



Solar Street Light

FREEDOM Plus



Incorporating a brilliant LED street light, smart LiFePO4 battery system, high efficiency controller and strong aluminium alloy cage, the FREEDOM Plus series provides a reliable and cost-effective solution for solar street lighting.

With outstanding features of long life span, simple installation, low cost maintenance along with Leadsun's 3 year guarantee, the FREEDOM Plus series is indeed a classic work which can meet the needs of users.



Quick and easy installation
at ground level from **15min**



Monocrystalline solar
module >23% Efficiency



Programmable **smart
controller** providing
comprehensive protection



Dual LiFePO4 Li-ion
patented battery
management system

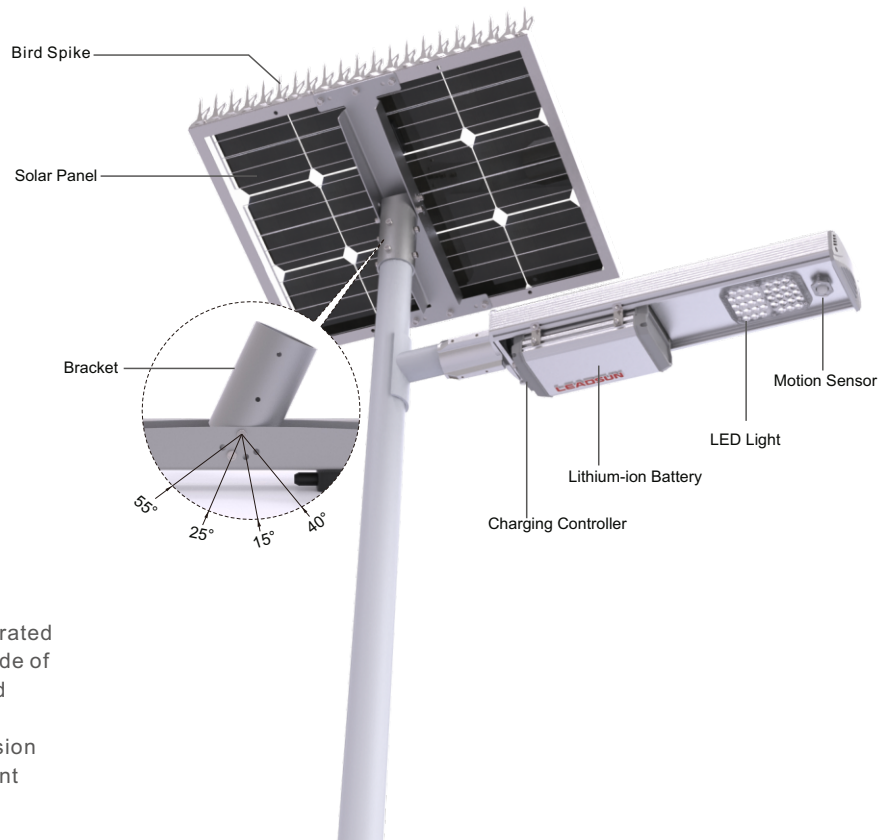


PIR Motion Detection System
increase battery autonomy



Solid Product Structure

FREEDOM Plus adopts modular design with IP66 rated major components and the structural parts are made of high tensile aluminum alloy. Its rational design and high-quality materials make it capable of security, better heat dissipation, waterproof and anti-corrosion to ensure the endurance against harsh environment and prevent from premature failure.



IP66 | IK08 | 3 Years Warranty



Flexible Usage and Easy Installation

With the aim to be innovative and user-friendly, FREEDOM Plus provides two ways of use.

For setting FREEDOM Plus as a new and complete solar street light, simply connect the luminaire to LEADSUN's high-efficiency monocrystalline solar panel. It is quick and easy to mount and also delivers great performance.

For updating/replacing the existing solar street lights, since the battery is incorporated, users can directly replace the old split type solar street light by connecting the existing solar panel to the FREEDOM Plus luminaire according to the solar panel specs. In this way, users can continue to use the original solar panels and light poles, thereby saving materials and installation costs.



