



4G Intelligent Lighting 4-Channel Time Controller (Landscape Lighting Project)

NJ-JK01

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<https://light.net-join.com/>

1. Product Overview

The 4G Intelligent Lighting Time Controller is a high-efficiency intelligent device developed for the remote control and management of lighting equipment. With this terminal, users can easily realize centralized control over multiple independent lighting circuits or equipment, and obtain convenient, flexible and intelligent lighting solutions.

This controller adopts 4G Cat.1 wireless communication technology to realize intelligent management and control of landscape lighting systems. It features high energy efficiency, stable reliability, remote control and data analysis. It supports scheduled on/off and brightness adjustment to save energy; stable communication ensures long-term continuous operation; remote monitoring and management are realized via cellular network; collected operational data supports optimized management decisions.

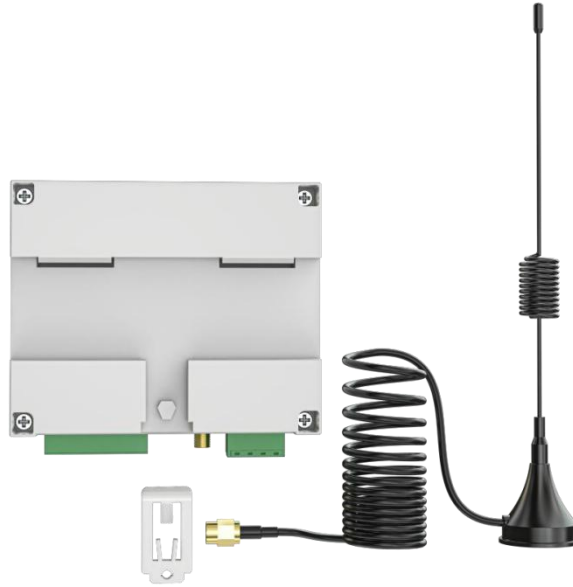
This product has multiple competitive advantages: it is easy to configure and supports customized lighting control strategies; it enjoys strong compatibility and can connect with various peripherals to expand functions; it is rugged enough to work under harsh environmental conditions; simple installation reduces construction costs; and it offers high expandability for future system upgrades and function additions. In conclusion, the 4G Intelligent Lighting Time Controller is a powerful and high-performance product, delivering efficient, intelligent and sustainable solutions for landscape lighting projects.

2. Product Dimensions

Outer Size: 108mm*87mm*59mm (L*W*H)



Front View of 4G Intelligent Lighting 4-Channel Time



Back View of 4G Intelligent Lighting 4-Channel Time

3. Product Features

3.1 Time Control

It supports fixed timing and astronomical timing. The controller automatically obtains GPS positioning and calculates local sunrise and sunset time via astronomical algorithms to adjust schedules all year round. Each channel is equipped with 4 timing periods. Users can flexibly modify the time schedule according to local environment and weather conditions.

- a. Astronomical Mode: Automatically calculate local sunrise and sunset based on GPS position, no need to manually input longitude and latitude.
- b. Fixed Mode: Each channel has 4 groups of timing to set lamp on and lamp off time freely. Astronomical mode and fixed mode can be combined to realize all-night lighting and midnight lighting.

3.2 Photocell Control

An external light sensor provides light-assisted control. It will automatically adjust switching time on cloudy and rainy days to ensure stable road lighting.

3.3 Weekly Control

Special on/off time can be set for festivals and routine inspections. Control strategies can be enabled or disabled with one click from Monday to Sunday for flexible holiday management.

3.4 Working Mode Selection

Normally Open: The circuit stays disconnected (light off)

Normally Closed: The circuit stays connected (light on)

Auto Mode: The circuit runs following timing and photocell commands.

3.5 Manual Control

Operators can remotely adjust parameters via mobile APP or web platform, or press physical keys on the panel. In case of emergency, remote operation is available through central host or mobile APP; local operation can also be done with the panel switches on the controller.

