

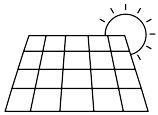
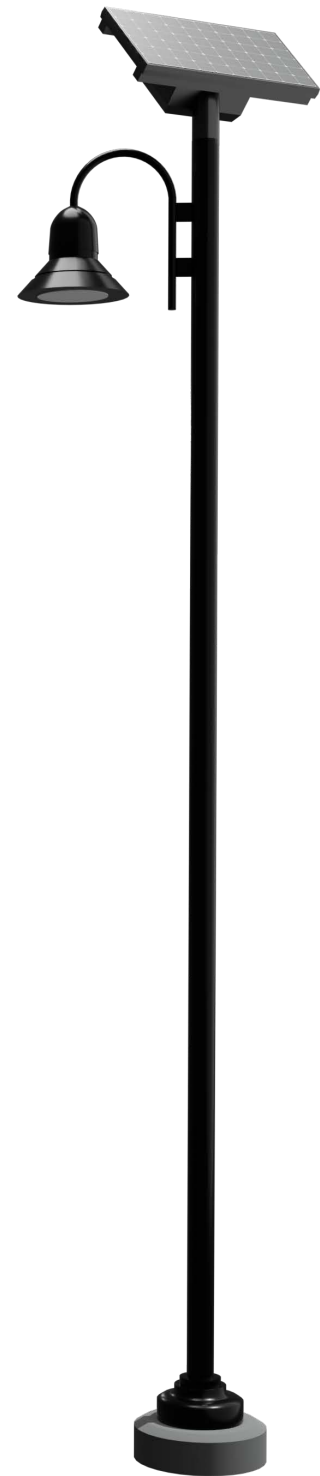
General

- Low profile design
- Photocell sensor
- Deep cycle battery will charge and discharge over 2000 times
- Works continuously 2-3 rainy days in intelligent mode
- Reserved sensor location for easy installation
- Powdering/PC + Tempered Glass
- Up to 177lm/w
- 8 Hour charge time
- 3000K-6500K CCT

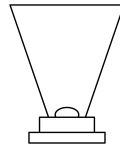


Exclusive Free Battery Recycling Program

Certifications



Monocrystalline Solar Module



Philips Lumileds Luxeon 3030/5050 Chips



IP65



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405-673-8684

www.gridshiftsolar.lighting

Corporate: 2701 Venture Drive, Norman, OK 73069
California: 1341 Distribution Way, Suite 20, Vista, CA 92081

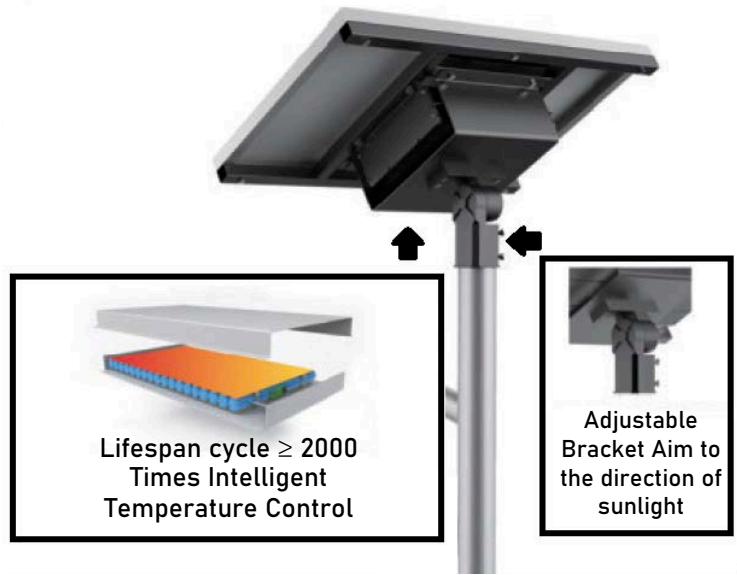
Cuesta Sol is a trademark of GridShift Solutions, LLP



