



Latest Technologies in Solar Lighting Systems

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Light Poverty Map

Currently 1.3bn people suffer from light poverty, the equivalent of 18% of the world's population. A further 1bn are connected to unstable grids and suffer regular power outages. Many rely on candles, wood fires, and kerosene lighting, which are dangerous to health, offer poor light, and emit highly polluting black carbons. Solar LED lighting is cheaper, brighter and healthier.

1.3bn
people worldwide
suffer from light poverty



1.5m
DIE each year
from non-electric
light sources



2nd largest
contributor to
global warming



Kerosene lamp: **\$50** per year
Solar LED lamp: **\$20** one-off



Top **50 countries** with the
highest levels of
light poverty



> 95%

> 90%

> 85%

> 80%

> 75%

> 50%

% of population without access to electricity

The Inspiration

- Enabling 1.3 billion people who live without electricity to develop socially and economically
- Drive sustainability

3 key needs we serve

Better Than No
Light



Rural

Best Lighting
Performance



Suburban

100% Green &
Sustainability

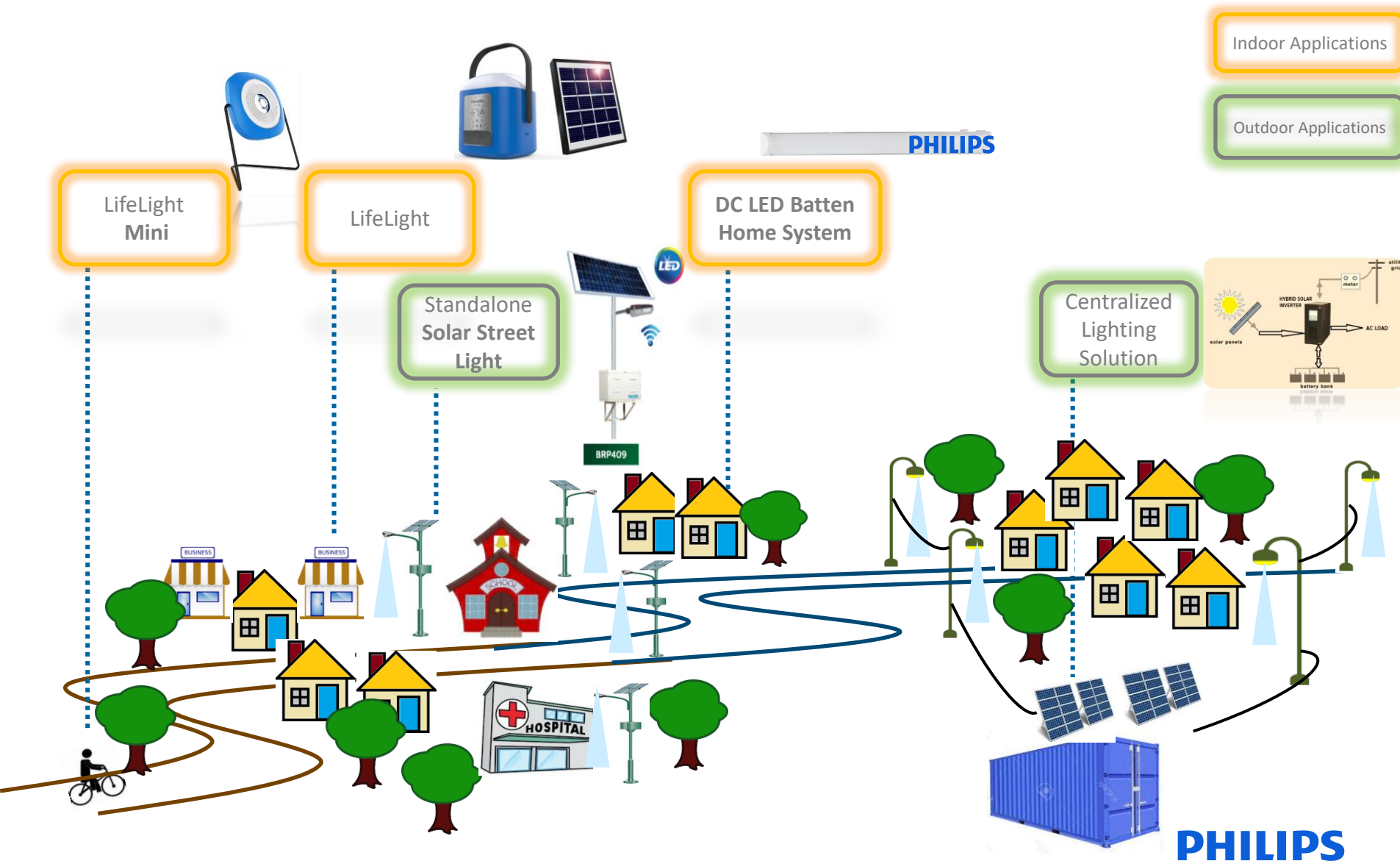


Urban

PHILIPS

Philips Lighting Solar Solutions for off-Grid applications

Innovative Solutions that transform lives at Base of Pyramid



Better than no light | Base-of-Pyramid

LifeLight mini



Warranty



Integrated
PV module

Two light
modes

Alternate Charging
options

Low- Battery
buzzer

Rural Living

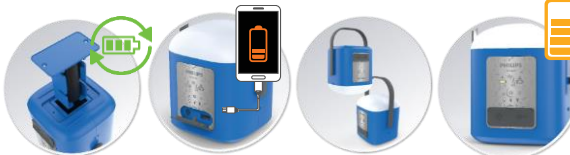
LifeLight



110 lumen for
5hrs

IP65

Warranty



Battery
Replaceable

Mobile
Charging

Multiple
Applications

Battery charge
indicator

Semi urban Living

LifeLight home



2x150 lumen for
4hrs

Warranty



2 pendant lamps

Battery charge
status indicator

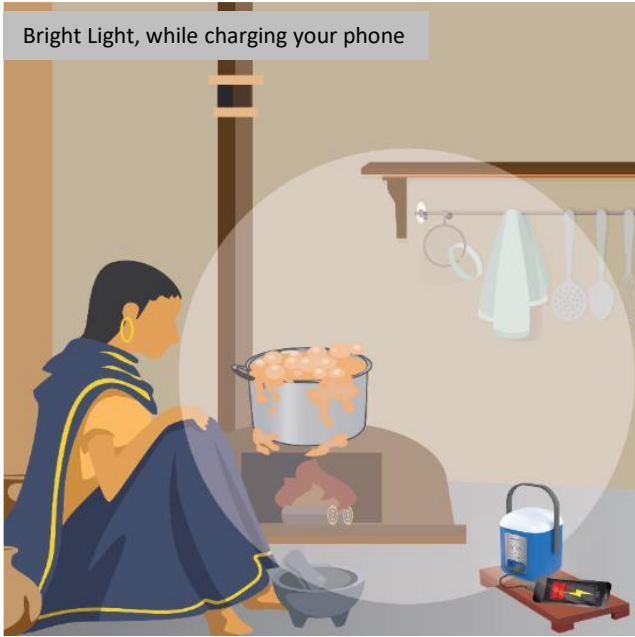
Mobile
Charging

Three step
dimming

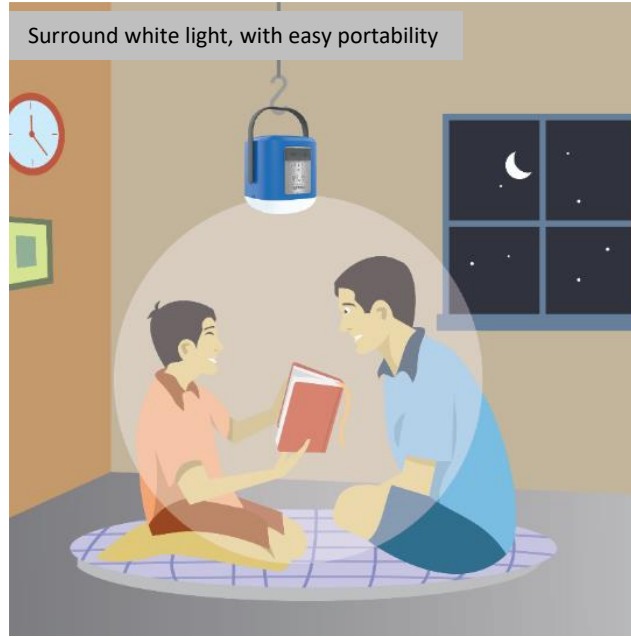
Semi urban Living

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Bright Light, while charging your phone



