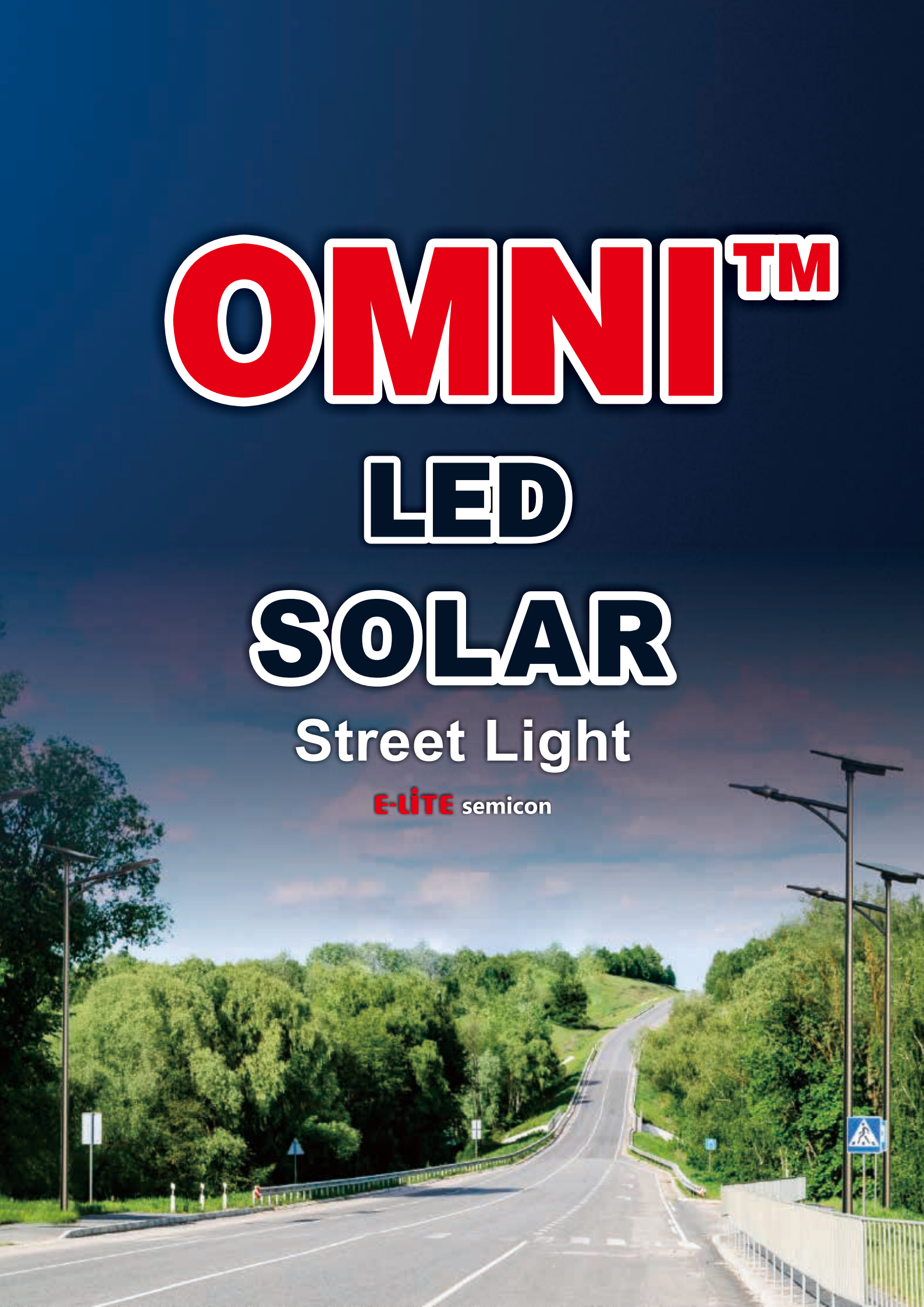
OMNI™

LED

SOLAR

Street Light

E-LITE semicon



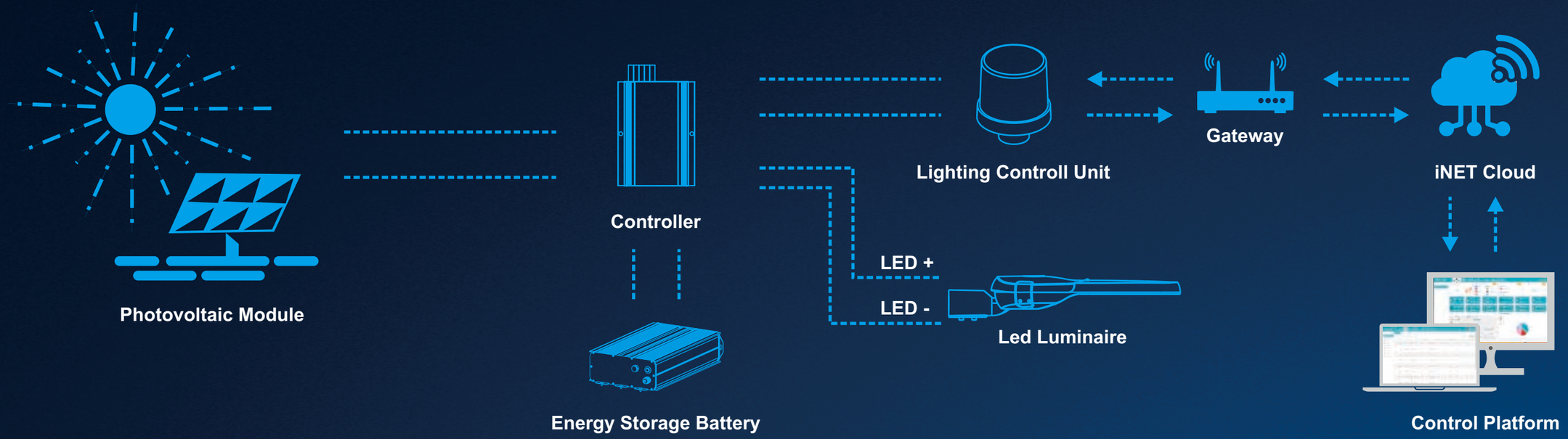
LIGHTING THE WAY

SOLAR meets LEDs

The sunshine is a sustainable, reliable, non-polluting source of power. Concerns over global climatic change, local air pollution and resource scarcity make photovoltaic (PV) an increasingly attractive energy supply technology. Using solar energy with LEDs instead of HID/MH/CFL provides a very efficient solution in lighting industry.

Solar powered outdoor lighting products are ideal for lighting the area in remote locations where the electricity is unavailable or erratic. Even in urban areas, these find great usage to reduce dependency on conventional power and contribute towards green energy. Reliable and long life makes this solution effective in fulfilling our present and future lighting requirements.

E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com



OUR FIXTURE CAN DO

- The entire lighting system is guaranteed for 5 years and the 10 years guaranteed for battery maintenance
- Premium-grade Integrated All-in-one Design, Easy to Install and Maintain.
- Light On/off and Dimming Programmable Smart Lighting.
- Zero carbon emission
- No Trenching or Cabling Work Needed.
- Using Grade A+ battery cell, the battery cycle life more than 4000 times
- High Luminous Efficiency of 170~175lm/W to Maximize Battery Performance.
- Pivoting LED Modules Deliver the Best Lighting Control.
- IP66 Luminaire Ensures Long Lasting and Consistent High Performance.

