



# Ecliptico

Solar Lighting Column

**valmont**   
STRUCTURES

**FlexSol**  
Solutions

## A Solar Revolution

Solar lighting columns have been around for quite some time now, but today there is a new product on the market. Thanks to a joint development between FlexSol Solutions and Valmont the next generation of solar lighting columns is available for your next project.

The right team for the job... Valmont is widely regarded as the global market leader when it comes to lighting columns. Valmont offers access to top design support, expert engineers, skilled craftsmen, and a network of production facilities spanning the globe. Likewise, FlexSol Solutions is at the forefront of solar technology, and has developed a unique technique for curving high-efficiency monocrystalline silicon solar cells. This breakthrough technology makes the production of ultra-modern, cylindrical solar modules possible.

By combining forces, Valmont and FlexSol Solutions are proud to bring a new level of efficiency and beauty to the world of solar powered lighting.

## The Right Choice For Your Solar Lighting Project.

Ecliptico is a true eye-catcher with a myriad of features that will benefit your project. The unique and beautifully curved solar panels clearly display the product's sustainable advantages. There is no need for trenching or underground cabling, since the Ecliptico solar lighting column is completely autonomous and 100% solar-powered. This makes it possible to bring light to any place where the sun shines, even remote locations that were previously deemed unreachable. Removing the need for underground cabling not only simplifies installation, but it also reduces the total cost of ownership.

The use of only high-quality components (such as lithium batteries and monocrystalline silicon solar cells) ensures great performance, even in case of low yield or indirect sunlight. Ecliptico is designed with scalability and cost optimization in mind. The result is a flexible product that can be configured to fit your project. Furthermore, each Ecliptico solar lighting column is connected to an exclusive, secure online platform, to which it transmits its status automatically. The Ecliptico remote management system simplifies maintenance by allowing you to monitor your installation through a straightforward visual interface. This platform helps to reduce maintenance costs while increasing reliability.

These innovative features make Ecliptico the most advanced solar street light on the market and the right choice for your project!



### 100% Solar-Powered

There is no need for expensive and invasive trenching



### LED Lighting

Powerful, efficient and energy saving; no electricity bill



### High-quality components only

Durable, reliable, and sustainable.



### Advanced connectivity

Smart city ready and future proof



### Scalable Design

Choose the (cost) optimal configuration for every type of project



### Galvanized Steel Construction

Durable, sustainable, and recyclable.

### Lithium Batteries

Long lasting and maintenance-free.

## Cutting Edge Technology

### Efficient LED Lighting

As a standard, Ecliptico comes with its own line of LED-luminaires. These luminaires have been fully optimised for use in combination with Ecliptico's specially developed and highly efficient LED driver. In addition, this advanced LED driver can be fitted to a third-party luminaire of your choice. Bat-friendly luminaire are also available!

### Curved Solar Modules

The curved solar cells used by Ecliptico are the best the market has to offer. Not only because of the high efficiency of >23%, but also because of the high temperature performance. The front sheet is made of borosilicate glass, which guarantees the optical quality of the solar modules for decades of operation. The smooth and hard surface is built to withstand the harshest conditions.

### Optimized Performance

At the heart of each Ecliptico lighting column are electronics that maximise system performance. Each side of every solar module is individually tracked for optimal power output. Furthermore, all lithium battery cells are continuously balanced and monitored in order to extend battery life.

### Advanced Connectivity

Every single Ecliptico column is equipped with its own SIM card in order to communicate wirelessly over the internet. This makes it possible to remotely monitor and manage the installations. The open, universal databus makes Ecliptico the ideal platform for Internet-of-Things-technology, making it future proof and ready for the smart city!

### Dependable Batteries

The Ecliptico only uses lithium batteries. This type of batteries offers high performance in extreme climates (both hot and cold) as well as superior tolerance to deep discharge. The lifetime of lithium batteries (8-10 years) is significantly longer than for example lead batteries (2 years); during which no maintenance is required.

