4G Solar street Light

1. Parameter

LED Power	30W
Solar Panel	18V 45W High Efficiency Monocrystalline;more than 25 years warranty
LiFePo4 Battery	12.8V 15AH/192WH;5 to 8 years lifespan
Solar Controller	Intelligent PWM patent controller;High conversion efficiency 97%
Lumen Flux	4800LM-5100LM
Luminous Efficiency	170lm/w±10LM
Led Source	Bridgelux chips3030 led chips 100PCS（lifespan＞50000hours）
Color Temperature	2700K-6500K
CRI	Ra > 70
LED Angle	70°-140°
PIR Sensor	YES/NO
Materials	Aluminum Alloy+Toughened Glass+PC Cover
Install Height	5 to 6 meters
Pole Distance	20 to 21 meters
Solar Charging Time	6 to 7 hours by bright sunlight
Working Temperature	-20° to 65°
Discharge Time	3 to 5 days backup
Waterproof Level	IP65
Product Size	**830*300*50mm**

1. Parameter

LED Power	40W
Solar Panel	18V 60W High Efficiency Monocrystalline;more than 25 years warranty
LiFePo4 Battery	12.8V 18AH/230.4WH; 5 to 8 years lifespan
Solar Controller	Intelligent PWM patent controller;High conversion efficiency 97%
Lumen Flux	6400LM-6800LM
Luminous Efficiency	170lm/w±10LM
Led Source	Bridgelux chips3030 led chips 150PCS（lifespan＞50000hours）
Color Temperature	2700K-6500K
CRI	Ra > 70
LED Angle	70°-140°
PIR Sensor	YES/NO
Materials	Aluminum Alloy+Toughened Glass+PC Cover
Install Height	6 to7 meters
Pole Distance	22 to 24 meters
Solar Charging Time	6 to 7 hours by bright sunlight
Working Temperature	-20° to 65°
Discharge Time	3 to 5 days backup
Waterproof Level	IP65
Product Size	**1080*300*50mm**

1. Parameter

LED Power	50W
Solar Panel	18V 75W High Efficiency Monocrystalline;more than 25 years warranty
LiFePo4 Battery	LiFePo4 battery 12.8V 24AH/307.2WH;5 to 8 years lifespan
Solar Controller	Intelligent MPPT patent controller;High conversion efficiency 97%
Lumen Flux	8000LM-8500LM
Luminous Efficiency	170lm/w±10LM
Led Source	Bridgelux chips3030 led chips 150PCS（lifespan＞50000hours）
Color Temperature	2700K-6500K
CRI	Ra > 70
LED Angle	70°-140°
PIR Sensor	YES/NO
Materials	Aluminum Alloy+Toughened Glass+PC Cover
Install Height	7 to 9 meters
Pole Distance	24 to 26 meters
Solar Charging Time	6 to 7 hours by bright sunlight
Working Temperature	-20° to 65°
Discharge Time	3 to 5 days backup
Waterproof Level	IP65
Product Size	**1080*360*50mm**

1. Parameter

LED Power	60W
Solar Panel	18V 100W High Efficiency Monocrystalline;more than 25 years warranty
LiFePo4 Battery	12.8V 36AH/460.8WH;5 to 8 years lifespan
Solar Controller	Intelligent MPPT patent controller;High conversion efficiency 97%
Lumen Flux	9600LM-10200LM
Luminous Efficiency	170lm/w±10LM
Led Source	Bridgelux chips3030 led chips 150PCS（lifespan50000hours）
Color Temperature	2700K-6500K
CRI	Ra > 70
LED Angle	70°-140°
PIR Sensor	YES/NO
Materials	Aluminum Alloy+Toughened Glass+PC Cover
Install Height	8 to 10 meters
Pole Distance	28 to 30 meters
Solar Charging Time	6 to 7 hours by bright sunlight
Working Temperature	-20° to 65°
Discharge Time	3 to 5 days backup
Waterproof Level	IP65
Product Size	**1160*430*50mm**

1. Parameter

LED Power	80W
Solar Panel	18V 115W High Efficiency Monocrystalline;more than 25 years warranty
LiFePo4 Battery	12.8V 42AH/537.6WH;5 to 8 years lifespan
Solar Controller	Intelligent MPPT patent controller;High conversion efficiency 97%
Lumen Flux	12800LM-13600LM
Luminous Efficiency	170lm/w±10LM
Led Source	Bridgelux chips 3030 led chips 200PCS（lifespan＞50000hours）
Color Temperature	2700K-6500K
CRI	Ra > 70
LED Angle	70°-140°
PIR Sensor	YES/NO
Materials	Aluminum Alloy+Toughened Glass+PC Cover
Install Height	9 to 11 meters
Pole Distance	30 to 32 meters
Solar Charging Time	6 to 7 hours by bright sunlight
Working Temperature	-20° to 65°
Discharge Time	3 to 5 days backup
Waterproof Level	IP65
Product Size	**1400*430*50mm**

1. Parameter

LED Power	100W
Solar Panel	32V 130W High Efficiency Monocrystalline;more than 25 years warranty
LiFePo4 Battery	25.6V 24AH/614.4WH;5 to 8 years lifespan
Solar Controller	Intelligent MPPT patent controller;High conversion efficiency 97%
Lumen Flux	16000LM-17000LM
Luminous Efficiency	170lm/w±10LM
Led Source	Bridgelux chips 3030 led chips 360PCS（lifespan＞50000hours）
Color Temperature	2700K-6500K
CRI	Ra > 70
LED Angle	70°-140°
PIR Sensor	YES/NO
Materials	Aluminum Alloy+Toughened Glass+PC Cover
Install Height	10 to 12 meters
Pole Distance	34 to 36 meters
Solar Charging Time	6 to 7 hours by bright sunlight
Working Temperature	-20° to 65°
Discharge Time	3 to 5 days backup
Waterproof Level	IP65
Product Size	**1570*430*50mm**