20W

205Wh



40W

410Wh



60W

615Wh

Intelligent Steady State Controller

With its rich industry experience, Leadsun has independently developed intelligent controllers for solar street lights. FREEDOM steady state controller not only realizes the smart control of lighting, but also provides comprehensive protection for the whole system. The controller comes with waterproof programming connector, charging connector and switch, providing the possibility and convenience for later maintenance.



Battery Management System

Adopted environment-friendly LiFePO4 battery without harmful metal ingredient. The depth of discharge is lifted from 60% up to 90%.

It combines of the exclusive patented battery management technology, enabling the life span of battery to last for over 8 years.



Freedom Plus LED Fixture

The newly designed Freedom Plus LED fixture with ultra-sharp cut-off optics can significantly reduce lighting glare and eliminates the effects of sky-glow at night. It is offered in a 3000K and fully certified DARK SKY compliant fixture for residential development areas that want to minimise light pollution and obtrusive lighting into residential properties.

High Efficient LED

Using high-efficiency LED, luminous efficiency is up to 180lm/W (@25 C). The lights sealing lens is made of strong anti-ultraviolet PC, which has anti-aging and anti-impact performance, enabling long term usage.

With the unique cutoff design of the optic lens, allows us to eliminate the lighting pollution to the environment.

FREEDOM plus comes complete with built-in motion detection system that automatically regulate the light source from full bright to dim mode to increase battery autonomy.

100% Brightness when motion is detected

30% Brightness when no motion is detected



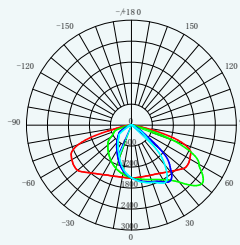
Freedom Plus Solar Street Light

SPECIFICATIONS

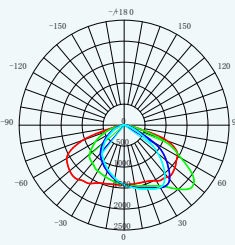
Model No.		UP20L	UPG40P	UPG60R
Physical Parameters				
Lithium Battery Capacity (Wh)		205	410	615
Qty. of LED Chips		16	36	36
PIR Sensor		✓	✓	✓
Light Parameters				
Light Output (W)		20	40	60
Optional Light Distribution		T2/T3	T2/T3	T2/T3
Color Temperature (K)		3000/4000/5000	3000/4000/5000	3000/4000/5000
Typical Luminous Flux (lm)		3800	7200	9900
Min. Working Time (Hours)	Bright Mode	9	9	9
	DIM Mode (30%)	29	29	29
Packing Parameters				
Dimension of Product (mm)		800×180×136	850×180×136	1050×180×136
Net Weight of Product (kg)		10	12	14
Main Package	Carton Size(mm)*1Set	860×190×240	910×190×240	1110×190×240
	Gross Weight (kg)	12	14	16
Environment Requirement				
Charge Temperature		0°C~51°C	0°C~51°C	0°C~51°C
Discharge Temperature		-20°C~60°C	-20°C~60°C	-20°C~60°C
Storage Temperature (<3 months)		-20°C~45°C	-20°C~45°C	-20°C~45°C
Storage Temperature (3~12 months)		-20°C~25°C	-20°C~25°C	-20°C~25°C
Mounting Recommendation				
EPA (Effective Projected Area) (ft ²)		0.70	0.73	0.83
APA (Actual Projected Area) (ft ²)		0.58	0.60	0.70
Wind Load Rate (mph)		130	130	130
Recommended Installation Height (m)		4~7	6~8	8~12
Recommended Installation Distance (m)		15~25	20~30	30~45
Recommended Diameter of Arm (mm)		60	60	60
SoLar module				
Power of PV Module (W)		70	100	150
Dimension of unit (mm)		740×540×30	1070×540×30	1105×715×30
Net Weight of Product (kg)		6	8	10
Dimension of carton (mm)*4Set		790×225×590	1120×225×590	1155×225×770
Gross Weight of Product (kg)		27	35	44
Adjustable Bracket Kit				
Available Angels		15°、25°、40°、55°		
Top of Pole or Tenon OD (mm)		65		75
Dimension of unit (mm)		540×180×58&Ø76×180		715×180×58&Ø89×180
Dimension of carton (mm)*1Set		605×200×100		780×200×100
Gross Weight of Product (kg)		7.5		10

LIGHT DISTRIBUTION

The new lens design improves the lighting effect and the high quality optics and precision engineering of the lens provide options of T2 & T3 IES lighting distribution patterns, other benefits include increased uniformity and comfort.



