



ATHENA III SERIES

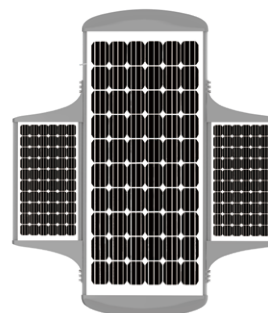
ALL IN ONE SOLAR LIGHT

INTRODUCTION

The FGE-Athena III Series All-in-One Solar Light integrates high-efficiency solar panels, a lithium battery, LED module, and intelligent controller into a compact, streamlined design. It provides powerful, autonomous lighting for streets, pathways, parks, and parking areas without external wiring or grid power.

Equipped with high-efficacy LED chips and intelligent light and motion sensors, Athena III delivers bright, uniform illumination with adaptive dimming to optimize energy usage. The monocrystalline solar panel ensures fast charging and excellent energy conversion, while the lithium iron phosphate battery offers long cycle life and reliable performance.

Its die-cast aluminum housing with IP66 protection guarantees durability against rain, dust, and heat. Easy to install and maintenance-free, the Athena III is an ideal eco-friendly lighting solution for off-grid and sustainable outdoor applications.



NOM **CE** **RoHS** **IP66**

FEATURES



200lm/W

High Efficacy & Energy Saving: Up to 200 lm/W, reducing energy consumption by over 60% compared with HID fixtures.



90° Adjustable Installation Angle: Flexible angle adjustment ensures optimal lighting coverage in any installation.



Grade A LiFePo4 Battery: Capacity is more than 80% after 2000 cycles.



High Efficiency Solar Panel: Adopting high efficiency monocrystalline silicon solar panel, conversion rate is more than 21%.



QUICK & EASY

Easy Installation and Maintenance:

Built-in rotating shaft for easy maintenance. All components can be easily replaced.



PIR Sensor Options: Smart motion sensing for energy saving and extended lifespan.



12V/24V MPPT Controller: Intelligent to control the dimming by PIR/Motion sensor and timer.



RELIABLE WARRANTY

Reliable Warranty:
5 Years Warranty.

- Robust Protection:

IP66 waterproof & dustproof, IK08 impact resistance for harsh industrial environments.

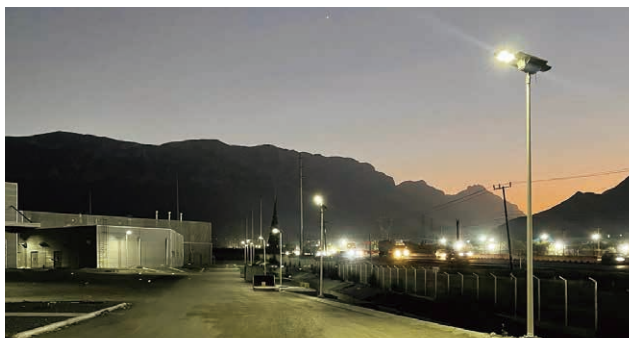
- Superior Thermal Management:

Die-cast aluminum housing with optimized heat sink for reliable performance.

APPLICATIONS



Urban or Highway Area Lighting: Solar LED lights eliminate the need for costly trenching, wiring, and grid connection, delivering significant infrastructure savings. Complemented by high-capacity lithium-ion batteries, they provide 2-3 days of reliable backup illumination during cloudy weather or rainstorms, a critical advantage for highways and urban routes in regions with variable climate conditions.



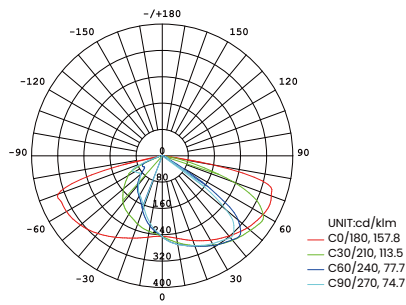
Industrial & Logistics Zones: Solar LED lights are uniquely engineered to thrive in these high-demand environments. By addressing core pain points, including high energy costs, remote locations with limited grid access, and stringent safety regulations, they seamlessly balance reliability, cost-efficiency, safety, and regulatory compliance.

