

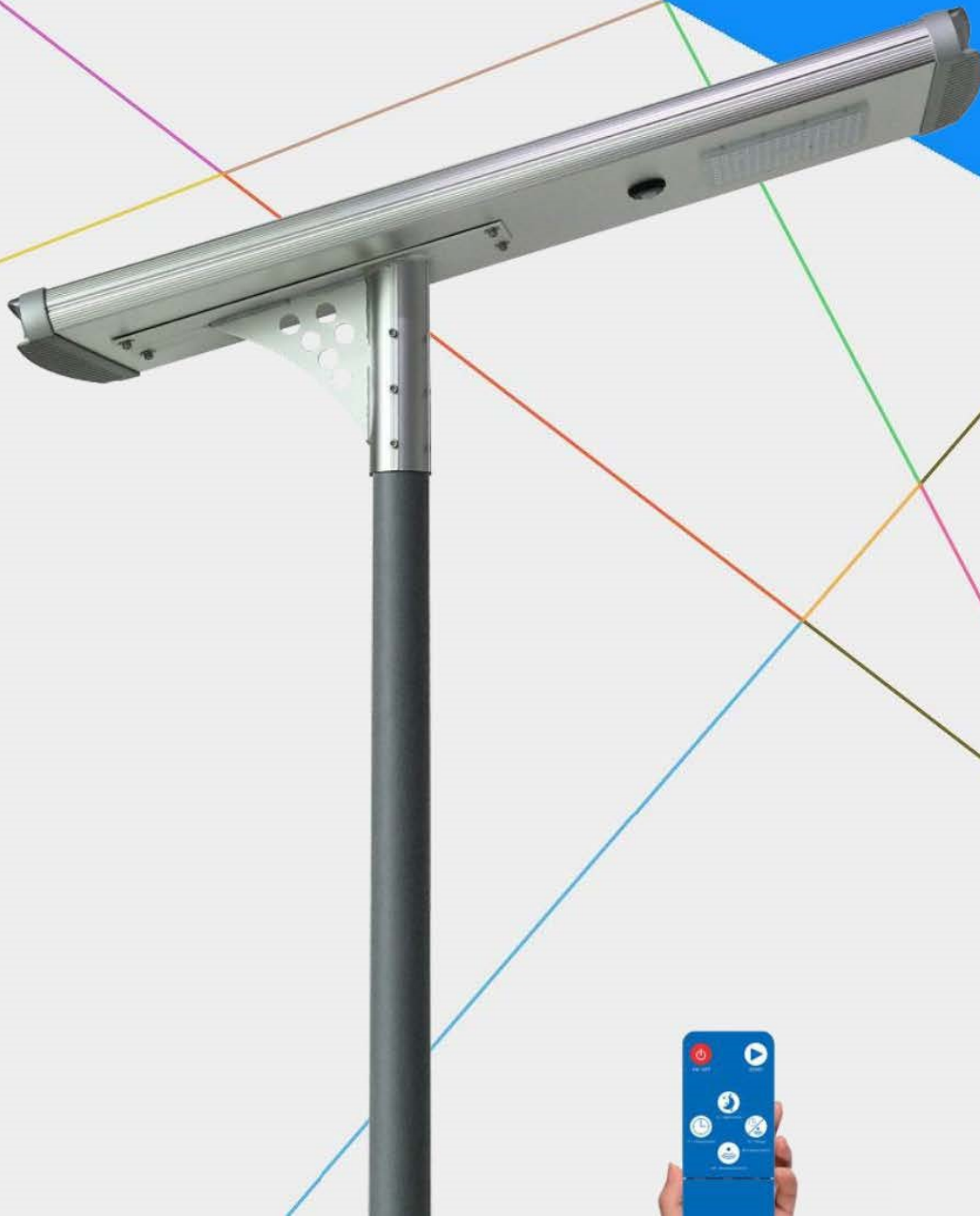
# trueblue

## ALL IN ONE

SOLAR STREET LIGHT

NK SERIES

30-150W





## **Product introduction**

As a outdoor lighting fixture, the Solar Light is powered by solar energy and designed to offer outstanding quality by utilizing A-class LED beads, integrated optical LED lens, high efficiency mono solar panel, powerful lithium battery, self-developed MPPT controller.

