°
Horizontal cone through vertical angle of 66°

ERHM03
Type II Wide
70,000 Lumens
4000K
ERHM3_70B6740___.IES



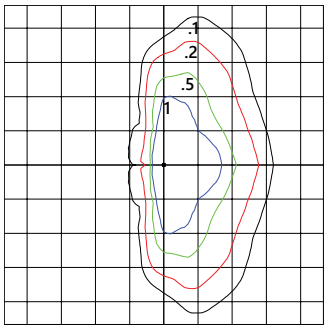
Grid Distance in Units
of Mounting Height at 60' Initial
Footcandle Values at Grade



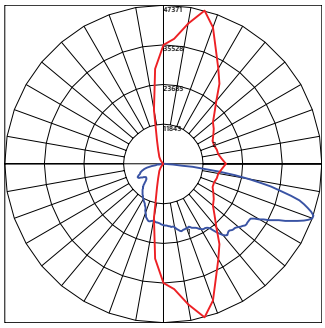
Vertical plane through horizontal angle of maximum candlepower at 75°
Horizontal cone through vertical angle of 70°

ERHM03
Type III Wide
70,000 Lumens
4000K
ERHM3_70C6740___.IES

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

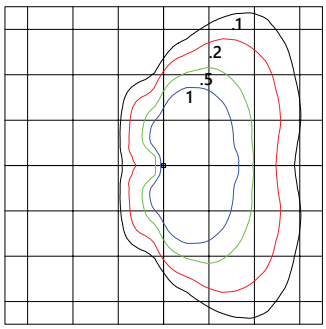


Grid Distance in Units
of Mounting Height at 60' Initial
Footcandle Values at Grade

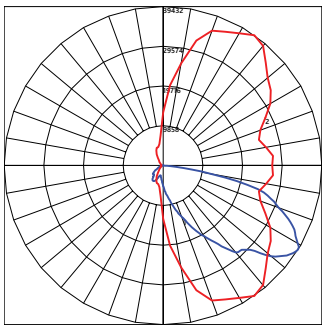


Vertical plane through horizontal angle of maximum candlepower at 75°
Horizontal cone through vertical angle of 70°

ERHM03
Type III/IV
60,000 Lumens
4000K
ERHM3_60D6740___.IES

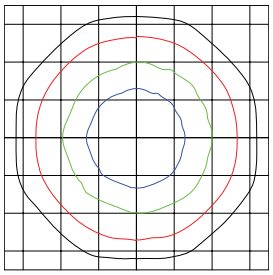


Grid Distance in Units
of Mounting Height at 60' Initial
Footcandle Values at Grade

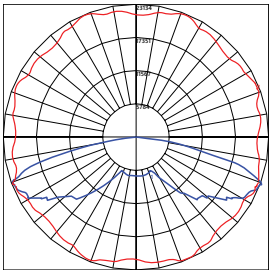


Vertical plane through horizontal angle of maximum candlepower at 55
Horizontal cone through vertical angle of 58°

ERHM03
Type V
80,000 Lumens
4000K
ERHM3_80VW740___.IES

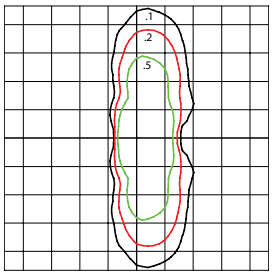


Grid Distance in Units
of Mounting Height at 60' Initial
Footcandle Values at Grade

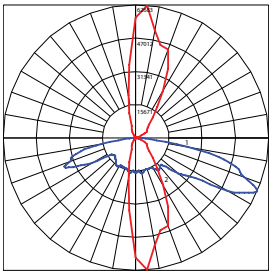


Vertical plane through horizontal angle of maximum candlepower at 65°
Horizontal cone through vertical angle of 67°

ERHM03
Type I AA
71,800 Lumens
4000K
ERHM3_70AA740___.IES



Grid Distance in Units
of Mounting Height at 60' Initial
Footcandle Values at Grade



Vertical plane through horizontal angle of maximum candlepower at 90°
Horizontal cone through vertical angle of 66°