OUR SYSTEM CAN DO

- 7*24 battery life monitoring, battery life cycle reminder, work report
- Built-in GPS Tracking for Product Security
- Remote Real-time Monitoring and Management
- Powerful Data Collection and Analysis Functions
- Precise Battery Monitoring
- AI Enabled Pole/Light Tilt Alarm
- Flexible and Adjustable Work Mode
- Seamless Integration of Charge Controllers with IoT System

E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com

APPLICATIONS

- Car park and Perimeter Lighting.
- Security and Entrance Lighting.
- Signage and Billboard Lighting.
- Temporary & Event Lighting.
- Strata & Public Area Lighting.
- Construction Sites.
- Rural & Remote Area Lighting.
- Mining & Industrial sites.
- Coastal Areas and Jetties.

Only top quality mono - crystalline silicon solar panels with high efficiency and long lifetime are used.

Highly efficient controller to charge your batteries and intelligent microprocessor controlled algorithms for light management ensure maximum uptime.

Quality lithium batteries are used to store the energy, provide energy for immediate requirements, and enable a back-up for days when there is little or no sun.

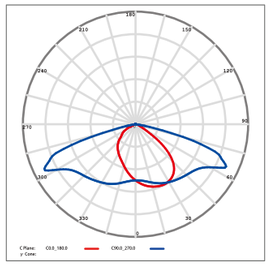
High Lumen LED for maximum efficacy. Dedicated designed low-voltage solar controller technology with dimming capabilities for power-save management. Lifetime > 50,000 hrs and CRI nominal 70.

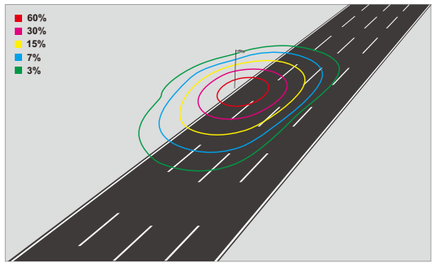
Microprocessor managed algorithms autonomously determine sunrise and sunset