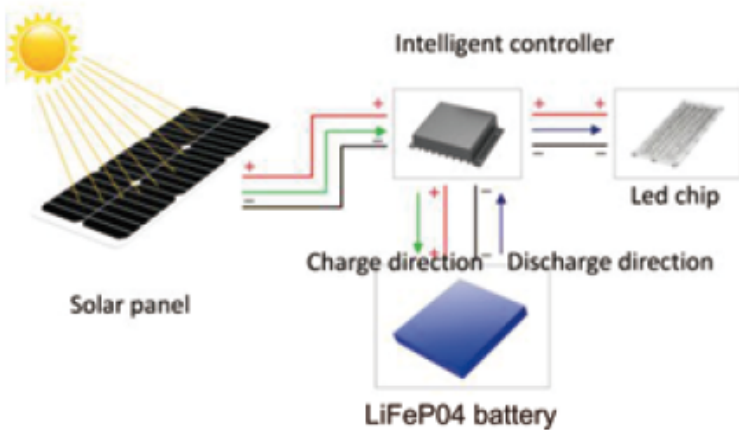
Wounded Warrior Project

Construction

- Solar assembly construction marine grade aluminum and stainless steel
- UV stabilized polyester powder paint finish for durability and corrosion resistance
- Mounting options: side entry installation
- Streamlined design to reduce wind resistance



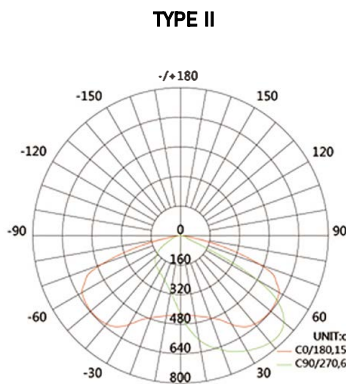
Solar Panel



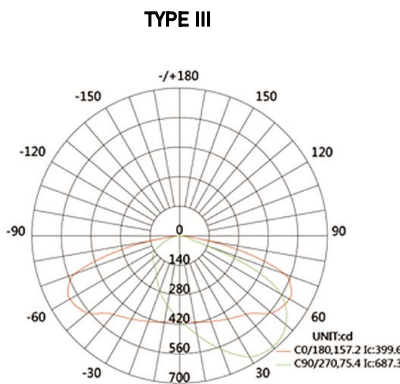
- 25 Year Lifespan
- Conversion rate up to 30%
- Integral monocrystalline silicon solar panel

Where there is light radiation, photovoltaic modules are converted to electric energy by solar radiation. Then the intelligent controller is used to charge electric energy into the lithium iron phosphate battery. At the same time, the intelligent controller will protect the overcharge and over discharge of the battery. The lighting switches and adjusts intelligent control without manual operation.

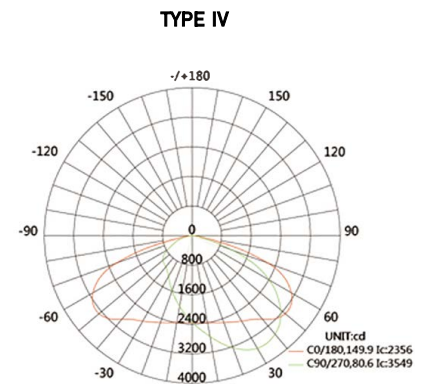
Photometry



Average Beam Angle (50%): 108.3° Unit:cd



Average Beam Angle (50%): 116.3° Unit:cd



Average Beam Angle (50%): 115.3° Unit:cd



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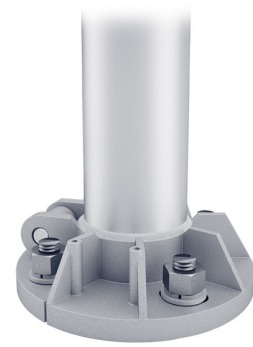
Base Options



4-Bolt Base



T-Base



Hinged Base

Multiple decorative and custom arm & pole options are available.
Please consult factory for full list of options.



