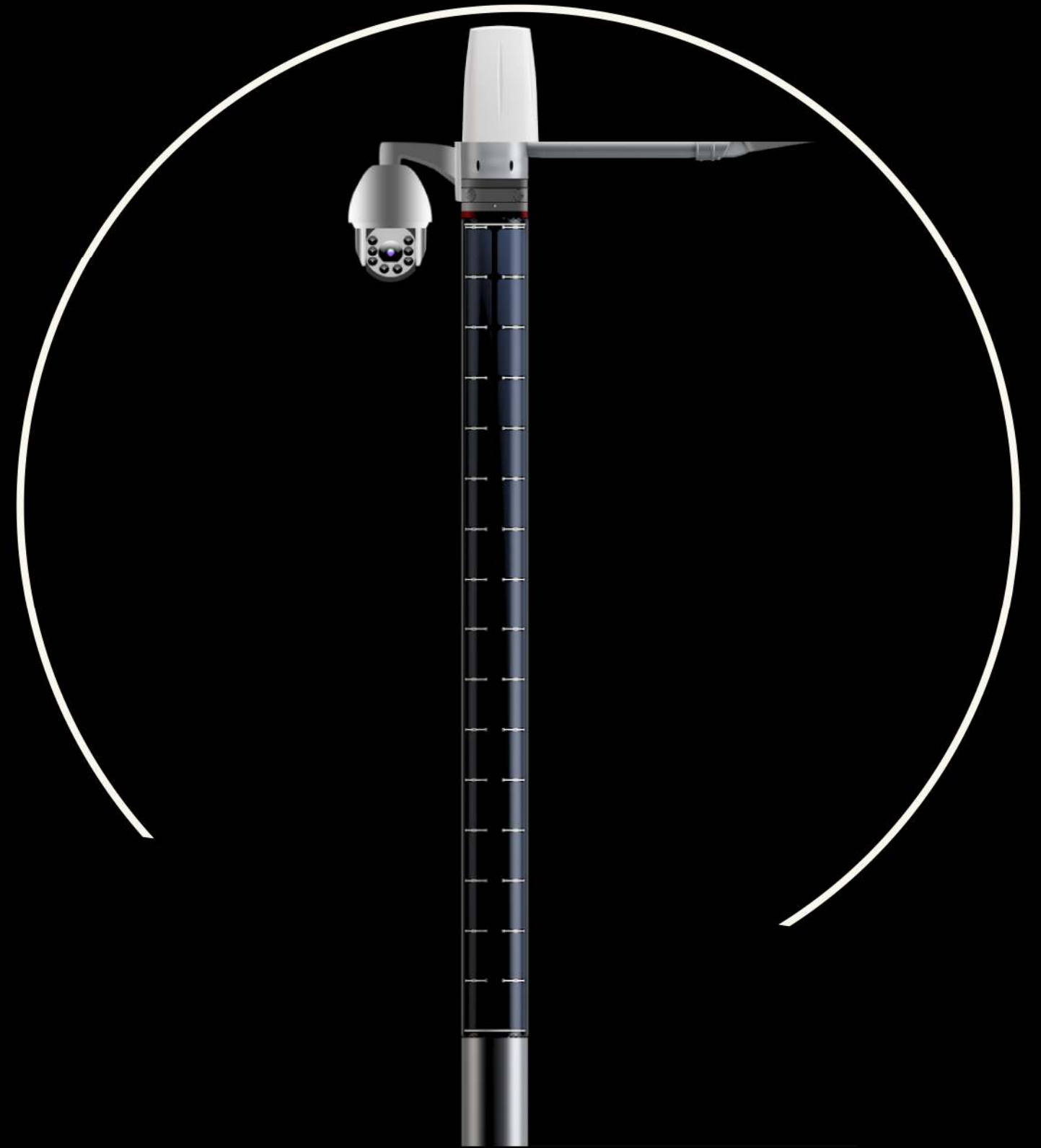




Solar Wrapped Poles for a Brighter, Greener Future

Best IN-CLASS, UPGRADABLE

Photovoltaic Technology



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We are a thriving solar street lighting manufacturer.



SolPol Solar showcases excellence as the leading provider of vertical, fully autonomous solar street lighting solutions, characterized by both functional efficacy and elegant design aesthetics.

With research and development centers in Germany and Austria, and assembly plants situated in Saudi Arabia and Australia, we take pride in spearheading the design, production, and distribution of a versatile array of robust, vertically-integrated smart solar street lights.

Established in 2015
Vertical PV
Patented Design
German design

www.eco-smart.com



SolPol factory



OUR MISSION

Is to build resilient, German-engineered solar street lights that goes beyond mere functionality. We see more than illumination; we see secure, premium-quality nighttime environments for communities across the globe.