TECHNICAL PARAMETERS

Product Model	AthenaIII-30W	AthenaIII-40W	AthenaIII-50W	AthenaIII-60W	AthenaIII-80W	AthenaIII-100W	AthenaIII-120W	AthenaIII-150W	AthenaIII-200W
Electrical Performance									
Wattage	30W	40W	50W	60W	80W	100W	120W	150W	200W
Input Voltage	12V	12V	12V	12V	12V	24V	24V	24V	24V
Battery Type	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4
Battery Capacity	12.8V 18AH	12.8V 24AH	12.8V 30AH	12.8V 36AH	12.8V 42AH	25.6V 24AH	25.6V 30AH	25.6V 36AH	25.6V 48AH
Charging Time	6 Hours	6 Hours	6 Hours	6 Hours	6 Hours	6 Hours	6 Hours	6 Hours	6 Hours
Discharging Time	24-36h (2-3 nights)	24-36h (2-3 nights)	36-48h (3-4 nights)	36-48h (3-4 nights)	36-48h (3-4 nights)	36-48h (3-4 nights)	36-48h (3-4 nights)	36-48h (3-4 nights)	36-48h (3-4 nights)
Cycles of Battery	>2000	>2000	>2000	>2000	>2000	>2000	>2000	>2000	>2000
Solar Panel	Monocrystalline 18V 40W	Monocrystalline 18V 50W	Monocrystalline 18V 60W	Monocrystalline 18V 80W	Monocrystalline 18V 100W	Monocrystalline 36V 120W	Monocrystalline 36V 150W	Monocrystalline 36V 180W	Monocrystalline 36V 240W
Controller	PWM	PWM	MPPT	MPPT	MPPT	MPPT	MPPT	MPPT	MPPT
Optical Performance									
Luminous Efficacy	200lm/W	200lm/W	200lm/W	200lm/W	200lm/W	200lm/W	200lm/W	200lm/W	200lm/W
Luminous Flux	6000lm	8000lm	10000lm	12000lm	16000lm	20000lm	24000lm	30000lm	40000lm
CCT	5000K	5000K	5000K	5000K	5000K	5000K	5000K	5000K	5000K
CRI	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70	Ra>70
Beam Angle	II-S, II-M, III-M	II-S, II-M, III-M	II-S, II-M, III-M	II-S, II-M, III-M	II-S, II-M, III-M	II-S, II-M, III-M	II-S, II-M, III-M	II-S, II-M, III-M	II-S, II-M, III-M
Reliability									
Lifetime	>100,000h	>100,000h	>100,000h	>100,000h	>100,000h	>100,000h	>100,000h	>100,000h	>100,000h
Operating Temperature	-20 ~ +60°C	-20 ~ +60°C	-20 ~ +60°C	-20 ~ +60°C	-20 ~ +60°C	-20 ~ +60°C	-20 ~ +60°C	-20 ~ +60°C	-20 ~ +60°C
Storage Temperature	-40 ~ +70°C	-40 ~ +70°C	-40 ~ +70°C	-40 ~ +70°C	-40 ~ +70°C	-40 ~ +70°C	-40 ~ +70°C	-40 ~ +70°C	-40 ~ +70°C
Ingress Protection	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66
Impact Resistance	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08	IK08
Sensor Control									
Daylight Sensor	<10lux light on	<10lux light on	<10lux light on	<10lux light on	<10lux light on	<10lux light on	<10lux light on	<10lux light on	<10lux light on
Opreating Mode	100% when motion detected, 10% when no motion detected								
Mechanical									
Housing Material	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Lens Material	PC	PC	PC	PC	PC	PC	PC	PC	PC
Coating	Grey/RAL9007	Grey/RAL9007	Grey/RAL9007	Grey/RAL9007	Grey/RAL9007	Grey/RAL9007	Grey/RAL9007	Grey/RAL9007	Grey/RAL9007
Net Weight	10kg	11kg	12kg	13.5kg	17kg	20kg	24kg	28kg	35kg
Dimensions	744.8x407.3x206.8mm	744.8x407.3x206.8mm	803.8x407.3x206.8mm	896.8x407.3x206.8mm	1081.7x407.3x206.8mm	989.8x855.3x206.8mm	1361.8x855.3x298.3mm	1547.1x855.3x298.3mm	1733.8x855.3x298.3mm
Recommended Mounting Height	3-4m	3-4m	4-5m	5-6m	6-7m	7-8m	8-9m	9-10m	11-12m
Wind Resistance	42m/s	42m/s	42m/s	42m/s	42m/s	42m/s	42m/s	42m/s	42m/s
Warranty	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years	5 Years