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	CS-PRE-SPA-20W	CS-PRE-SPA-40W	CS-PRE-SPA-60W	CS-PRE-SPA-80W	CS-PRE-SPA-100W
Wattage	20W	40W	60W	80W	100W
LED Chip	3030 5050	3030 5050	3030 5050	3030 5050	3030 5050
Lumen Output	3520lm 3540lm	6640lm 6680lm	10020lm 10080lm	13360lm 13440lm	16700lm 16800lm
Efficacy	176lm/w 177lm/w	166lm/w 167lm/w	167lm/w 168lm/w	167lm/w 168lm/w	167lm/w 168lm/w
Optional Beam Angle	T2/T3/T4				
CRI	>Ra70, >Ra80, >Ra90				
Input Voltage	12-24V DC				
Photovoltaic Panel	Double Crystal Photovoltaic Panel				
Solar Panel	18V/70W	18V/130W	36V/200W	36V/260W	36V/260W
Lithium-Ion Battery	691.2WH 12.8V 54AH	1382.4WH 12.8V 108AH	2150.4WH 25.6V 84AH	2611.2WH 25.6V 102AH	2611.2WH 25.6V 102AH
Discharge Time (Full Charge)	30 Hours				
Installation Height	10-13ft	16-19ft	22-26ft	29-32ft	36-39ft
Working Temperature	14°F to 122°F				
Charging Temperature	32°F to 113°F				
Control System	MPPT Intelligent Controller				
Motion Sensor Mode	30%-100% 102hrs (Max) 20%-80% 155hrs (Max)				
Constant Mode (Full Charge)	100% 30hrs 70% 45hrs 40% 78hrs				
Control Options	Photocell sensor, timing, dimming, intelligent power saving, microwave sensor available				

Model #	Watts	Voltage	LED Chips (L3-Lumiled 3030/L5-Lumiled 5050)	Sensor Type (00-Without SN-Motion PH-Photocell DV-Dimmable)	Color Temp in 100K	CRI	Available Optic Types	Option (4KV-4 KV SPD Intelligent Control)
Cuesta Sol CS-PRE-SPA	20	NV=12-24V DC	L3 / L5	00 / SN / PH / DV	30K / 40K / 50K / 57K/ 60K	70 CRI / 80 CRI	II / III / IV / V	
Cuesta Sol CS-PRE-SPA	40	NV=12-24V DC	L3 /L5	00 / SN / PH / DV	30K / 40K / 50K / 57K/ 60K	70 CRI / 80 CRI	II / III / IV / V	
Cuesta Sol CS-PRE-SPA	60	NV=12-24V DC	L3 / L5	00 / SN / PH / DV	30K / 40K / 50K / 57K/ 60K	70 CRI / 80 CRI	II / III / IV / V	
Cuesta Sol CS-PRE-SPA	80	NV=12-24V DC	L3 / L5	00 / SN / PH / DV	30K / 40K / 50K / 57K/ 60K	70 CRI / 80 CRI	II / III / IV / V	
Cuesta Sol CS-PRE-SPA	100	NV=12-24V DC	L3 / L5	00 / SN / PH / DV	30K / 40K / 50K / 57K/ 60K	70 CRI / 80 CRI	II / III / IV / V	

Ordering Description Example								
Cuesta Sol CS-PRE-SPA	60	NV	L5	SN	50	80	IV	4KV

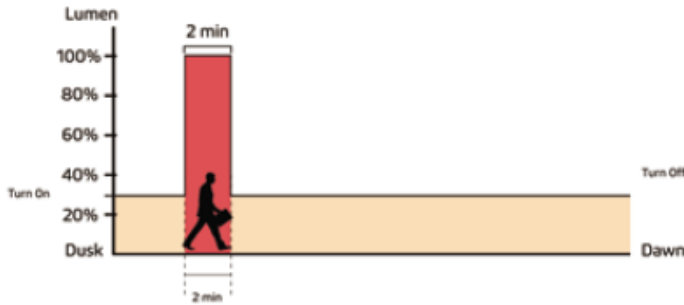
Ordering Description								
Cuesta Sol CS-PRE-SPA	20	NV=12-24V DC						
Cuesta Sol CS-PRE-SPA	40	NV=12-24V DC						
Cuesta Sol CS-PRE-SPA	60	NV=12-24V DC						
Cuesta Sol CS-PRE-SPA	80	NV=12-24V DC						
Cuesta Sol CS-PRE-SPA	100	NV=12-24V DC						