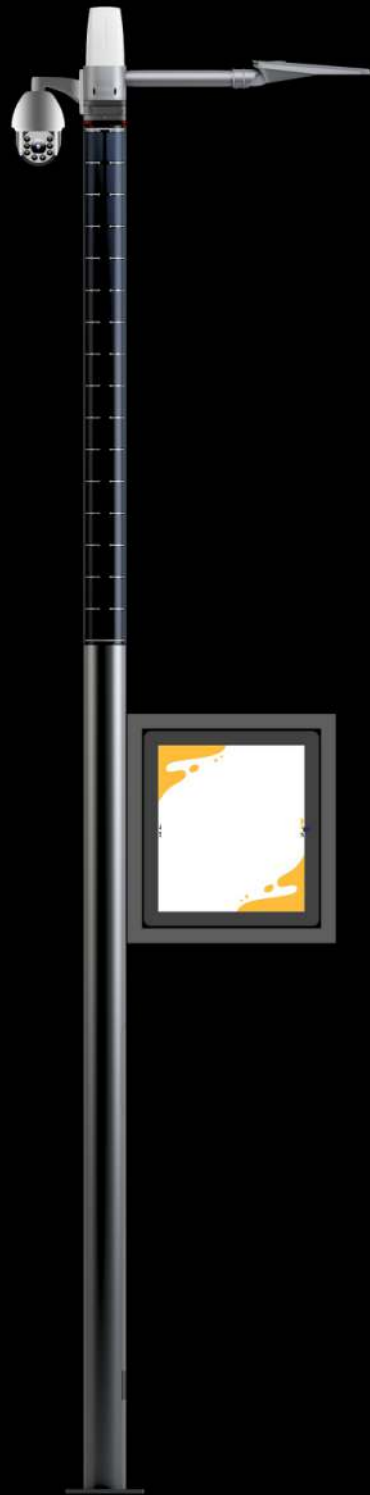
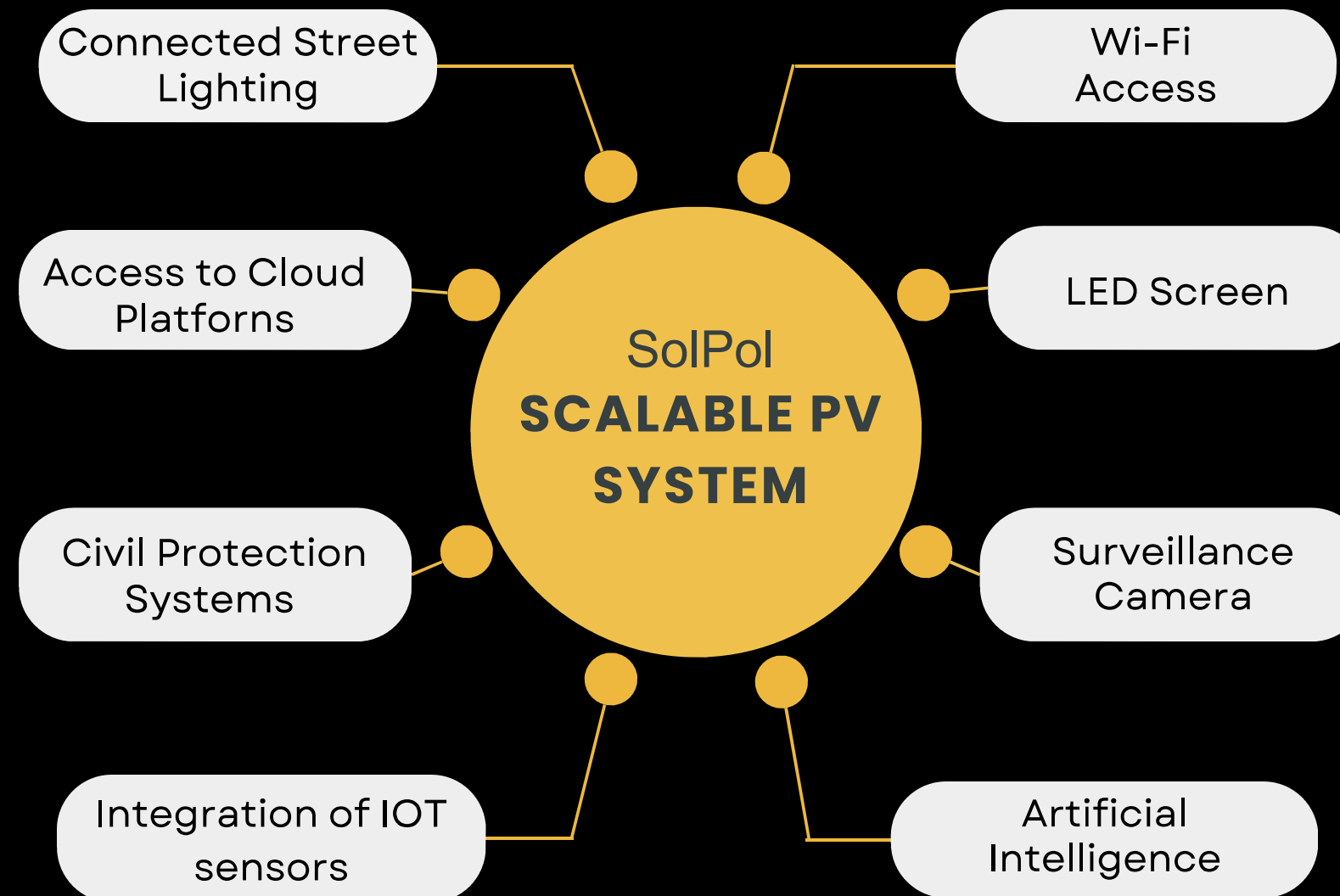
PAIN POINTS OF SOLAR STREET LIGHTING

- 1 Dirt Accumulating Designs
- 2 High Maintenance Requirement
- 3 Low Wind Resistance
- 4 Streetlights Failing Fast
- 5 Low Lumen /Watt Efficacy
- 6 Unscalable Systems
- 7 Difficult Supervision