E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com

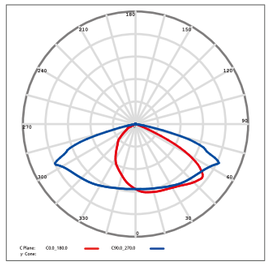
PHOTOMETRICS

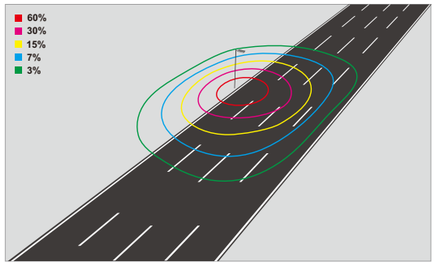
80×150°（TYPE Ⅱ-M）



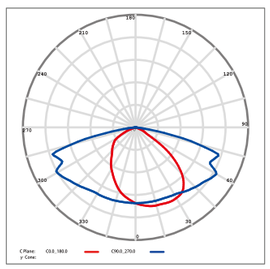


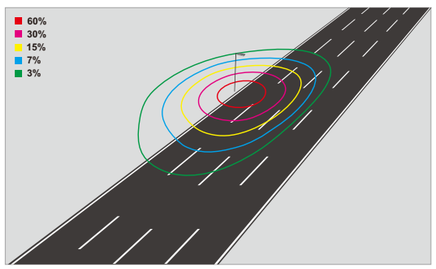
90×150°（TYPE Ⅲ-S）



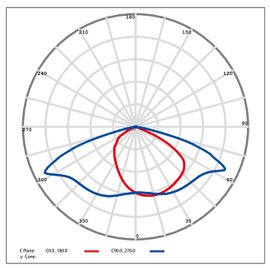


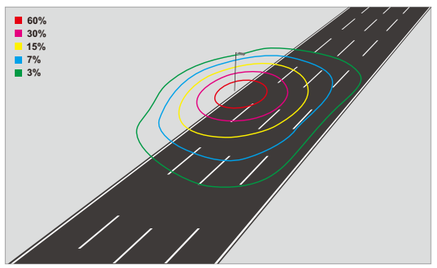
90×155°（TYPE Ⅱ-S）





100×150°（TYPE Ⅲ-M）





Default setting: 6m high Installation, 100% brightness.

PERFORMANCE

	20W~120W
	170~175lm/W
LEDS	Philips Lumileds 5050
work	Timer Dimming/Motion Sensor
CRI	⩾70
CCT	4500~5500K(2500~5500K optional)
100K	L70>150,000hours
IES	80×150° / 90×150° / 100×150° / 90×155°
	IP66
IK	IK08
	Operating Temperature:-20°C to + 60°C /-4°F to 140°F (Charge:0°C to 60°C / 32°F to 140°F & Discharge:-20°C to 60°C / -4°F to 140°F) Storing Temperature:-20°C to +60°C/-4°F to 140°F

SPECIFICATIONS

Light Fixture

Part#	Power	Efficacy (IES)	Total Lumen	Solar Panel	Battery	Light Fixture	
						N.W	Product Dimensions
EO-STOM-20	20W	175lm/W	3,500lm	60W/18V	18AH/12.8V	4.0kg	558x200x115mm
EO-STOM-40	40W	175lm/W	7,000lm	90W/18V	36AH/12.8V	4.5kg	612x233x115mm
EO-STOM-50	50W	175lm/W	8,750lm	120W/18V	48AH/12.8V	6.0kg	675x260x115mm
EO-STOM-70	70W	175lm/W	12,250lm	160W/36V	36AH/25.6V	9.0kg	775x320x120mm
EO-STOM-120	120W	170lm/W	20,400lm	250W/36V	60AH/25.6V	9.0kg	775x320x120mm

Solar Modules

Solar Panel	N.W	Product Dimensions
60W/18V	5.0kg	660×620×32mm
90W/18V	6.5kg	770×710×32mm
120W/18V	8.5kg	910×810×32mm
160W/36V	10.3kg	1150×850×32mm
250W/36V	15.0kg	1210×1150×32mm

Battery

Battery	N.W	Product Dimensions
18AH/12.8V	3.1kg	133×240×89mm
36AH/12.8V	5.0kg	203×240×89mm
48AH/12.8V	6.4kg	273×240×89mm
36AH/25.6V	8.9kg	333×240×89mm
60AH/25.6V	14.5kg	533×240×89mm

Above fixture default equipped the LiFePo4 battery, and the Gel / Ni-MH battery is optional.

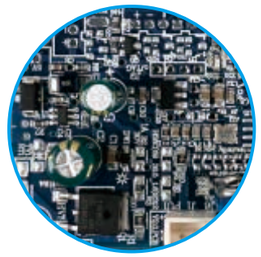
E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com

SMART ANTI THEFT DESIGN

Real-Time Geo Tracking

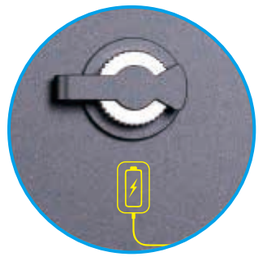
The real-time mini Geo anti theft tracking device is fitted in an un-accessible location of the solar street light fixture, which is permanently powered to enable security recovery teams to track and locate the solar lights anywhere via the live app to recover the product and arrest the thieves as long as the the solar light battery has power.

PRECISE BATTERY STATUS MONITORING



The solar light features a high-precision coulometer, also known as a coulomb meter, which provides accurate readings on battery performance by measuring its current. It can detect and display, in real-time, the battery's voltage, current, power, actual capacity, remaining time, and other key parameters, ensuring you have an accurate understanding of the battery's status at all times.

STAY POWERFUL THE DC CHARGE PORT



A DC charge port is offered as an option to be integrated into Talos **II** , ensuring the battery remains charged even during extended periods in the warehouse. No more worrying about flat batteries when you need them the most. Embrace the continuous and dependable lighting with our state-of-the-art Talos **II** solar street light.