1. Parameter

LED Power	120W
Solar Panel	34V 145W High Efficiency Monocrystalline;more than 25 years warranty
LiFePo4 Battery	25.6V 30AH/768WH;5 to 8 years lifespan
Solar Controller	Intelligent MPPT patent controller;High conversion efficiency 97%
Lumen Flux	19200LM-20400LM
Luminous Efficiency	170lm/w±10LM
Led Source	Bridgelux chips 3030 led chips 360PCS（lifespan＞50000hours）
Color Temperature	2700K-6500K
CRI	Ra > 70
LED Angle	70°-140°
PIR Sensor	YES/NO
Materials	Aluminum Alloy+Toughened Glass+PC Cover
Install Height	12 to 14 meters
Pole Distance	38 to 40 meters
Solar Charging Time	6 to 7 hours by bright sunlight
Working Temperature	-20° to 65°
Discharge Time	3 to 5 days backup
Waterproof Level	IP65
Product Size	**1650*430*50mm**

1. Parameter

LED Power	150W
Solar Panel	36V 190W High Efficiency Monocrystalline;more than 25 years warranty
LiFePo4 Battery	25.6V 45AH/1152WH;5 to 8 years lifespan
Solar Controller	Intelligent MPPT patent controller;High conversion efficiency 97%
Lumen Flux	24000LM-25500LM
Luminous Efficiency	170lm/w±10LM
Led Source	Bridgelux chips 3030 led chips 360PCS（lifespan＞50000hours）
Color Temperature	2700K-6500K
CRI	Ra > 70
LED Angle	70°-140°
PIR Sensor	YES/NO
Materials	Aluminum Alloy+Toughened Glass+PC Cover
Install Height	16 to 18 meters
Pole Distance	40 to 42 meters
Solar Charging Time	6 to 7 hours by bright sunlight
Working Temperature	-20° to 65°
Discharge Time	3 to 5 days backup
Waterproof Level	IP65
Product Size	**1550*610*50mm**

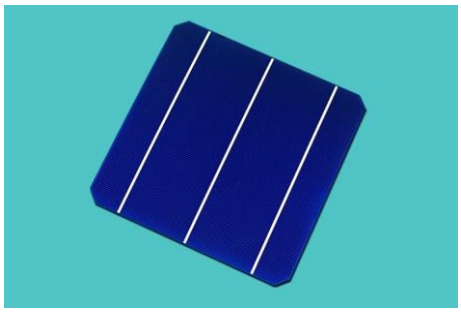
1. Parameter

LED Power	200W
Solar Panel	42V 240W High Efficiency Monocrystalline;more than 25 years warranty
LiFePo4 Battery	25.6V 60AH/1536WH;5 to 8 years lifespan
Solar Controller	Intelligent MPPT patent controller;High conversion efficiency 97%
Lumen Flux	32000LM-34000LM
Luminous Efficiency	170lm/w±10LM
Led Source	Bridgelux chips 3030 led chips 480PCS（lifespan＞50000hours）
Color Temperature	2700K-6500K
CRI	Ra > 70
LED Angle	70°-140°
PIR Sensor	YES/NO
Materials	Aluminum Alloy+Toughened Glass+PC Cover
Install Height	20 to 25 meters
Pole Distance	42 to 44meters
Solar Charging Time	6 to 7 hours by bright sunlight
Working Temperature	-20° to 65°
Discharge Time	3 to 5 days backup
Waterproof Level	IP65
Product Size	**1810*610*50mm**

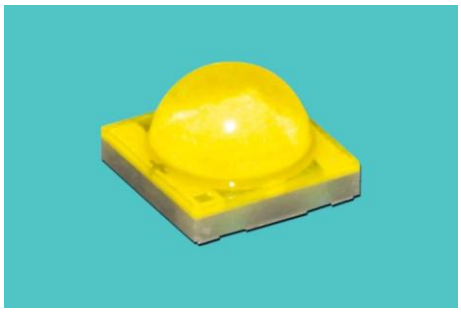
2.Features

1：Using High Efficiency Monocrystalline silicon solar cells, the photoelectric conversion efficiency is more than 22%.
2：A class 3030 LED chips, Luminous reach 230LM/W.
3：Power lithium battery, charger and discharge times more 2000 cycles. Have long service life and high security.
4：Independently developed intelligent MPPT controller, high charging efficiency, with various safety protection functions.
5：The latest upgraded optical polarized light integrated lens, Batwing shape light distribution, high transmittance, safe and durable.
6：The integrated lamp body structure saves transportation costs and facilitates installation.
7：Using aluminum alloy material, lightweight and durable.
8：A variety of light type with a variety of power to meet your different needs.
9：The series of products are mainly used in garden, park, squares, provincial highways, national highways, township roads and so on.
10：Installation height: According to different models and different wattages, it can be applied to an installation height of 2-12 meters.
12：Charging time: 6 hours full charge in summer sunlight.
13：Working hours: 12 hours of light on every day, 3-5 days in rainy weather.
14：Certification: CE/ROHS/IP65.
15：With functions of human infrared sensor, light control and time control.
16：Solar integrated street light, easy and fast installation, simple maintenance, low after-sales cost.

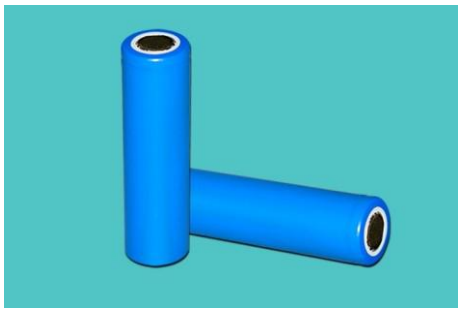
3.Components



Solar panel: High efficiency mono solar cell, photoelectric conversion efficiency up to 18%

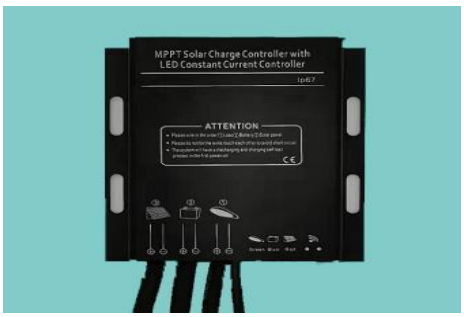


LED source: High bright A-class LED, luminous efficiency up to 230lm/w

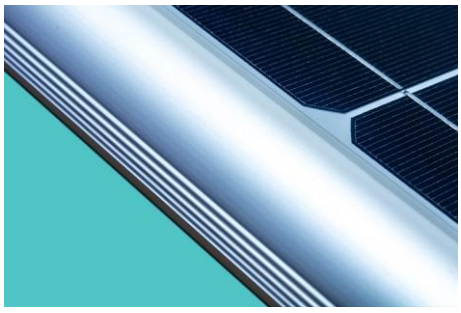


Battery:highefficency LiFePO4 Lithium Battery cycle life of more than 2000 times

Lens: Integrated optical lens, batwing lighting curve, high transittance and durablity



