LEADSUN ®

"Bright Ideas For An Even Brighter Future."

FREEDOM Plus
Solar Street Light

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.

Monocrystalline Solar Module

Superior Outdoor LED

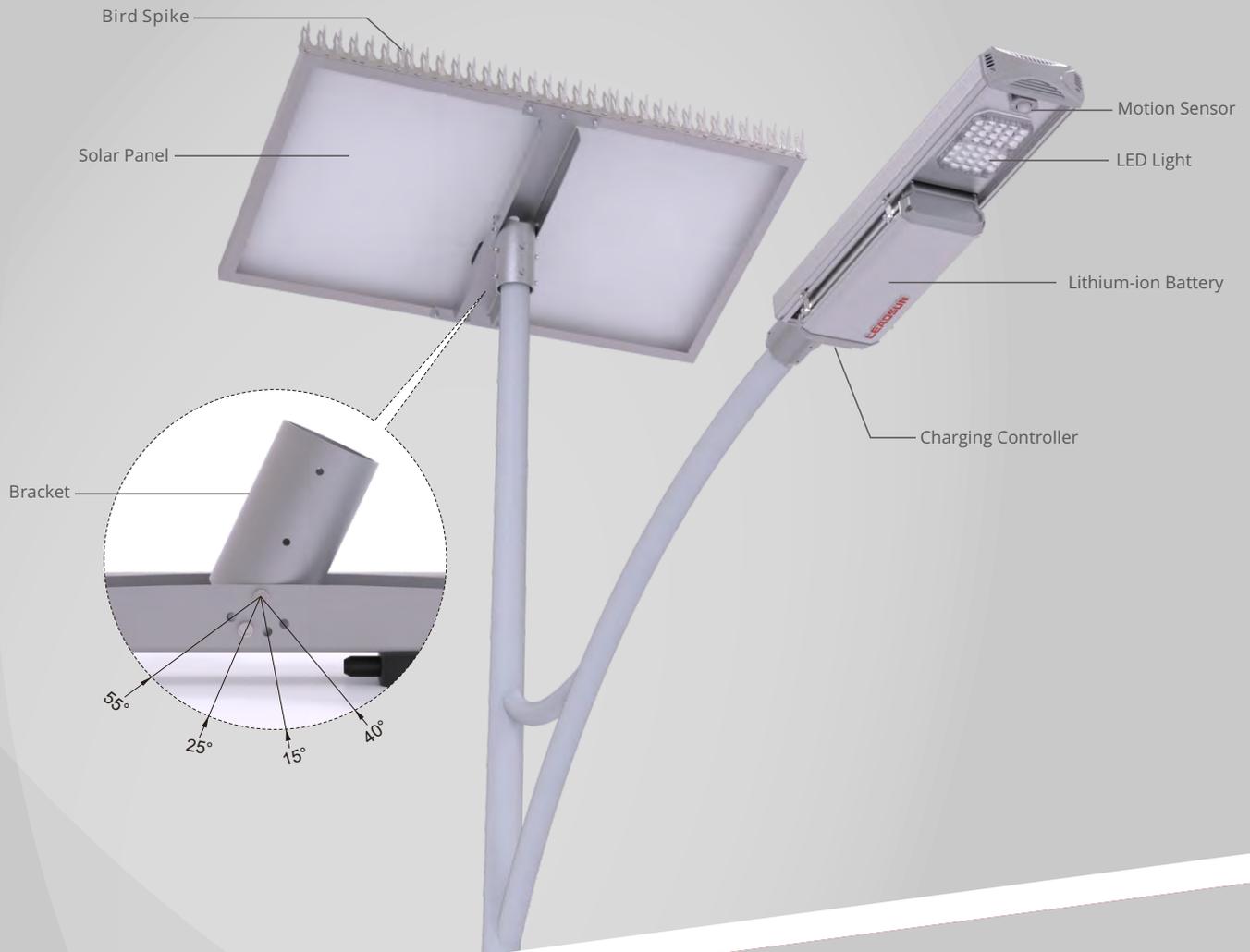Efficient Controller

LiFePO4 Li-ion Battery

Motion Sensor

Robust Structure

IP66 Waterproof

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.

Bird Spike

Solar Panel

Motion Sensor

LED Light

Lithium-ion Battery

Charging Controller

Bracket

55°

25°

15°

40°

Flexible Usage and Easy Installation

IP66

IK08

3 Years Warranty

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.

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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.

Efficient Controller

Stable Operation

ON/OFF Button

Type A USB Female Connector

Type B USB Female Connector

Battery Management System

Batter Management System

8-Year Life

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.

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Freedom Classic LED Fixture

The newly designed Freedom Classic 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.