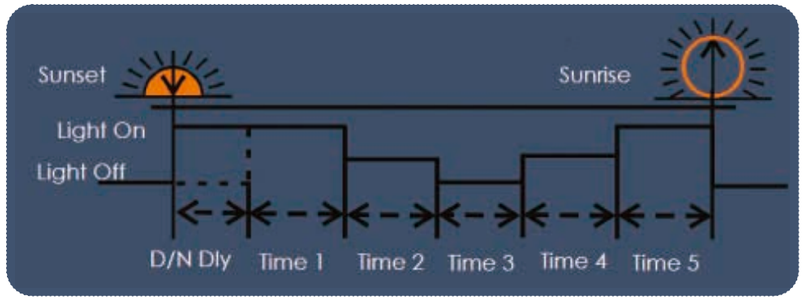
E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com

SOLAR CONTROLLER - B

Regular MPPT Controller

Five-Stage Mode

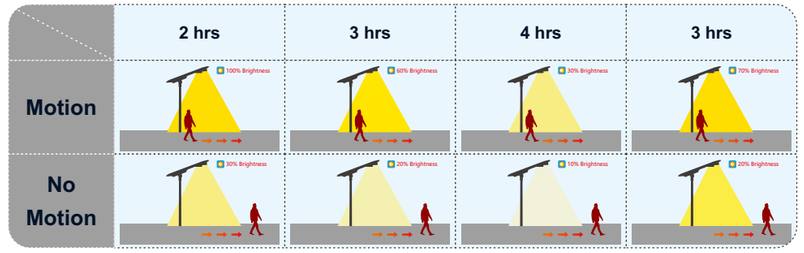
The lamps lighting divide into 5 stage, each stage time and dim can be setting according to demands. With diming setting, it is an efficient way to save energy, and keep the lamp working in best power and time.



Motion Sensor Mode

Motion: 2 hrs-100%; 3 hrs-60%; 4 hrs-30%; 3 hrs-70%;

Without Motion: 2 hrs-30%; 3 hrs-20%; 4 hrs-10%; 3 hrs-20%;



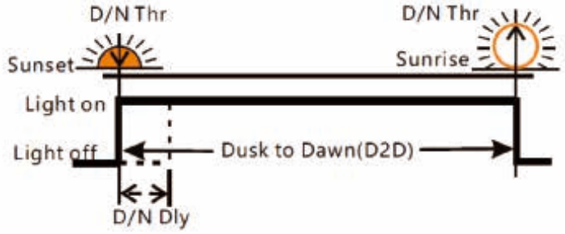
E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com

SOLAR CONTROLLER - C

Hybrid MPPT Controller

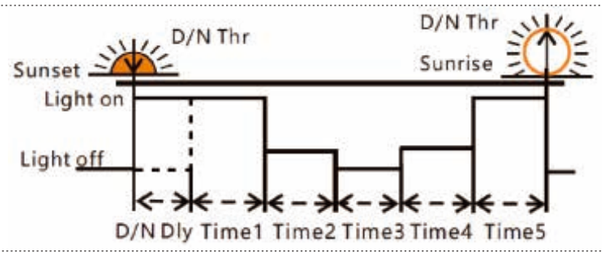
Dusk to Dawn (D2D)

When fixture is set to D2D, it works in dusk to dawn mode. The fixture will turn on while the sun is down, as determined by the solar panel voltage.



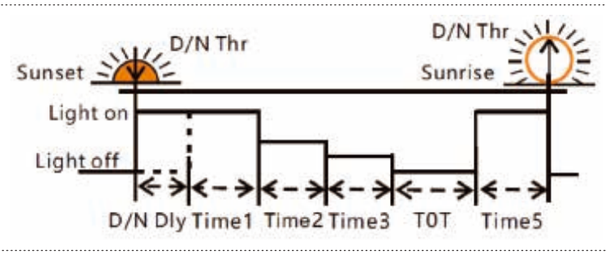
Five-stage Night Mode

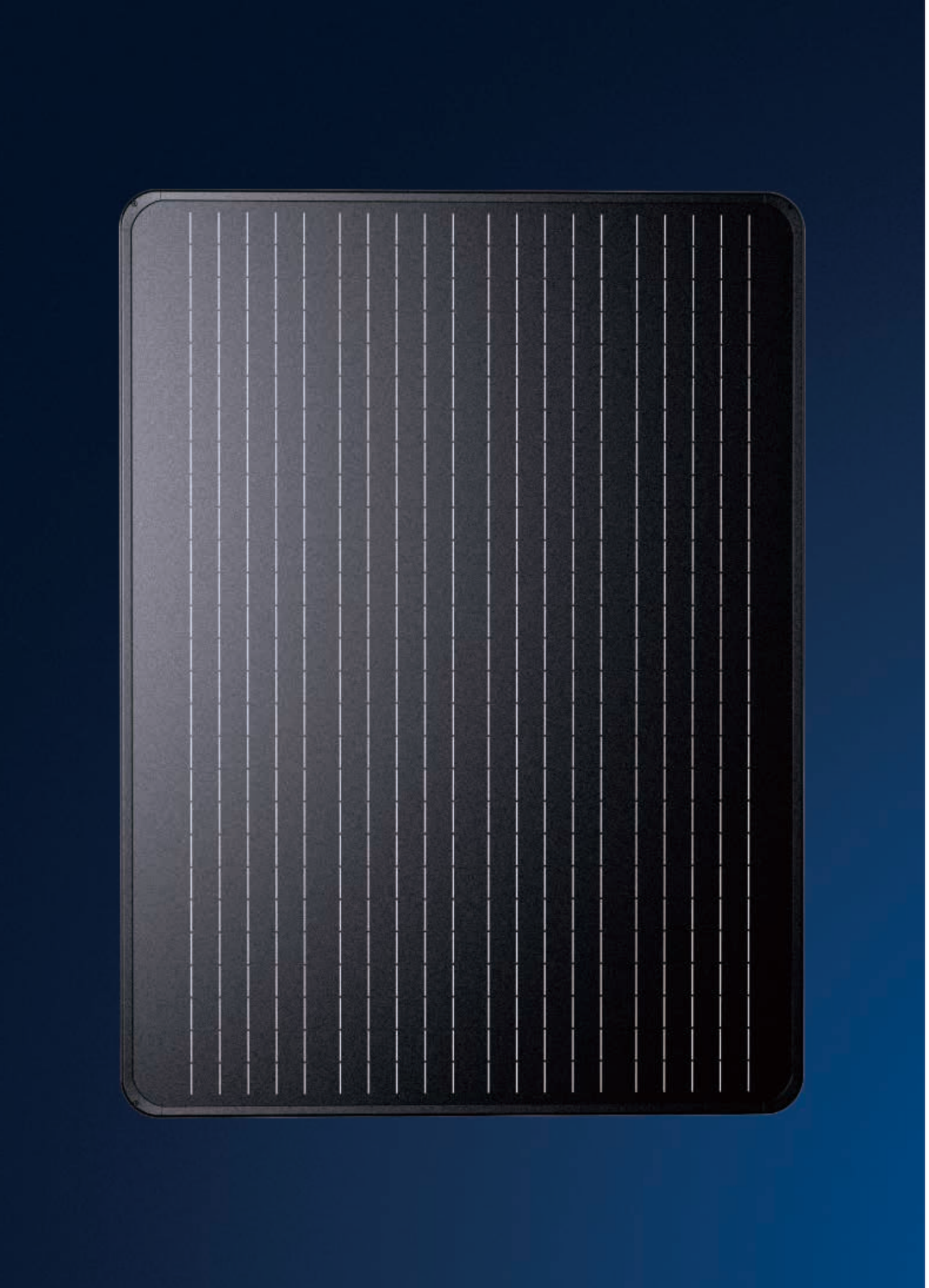
The lamps lighting divide into 5 stage, each stage time and dim can be setting according to demands. With diming setting, it is an efficient way to save energy, and keep the lamp working in best power and time.