## **Operation principle**

The Solar Light is a revolutionary product by utilizing Photovoltaic effect. It is designed to constantly absorb solar energy in daylight and convert to electricity, the intelligent controller could precisely control the charge, discharge and well preserve electricity into the lithium battery. And start to illuminate, which is powered by the lithium battery, once the illuminance of ground reduced to 15 lux in night time, or solar panel voltage drop to 5V below. The intelligent controller not only protects the battery from over-charging , over-discharging, but also can control the light switch-on , the time of switch-on and optimize the brightness effectively according to the real-time environment.

# MODEL

NK 30W-100W



NK-30W



NK-40W



NK-60W



NK-80W



NK-100W



NK-120W



NK-150W

## Product Structure



1.Solar panel

2. LED source

3.MPPT controller

4. PIR motion sensor

5.Lithium battery

6.Bracket

## Product Structure



**NK-80W/100W/120W/150W**

1.Solar panel

2. LED source

3.MPPT controller

4. PIR motion sensor

5.Lithium battery

6.Bracket

REMARK: NK-100W/120W/150W are without PIR motion sensor and remote control.

## Technical Parameter

Model	NK-30W	NK-40W	NK-60W
Rated power	30W	40W	60W
Lumens	4200LM	5600LM	8400LM
Solar panel	50W/18V	60W/18V	80W/18V
LiFePO4 battery	24AH/12.8V	30AH/12.8V	42AH/12.8V
Install height	5-6M	6-7M	7-8M
Spacing	18-20M	20-25M	25-30M
Pole diameter	60-100mm		
Color temp.	6500K		
Sensing distance	12M		
Work temp.	-20°C ~ +60°C (When the temperature is below -10°C, derating use )		
Water proof	IP67		
CRI	>85		
Charge time	6-8H		
Lighting time	Light on at dusk, Light off at dawn atuo. 12 hours lighting time per day, 3 rainy days backup. 365days can be light.		

## Packing

Model	NK-30W	NK-40W	NK-60W
N.G	13KG	15KG	19KG
G.W	14KG	16KG	20KG
Product size(mm)	840*380*220	980*380*220	1230*380*220
Carton size (mm)	930*450*250	1070*450*250	1320*450*250

## Technical Parameter

Model	NK-80W	NK-100W	NK-120W	NK-150W
Rated power	80W	100W	120W	150W
Lumens	11200LM	12000LM	14000LM	16000LM
Solar panel	100W/18V	110W/18V	120W/18V	150W/18V
LiFePO4 battery	54AH/12.8V	60AH/12.8V	66AH/12.8V	82AH/12.8V
Install height	8-10M	10-11M	10-11M	10-12M
Spacing	30-35M	35-40M	35-40M	35-40M
Pole diameter	60-80mm			
Color temp.	6500K			
Work temp.	-20°C ~ +60°C (When the temperature is below -10°C, derating use )			
Water proof	IP67			
CRI	>85			
Charge time	6-8H			
Lighting time	Light on at dusk, Light off at dawn auto. 12 hours lighting time per day, 3 rainy days backup. 365 days can be light.			

## Packing

Model	NK-80W	NK-100W	NK-120W	NK-150W
N.G	22KG	24KG		
G.W	23KG	25KG		
Product size(mm)	1435*380*75	1605*380*75	1805*380*75	2075*380*75
Carton size (mm)	1525*450*140, 610*140*340	1695*450*140, 610*140*340		



# SOLAR PANEL

- **High module conversion efficiency**

Module efficiency up to 21% achieved through advanced cell technology and manufacturing capabilities.

- **Excellent weak light performance**

Excellent performance under low light conditions.

- **Positive tolerance**

Positive tolerance of up to 5% delivers higher outputs reliability.

- **Current sorting process**

System output maximized by reducing mismatch losses up to 2% with modules sorted & packaged by amperage.

- **Long-lasting performance**

Material and workmanship, 5 years warranty for 90% output power and 25 years for 80% output power.