3.6 Operators can set control strategies on the management platform according to actual site demands. Scene settings can be issued with one click to freely manage regional lighting equipment.

3.7 Remote Communication Mode

Equipped with pluggable SIM card and 4G CAT.1 wireless communication to connect with the cloud platform.

3.8 Power-off Memory

It keeps running with preset strategies even if communication fails. When disconnected from the background server, the controller runs automatically according to saved programs. After power failure and power restoration, it retains the last working mode without repeated configuration.

3.9 High-precision Timing

Built-in RTC real-time clock, the annual time error is less than 1 minute.

4. Technical Features

The technical features of the 4G Intelligent Lighting Time Controller are as follows:

- **Remote Control** It supports remote operation. Users can turn lights on/off and set timing schedules remotely via mobile APP, PC software and other remote access methods.
- **Multi-channel Control** It can control up to 4 independent lighting circuits separately, managing lights in different zones or of different types individually.
- **Wireless Communication** It adopts 4G Cat.1 wireless technology to communicate with lighting devices, enabling convenient connection and control of various lighting equipment.
- **Timing Function** Automatic on and off of lights can be executed strictly according to preset schedules.

- **Energy Saving Optimization** With intelligent control and optimized algorithms, the controller adjusts lamp brightness and working hours based on actual needs to effectively reduce power consumption.
- **User-friendly Interface** It is equipped with a concise and intuitive interface for easy parameter configuration, allowing users to manage the whole lighting system effortlessly.

5. Technical Parameters

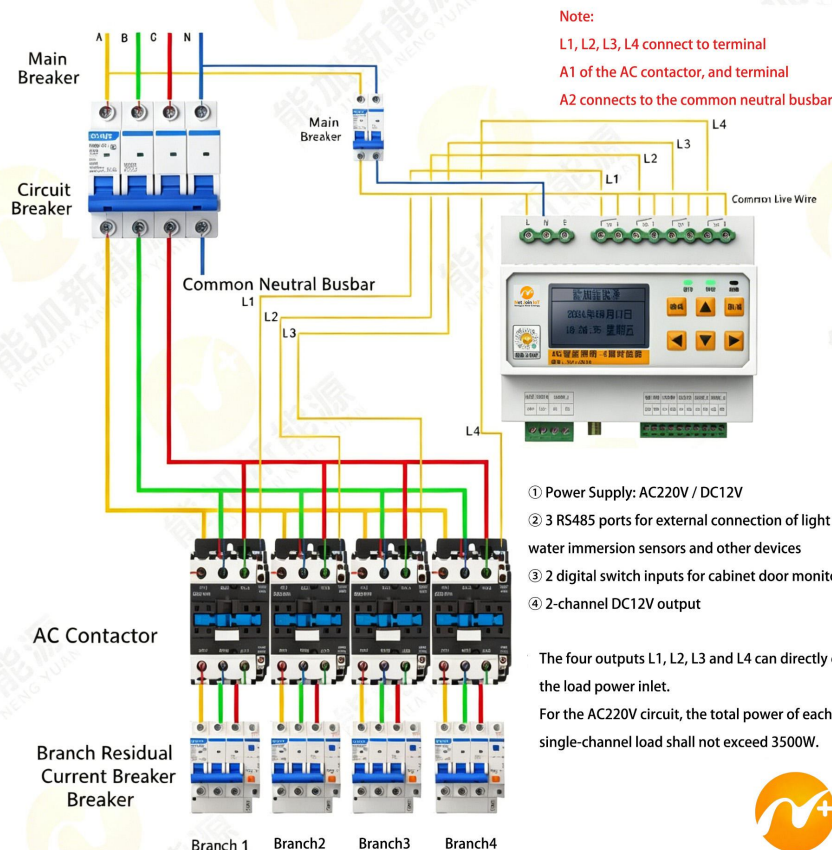
5.1 4G Technical Parameters

Name	Specifications
Input Voltage	AC 90–265V, 50Hz
Output Current	4.5A
Communication Mode	4G Cat.1
Output Channels	4 Channels
Output Power	16A per channel (3500W resistive load)
Relay Contact Rating	16A/250VAC resistive load
Protection Class	IP20