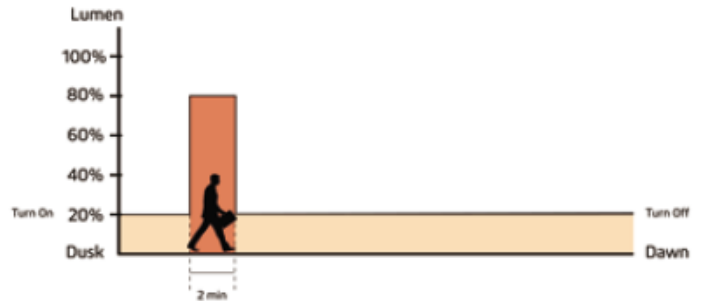
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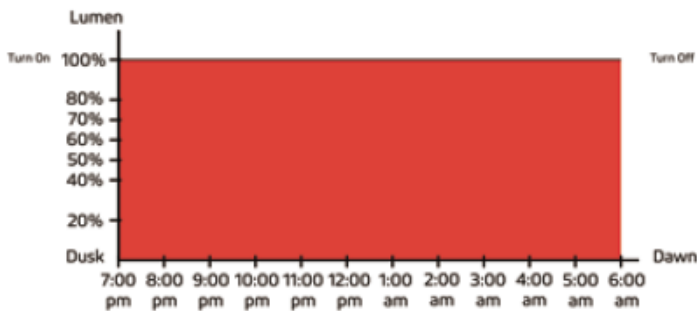
Autonomy Control Guide



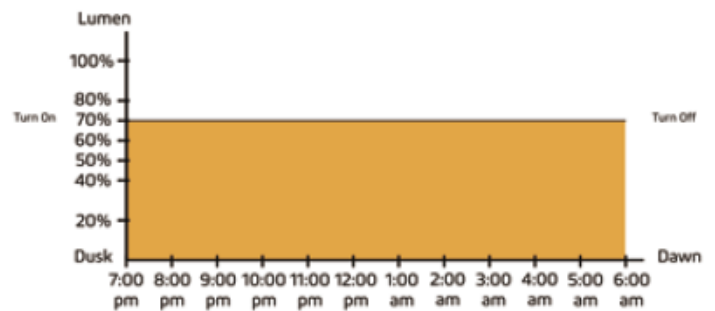
30%-100% Motion Sensor Mode
 Constant 30% brightness (dusk to dawn); 100% brightness on for 2 minutes when motion is detected.



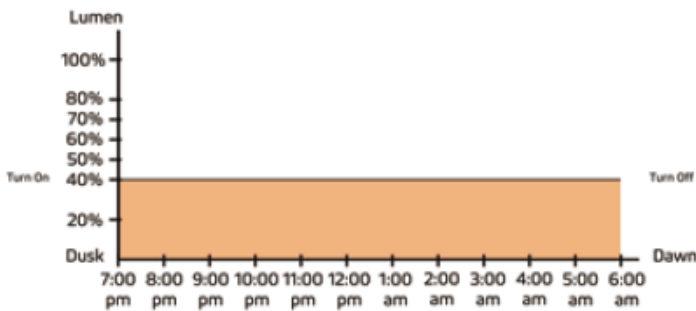
20%-80% Motion Sensor Mode
 Constant 20% brightness (dusk to dawn); 80% brightness on for 2 minutes when motion is detected.



100% Constant Mode
 100% Brightness from dusk to dawn.



70% Constant Mode
 70% Brightness from dusk to dawn.