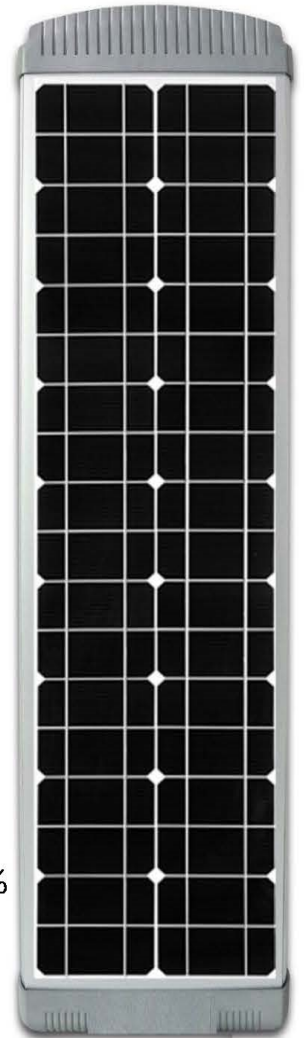
- **Extender wind and snow load tests**

Module certified to withstand extreme wind (3800 Pascal) and snow loads (5400 Pascal).

- **Withstanding harsh environment**

Reliable quality leads to a better sustainability even in harsh environment like desert, farm and coastline.

Operating temperature range - 45 °C ~ +85 °C, STC: 1000W/M<sup>2</sup>, 1.5AM, 25°C.







# LED LIGHT HEAD



## CREE CHIP

A-CLASS LED bead: the advanced lighting technology brings a higher luminous intensity,  
 lower thermal resistance and a greater luminaire stability.  
 this in turn improves the longevity of the LED's promising more long term system reliability.

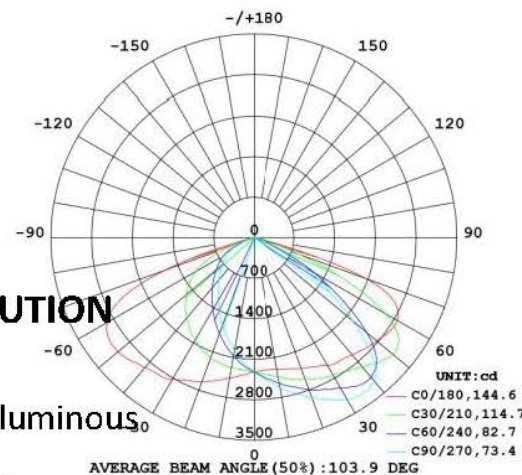
Luminous Efficiency > 160 Lm/W.

Working time is 100000 Hours.

Color temperature can be chosen from 3000K to 6000K.

Famous brand CREE LED chip from USA, CREE 30\*30.

INTENSITY DISTRIBUTION DIAGRAM IN C PLANS



## INGRATED LED LENS WITH BATWING DISTRIBUTION

Newsky create a new LED lens that provides greater luminous uniformity and offers the ultimate in design flexibility.

The beam pattern is perfect for sidewalks, pedestrian promenades, bicycle paths, roads and parking lots.



# MPPT CONTROLLER

## CORE TECHNOLOGY

- Innovative MPPT technology, tracking efficiency >99%
- Full digital technology, high charge conversion efficiency
- Up to 96%, discharge conversion efficiency up to 95.5%.
- Automatic power balance 365 mode, 365 days can be lit.
- Human infrared induction.
- 5 stages time and dimming can be adjusted, dimming 0~100%.
- Can read parameters and running status
- If battery voltage is low, it can be set to dimming automatically
- Day/Night threshold can adjust automatically
- Low temperature charging protection
- When BMS power off because of LVD, it can activate the system automatically
- IP67 water proof
- Full automatic electronic protect function





# PIR

## MOTION SENSOR



### EYES OF LIGHT

- It detects movement within several meters of the unit and automatically.
- Regulates the output of the LED lamp from a 'dim mode' to 'full-brightness'.
- Depending upon whether motion is detected. This smart feature preserves battery power as well as increases .
- The light will last for 30seconds high brightness after motion is detected.

REMARK: NK-100W/120W/150W are without motion sensor.



# LITHIUM BATTERY CHARGING

## LiFePO<sub>4</sub> LITHIUM BATTERY

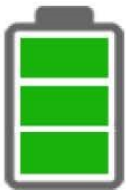
Newsky uses new-generation LiFePO<sub>4</sub> Lithium batteries which offers 4-5 times more storage and power capacity versus conventional Lead Acid batteries.

LiFePO<sub>4</sub> characterizes with high rate discharging, high temperature, long cycle life and safety.

Number of cycles is over 2000times.

Lifespan is 5-8 years.

Comply with IEC61233.