5.2 Other Parameters

Name	Specifications
Dimensions	108mm87mm59mm (LWH)
Mounting Method	Standard 35mm DIN rail mounting
Operating Ambient Condition	Temperature: -25℃~70℃, Humidity: 90%
Working Temperature	-35℃~80℃
Storage Temperature	-40℃~85℃

6. Installation Wiring Diagram



7. Ways to Obtain the Platform Client

The Net-Join Solar IoT Controller supports access via mobile APP and PC terminal

Method 1: APP Download

① For Android Devices

APP Download Link: <https://iot.xmnengjia.com/download/NetJoin.apk>

Or scan the QR code below:



② For iOS Devices

Please search for "Smart lot Lamp" in the App Store

< Search



Smart lot Lamp

Xiamen Nengjia New Energy
Technology Co., Ltd.

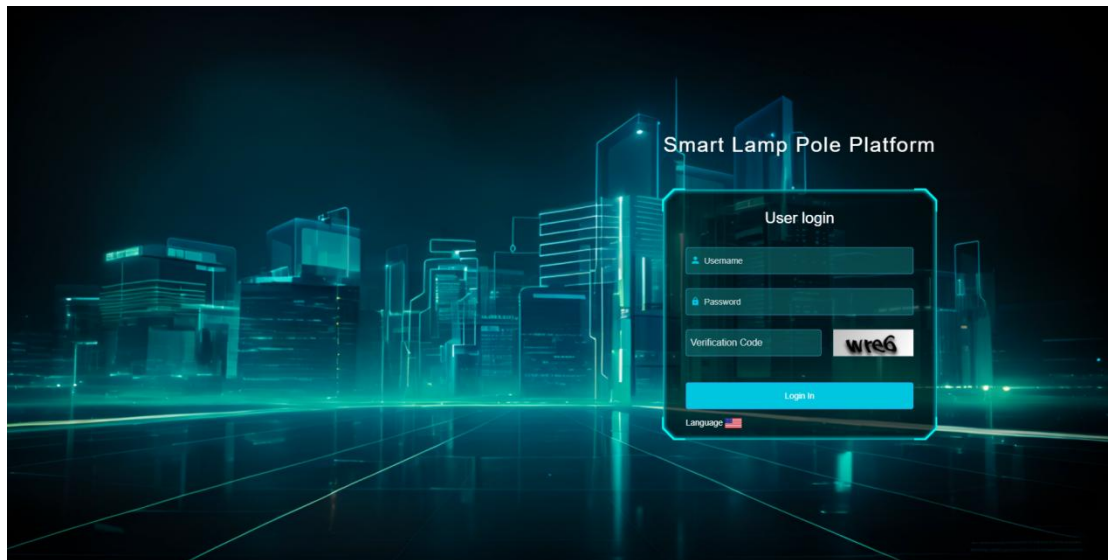
Open



Method 2: Log in via the computer website

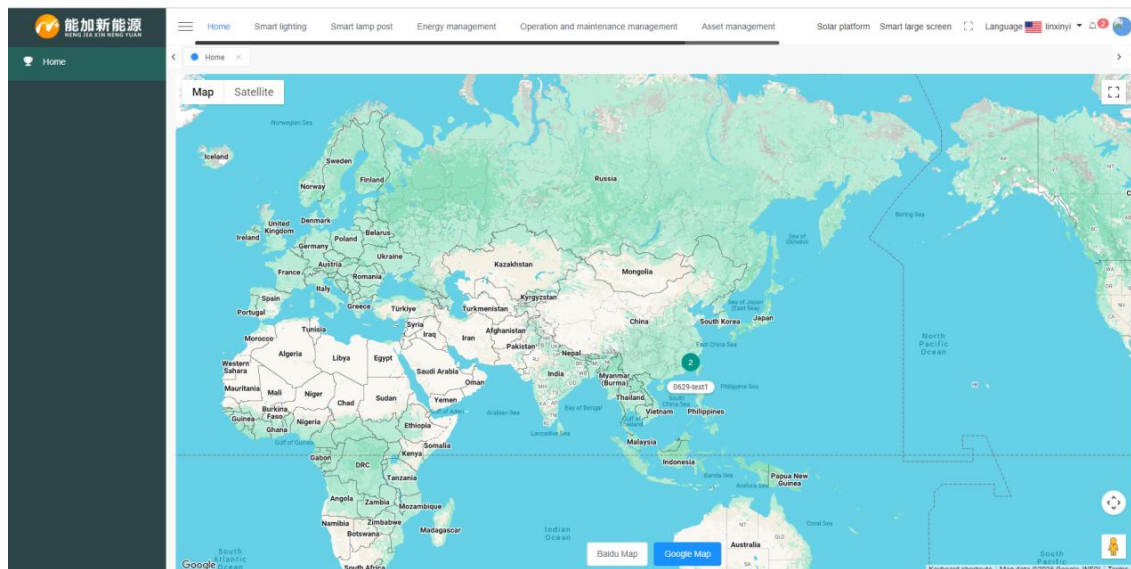
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7. Display on PC side

