

CAMMI Series

Smart Off-Grid Lighting Solution for Sidewalks & Walkway Applications

Delivers highly reliable lighting with the brightest light and maximum uptime in a smaller new design with lithium-ion batteries. Sidewalks, smaller streets, pathways or areas prone to flooding and theft can have unparalleled:

- > **Energy Forecasting & Management**
- > **Remote Troubleshooting & Remediation**

The Illumient CAMMI Series of smart, solar street lights is the a complete lighting solution specifically designed to support critical, smaller scale streets and side walk applications. Plus, with Illumience cloud management software service, energy generation, storage and lighting control is fully managed for systems needing:



Maximum Uptime

Our predictive analytics, weather forecasting and individual load control enables management for maximum uptime.



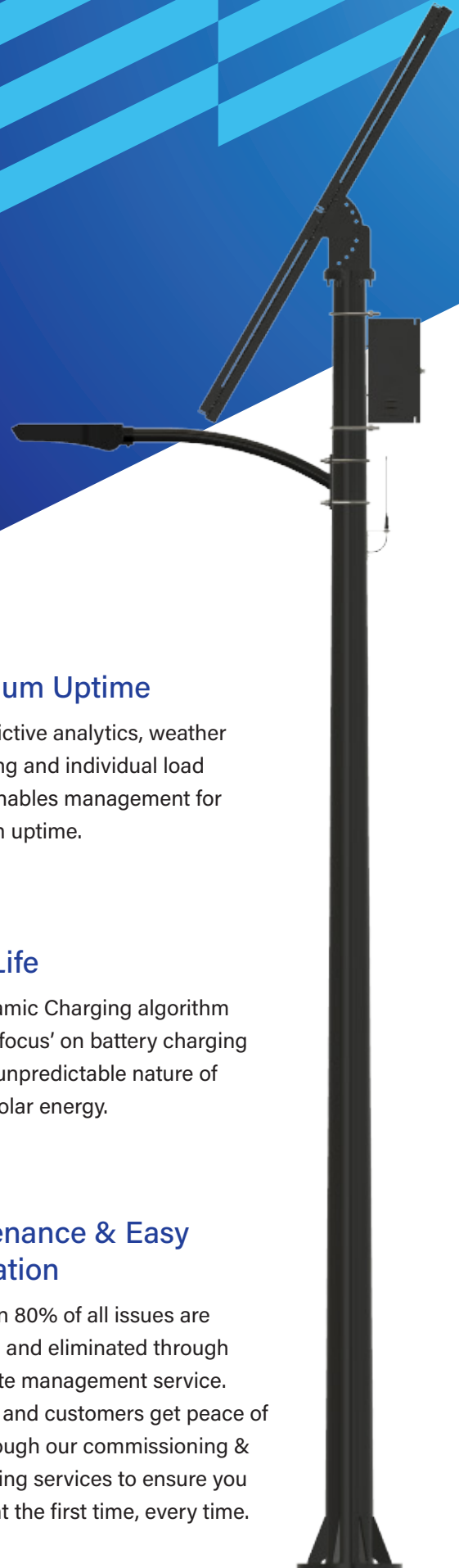
Long Life

Our Dynamic Charging algorithm uniquely focus' on battery charging with the unpredictable nature of off-grid solar energy.



Maintenance & Easy Installation

More than 80% of all issues are managed and eliminated through our remote management service. Installers and customers get peace of mind through our commissioning & provisioning services to ensure you get it right the first time, every time.



CAMMI Series

Technical Data

System Components Overview	
Solar Panels	>300Watt, 60 cell solar panel
Batteries	Lithium-Ion Batteries
Pole	STRAD Series pole
Light	Dimmable LED light
Controller	Clear Blue's Smart Off-Grid Controller
Energy-as-a-Service (EaaS)	3 years of service included in purchase (includes Clear Blue's extended warranty)
Communications	Included in EaaS - Illumient includes 3 years of communications, cellular for single units and mesh/Ethernet or mesh/cellular for multi-pole projects

Options	
Solar Panels	Single or Dual 315Watt or 330Watt 60 cell solar panel
Battery Options	Single or dual lithium-ion batteries, available in 24Ah or 105Ah configurations
IoT Technology Option	<ul style="list-style-type: none"> • Motion sensing (integrated with controller) • Security/CCTV cameras • Pedestrian traffic counters • Smart traffic management • Air quality/pollution & chemical monitoring • Smart parking systems • Wifi hotspots • Sustainable energy/carbon credits • Energy reduction & optimization
Communications	Cellular for small quantity installations or, Mesh/Ethernet or Mesh/Cellular for large quantity projects
Pole	<ul style="list-style-type: none"> • Black Galvanized & painted steel pole • Direct bury concrete pole • Tapered concrete pole
Communications	Built in WiFi or Cellular

Clear Blue Smart Off-Grid Controller Certifications	
Health & Safety	IEC/UL/CSA601010-1, CSA C22.2 No.107.1 and UL50E, TUV certified.
EMC (EUDirective 2014/30/EU)	ETSI EN301 489-1 V2.1.1 , ETSI EN 301 489-17 V3.1.1 (2017-02) & ETSI EN 301 489-52 V1.1.0

Other components adhere to their individual manufactures certifications. Please consult your sales representative if you have questions about the certifications of other components such as batteries, lights, poles or solar panels.