## BATTERY PROTECTION

### BATTERY MONITORING

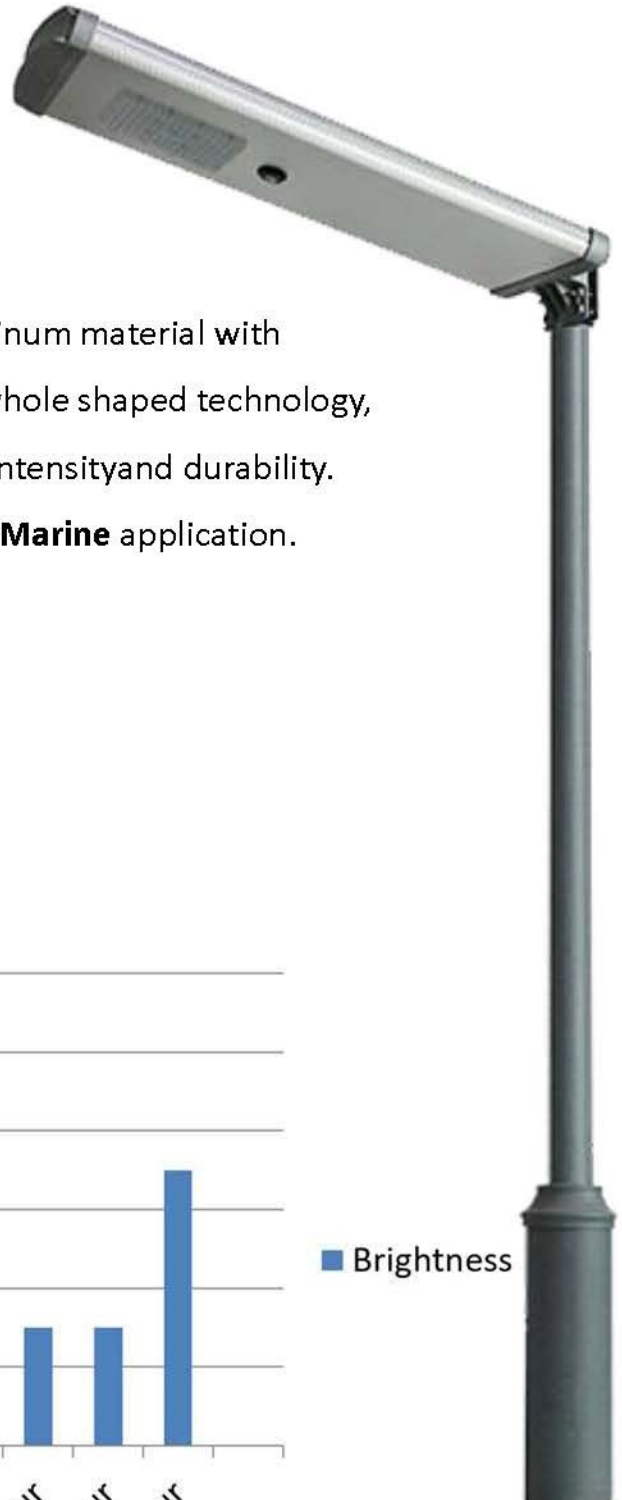
Newsky lithium batteries and smart protection features are up for the challenge.

Working temperature is -20 degree Celsius to +60 degree Celsius.

Low temperature charging protection.