40% Constant Mode
 40% Brightness from dusk to dawn.

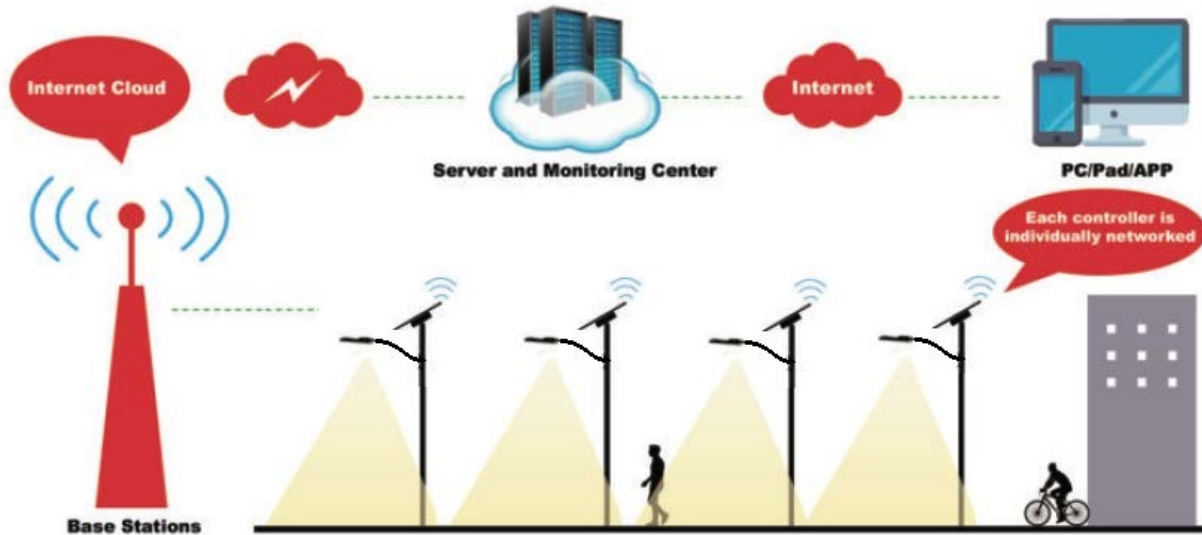


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Intelligent Control Solutions - Optional Upgrade

LORA/GPRS/4G/NB-IoT



IoT perfectly combines traditional solar street lighting fixture and Internet of things+ wireless communication technology to achieve monitoring and management of remote background data and real-time understanding of the working status of each component of solar energy (street lights, photovoltaic panels, batteries, controllers). This allows you to monitor the product usage on the client terminal that is thousands of miles away without leaving home or manage the opening and closing of street lights and the adjustment of bright spot power on time.