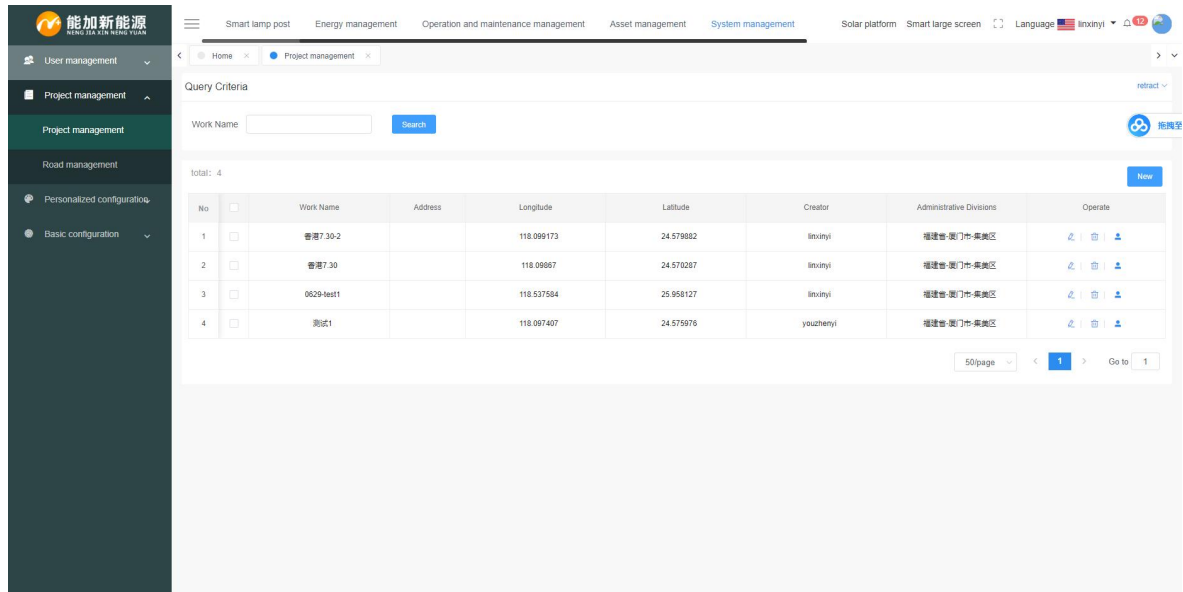


► Website Entry : <https://gm.xmnengjia.com>

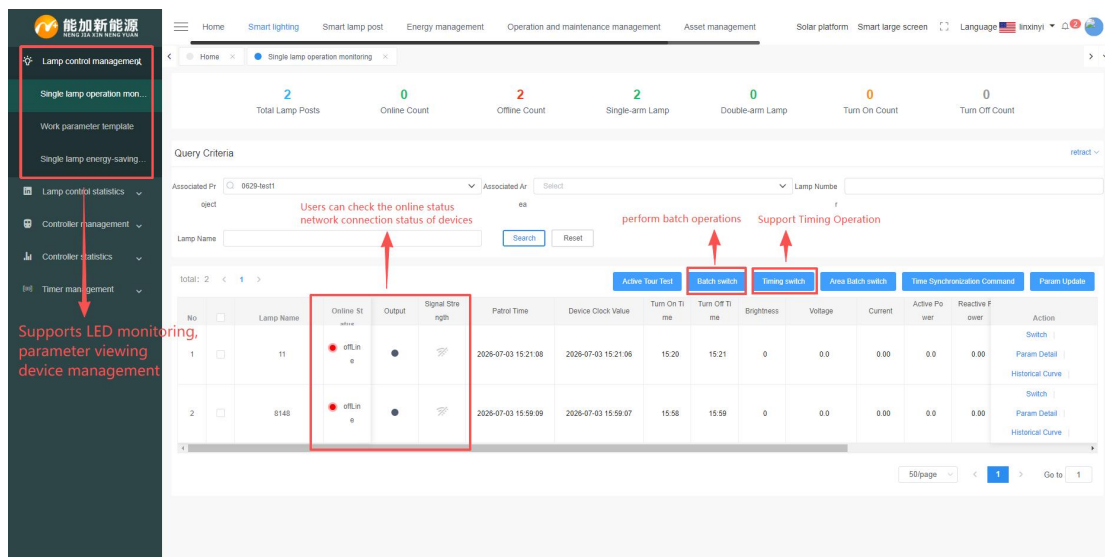
Users enter the designated account and password.



► This is the main page. All devices available for user binding are displayed on this Home interface.