PHOTOMETRICS

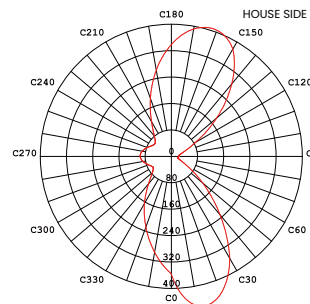
INTENSITY DISTRIBUTION DIAGRAM
IN C PLANS



AVERAGE BEAM ANGLE(50%): 106.0 DEG

Type II

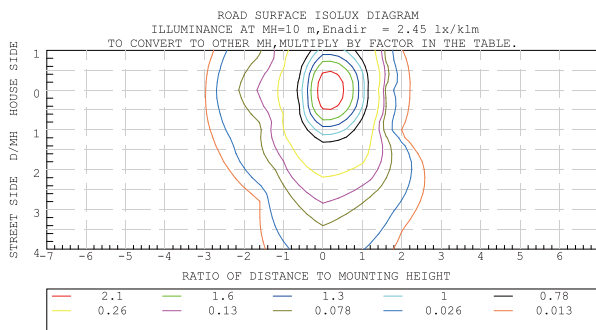
MAX INTENSITY CONE SURFACE
DISTRIBUTION DIAGRAM



Max @ $\gamma = 60.0$ DEG STREET SIDE

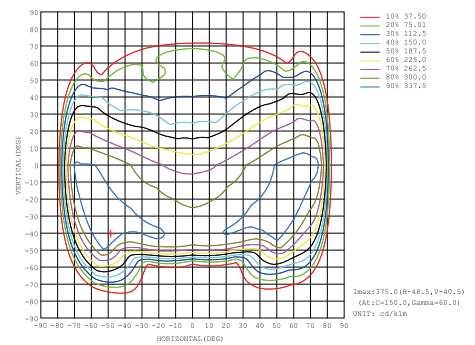
Type II

ILLUMINANCE DISTRIBUTION



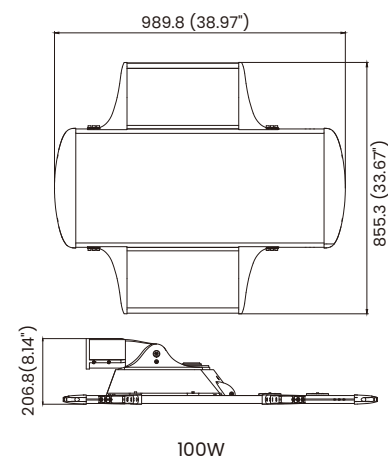
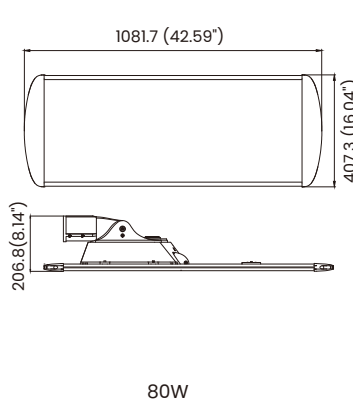
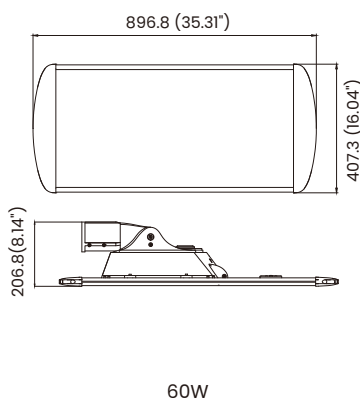
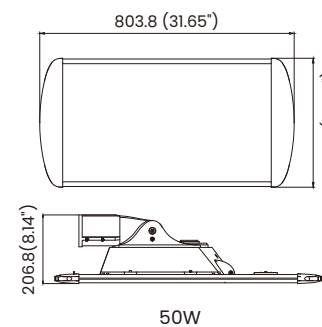
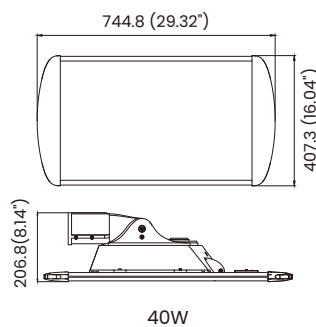
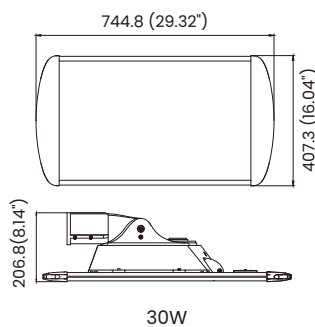
Type II