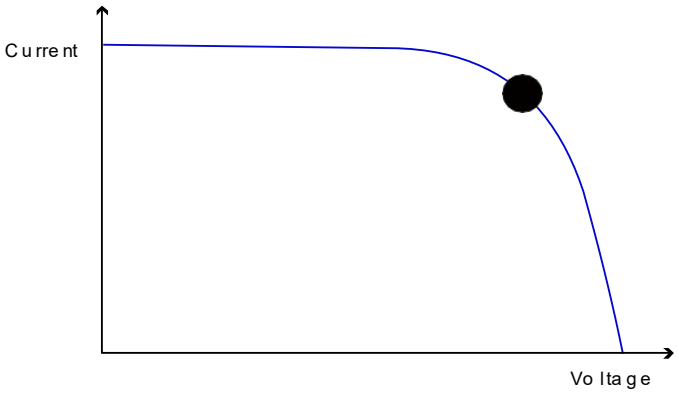
Controller: Self-developed MPPT controlle, rhigher charging efficiency and full protections

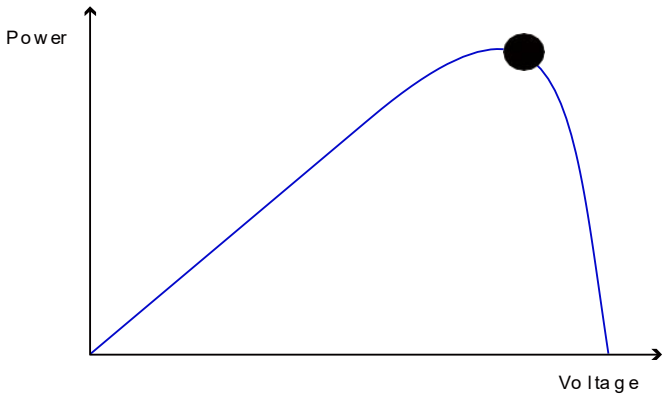


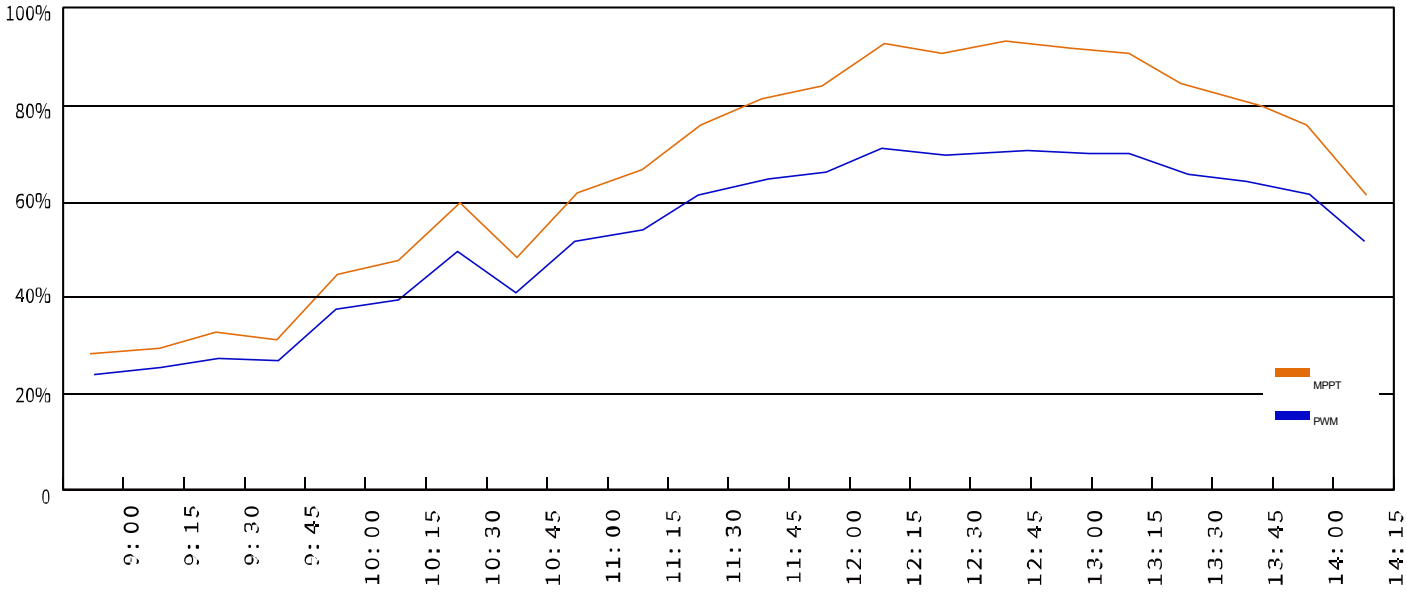
Housing: Aluminum alloy material, durable and anti-rust。

4.MPPT charging Technology

"MPPT "Maximum point Tracking" controller integrates solar panel maximum power tracking charge management technology, tracking efficiency of up to 99.5%, charging conversion efficiency of up to 96%. MPPT is an advanced charging method, which can detect the solar panel's power generation in real time, and track the highest voltage and current value, so that the system can charge with the highest efficiency. MPPT can play the maximum power of the solar panel, can provide greater charging current, the charging efficiency of the MPPT controller is 15%-20% higher than the PWM controller.