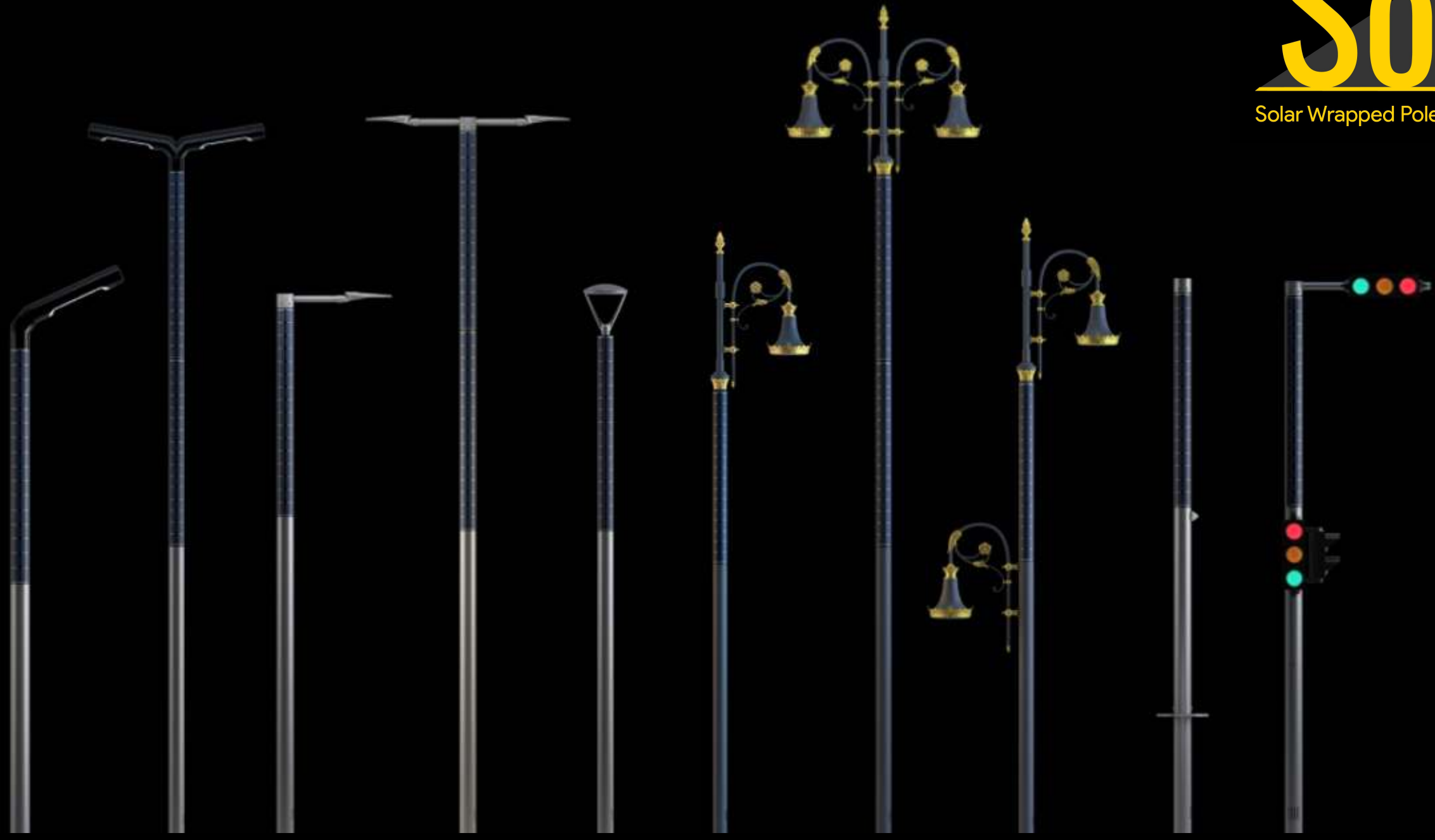


SCALABLE STREET LIGHTING SOLUTIONS

Through seamless Integrations of cutting edge technologies, our street lights are upgradable and can go beyond simply providing lighting :