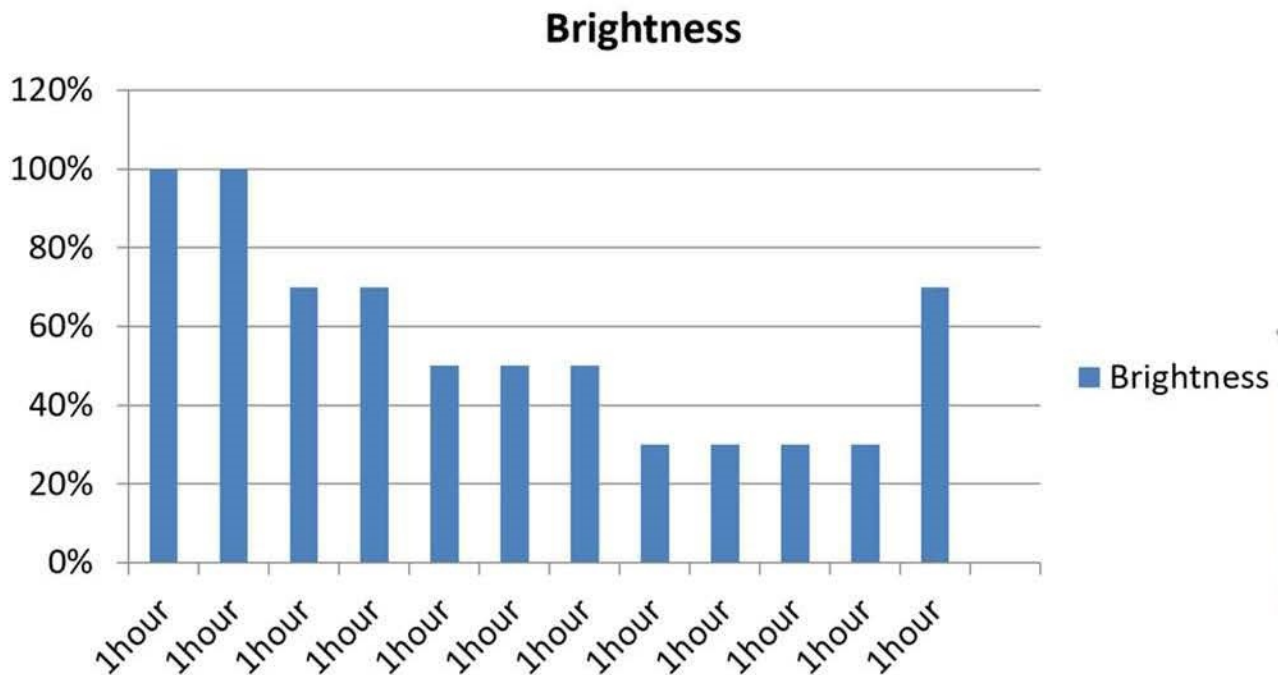
# DIE-CASTING ALUMINUM



## DIE-CASTING ALUMINUM HOUSING

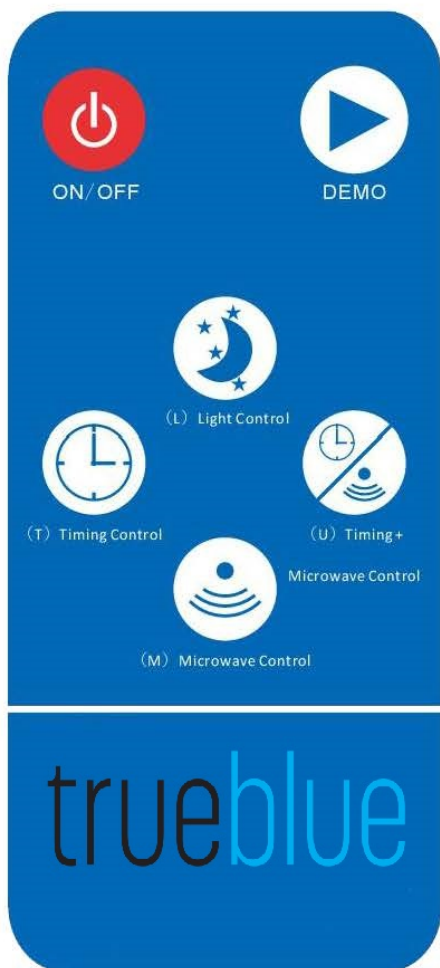
The light body is made of die-casting aluminum material with anodic oxidation treatment. By adopting whole shaped technology, the product has the characteristic of high intensity and durability. No-rust. Suitable for all kinds outdoor and **Marine** application.

## LIGHTING DIAGRAM



# REMOTE CONTROL

(NK-100W/120W/150W without remote control)



**DEMO:** No matter day or night, Light “on” for 10S only for test use.



**ON/OFF:** Light “off”, no matter day or night.



**L:** Light on at dark, light off at dawn.  
Constant lighting without motion sensor.



**T:** Light on at dark, light off after 12hours,  
Constant lighting without motion sensor.



**U:** Light on at dark, light off after 12hours, 6hours  
Constant lighting +6hours motion sensor.



**M:** Light on at dark, light off after 12hours.  
Work with motion sensor.

**Remark:** Default is M mode, once a certain mode was set successfully, it will be reserved until you change other modes with remote control.