Surround white light, with easy portability



Hang it upside down, for everyday safe light



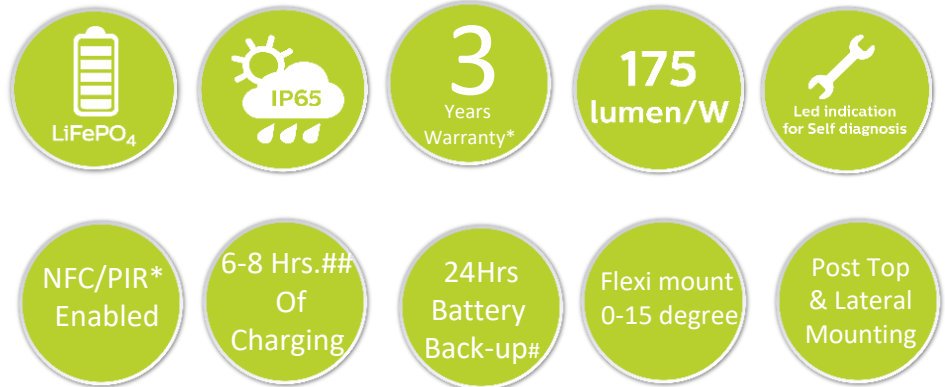
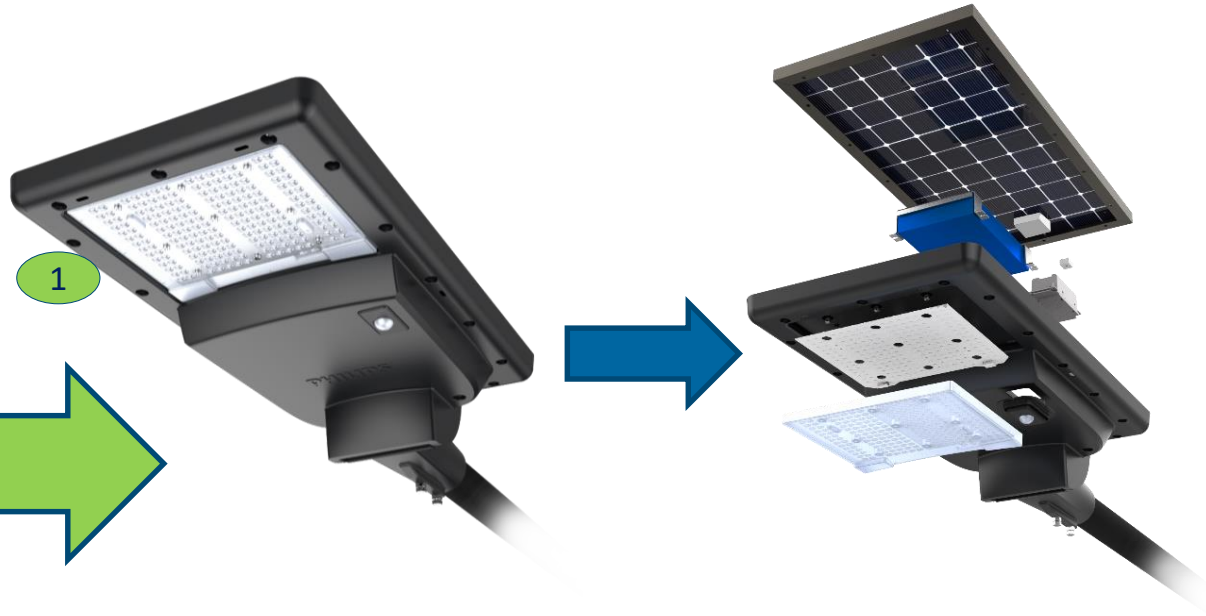
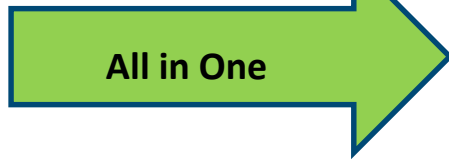
Fit for outdoor use, even in rain.