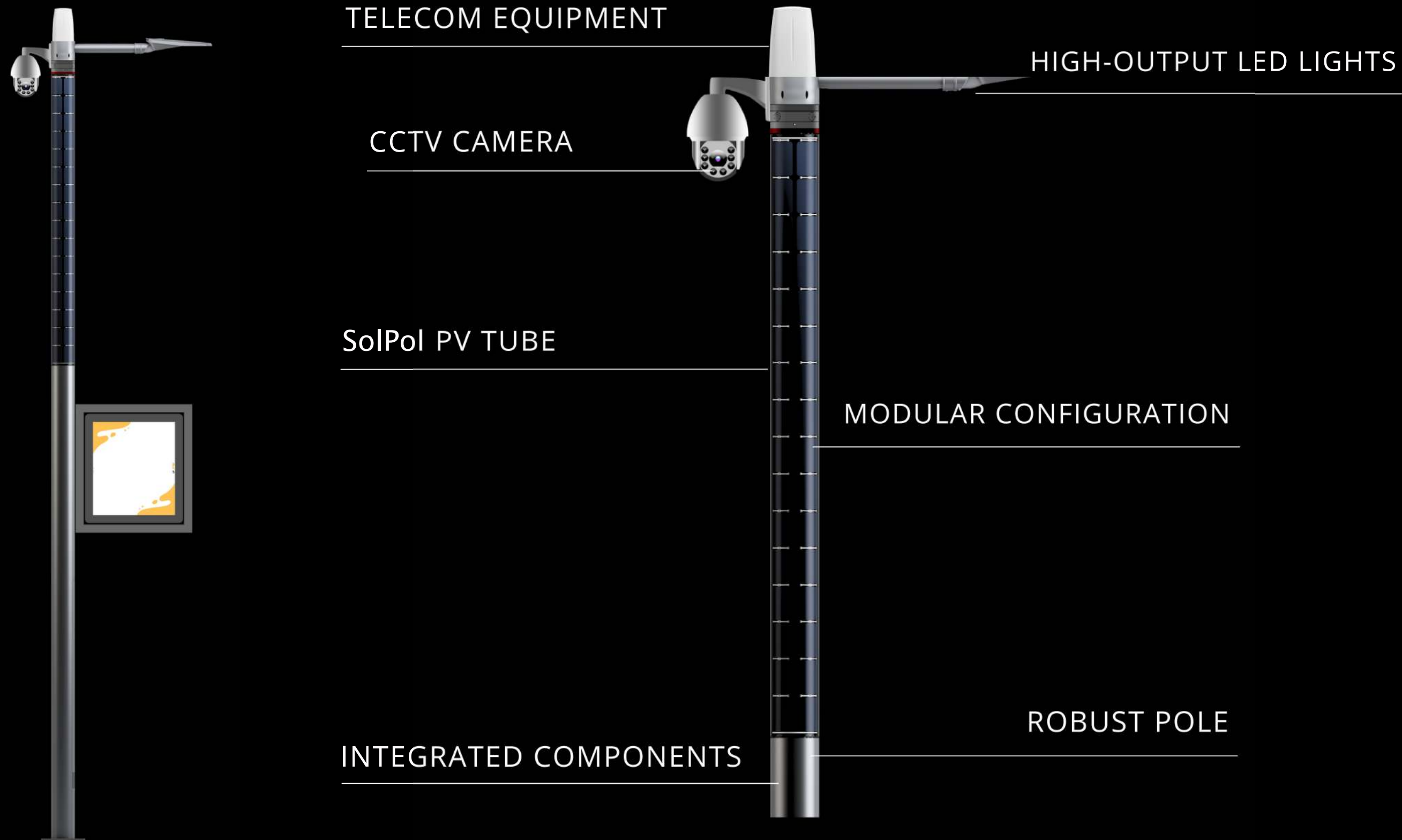
PERFORMANCE-BASED DESIGNS



Engineered in Germany

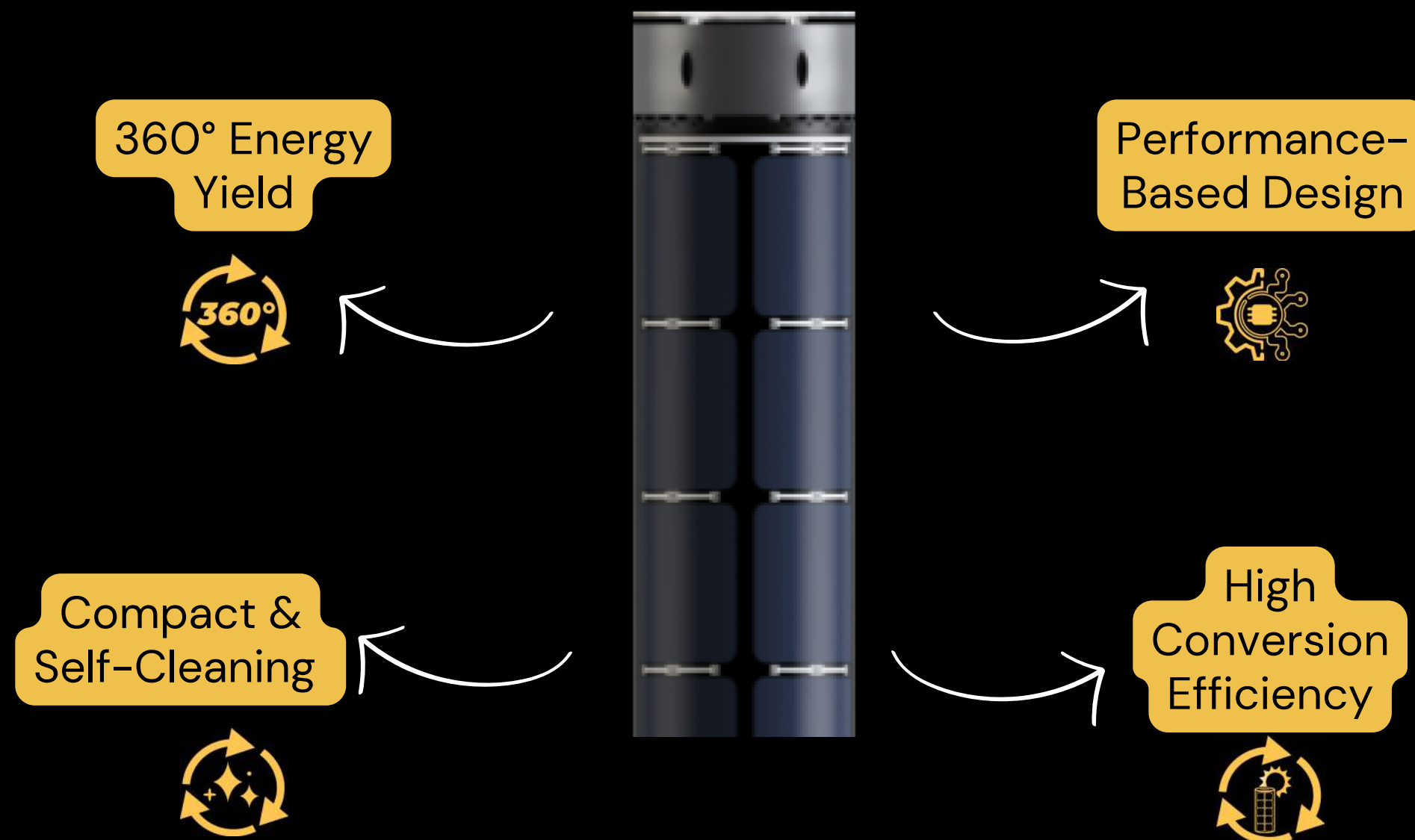
SolPol STREET LIGHT:

A CLOSER LOOK



SolPol **CYLINDRICAL PV TUBE**

OUR COMPETITIVE EDGE



SolPol **CYLINDRICAL PV TUBE**

HIGH-END PATENTED TECHNOLOGY:

- **360 ENERGY YIELD**

The cylindrical shape is a unique feature of the SolPol street light. Unlike conventional solar panels, our cylindrical PV module offers a groundbreaking 360° energy yield, meaning that it can harness both direct and indirect sunlight regardless of orientation.