## High Reliability By Design

### Ready For The Most Challenging Environments

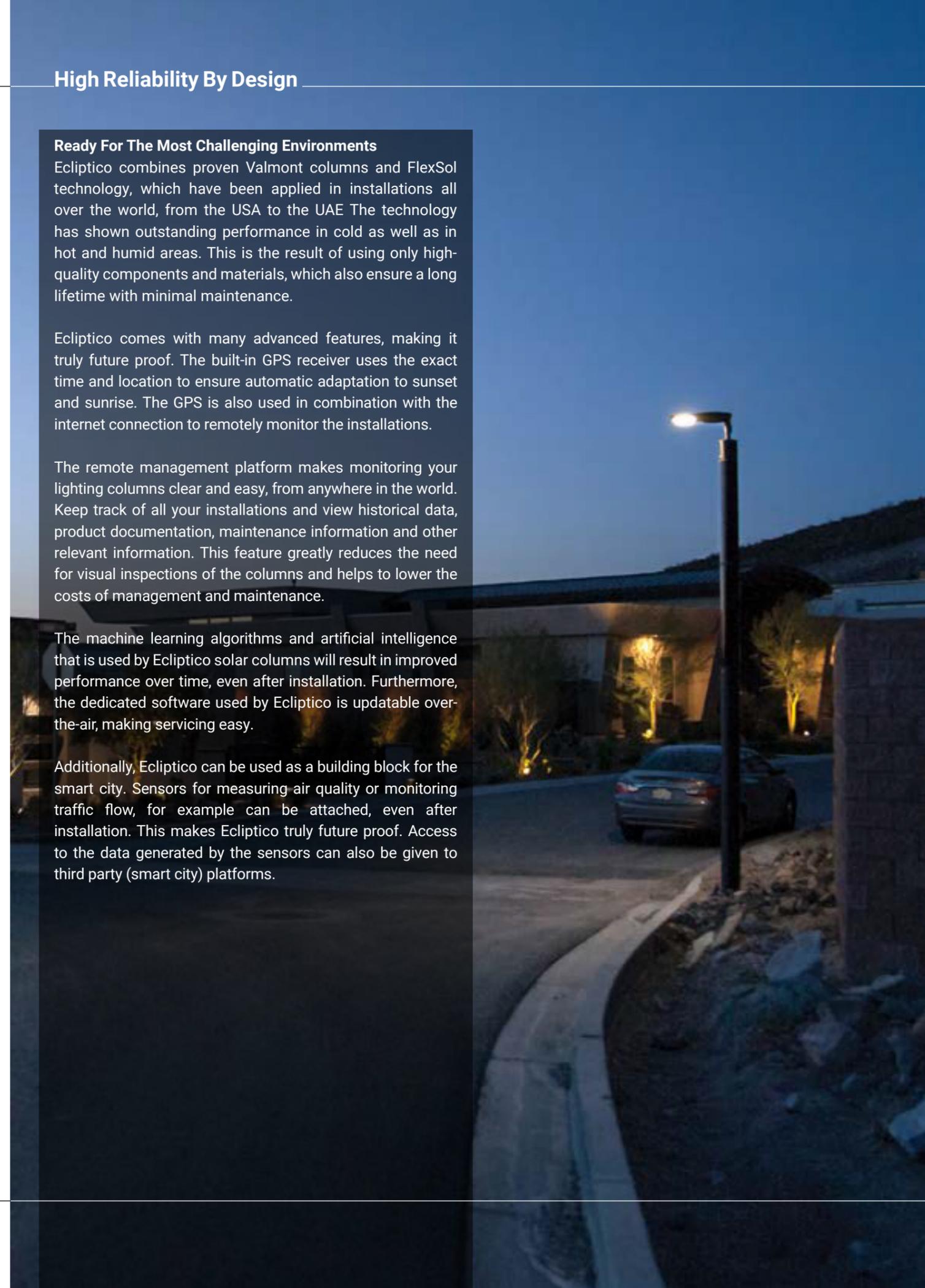
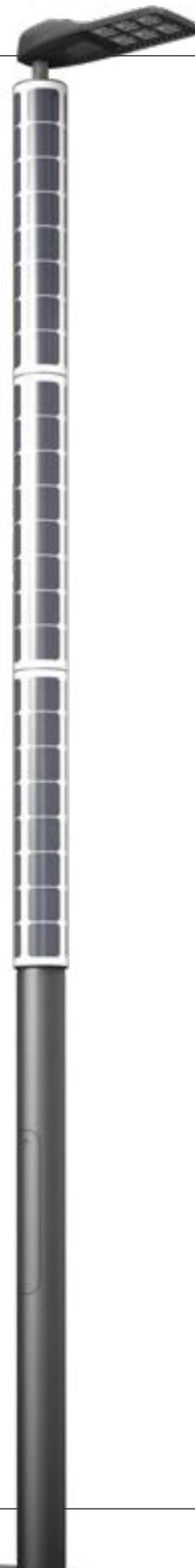
Ecliptico combines proven Valmont columns and FlexSol technology, which have been applied in installations all over the world, from the USA to the UAE. The technology has shown outstanding performance in cold as well as in hot and humid areas. This is the result of using only high-quality components and materials, which also ensure a long lifetime with minimal maintenance.