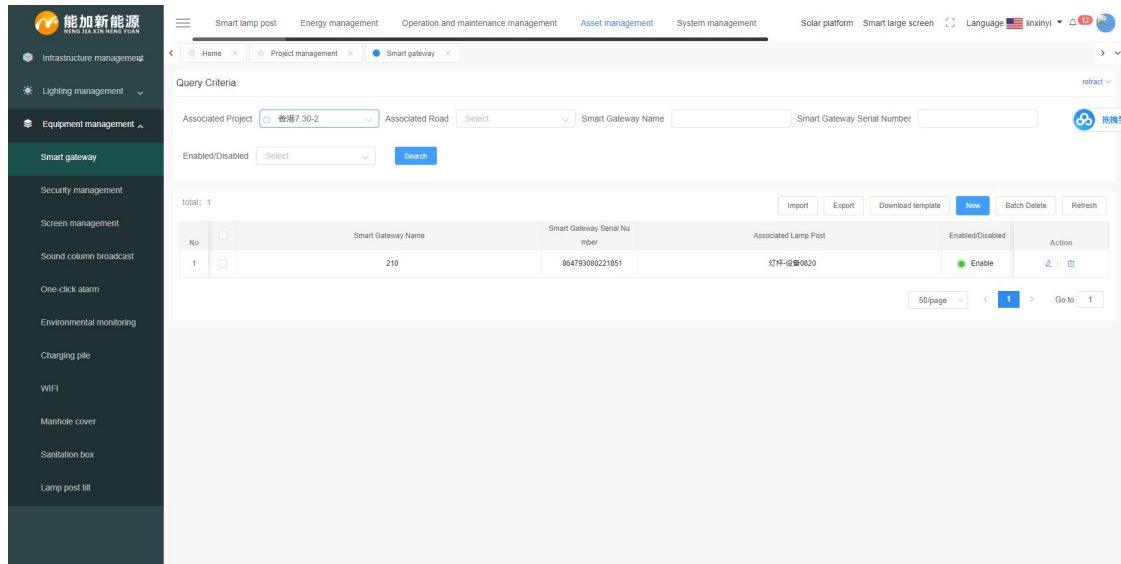


- This is the project- management page for the cloud platform. Users are permitted to create projects tailored to on- site requirements. All new- created projects will be synchronously shown on the map page for geographic visualization and unified administration.

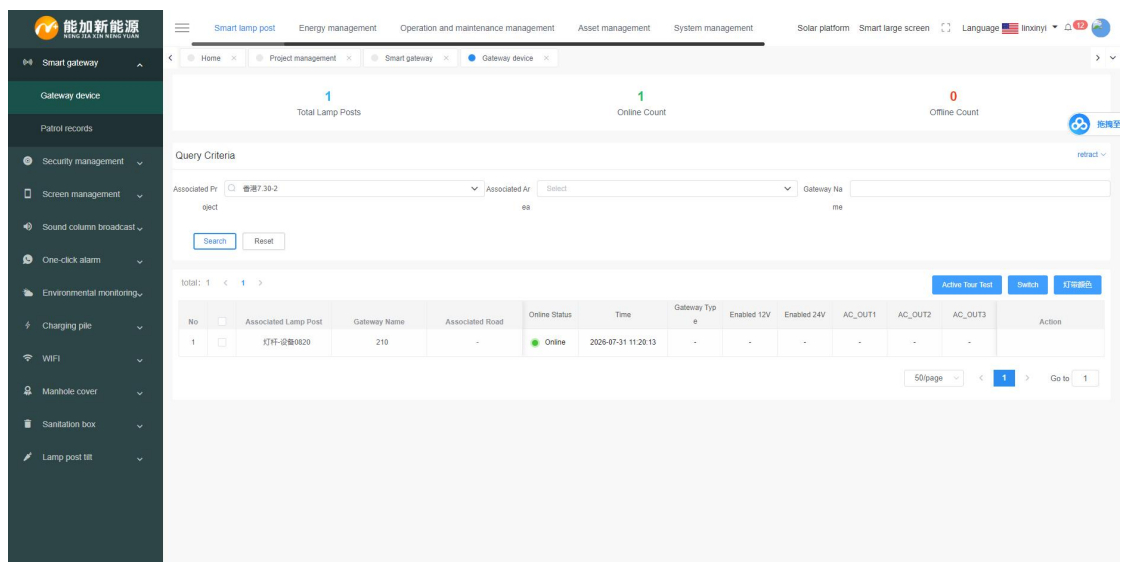


- Active Tour Test: Batch online inspection, one-click verification of device online connectivity status
- Batch Switch: Mass on/off control for all lamps, quickly adjust lighting status of the whole road uniformly
- Timing Switch: Batch schedule timing strategies, support automatic brightness adjustment & lamp on/off by time periods