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SunStay

All in one solar streetlight



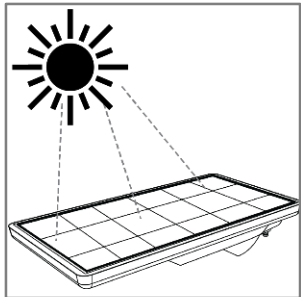
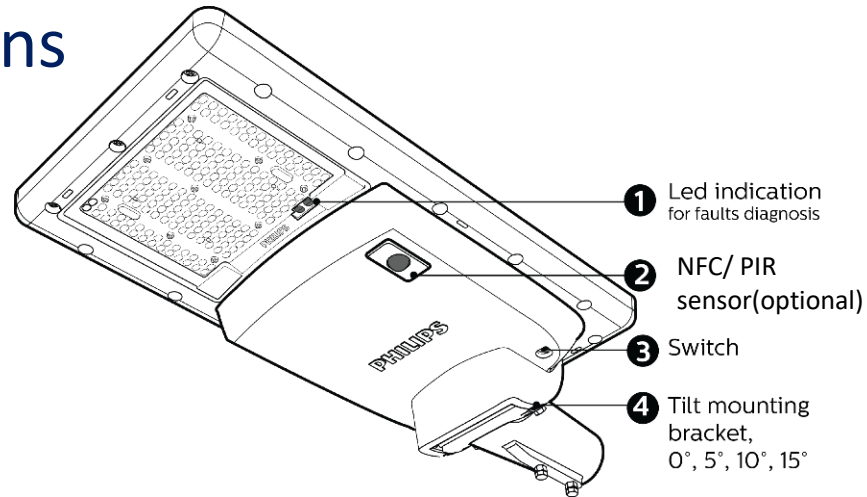
*NFC/PIR = Near Field Communication/ Pyroelectric Infrared Radial Sensor

Battery Back up – 100% for 4Hrs & 50% dim till dawn

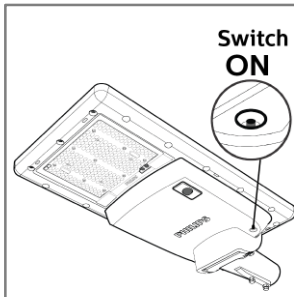
charging time depending on site & weather condition

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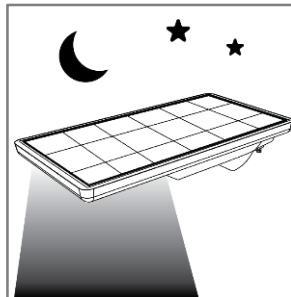
Product functions



Adjust solar Panel facing to sun trajectory to charge the battery fully.



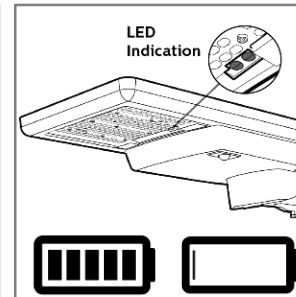
Install and Switch ON the product for no darkness



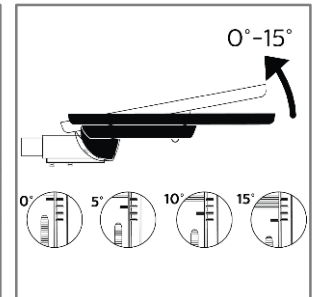
Solar panel senses darkness and it switches on during night automatically



Post Top & lateral mounting options



For self diagnosis, LED indications shares the battery condition

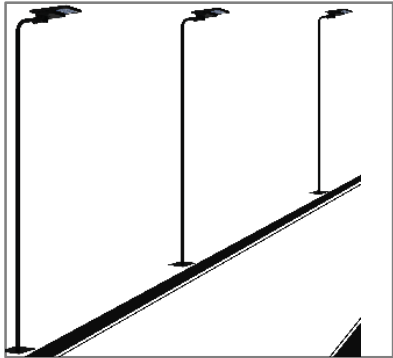


Smart pole mount markings, ease angle adjustment

Standards Compliance

- ✓ IEC60598-2-3 : Safety of Luminaire for Road and Street Lighting
- ✓ IEC 62109-1 : Safety of Power Converters used in solar Panel Equipment
- ✓ EN 50530 : Performance Evaluation of Maximum Power Point Tracking (MPPT)
- ✓ IEC 61547 : EMC immunity requirements
- ✓ CISPR 15 : Radio disturbance characteristics
- ✓ IEC 62133, IEC 61960 & UL1642 : Safety of Lithium Ferro Phosphate Battery
- ✓ IEC 61730-1,2 & IEC 61215 : Safety of Solar Panel Module
- ✓ CE certified