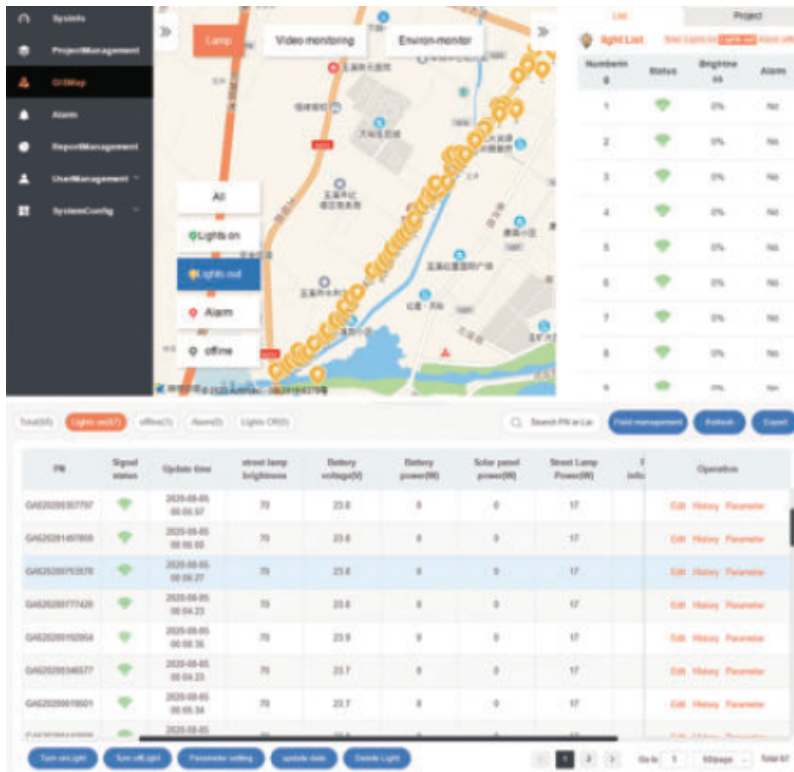
Controller
GPRS/NB-IoT Inside


- Built-in IoT module (GPRS/NB-IoT)
- Adopt moving track MPPT maximum power tracking technology, with higher tracking efficiency and faster speed.
- Lead-acid battery and lithium ion batteries are universal. Operating parameters can be set by remote.
- Ultra green power control technology with extremely low static power consumption and dormant current.
- Lead acid battery multi-stage temperature compensated constant voltage charging.
- 10 programmable load power/time control settings.
- Battery charging and discharging high and low temperature protection function, working temperature can be set.
- A variety of intelligent modes can be selected, automatically adjust the load power according to the battery power.
- High precision digital booster constant-current control algorithm, high efficiency and high constant-current precision.
- 2.4G wireless communication, can set read parameters, read status, etc.
- Battery/PV reverse connection protection, LED short circuit/open circuit/limited power protection and other multiple protection functions.


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Smart Lighting Control System

Date & Project Management



ID	Signal status	Update time	Street lamp brightness	Battery voltage(V)	Battery power(W)	Solar panel power(W)	Street Lamp Power(W)	Info	Operation
GHC2020107707		2020-09-05 00:00:07	70	23.8	0	0	17		Off Many Parameter
GHC2020140708		2020-09-05 00:00:00	70	23.8	0	0	17		Off Many Parameter
GHC2020103070		2020-09-05 00:00:27	70	23.8	0	0	17		Off Many Parameter
GHC2020177420		2020-09-05 00:04:22	70	23.8	0	0	17		Off Many Parameter
GHC2020102004		2020-09-05 00:00:36	70	23.8	0	0	17		Off Many Parameter
GHC2020136077		2020-09-05 00:04:22	70	23.7	0	0	17		Off Many Parameter
GHC2020101001		2020-09-05 00:00:34	70	23.7	0	0	17		Off Many Parameter
GHC2020101000		2020-09-05							Off Many Parameter



Project settings

ID	Name	Latitude	Longitude	Height	Width	Depth	Weight	Material	Color	Shape	Size	Unit	Category	Status	Created	Updated
1

Power Consumption Report



- The Internet of Things solar street light management system can pre-set one or more lighting modes according to the different time of day and traffic flow, automatically turn on or off any light, and adjust the switching time and illumination according to environmental requirements to achieve the purpose of energy saving and consumption reduction.
- The integrate system is mainly composed of a street light component, a centralized controller, a single light controller, and a smart cloud platform. The centralized controller and the single light controller aggregate the data collected by the single light via the GPRS/NB-IoT wireless communication network. The centralized controller uploads data to the system cloud platform through GPRS data flow, providing data dependence for mobile phone and computer terminal access.

App Control



Remote Real Time Monitoring

Remote, real time monitoring available through wireless communication function and intelligent management system.



Automatic Fault Alarm

Real time monitoring of solar panel voltage, current, power, battery charging, & discharging current, load working state, controller working state data and fault automatic alarm.



Remote Control

Support remote switch on and off dimmer and battery, load parameter modification.



Fault Tracking & Precise Positioning

Multi peak PWM technology, suitable for partial shading or partial damage of photovoltaic cells, and 99% tracking efficiency.



Map Location

Uses GPS maps with geographic display capabilities.



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