- **HIGH ENERGY CONVERSION EFFICIENCY**

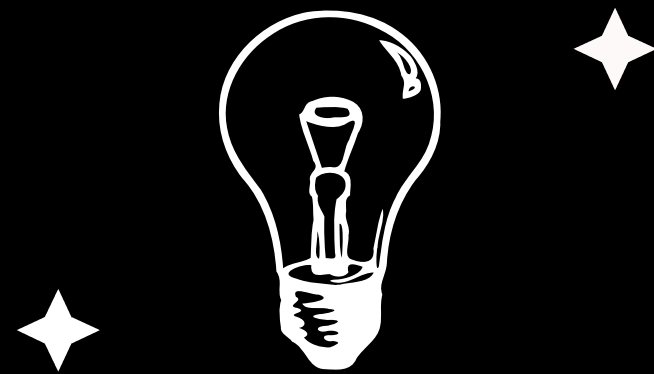
The SolPol cylindrical module has high energy conversion efficiency thanks to high-performance monocrystalline silicon cells (*more than 23% efficiency*).

- **STRONG CONSTRUCTION**

From the sturdy housings to the resilient components, each aspect of our street lights is engineered to ensure long-lasting performance and reduce maintenance requirements over time.



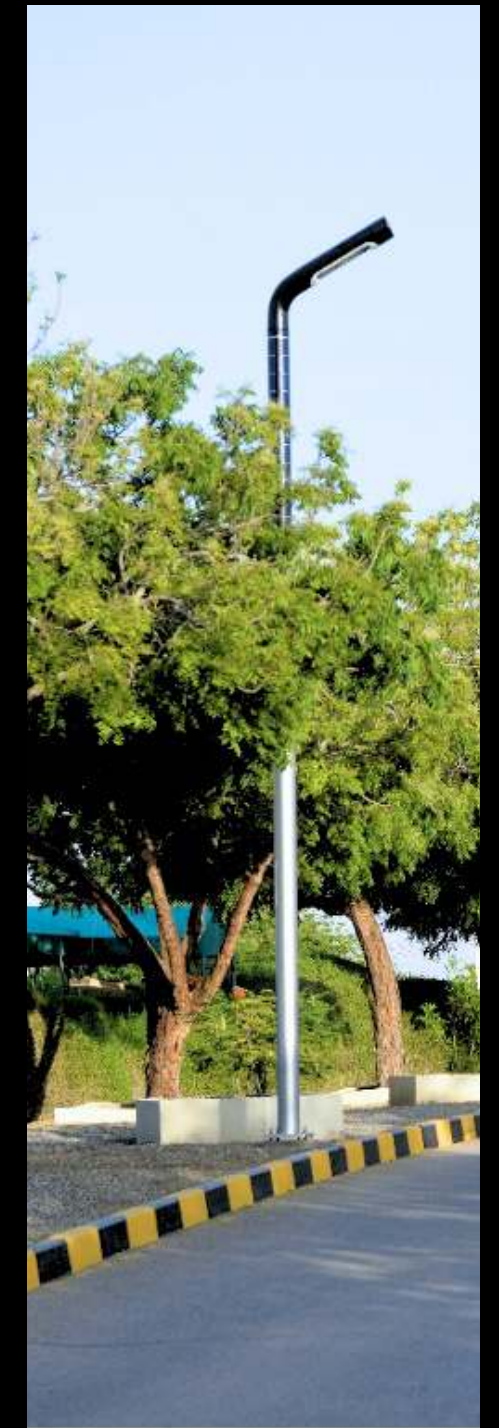
EFFORTLESS MAINTENANCE



Did You Know?

The cylindrical design of SolPol solar street lights makes them self-cleaning, requiring virtually no maintenance.

The surface naturally sheds residue such as sand, snow, and leaves








Advanced LED Technology

FOCUS LENSES FOR ENHANCED EFFICIENCY

Our LED street lights boast a sophisticated proprietary lens, optimizing efficiency by focusing light precisely where needed while minimizing stray light dispersion.

HIGH LUMENS PER WATT EFFICACY

The SolPol state-of-the-art LEDs exhibit a luminous efficacy of over 195 lumens/Watt, which is much more than LED lights available in the market.

 Watts		 Lumens
Energy Used		Light Output
60 W		11.880 lm
120 W		23.520 lm

ADVANCED LED-TECHNOLOGY

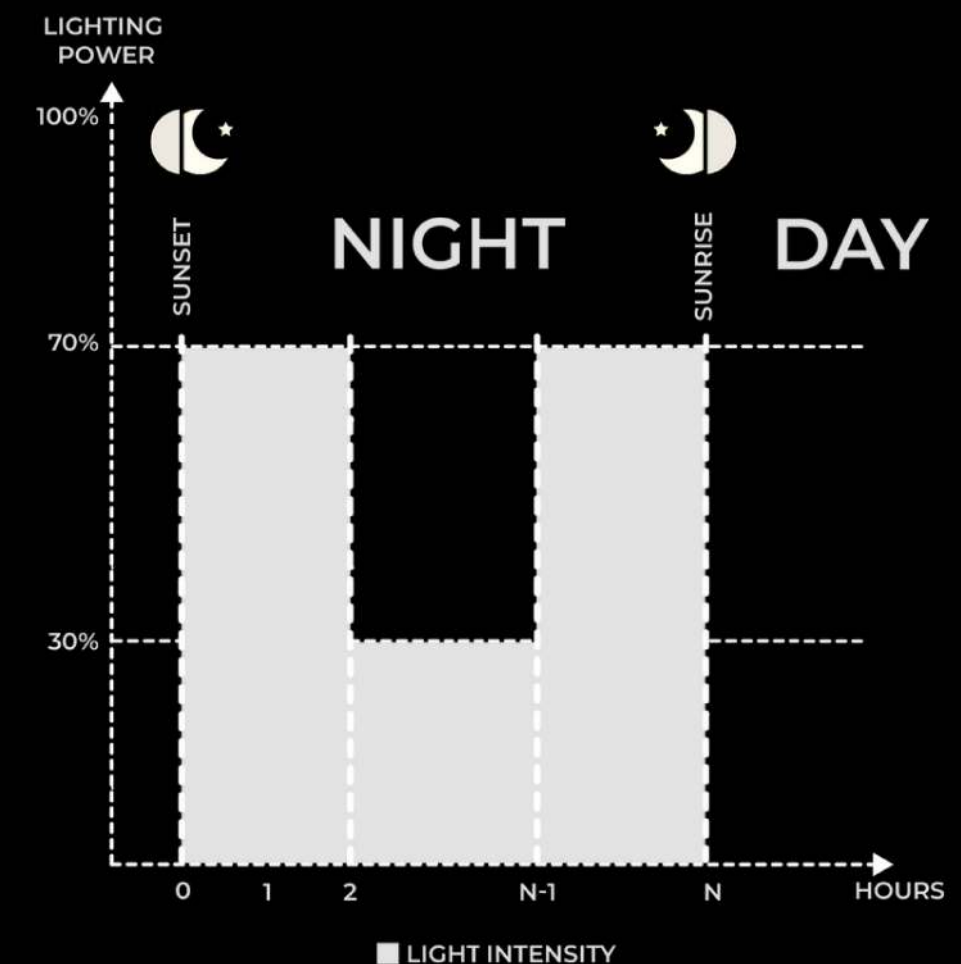
DIMMABLE, ENERGY-SAVING LED LIGHTING:

With SolPol Solar LED technology, you can optimize available energy to have enough light when it required and reduce light during quiet night hours.

The energy consumption of street lights is reduced based on the illumination requirements and the stored energy during the day.

The light is “Learning” of the daily charging situation, and is optimizing the reduction algorithm everyday.

LIGHTING PROFILE



ADVANCED LED-TECHNOLOGY

VERSATILE LIGHTING DISTRIBUTIONS



↓ POLE SPACING

Versatile column spacing options ranging from 33 m to 49 m

⚡ POWER

Customisable wattage ranging from 60 W to 240 W

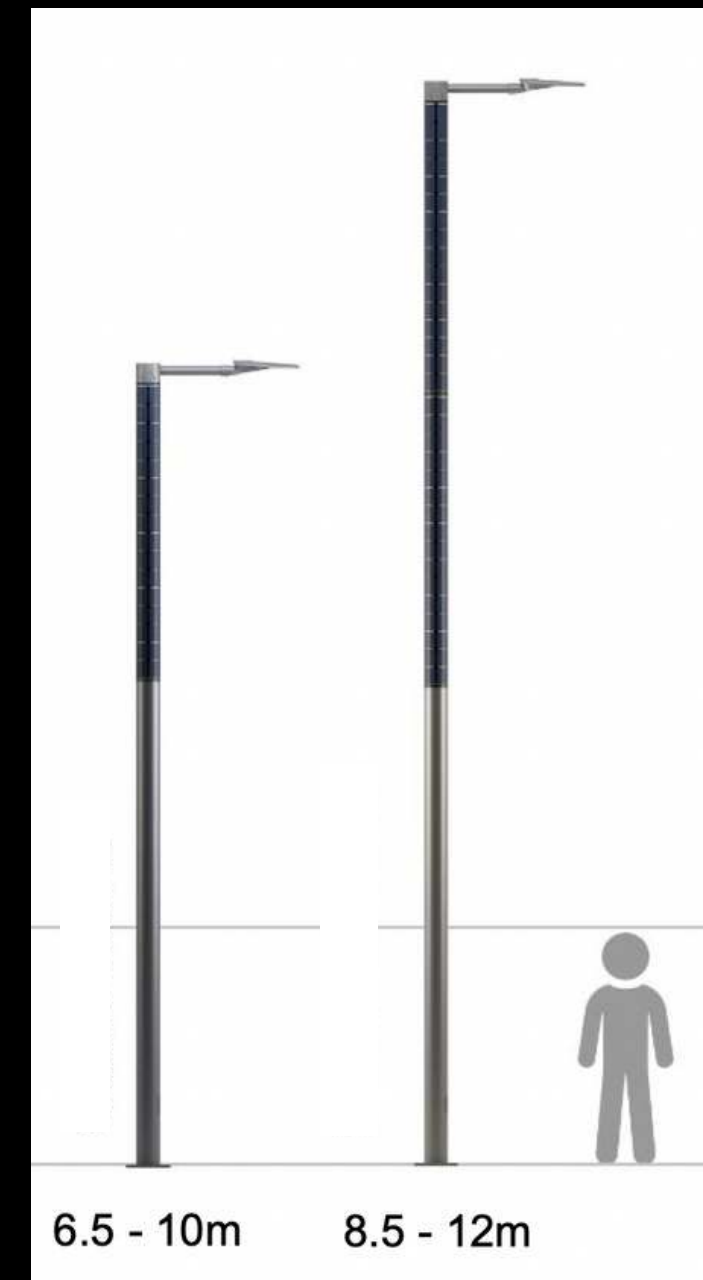


HEIGHT OPTIONS

Different height options ranging from 6m to 14 m depending on the model

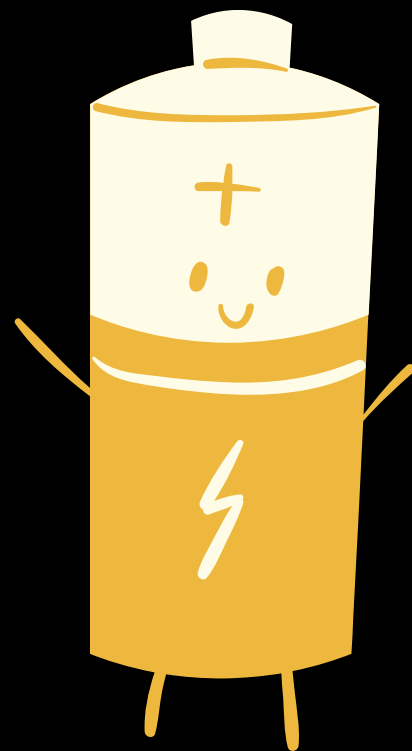
LED ANGLES

We are also offering different LED angles possibilities:
0° - 5° - 10° - 15° - 25°



