

TSTREET LIGHT

STREET LIGHT WIRELESS CONTROLLER WITH POWER CONSUMPTION MEASUREMENT CAPABILITIES



TSTREET LIGHT device enables fast, flexible and economic streetlight management deployments.

It supports luminaries of up to 250W. Each device can switch ON/OFF or dim the lamp through a compatible ballast. It supports external sensor measurement through a standard digital/analog interface. The power consumption can be measured on each single point. The coverage, with LoS, has been proven to reach longer than 1 Km. Given all these features, TSTREET LIGHT solution can be seen as one of the most powerful tools in the market.

TST modular desing guarantees the interoperability with other SmartCity applications. This way, the same controller can be used not just for managing streetlights but also to control/measure any other variable among the wide offer TST provides.

Furthermore, the reduced size and optimized boxing allows an easy integration into existing streetlamps.

KEY HARDWARE FEATURES

Fully compatible with all commercial ballasts for ON/OFF control and scheduling. It also supports dimming through the standard 1-10V interface.

Wireless communication enabling 1Km+ coverage.

Power consumption of each node can be measured.

ELECTRICAL	
Power voltage	220 VAC
Internal voltage	3.3 VDC
Ballast power control	Up to 250W
Current consumption (ON)	< 3W
LEDs	Link status / Phase status

MECHANICAL	
Size	110 x 60 x 40 mm
Connectors	Analog 0-1.25V input or GPIO for external sensors
	Standard 1-10V dimming interface
	Ballast powering and consumption control interface
	220VAC power input
	SMA Antenna connector

RADIO PARAMETERS	
Frequency band	863 to 870 MHz
Number of channels	1 in HP mode
Output power	27 dBm maximum
Receiver sensibility	-109 / -96 dBm

FUNCTIONALITIES	
Error prevention	Saved profile used to work while potential network errors
Embedded Intelligence	Microprocessor integrated for autonomous operation
Periodic status information	Flexible programming depending on requirements

ENVIRONMENTAL	
Operation temperature	-40°C / +85°C
Storage temperature	-40°C / +85°C
Certifications	R&TTE, FFC, WPC, ARB, CE

AVAILABLE HW MODELS	
LI01B	External sensor support. No power cut prevention.
LI10C	Power cut recovery mode. No external sensor support.

KEY SOFTWARE FEATURES

Street lamps are shown in a clear way distributed on real maps, enabling group/zone filtering (zooming).

Both individual and group lamp programming.

Detailed consumption and maintenance reports and alarms.

DEPLOYMENT MAPS	
Maps	GoogleMaps style with group/zone filtering features
Lamp status	Color code: ON/OFF/Broken/Overconsumption
Detailed lamp information	Available by clicking on a lamp on the map
Acting over lamps	Directly sending commands to individual lamps
User profiles	Filtering the information displayed and available actions

REPORTS AND ALARMS	
Format	Several available format to output reports/alarms
Triggers	Consumption error (broken lamp or overconsumption)
	Maintenance operations performed by technical staff
	Lamp lifetime
	Individual/Group consumption reports (filtering by date)
	Dayly lamp ON/OFF log

The image displays two screenshots of the TST software interface. The left screenshot, titled 'CONFIGURACIÓN TSTREET 2', shows a map with a highlighted location and a sidebar with configuration details for a lamp named 'TSTreet 2'. The details include: Nombre: TSTreet 2, Grupo: cf Albert Einstein, ID: cf60386, Fecha alta: 2014-02-28, Hora alta: 11:09:44, Latitud: 42.60399, Longitud: -3.579152, Tipo Ballasto: Normal, Tipo Lámpara: Lámpara inductiva normal, Marca: 600 1250 Series, Vida esperada: 124576 Horas, and Descripción: Luminaria de alumbrado para el correcto funcionamiento de la aplicación. Below the map, there are controls for 'Interruptor' (ON/OFF), 'Consumidor' (a slider), and 'Estado' (Previsible, Consumo: 0.5792 Watts, Control de Grupo: Inicializar, and a 'Aceptar' button). The right screenshot, titled 'MONITORIZACIÓN', shows a 3D map view of the lamp location. It displays the lamp's status as 'ON' and provides options for 'Programación', 'Estado', and 'Consumos'. The group name 'Grupo: cf Albert Einstein' is also visible.

CONFIGURATION	
Coordinates	Initial placement or location changes
Type	Ballast and lamp used on each device
Relevant dates	Installation, lifetime, maintenance operations...
Alarm triggers	Unusual consumption ranges for triggering alarms