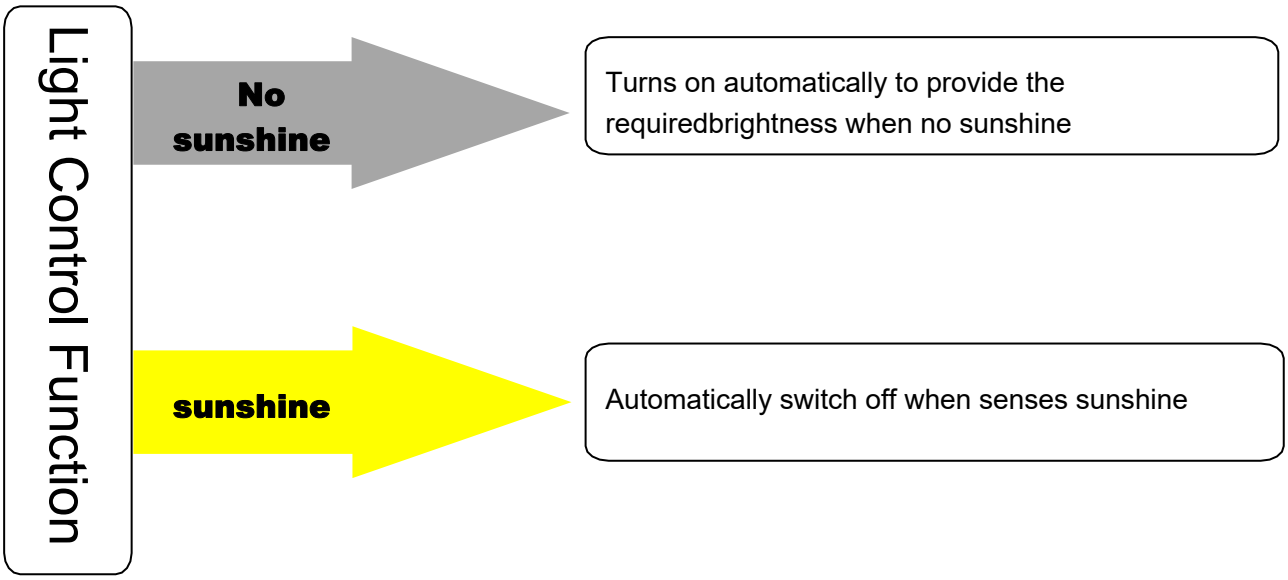






Loadingcomparisonsheet

5.Intelligent Control



PIRSensor:

PIR sensor with 100% brightness in 10m distance for 20seconds, become energy saving modle once no movenent

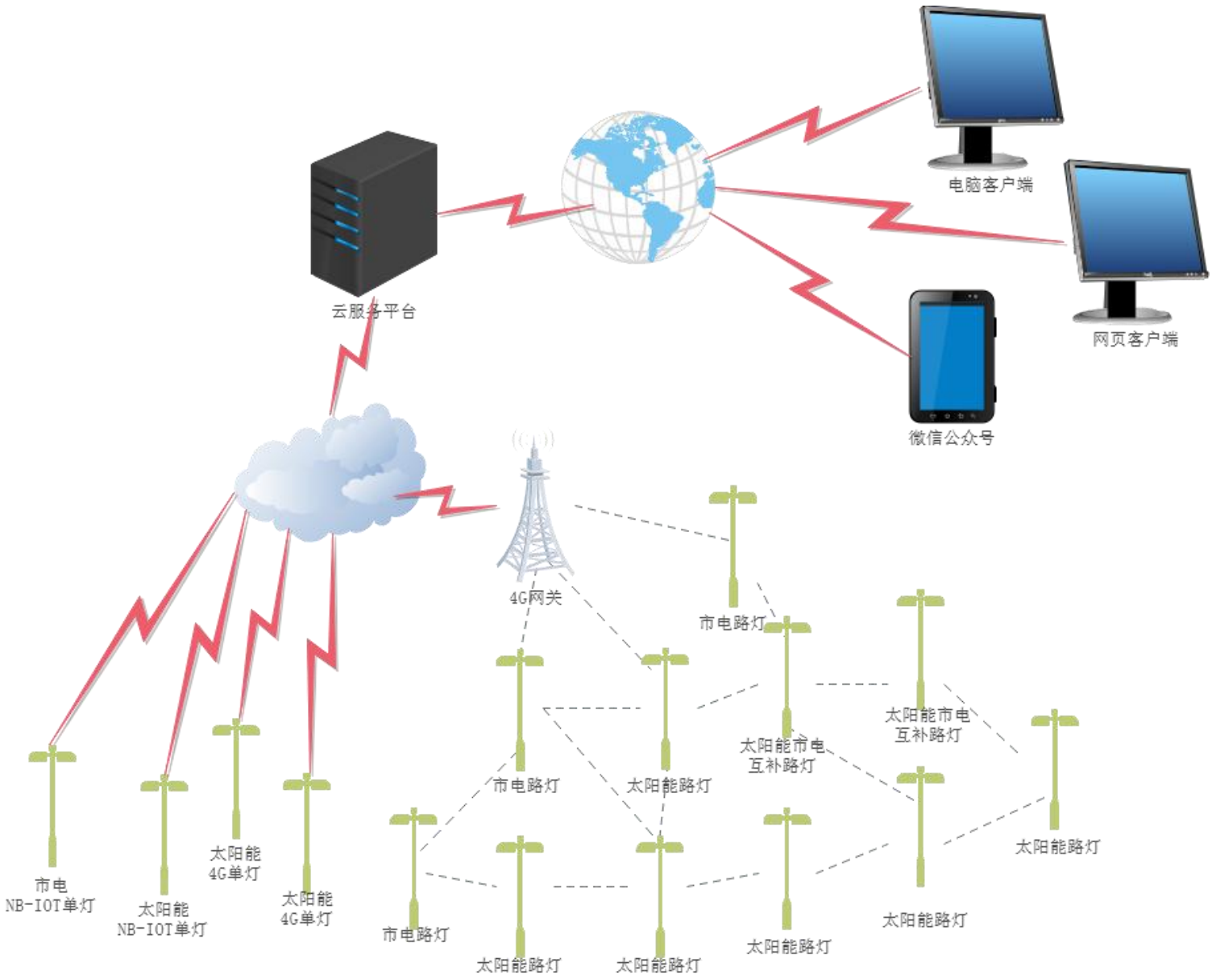
Lighting Mode: (Mode can be customized)

(The daily lighting duration time need to be designed to 13 hours)