TOT Mode (Can set the load on time before morning coming.)

When fixture is set to T0T then it will determine Time4 based on Time5 and previous data on the time of sunrise.





MONO SOLAR PANEL

Higher Durability

The multi-busbar design can decrease the risk of the cell micro- cracks and fingers broken.

High Power Density

High conversion efficiency 23% and more power output persquare meter, by lower series resistance and improved light harvesting.

PID Resistant

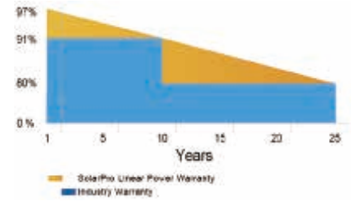
Tested in accordance to the standard IEC 62804, our PV modules have demonstrated resistancea gainst PID (Potential Induced Degradation), which translates to security for your investment.

Bigger Cells with better performance

A slight increase of the size of our cells, Boosts the performance of the newest modules by six percent on average.

First-class Quality Assurance

- 10-year warranty for material and technology.
- 25-year linear power output warranty.



Specifications

Maximum Power (Pmax/W)	60	90	120	160	250
Open Circuit Voltage(Voc/V)	22.8			43.2	
Short Circuit Current(Isc/A)	3.48	5.21	6.91	4.65	7.15
Maximun Power Voltage(Vmp/V)	18V			36V	
Maximum Power Current(Imp/A)	3.3	5	6.7	4.4	6.9
Module Efficiency(%)	24				
Output Tolerance(%)	±3				
Operating Temperature	-40°C~+85°C				
Wind Load/Snow Load	2400pa/5400pa				
NOCT	45±2°C				
Temp Coefficient of Isc	+0.046%/°C				
Temp Coefficient of Voc	-0.275%/°C				
Temp Coefficient of Pmax	-0.350%/°C				

E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com

HIGH PERFORMANCE BATTERY PACK GRADE A+ CELL

LiFePo4 batteries have a higher energy density they can store more energy in a smaller and lighter package.
This makes them ideal for applications where weight and space are a concern.