LITHIUM HIGH TEMPERATURE BATTERIES

**SUPERIOR
PERFORMANCE &
DURABILITY**



Excellent Performance
In All Operating
Temperatures



Battery
Management
System

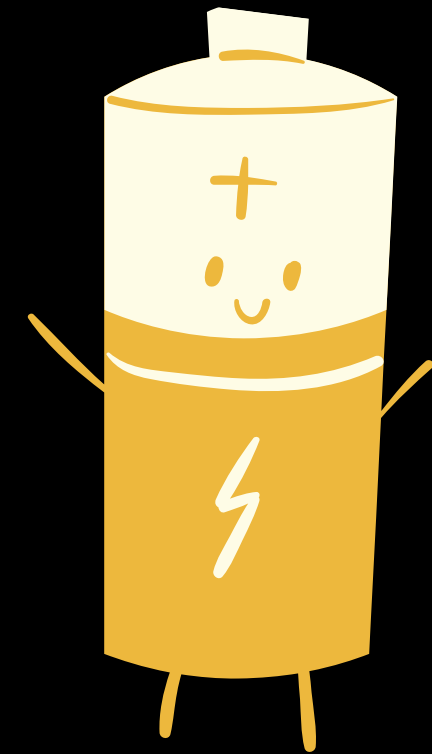


Equipped With
Cooling System



Long-term
Efficiency and
Sustainability

**IN HOT & COLD
CLIMATES**



SOLAR SMART CONTROLLER

Overview

SOLAR SMART CONTROLLER V2.0

- ✓ LED POWER DRIVER (UP TO 120W)
- ✓ UC ENERGY MANAGEMENT
- ✓ EXTERNAL TEMPERATURE SENSOR
- ✓ RS485 DATA INTERFACE
- ✓ RUGGED METAL HOUSING (IP67)
- ✓ READY FOR REMOTE MONITORING
- ✓ ENGINEERED IN GERMANY



TELECOM WI-FI EQUIPMENT

System Operation

Installation on the top of each Column of a special Outdoor (IP67) Enclosure that includes all the below equipment that operates from -40°C to 75°C:

- 1 X Powerful Industrial Grade Aluminium Case 4G LTE **CAT 12** Router for cellular connectivity with the Operator
- Antennas: 4 X Cellular, 2 X Wi-Fi , 1 X Bluetooth, 1 X GNSS

All Antennas are connected directly to the router and through an integration between the column and the enclosure, we also connected the controller of the column (that handles all its smart functions) to the router and the batteries, through all the necessary cabling while retaining the high IP rating of the column and the enclosure.



TELECOM WI-FI EQUIPMENT

Main Benefits

- Enhanced Signal & Coverage: Our CAT-12 model performs at least twice as fast as a CAT-6 at the same location.
- Wi-Fi Access Point: 5GHz & 2.4GHz; Higher Upload Speeds; Support of up to 150 concurrent Connections.
- The GNSS Antenna supports multiple satellite system. This provides accurate geolocation & monitoring of our Columns.
- Future-Friendly : Our Telecom equipment is better positioned in taking advantage of future network enhancements.
- Operating Temperature - All our telecom equipment operates from -40°C to 75°C.



REMOTE MANAGEMENT PLATFORM

User-friendly, Cloud Based Monitoring Solution for Desktop & Mobiles Devices



- ✓ Supports high concurrent data access
- ✓ Radio Frequency (RF) communication
- ✓ Seamless integration with third party systems such as smart city systems
- ✓ Provides high security standards
- ✓ Multiple security strategies ensure software safety and stable operation
- ✓ Multiple mobile device access

REMOTE MANAGEMENT PLATFORM

STATUS MONITORING



TASK MANAGEMENT/ DIMMING



ALARM MANAGEMENT



DEVICE DEPLOYMENT



LCU Operation

name: SmartPole-XF
UID: 013021900470

State: Offline

Lamp Head 1



Turn

Turn

-20 +85°C

Data	Current (A)	Voltage (V)	Power (W)	PF	Energy	Lux Value	Tilt Angle	L.V.(V)
Lamp Head1	0.18	237.45	38.3	0.91		0	0	0

Group Name	LCU Type
ShowRoom-SmartPoleXF-125	Single Arm Lamp

CCTV CAMERA INTEGRATION



Standard

Package

Included :

Real-Time Monitoring; 360-Degree, Zoom Control, Behavior Analysis and Alarm.