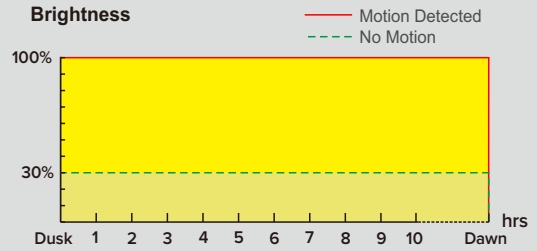
T2



T3

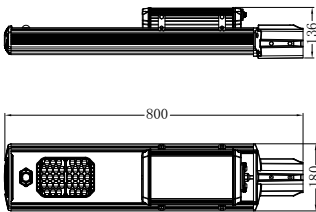
WORKING MODE:

Brightness

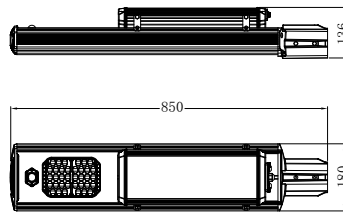


PIR 30% to 100% from dusk to dawn, 40 seconds at 100%.

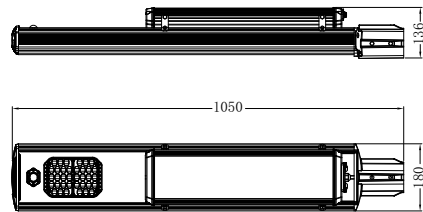
PHYSICAL DIMENSIONS (MM)



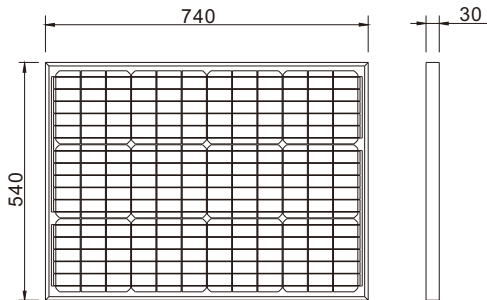
UP20L



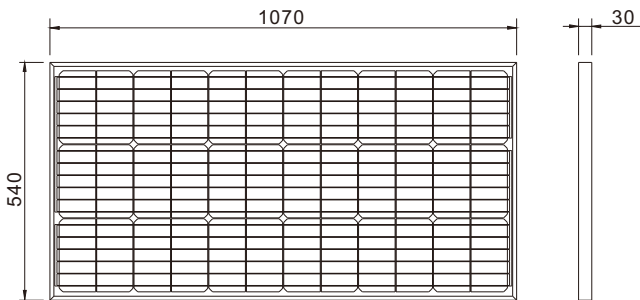
UPG40P



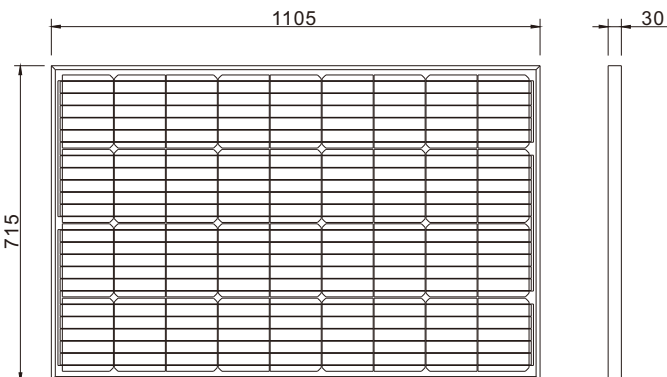
UPG60R



70W/18V



100W/18V



150W/18V

- * The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.
- * The torque setting for any bolts or screws used to secure the luminaire to the bracket is 14 N/m.
- * Use for outdoors only!