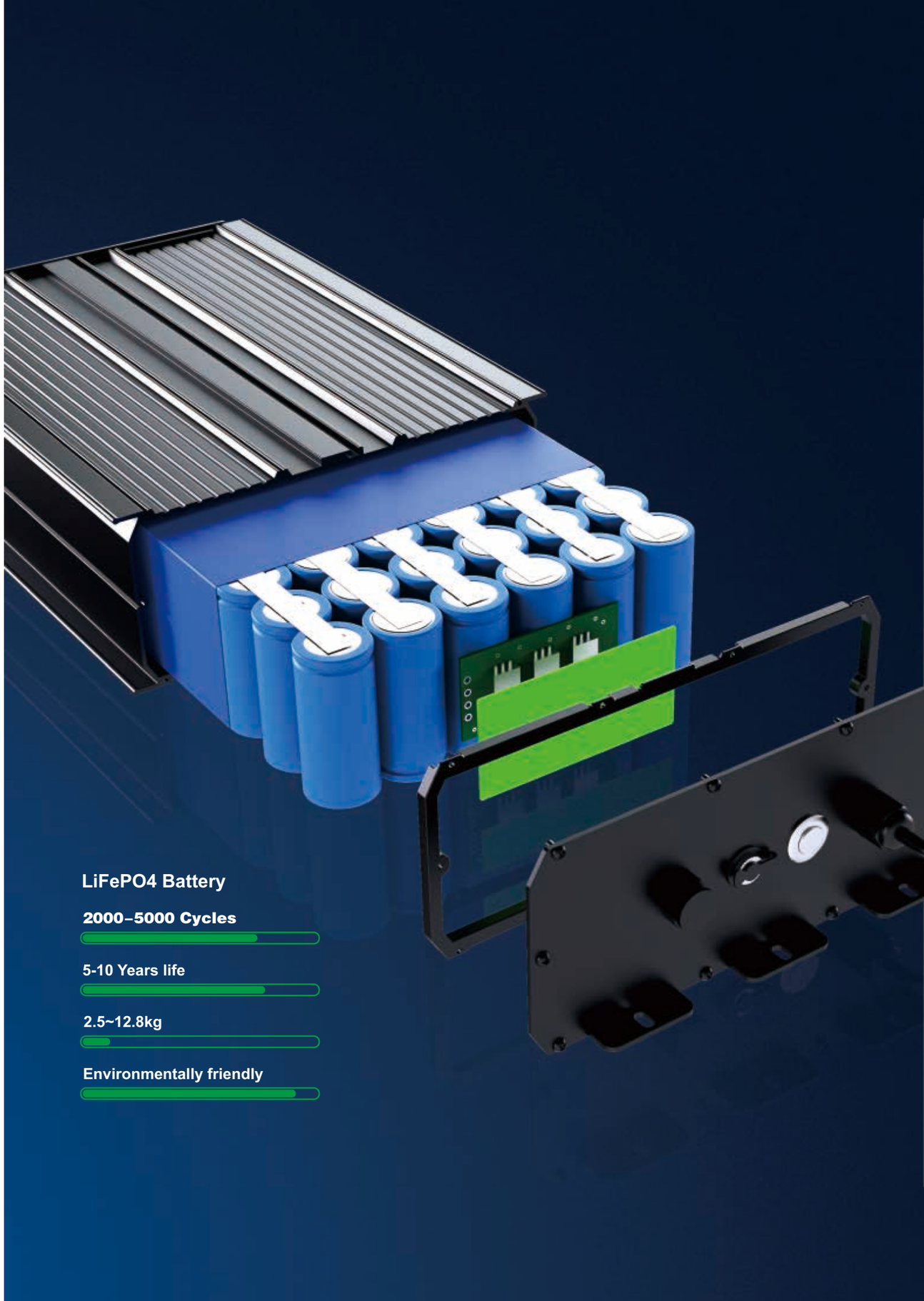
Advantage of LiFePO4

- A Long Lifespan
- No Active Maintenance
- Lightweight Champion
- High Efficiency
- Safety
- High Discharge Rates
- Extreme Temperatures
- Rechargeable Multiple Times

Specifications

Capacity	18Ah	36Ah	48Ah	36Ah	60Ah
Nominal Voltage	12.8V			25.6V	
Charging Voltage	14.6V			29.2V	
Load Voltage	≥12V			≥24V	
Standard charging method	5A(CC)charging to14.6V; After CV(DC 14.6V) Charge until charging current≤0.02C			5A(CC)charging to 29.2V; After CV(DC 29.2V) Charge until charging current≤0.02C	
Max charging current	≤10A			≤20A	
Max discharge current	≤10A			≤20A	
Over current	≤10A			≤20A	
Cut OFF discharge Voltage	10V			20V	
Operating temperature range	Charge: 0℃~60℃ Discharge: -20℃~60℃				
Storage	-20℃~60℃				
Battery category	LiFePO4				
Cycle life	≥4000				

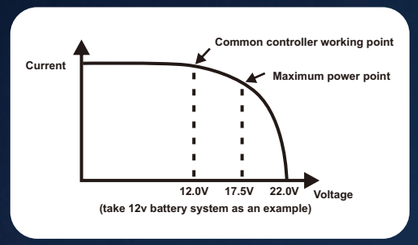
E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com



MPPT CHARGE CONTROLLER

Features

- Innovative Max Power Point Tracking(MPPT) technology,tracking efficiency >99.9%
- Full digital technology, high charge conversion efficiency up to 97.5%,discharge conversion efficiency up to 96.5%
- Can output constant current (output current can be set)
- 5 stages time and dimming can be adjusted
- Can read parameters and running status
- If battery voltage is low, it can be set to dimming
- Dimming start voltage and percentage can be set
- Day/Night threshold can adjust automatically
- AGM, Liquid, GEL and Lithium battery for selection
- 0℃ Charging Protection(Lithium)
- When BMS power off because of LVD, it can activate the system automatically
- Four stages charge way: MPPT, boost, equalization, float
- IP67, Strong and durable aluminum caseFull automatic electronic protect function



Indicator Functions

LED	Status	Function
Green LED	On	Solar panel is correctly connected,but not charged
	Fast flash(0.1s/0.1s)	Charging
	Flash(0.5s/0.5s)	Equal or Boost Charging
	Slow flash(0.5s/2s)	Float Charging, Lithium constant voltage charge
Yellow LED	Off	Over voltage protection
	On	Battery is normal
	Slow flash(0.5s/2s)	Battery voltage is low
	Fast flash(0.1s/0.1s)	Low voltage protection
Red LED	Off	Work normal (Standard version)
	On	The output power is 0
	Super slow(0.2s/5s)	Open circuit protection
	Flash(0.5s/0.5s)	Over temperature
	Fast flash(0.1s/0.1s)	Short circuit or Over current protection