HEIGHT	FACTOR
5 m	4.000
6 m	2.778
7 m	2.041
8 m	1.563
9 m	1.235
10 m	1.000
11 m	0.826
12 m	0.694
13 m	0.592
14 m	0.510
15 m	0.444
16 m	0.391

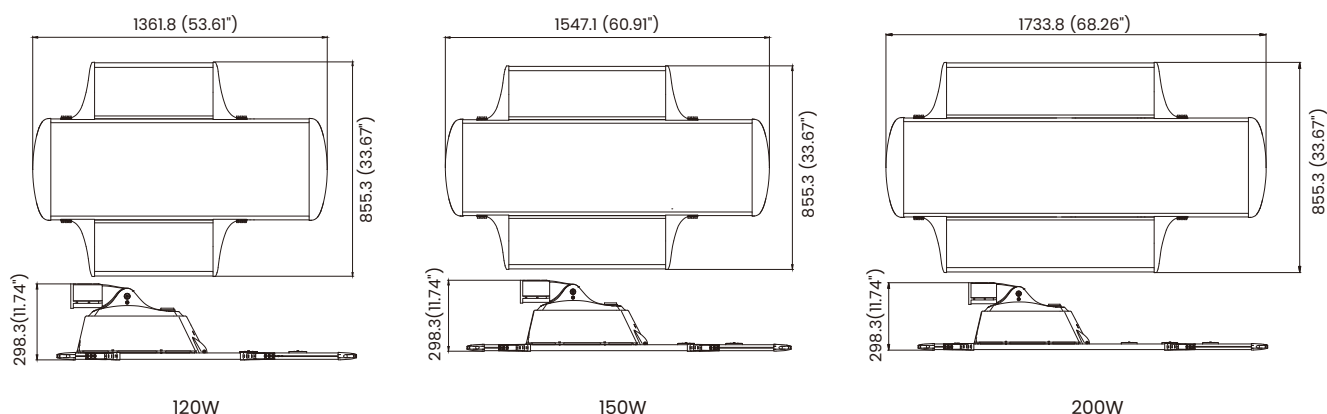


Type II

MECHANICAL DIMENSIONS



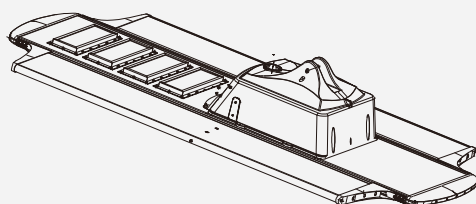
MECHANICAL DIMENSIONS



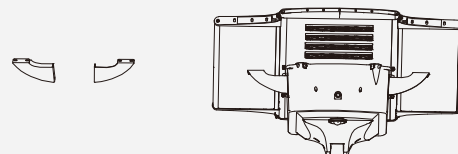
Product Model	AthenaIII-30W	AthenaIII-40W	AthenaIII-50W	AthenaIII-60W	AthenaIII-80W	AthenaIII-100W	AthenaIII-120W	AthenaIII-150W	AthenaIII-200W
Wattage	30W	40W	50W	60W	80W	100W	120W	150W	200W
Outer box (L*W*H)	800x450x240mm (31.50"x17.72"x9.45")	860x450x240mm (33.86"x17.72"x9.45")	930x450x240mm (36.61"x17.72"x9.45")	1140x450x240mm (44.88"x17.72"x9.45")	1050x450x240mm (41.34"x17.72"x9.45")	1230x450x330mm (48.43"x17.72"x12.99")	1420x450x330mm (55.91"x17.72"x12.99")	1610x450x330mm (63.39"x17.72"x12.99")	1790x450x330mm (70.47"x17.72"x12.99")
Q'ty/Ctn	1pc	1pc	1pc	1pc	1pc	1pc	1pc	1pc	1pc
N.W./Ctn	10kg/22.05lbs	11kg/24.25lbs	12kg/26.46lbs	13.2kg/29.10lbs	17kg/37.48lbs	20kg/44.09lbs	24kg/52.91lbs	28kg/61.73lbs	35kg/77.16lbs
G.W./Ctn	13kg/28.66lbs	14kg/30.86lbs	15kg/33.07lbs	16.7kg/36.82lbs	21kg/46.30lbs	24kg/52.91lbs	29kg/63.93lbs	33kg/72.75lbs	40kg/88.18lbs
Remarks	0.2M cable	0.2M cable	0.2M cable	0.2M cable	0.2M cable	0.2M cable	0.2M cable	0.2M cable	0.2M cable

INSTALLATION

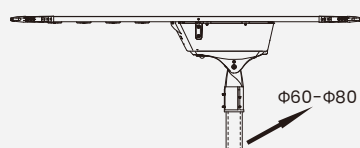
1. Use a hex wrench, M5 * 25 socket head cap screws, M5 spring washers, and M5 flat washers to connect the solar panels on the body of the lamp.