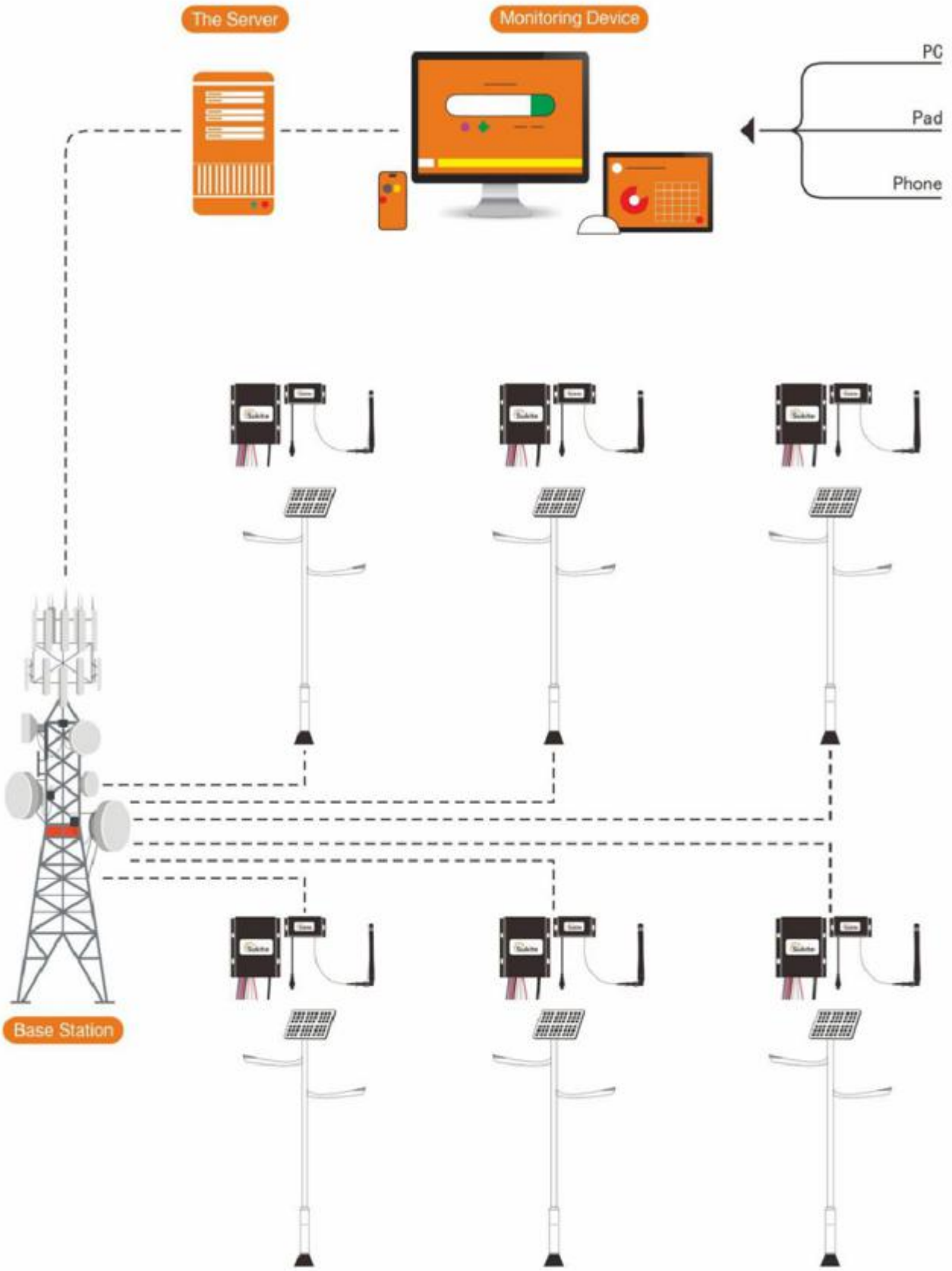
100% bright lighting infrared motion sensor+60% lighting before midnight and 30% lighting till dawn (energy saving mode to prolong overcast backup days)

6.Iot Cloud Platform Functions

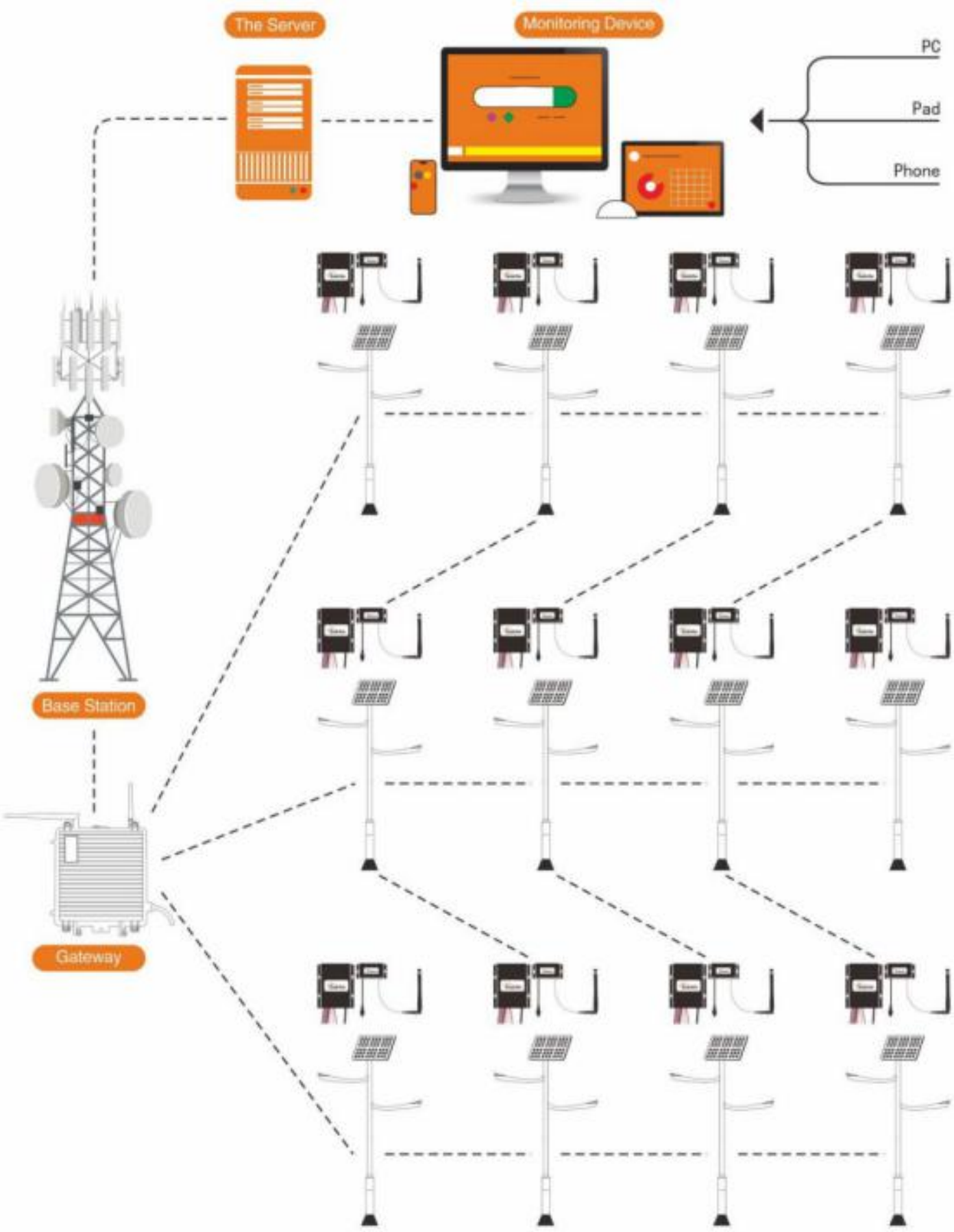
1.Remote monitoring of street light status, with access to historical data
2.Remote configuration of lighting parameters
3.Remote switch on/off control
4.Supports individual and grouped batch control
5.GIS-based map display
6.Accessible via web browser and WeChat official account
7.Supports abnormal status notifications via WeChat
8.Customizable northbound interface for integration with third-party platforms
9.Professional technical support
10.Multiple user accounts available per client for easier management
11.Supports both domestic and overseas deployment, with dedicated international servers and Google Maps integration for overseas use