Specifications

Battery Parameters	System Voltage	12V	12V/24V	12V/24V	12V/24V
	Max Charging Current	8A	10A	15A	20A
	Battery Type	Lithium			
	Charging Volt. Target	10.0~17.0V (Programmable, default:12.6V)	10.0~32.0V(Programmable, default: 12.6V)		
	Charging Volt. Recovery	9.2~16.8V (Programmable, default:12.4V)	9.2~31.8V(Programmable, default: 12.4V)		
	Low voltage disconnect	9.0~15.0V (Programmable, default:9.0V)	9.0~30.0V(Programmable, default: 9.0V)		
	Low voltage reconnect	9.6~16.0V (Programmable, default:9.8V)	9.6~31.0V (Programmable, default: 9.8V)		
	0℃ Charging protection	Yes, Slow, No(Programmable)			
Panel Parameters	Max volt on PV terminal	60V		55V	55V
	Max input power	100W~120W	130W/260W	200W/400W	260W/520W
	Dusk/Dawn detect volt.	3.0~8.0V（Programmable）	3.0~20.0V （Programmable）		
	Day/Night delay time	0~30min（Programmable）	0~30min（Programmable）		
	MPPT tracking range	（Battery Voltage +1.0V） ~Voc×0.9			
Load Parameters	Output Power	1~60W	10~60W/20~120W	10~90W/20~180W	
	Output Voltage	20 ~ 55V	15~60V/35~60V	20~55V/30~55V	
	Current setting range	0.15~3.0A（Programmable）	0.15~4.0A（Programmable）	0.15~6.0A（Programmable）	
	Min current	100mA（Dimming）			
	Current precision	±2%			
	Dimming	0~100%（Programmable）			
	Voltage of start dimming	10.0~17.0V(Lithium)	10.0~32.0V(Lithium)		
	Dimming percentage	1~20%（Programmable）			
System Parameters	Max tracking efficiency	>99.9%			
	Max charge conversion	97.50%			
	Max LED driver efficiency	96%			
	Communication mode	Infrared/2.4G/RS485			
	Induction mode	Infrared Human Sensing/Microwave Sensing			
	Self consumption	6~25mA			
	Ambient temperature	-35~+60℃			
	Ambient humidity	0~100%RH			
	Protection degree	IP67			
	Max Altitude	4000m			

E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com

BUILT TO LAST

A top-quality streetlight fixture built to withstand all conditions, and to cope with physical impact and vibration.
One-piece die-cast aluminum housing with integral mounting for strength and durability.

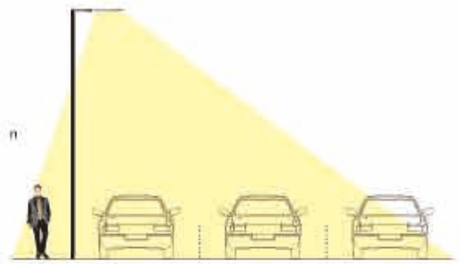
Optics:
Optical systems for outdoor luminaires must be designed to satisfy several criteria in terms of luminaire performance. With a variety of light distributions, Aria series light engine features best in class optical performances. It is designed for convenience and economics, achieving wide column spacing, excellent uniformity plus no waste or obtrusive light.

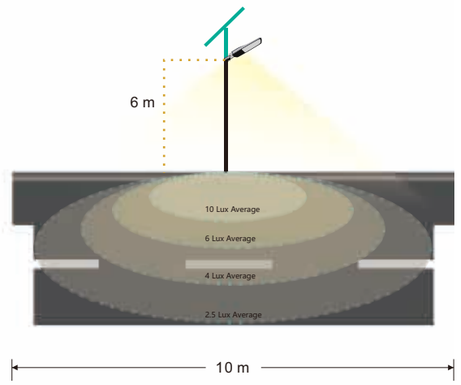
Tool Free:
Tool free design, the back of the lamp can be opened by hand, which is easy to repair, installation and replacement.

Installation:
Easy to install without buying cables and rectifiers, directly on pole with an adjustable spigot 0°~90°.