Ecliptico comes with many advanced features, making it truly future proof. The built-in GPS receiver uses the exact time and location to ensure automatic adaptation to sunset and sunrise. The GPS is also used in combination with the internet connection to remotely monitor the installations.

The remote management platform makes monitoring your lighting columns clear and easy, from anywhere in the world. Keep track of all your installations and view historical data, product documentation, maintenance information and other relevant information. This feature greatly reduces the need for visual inspections of the columns and helps to lower the costs of management and maintenance.

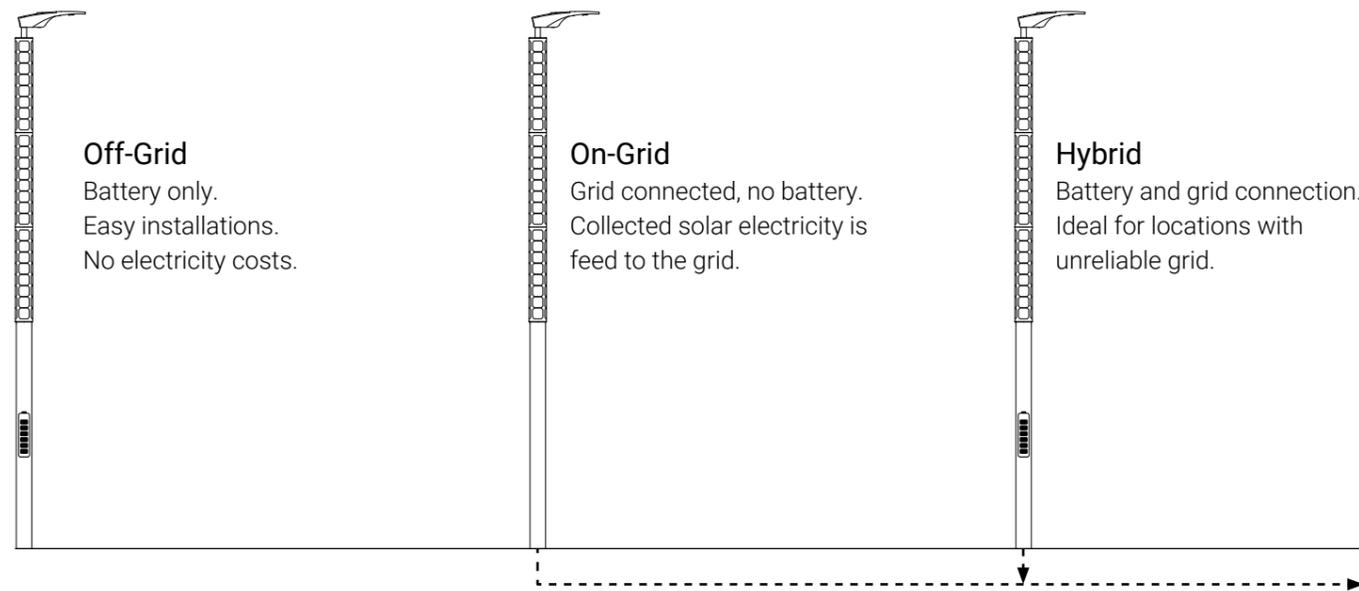
The machine learning algorithms and artificial intelligence that is used by Ecliptico solar columns will result in improved performance over time, even after installation. Furthermore, the dedicated software used by Ecliptico is updatable over-the-air, making servicing easy.