7.4G-Based Solution

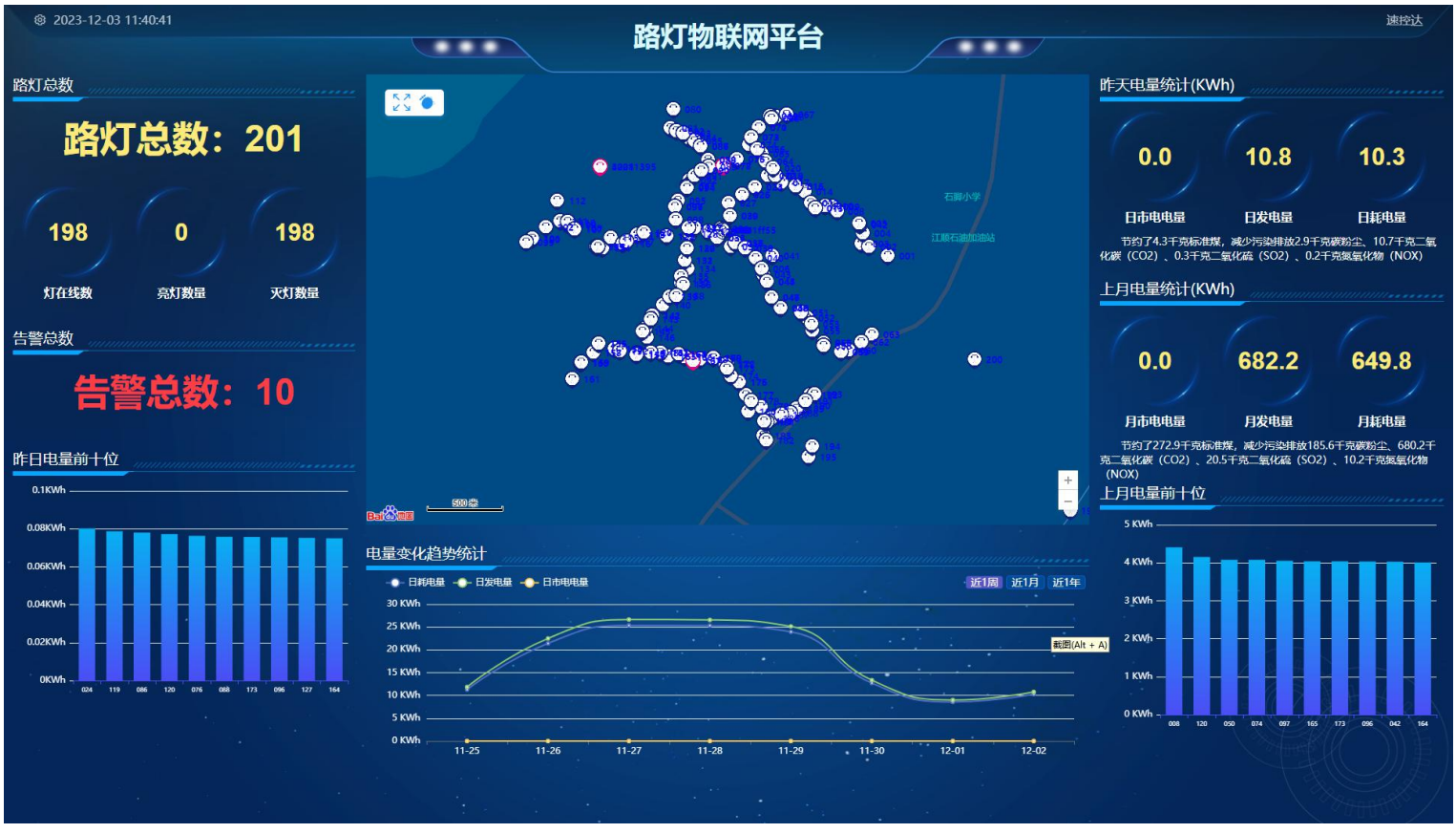


8.Centralized Control Solution



9.Command Center

Displays overall street light information, including total quantity, status, number of alerts, yesterday's and last month's energy ranking, energy statistics, and power generation/consumption trends.



10.Solar Street Light Monitoring Data

output voltage, lighting power, charging voltage, charging current, and charging power in real time.

• Automatically tracks power generation and consumption, providing daily, monthly, and total energy statistics, along with carbon emission reduction estimates.

• Displays charging/discharging curve records for analyzing battery performance and overall street light health.

• Provides daily energy generation and lighting duration data for the past week, month, and year.

• Real-time fault alerts for battery, solar panel, and load anomalies.

• Supports street light grouping and zoning for flexible management.