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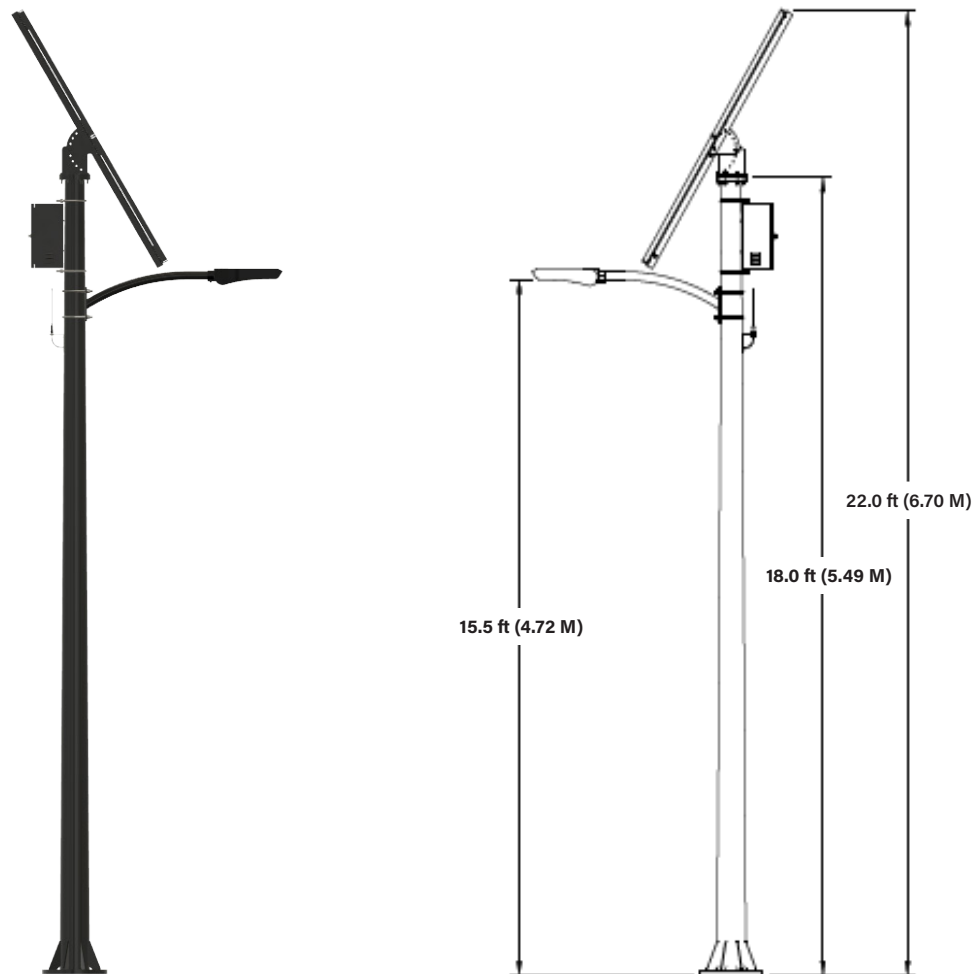
Features	
Battery Insulation	With an expertly engineered battery cabinet that can include insulation (depending on need and application location), the system can allow Lithium-ion battery usage in areas where lighting is needed below freezing temperatures, protecting battery integrity and extending battery life.
Smart Battery Charge Profile	Includes MPPT patented multi-stage charging and remote software configurable charge profile designed specifically for solar charging and adjustable using Clear Blue's dynamic charging complete with fully customizable temperature compensation.
Lithium-Ion Batteries	High-Performance long life Lithium Iron Phosphate battery cells with Clear Blue BMS. Smaller and lighter than lead acid batteries, lithium-ion batteries allow for more versatile designs, allowing the batteries to be installed at the top of the pole for a cleaner aesthetic.
Smaller Size & Physical Footprint	Without a base battery cabinet and smaller batteries, the poles can be shorter and battery cabinet hidden under the solar panels, thus the overall physical footprint of the system is smaller, making the CAMMI solution a good fit for a more subtle aesthetic on sidewalks or other applications.
Elevated Battery Cabinet	By utilizing lighting Lithium-ion batteries, the design eliminates flooding and vandalism concerns by having the battery and system electronics cabinet installed at the top of the pole, out of reach from rising waters or unauthorized persons.
Remote Software Update	New features delivered to all devices via remote software download on an ongoing basis as part of Clear Blue's management service, three years of which is included in upfront price.
EaaS	Service provided by Clear Blue to manage issues & protect power system components. This service combines Clear Blue's extended warranty expert power management along and smart forecasting, to ensure the most efficient power systems available.

Cloud Management & Service	
Illumience Management (Cloud Based)	Illumience Smart Off-Grid provides real-time, 24x7, remote control, management, and proactive servicing of off-grid systems. With Illumience, streetlights, security systems and Internet of Things devices can achieve unprecedented levels of reliability and performance while installation and maintenance costs are drastically reduced.
Management Benefits	Clear Blue's predictive analytics, weather forecasting and individual load control enables management for maximum uptime. The Dynamic Charging algorithm uniquely focus' on battery charging with the unpredictable nature of off-grid solar energy.
Service Support	Clear Blue's Illumience cloud-based software includes 7x24 monitoring, proactive maintenance, diagnostic testing and fault determination.
Security	For full details on Clear Blue's cloud security technology, please visit www.illumient.com or contact sales.

Warranty	
Warranty	Extended (3 year) warranty on power components is included as part of the EaaS service contract.

CAMMI

Dimensional Drawings



**Drawings not to scale. Actual dimensions may differ depending on options chosen.*

Physical & Environmental

Dimensions <i>(Max height of the pole with solar panel)</i>	20ft (single solar) or, 22ft (dual solar) 6.069 M (single solar) or, 22ft (dual solar)
Weigh (max)	4950 lbs (2240 kgs)
Battery Charging Temperature	32°F to 113°F (0°C to 45°C)*

**Batteries can be discharged over a large temperature range, but the charge temperature is limited. Clear Blue can insulate the batteries to extend the charging temperature range to approximately -15°C (59°F). Please consult your sales representative for more information.*