Additionally, Ecliptico can be used as a building block for the smart city. Sensors for measuring air quality or monitoring traffic flow, for example can be attached, even after installation. This makes Ecliptico truly future proof. Access to the data generated by the sensors can also be given to third party (smart city) platforms.



## Options For Your Application

Ecliptico is available in a range of configurations. As a standard, Ecliptico is offered as an autonomous off-grid solar column. Of course, some projects may have different requirements than others. In these cases it is possible to customize Ecliptico solar lighting columns based on the specific project needs. Ecliptico can be installed as a grid-connected solar column, or as a hybrid combination of a battery and grid-connection. This flexibility makes Ecliptico fit for any environment.



### The Finishing Touch

Galvanizing is the process of applying a protective zinc coating to steel. This coating reduces the likelihood of rust and greatly extends the life of the material. The steel components of Ecliptico solar columns are hot-dip galvanised to ensure an even coating on both the external and internal surfaces.

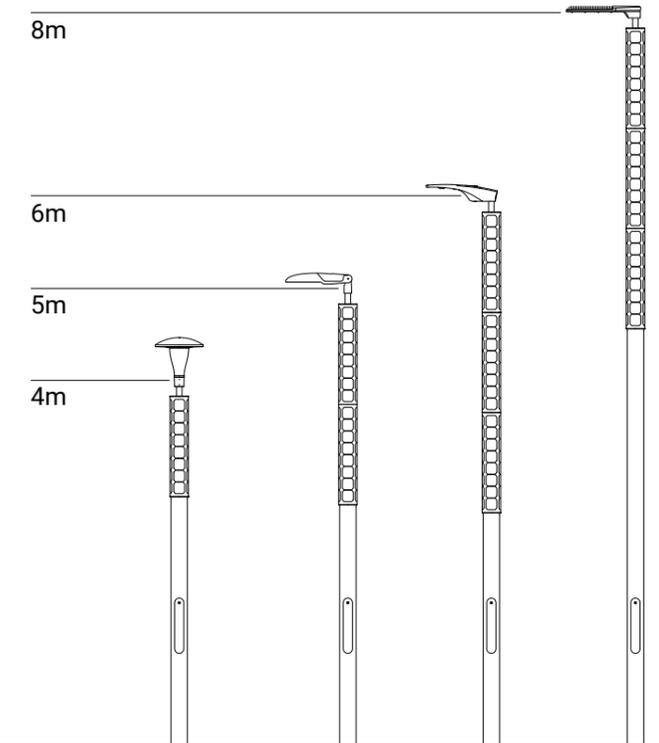
In addition to galvanizing, Ecliptico can be powder coated to add a second layer of protection and give the column an aesthetic appeal. We offer an expansive range of colours to match the needs of your specific project.

The solar modules themselves can be customized to fit the project. As standard, the modules are available with black or white backsheet. Custom colours are available upon request for larger projects.

For more information on these exciting solutions, contact your local Valmont representative. Blend in or stand out and make a statement, the choice is yours!



## Product Specifications



### General

**Height:** 4-8 m  
**Mast / Solar Module Diameter:** 178mm / 200mm  
**Mast Material:** Steel  
**Finishing:** Powder coating / Anodizing  
**Mounting:** Foot plate / concrete / ground screw  
**Operating Temperature:** -20°C to 60°C

### Solar

**Solar Modules:** 1-3  
**Solar Cells:** Monocrystalline silicon (>23% efficiency)  
**Outer Material:** Borosilicate glass  
**Max, Power Point Tracking:** 4 channels per solar module

### Lighting

**Max LED Power:** 180 W  
**LED Driver:** Custom  
**Dimming:** Dynamic

### Battery

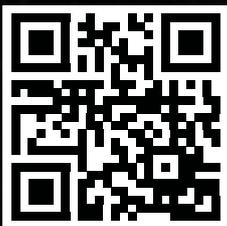
**Battery Type:** Lithium (LFP, NMC, LTO)  
**Capacity:** Up to 3700Wh

### Connectivity

**Connectivity Type:** GSM, RF  
**Remote Programming and monitoring:** Yes  
**Automatic Sunrise/set tracking:** Yes

### Options

Motion detection, WiFi access point, USB charging ports, pyranometer, weather station, smart city sensors



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