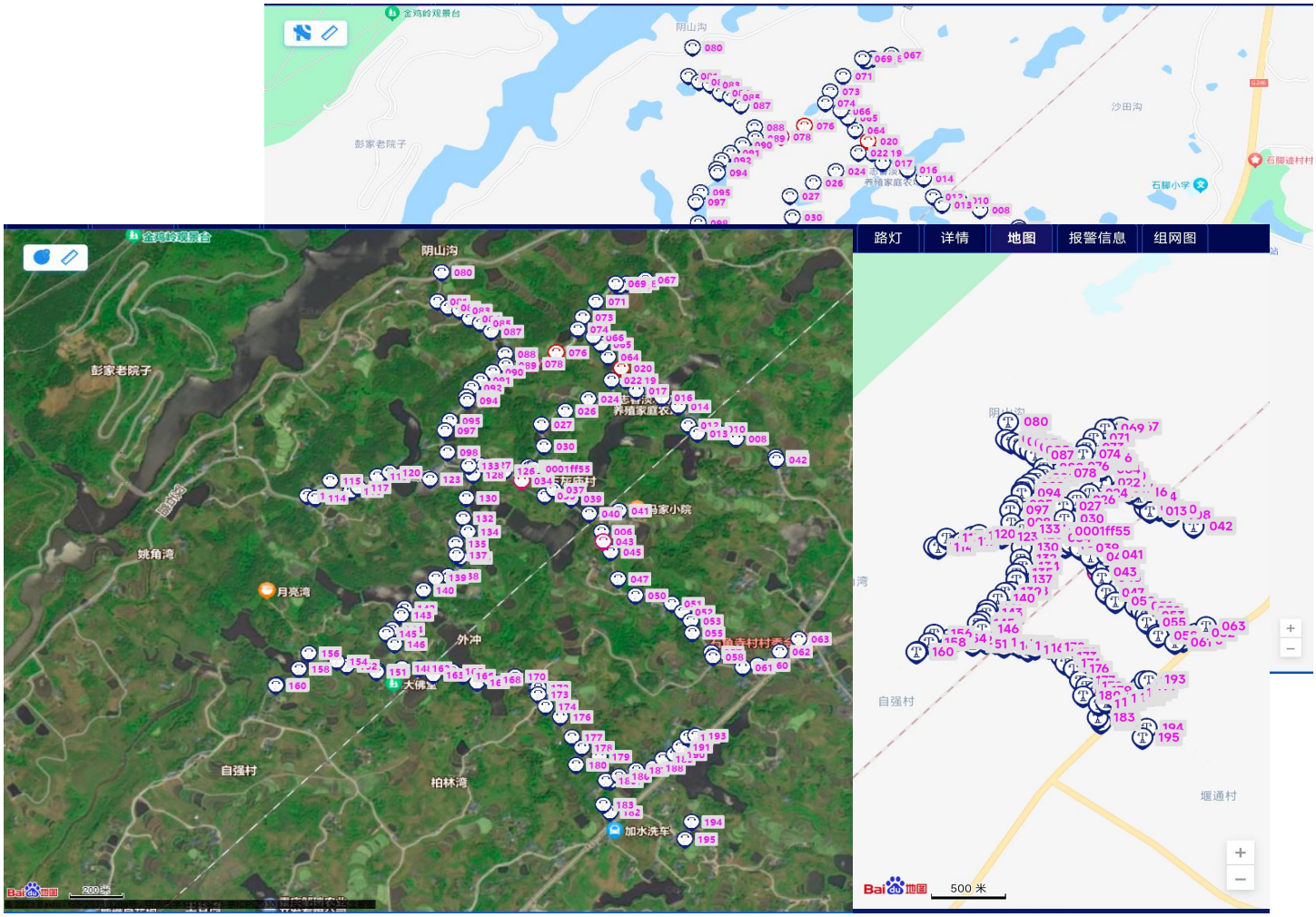
• Enables remote switching on/off of individual or multiple street lights.

• Supports both light-sensing and time-based control modes, with up to 5 configurable lighting periods including a “morning light” setting.

• Allows remote configuration and

11.Map Display Function

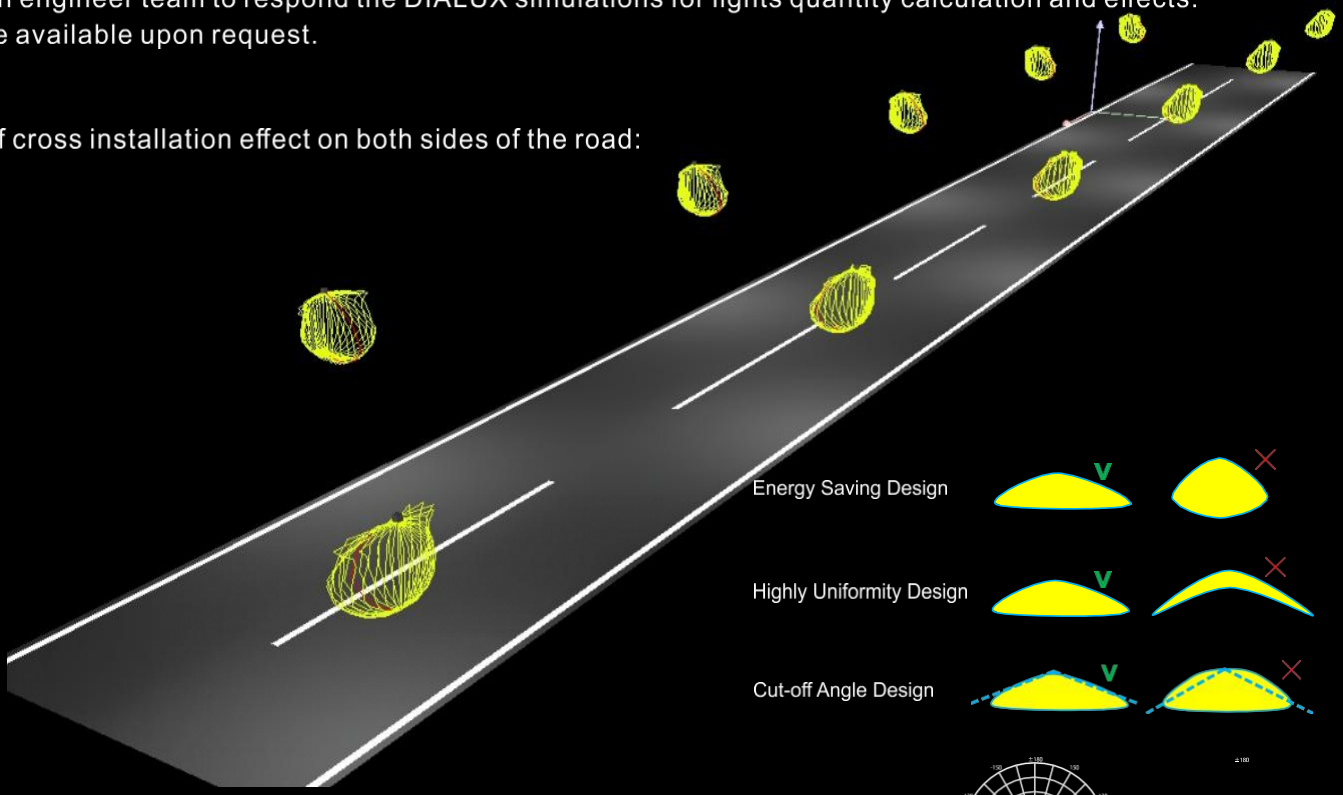
Supports both 2D and satellite map views for intuitive visualization of street light locations. Baidu Maps is supported in China, while Google Maps is available for overseas regions. One-click navigation to the street light location is available via WeChat for added convenience.