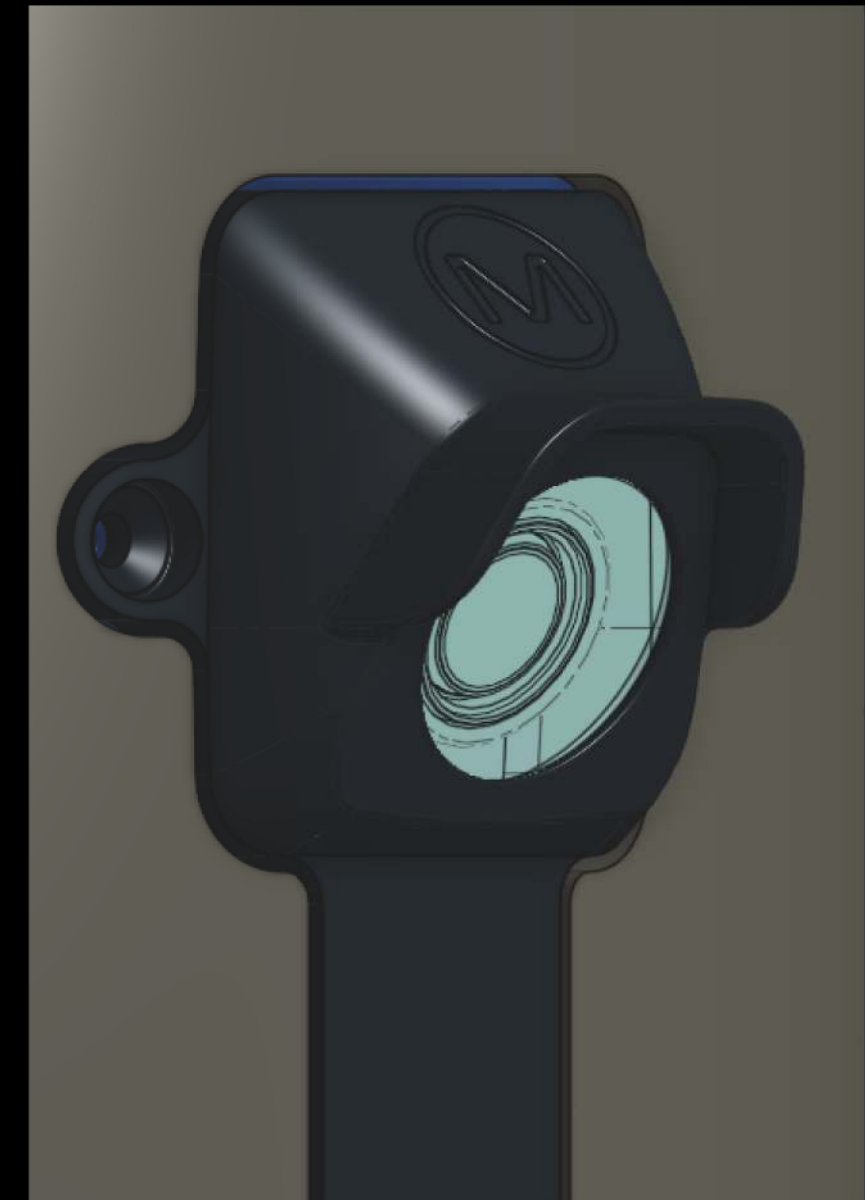
Premium

Package

Advanced offer

Included :

Robust Alert System; 360-Degree Vision; AI Objects classification AI Video Analytics; Perimeter Protection.



STREET LIGHT POLE LED DISPLAY

ROBUST, EASY TO INSTALL LED SCREEN

Our LED screen is specially designed for outdoor environments easy to install on poles and capable for harsh outdoor conditions, ensuring high performance and stability :

- High luminance, high resolution, high energy efficiency.
- High-strength anti-aging material, capable for harsh conditions.
- Simple to install and easy to maintain.
- RGB deep grey processing.
- Highly integrated case, ensures performance and strength.
- Various colors options : white, gray and black.



LED DISPLAY APPLICATIONS



Interactive Displays

Information Transmission

Advertisement Lighting

Event Promotion

Announcements

Visual Experiences

Wayfinding Systems

20%

A man with curly hair and a plaid shirt is peering through a hole in a yellow wall. He is holding a large white sign that says '20%'. The background is a bright yellow color with a torn paper effect.

LED DISPLAY SPECIFICATIONS



TECHNICAL SPECIFICATIONS



Pitch

PV 4

Screen Display

768 * 1408

Display
Brightness

6500 cd/m

Frame
Changing FQ

60 Hz

Display Color

Full RGB

Power
Consumption

300-900W

Input Voltage

**100V - 240
VAC**

Viewing
Angle

160°/160°

SMART POLE MANDATORY FEATURES

01 Smart Pole Data Box; Driver;
Air switch, Terminals

02 Software Platform (Installed
on client's Server)

03 Remote Management System
(SaaS Model) for Wi-fi



OUR GLOBAL PRESENCE



WHY SolPol SOLAR ?

Reasons to choose SolPol Smart Pole :

#one

Robustness

Proven In Extreme
Weather Conditions;
Strong Construction;
High-Quality
Components

#two

Scalability

Leading-Edge scalable
technology, Connected
Street Light, Smart-City
Ready Pole

#three

Cost- Effectiveness

Off-grid solution
Extended lifetime
Minimum maintenance

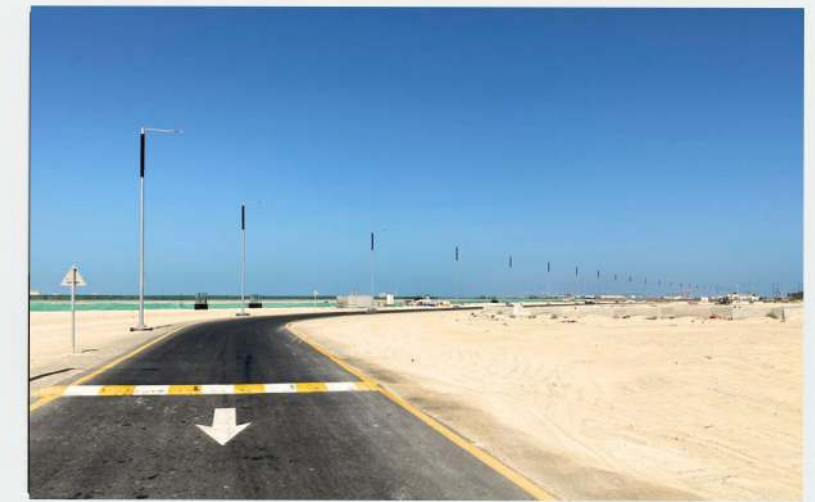
OUR PROJECT INSTALLATIONS



MOROCCO



NEW ZEALAND



UAE



UK



OMAN



MOROCCO

OUR PROJECT INSTALLATIONS



PHILIPPINES



MOROCCO



UAE



SENEGAL



SAUDI ARABIA



JAPAN

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