Bat Wing Light Distribution

The new lens design improves the lighting effect and lighting uniformity, while also increasing light coverage.
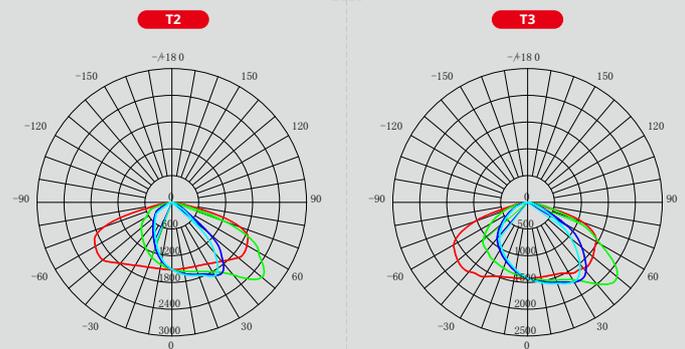

T2

T3

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.
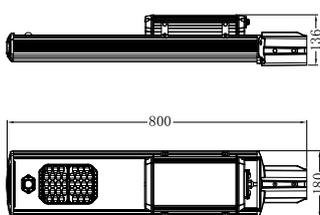
100% Brightness when motion is detected
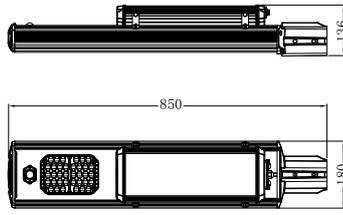
30% Brightness when no motion is detected

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Freedom Plus Solar Street Light
Specifications

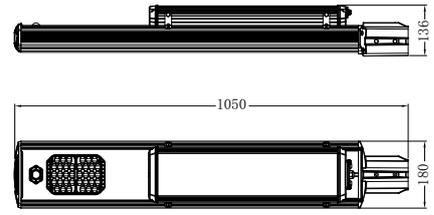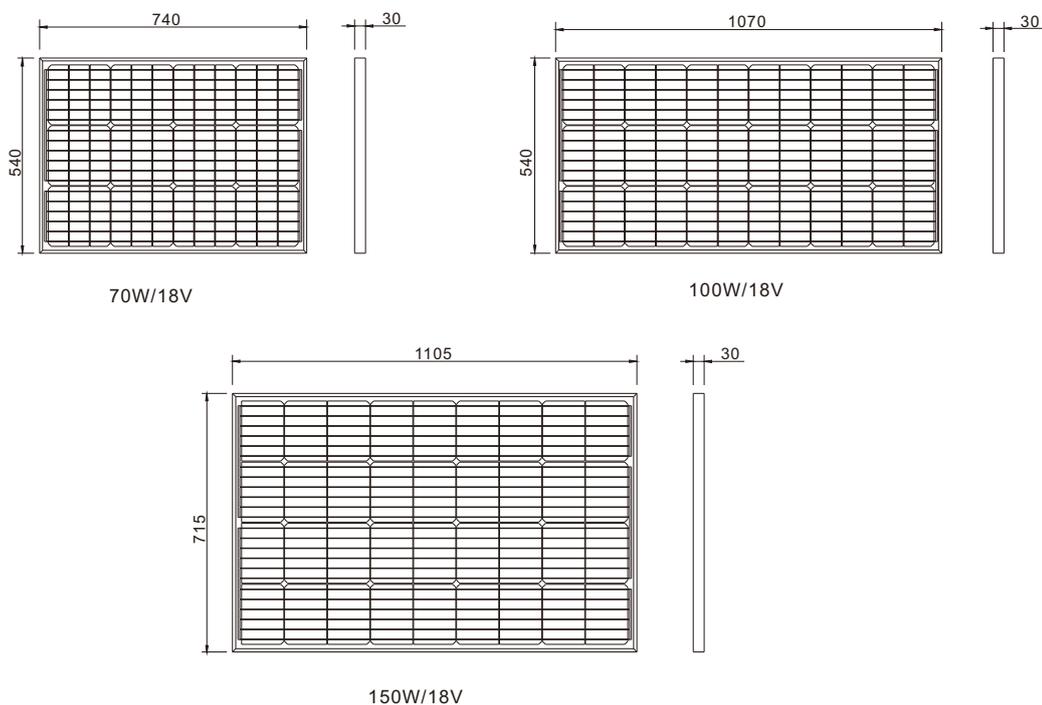| Model No.		UP20L	UPG40P	UPG60R
Physical Parameters				
Lithium Battery Capacity (Wh)		205	410	615
Qty. of LED Chips		16	36	36
PIR Sensor		√	√	√
Power of PV Module (W)		70	100	150
PV Max. power voltage (V)		22V	22V	22V
Net Weight of Product (kg)		10	12	14
Dimension of Product (mm)		800×180×136	850×180×136	1050×180×136
Light Parameters				
Light Output (W)		20	40	60
Optional Light Distribution		T2/T3		
Color Temperature (K)		3000/4000/5000		
Typical Luminous Flux (lm)		3800	7200	9900
Working Mode		Full brightness when detected, 30% brightness when no motion detected		
Min. Working Time (Hours)	Bright Mode	9	9	9
	DIM Mode (30%)	29	29	29
Packing Parameters				
Dimension of Carton (mm)		855×170×230	905×170×230	1110×170×230
Gross Weight of Package (kg)		12	14	16
Environment Requirement				
Charge Temperature		0°C~51°C	0°C~51°C	0°C~51°C
Discharge Temperature		−20°C~51°C	−20°C~51°C	−20°C~51°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

Physical Dimensions (mm)

UP20L

UPG40P

UPG60R

* 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!

Solar module and Adjustable Bracket Kit Optional Parts
Specifications

	Model No	70W/18V	100W/18V	150W/18V
Solar Module	Dimension of Unit (mm)	740×540×30	1070×540×30	1105×715×30
	Gross 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 Angles	25º/40º		
	Recommended Diameter of Pole Top (mm)	65/80		
	Dimension of Unit (mm)	540×180×58&Ø76×180		715×180×58&Ø89×180
	Dimension of Carton (mm)	605×200×100		780×200×100
	Gross Weight of Product (kg)	7.5		10

Physical Dimensions (mm)

70W/18V

100W/18V

150W/18V

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