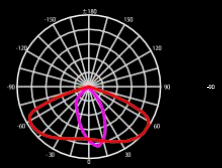
12.OPTICS

Tech. Support: Tell us the room length, width, height and the usage.
We have an engineer team to respond the DIALUX simulations for lights quantity caiculation and effects.
ies files are available upon request.

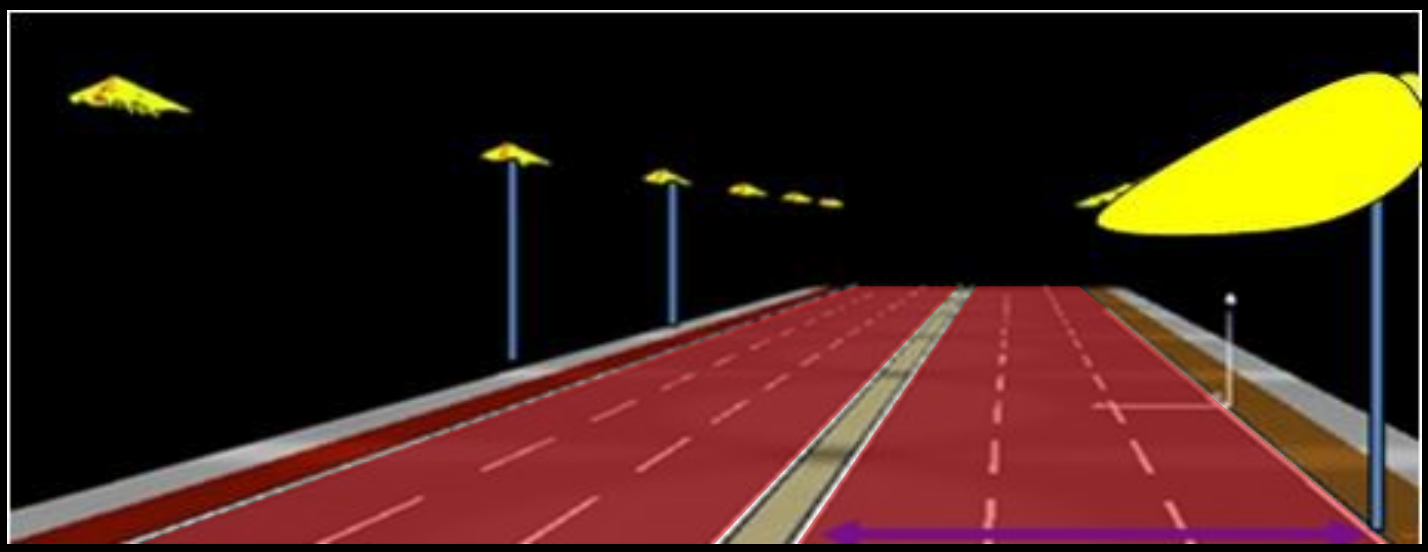
Example of cross installation effect on both sides of the road:



Professional road light distribution design,
illuminate the road without dazzling.



Plane Lighting Distributions



13.Centralized Control Solution

◆ (1) Integrated solar street lights cannot function properly when there is insufficient sunlight. Please select a suitable model based on the local solar irradiance or total solar radiation. In regions with low sunlight or frequent consecutive rainy days, the operating time of the solar street light may be reduced or it may fail to turn on. It is recommended to use a hybrid power supply mode (solar + grid) in such areas.

◆ (2) The integrated solar street light uses long-life lithium iron phosphate ($LiFePO_4$) batteries as energy storage. The battery discharge temperature range is -10° C to +75° C. If the local extreme temperature exceeds this range, battery performance will be affected. Please ensure your environment meets this requirement.

◆ (3) When fully charged, the battery of the integrated solar street light can be stored for up to six months. After long-term transportation or storage, the battery should be inspected and recharged regularly. Failure to do so may result in battery damage.

◆ (4) During installation, the solar panel should face the sun directly to maximize energy capture. Avoid shading from buildings or trees, as this can reduce charging efficiency and shorten operating hours.

◆ (5) The cleanliness of the solar panel surface affects power generation. It is recommended to clean the panel regularly using standard cleaning agents to remove dust, leaves, or greasy dirt.

◆ (6) The internal components of the integrated solar street light are designed with high-level waterproofing and meet the IP65 standard. The vents and gaps in the casing are intentionally designed for cooling and drainage. All metal parts are made of corrosion-resistant aluminum or stainless steel, suitable for harsh environments such as coastal or desert regions with high heat and humidity.

14.Warranty Terms

◆ • The entire light is covered by a 3-year warranty.

◆ • During the warranty period, if the product fails under normal usage conditions as specified in the user manual (as assessed by official company personnel), repair will be provided free of charge. However, repair fees will be charged under the following circumstances, even within the warranty period:

◆ • Failure to provide a warranty card and valid proof of purchase

◆ • Faults or damages caused by misuse or unauthorized repair

◆ • Faults or damages caused by transportation, relocation, or dropping after purchase

◆ • Faults or damages caused by unavoidable external factors

◆ • Damage caused by using non-specified power sources or voltage levels

◆ • The product’s appearance, consumable parts, and accessories are not covered under warranty.