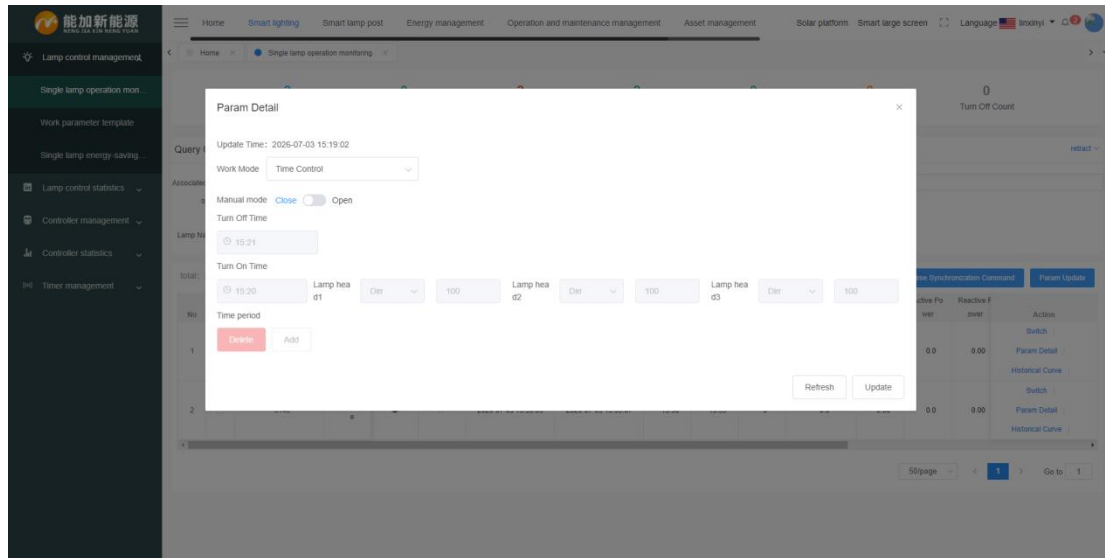
- Param Update: Batch modify lamp operation parameters, including dimming level, output power, alarm thresholds and other configurations



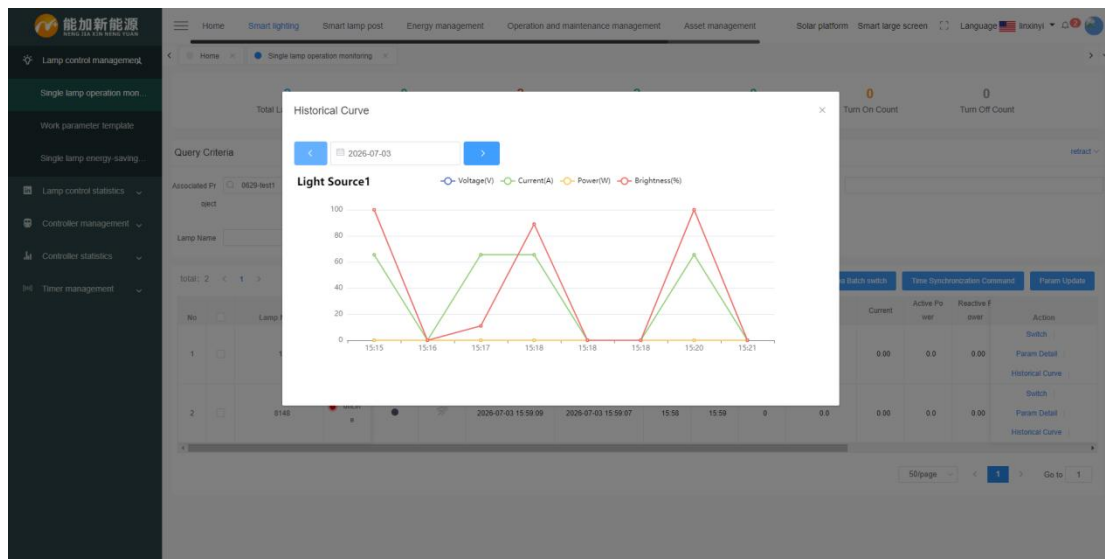
- The smart-gateway page enables users to register purchased gateways to the cloud platform. Every gateway needs to be allocated to a specific project, where it connects and manages corresponding sensor devices within the same project.



- This management page supports the screening of diverse terminal-end devices such as single-lamp controllers, smart gateways and various sensors. It enables users to read real-time device status and operational data online.



- The timing function supports customized time schedules, enabling remote automatic on and off control of street lights as per user-defined time settings.



- Historical status of the device: Select the time to view the voltage, current and power of the solar panels, batteries, loads, temperatures.



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