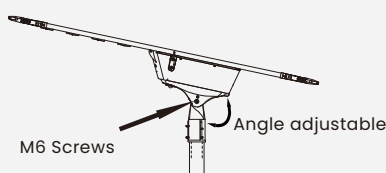
2. Lock the bracket on the body with a hexagon wrench and M6 * 12 socket head cap screws, M6 spring washers and M6 flat washers, and lock the bracket on the bottom plates with M6 * 16 socket head cap screws, M6 spring washers and M6 flat washers.



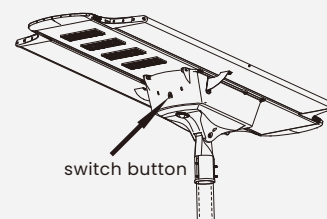
3. Use a hexagon wrench to insert M12 Lock the hexagon socket head screw into the mounted bracket, and then locked into M6 * 25, Hexagon socket head screw, M6 flat washer, M6 spring washer, put the mounted bracket into the poles and then locks with 6 M6 * 30 hexagon socket flat set screw.



4. Loosen M6 screws, select appropriate angle then adjust, tighten the screws to fix the lamp.



5. Press down the switch button after fixing the lamp, makes the lamp enter the working state.



ORDER INFORMATION

ATHENAIII-YY-YY-Y

1

2

3

4

5

6

1 Athena III Series All in One Solar Light

2 Wattage

30W	30W
40W	40W
50W	50W
60W	60W
80W	80W
100W	100W
120W	120W
150W	150W
200W	200W

3 Color Temperature

50K	5000K
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4 Voltage

(Blank)	12V/24V
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5 Optics

(Blank)	Type II
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6 Control

(Blank)	Microwave Sensor
C	Control Module



WARRANTY PERIOD
**5 YEARS
WARRANTY**



WARRANTY COVERAGE
**LED LIGHT SOURCE,
DRIVER**



AFTER-SALES
SERVICE COMMITMENT
24H RESPONSE



AFTER-SALES
SERVICE COMMITMENT
72H RESOLUTION/REPLACEMENT