E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com


Light
Pole
Adapter



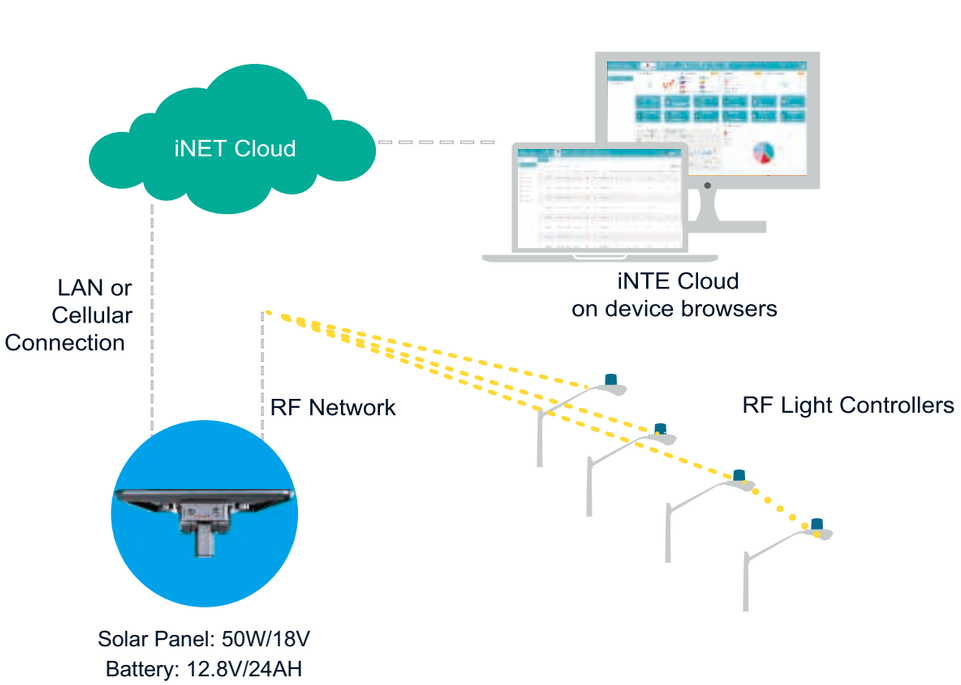

6 m
10 Lux Average
6 Lux Average
4 Lux Average
2.5 Lux Average
10 m

A FUTURE PROOF SOLUTION

Smart City

iNET™ Intelligent Lighting Monitor & Control System is a cloud based wireless smart system designated for lighting management.

With gateways + control node., iNET™ System monitors lights performance status, collects operation data, controls lights on/off or dimming, and sends alarm in case of fault detected.



E-LITE semicon / Hello@elitesemicon.com / www.elitesemicon.com

System & Hardwares

Automatic Light On/Off & Dimming Control
- By time setting
- On/off or dimming with motion sensor detection
- On/off or dimming with photocell detection

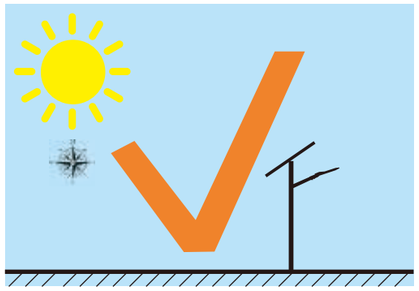
Accurate Operation & Fault Monitor
- Real-time monitor on each light working status
- Accurate report on fault dectected
- Provide location of fault, no patrol required
- Collect each light operation data, such as voltage, current, power consumption

Extra I/O Ports for Sensor Expandability
- Environment Monitor
- Traffic Monitor
- Security Surveillance
- Seismic Activities Monitor

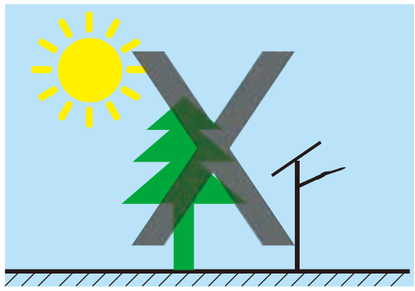
Reliable Mesh Network
- Self proprietary wireless control node
- Reliable node to node, gateway to node communication
- Up to 1000 nodes per network
- Max. network diameter 2000m

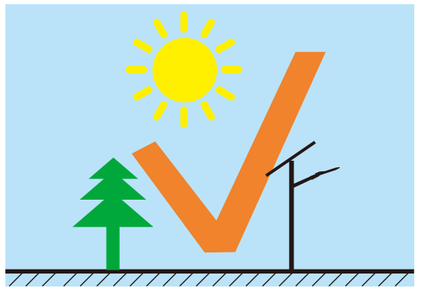
Easy-to-use Platform
- Easy monitor on each and all lights status
- Support lighting policy remote set-up
- Cloud server accessible from computer or hand held device

INSTALLATION



The solar panel can be adjusted to the best angle where it is able to absorb maximum sunshine. The most optimum direction to face the solar panel is somewhere between south and west. It is at this location that the panel will receive the maximum sunlight throughout the day.

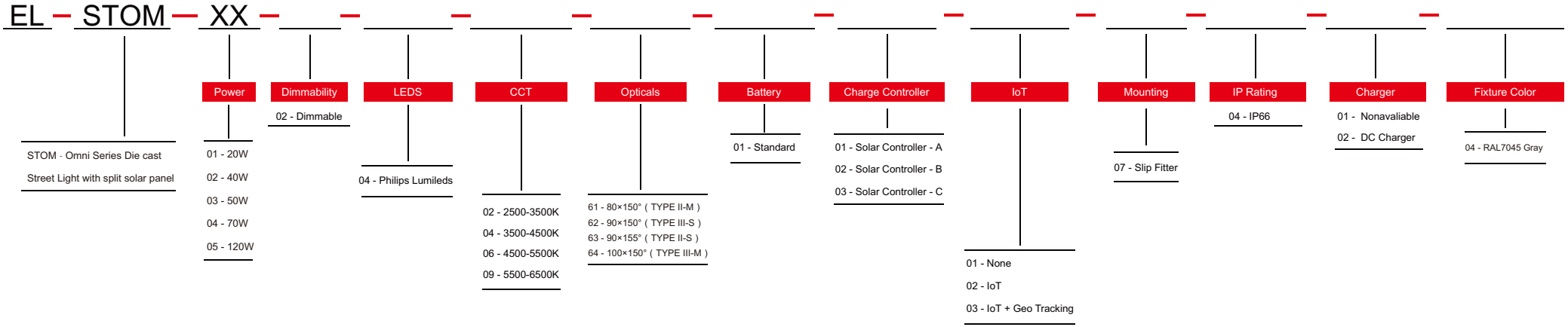




The solar panel must not be installed in a shaded or part shaded location and never indoors.

ORDERING INFORMATION

E-LITE semicon



E-Lite Semiconductor Co., Ltd.
Headquarter & Factory
Website: http://www.elitesemicon.com