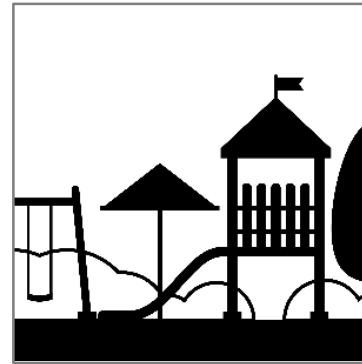
Application Areas



Class B1 & B2
Category roads



Rural areas villages



Parks



Industries, office,
schools, hospitals

UrbanSpark Post-top System

Distinctive, Green, and Quality of Light with Affordable price

- Integrated **vertical PV panel**
- Recyclable aluminum alloy pole
- Long life cycle of **LiFePO4 battery**
- Programmable setting on light output
- Optional remote monitoring
- Performance less impacted by dust, sand and snow
- Pole height available for 4 meters and 6 meters
- Solutions of 2500lm and 6000lm available
- Ideal for resorts, parks, campus, city plazas, and residential compounds





Wide

Range of luminaire options

To satisfy different applications, Philips provides wide range of luminaires on top of the pole. There is always one solution for you.



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UrbanSpark : More benefits

- 100% energy efficient and no need on electricity
- No trenching and grid cabling work on site
- Automatic on/off according to day light and weather conditions
- Aesthetics design to beautify the surroundings
- Robust design to handle harsh conditions like sand, dust and snow
- Professional lighting effect to create safety & comfort
- Easy plug & play installation
- Integration design, a complete system that can be installed quickly with minimum installation costs and lowest total cost of ownership
- Lithium battery has long lifespan, lower system cost over the entire life cycle



Smart Bright : BRP049

Window: Released

Product Image



Key Specifications:

- 12V, 900lm/1200lm/1500lm/1900lm/2100lm (street), Dim
- 12V, 40Wp -100Wp Solar Panel Module
- 12V.8V, 10Ah to 60Ah **LiFePO4** Compatible or
- 12V, 30Ah to 100ah LMLA, T-Gel Compatible
- Integrated **MPPT** Charger + Driver
- Charger Efficiency : > 90%
- Pressure Die-Cast Housing
- High efficiency PC cover
- IP65, CLASS I, CRI>70
- Life L70, 50k Hrs & CCT : 5700K Typical
- Hybrid charger compatible, separate component*
- Recommended pole height – 4m /5m/6m

Application Pictures



Application:

- ☐ Village / Rural Road Lighting
- ☐ Secondary Road Lighting
- ☐ Pedestrian /Path lighting

Standards Compliance :

- ✓ IEC 62384 : LED driver performance
- ✓ CISPR 15 : Radio disturbance characteristics
- ✓ IEC 61547 : EMC immunity requirements
- ✓ IEC 60598 : General requirements and tests
- ✓ EN50530 : MPPT Performance tests

Green line V2 : 12V, BRP409

Window: Released

Product Image



Application Pictures



Application:

- ☐ Secondary Road Lighting
- ☐ Rural Road Lighting
- ☐ Campus Lighting

Key Specifications:

- 12V, 1500lm – 3600lm at system level, Dim
- 12V, 60Wp -150Wp Solar Panel Module
- 12V, 60Ah - 150Ah Battery (LMLA, Gel)
- Integrated MPPT Charger + Driver
- **Inbuilt Proximity Health Monitoring thru Bluetooth**
- Charger Efficiency : > 95%
- LM6 Pressure Die-Cast Housing
- High efficiency PC cover/ Glass
- IP65, CLASS I, CRI>70
- Life L70, 50k Hrs
- CCT : 5700K Typical
- Hybrid charger compatible, separate component
- Recommended pole height – 4m /5m/6m

Standards Compliance :

- ✓ IEC 61347-2-13 : LED driver safety
- ✓ IEC 62384 : LED driver performance
- ✓ CISPR 15 : Radio disturbance characteristics
- ✓ IEC 61547 : EMC immunity requirements
- ✓ IEC 60598 : General requirements and tests
- ✓ EN50530 : MPPT Performance tests

Green line V2 : 24V, BRP409

Window: Released

Product Image



Application Pictures



Application:

- ☐ Secondary Road Lighting
- ☐ Rural Road Lighting
- ☐ Campus Lighting

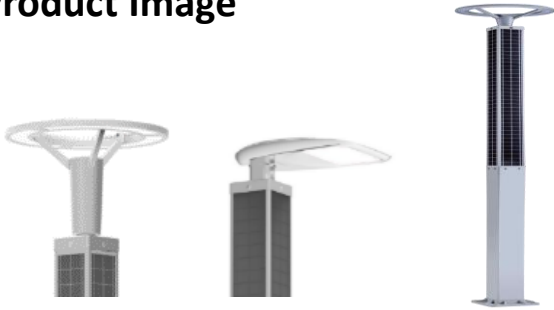
Key Specifications:

- 24V, 3000lm – 5000lm, Dim
- 12V, 160Wp - 250Wp Solar Panel Module
- 12V, 160Ah - 250Ah Battery (LMLA, Gel)
- Integrated MPPT Charger + Driver
- **Inbuilt Proximity Health Monitoring thru Bluetooth**
- Charger Efficiency : > 95%
- LM6 Pressure Die-Cast Housing
- High efficiency PC cover/ Glass
- IP65, CLASS I, CRI>70
- Life L70, 50k Hrs
- CCT : 5700K Typical
- Hybrid charger compatible, separate component
- Recommended pole height – 6m/7m/8m

Standards Compliance :

- ✓ IEC 61347-2-13 : LED driver safety
- ✓ IEC 62384 : LED driver performance
- ✓ CISPR 15 : Radio disturbance characteristics
- ✓ IEC 61547 : EMC immunity requirements
- ✓ IEC 60598 : General requirements and tests
- ✓ EN50530 : MPPT Performance tests

Product Image



Application Pictures



Application:

- ☐ Area Lighting
- ☐ Street lighting

Key Specifications:

- 12V, 2500lm (Circular) / 6000lm (street),
- Dimming Level : 100% ,6Hrs. + 50% dim , 6Hrs.
- 12V,180Wp / 360Wp Solar Panel Module
- 12V, 60Ah / 100 Ah LiFePo4 Battery, IP68 (inside pole)
- Integrated MPPT Charger + Driver
- Charger Efficiency : > 95%
- Life L70, 50k Hrs , CRI >70
- CCT : 4000K / 5000K Typical
- Aluminum alloy Pole height – 4m & 6m
- Pole Dimension : 172X172 mm , IP67
- Security : Special Locking mechanism
- CE & EN40-6 Certified
- Remote Monitoring compatible

Solar off-grid Centralized System : 1KVA to 6KVA



Why choose Philips ?



Be Responsive
Be Insightful
Beat Expectations



Global presence
and local experience
delivering multi-tiered
support



One-stop shop:
systems, luminaires and
services across the lighting
value chain



World-class innovation
capabilities and deep
application and system
expertise



Proven record of
quality and reliability –
no unpleasant surprises

Making a difference in lighting

#1

In LED lighting*

Presence in

60

countries

Hue

sold in **30 countries**,
used in **150**,
with more than **300**
third party apps

Largest

lighting company in the world

#1

in
connected
lighting**

55%

of world's top footballs stadiums
use Philips Lighting

262 Philips CityTouch

street
lighting implementations in **31 countries**

5% of sales in R&D,
32% more than
the nearest competitor

* Source: Internal analysis

** Source: Markets and Markets, Global smart
lighting market (2013–18)

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key Solar Installations



Kekeya village, China

Kashgar, Sinkiang (border area close to Pakistan)



Makassar, Indonesia

Solar indoor lighting system to light up the mosque in remote villages via **VAP/BP**



Aramco, KSA



Unilever, Turkey

First used solar lighting system introduced in Turkey,



Mivida, Egypt

1300 systems installed/to be installed



Lagonoy Gulf, Philippines

Centralized solar lighting system to light up fishermen's harbor via WWF

key Solar Installations



UP NEDA, India

108,000 Philips solar street lights, improving 5.6 million people's safety and lifestyle after dark in 5000+ villages



UP Lohiya Awas Yojna

350,000 Philips solar DC Battens, Installed in **100, 000+ Solar Homes** improving People's safety and lifestyle after dark in 2500+ villages



MANIREDA, Manipur

1400 Philips solar street lighting systems Installed in 100 Remote locations **small towns and villages** of Manipur



EESL, India

60,000 Philips solar street lights, with LiFePO4, for 18000 Villages of Bihar, UP, Jharkhand, Orissa & Assam



Soccer Pitch lighting with Solar at JLN Stadium, New Delhi India



HUL, India 300 Philips solar street lighting systems in HUL Factories

Football Stadium Lighting with solar : Nairobi, Kenya





You May Contact us for more information about the Product & Services

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