EVOLVE

ERHM Gen 03

High Mast LED Roadway Luminaire

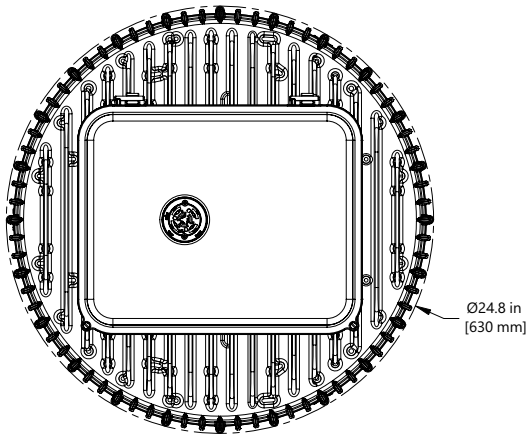
Dimensions

Project Name _____

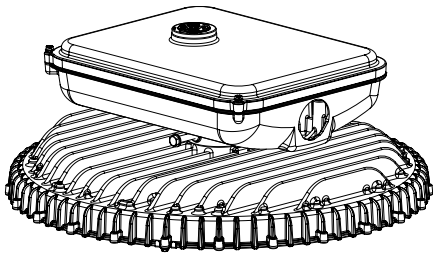
Date _____ Type _____

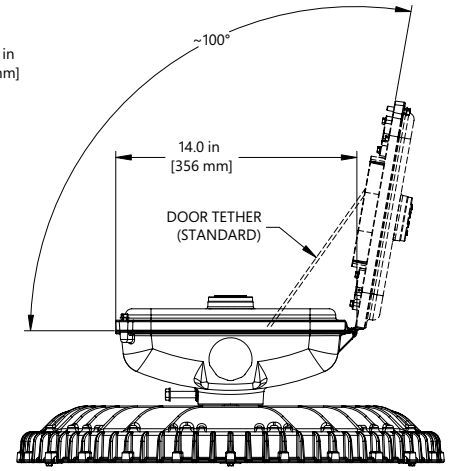
Notes _____

ERHM03

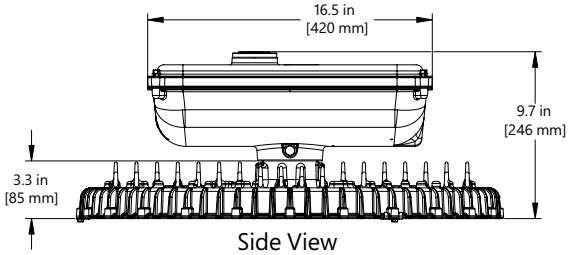


Top View

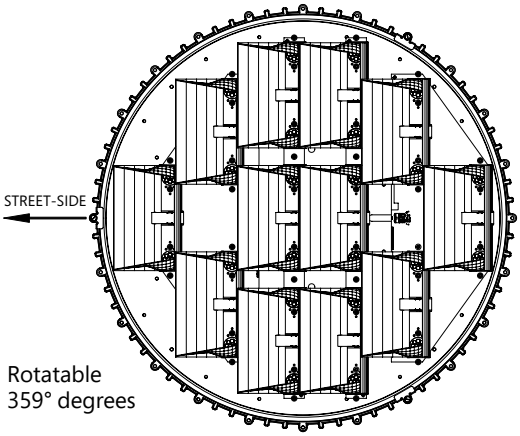




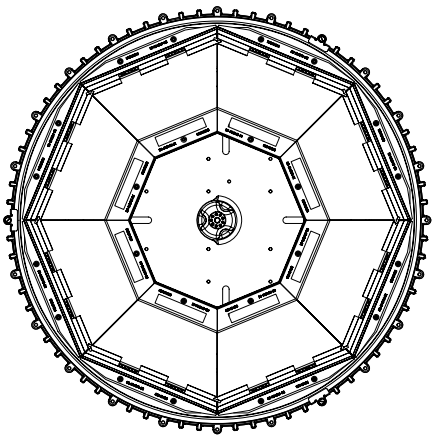
Back View



Side View



Bottom View
(Asymmetric)



Bottom View
(Symmetric)

MOUNTING

- 4 Bolt Slipfitter with +/-5 degree of adjustment
- Integral mounting pipe stop
- 2 in. (2.375" OD, 60 mm OD) mounting pipe

EFFECTIVE PROJECTED AREA

- Effective Projected Area: 1.3 ft.^{2} (0.12m^2) (Max, no shield)

WEIGHT

- Weight: ~50Lbs (~23kg)

NETWORKED LIGHTING CONTROL

Current's **LightGrid**™ Outdoor Lighting Control System is designed for Street and Roadway Applications. It enables remote monitoring, control, and asset management of a single fixture or a group of fixtures through a web enabled Central Management System.