

TOP900-TL: Wireless Control Lighting Module

Lumewave's TOP900-TL wireless grid-smart lighting control module brings a new level of savings and control to outdoor lighting.

The module mounts to the Lumewave supplied, twist-lock photocell type connector installed either by the fixture manufacturer, or during fixture retro-fit , that allows the control cable to pass through it into the housing for connection to the lamp driver within. The location of the pass-through is water-proof.

The module is versatile enough to operate with LED and eHID ballast, plasma and induction light sources. Lumewave modules also provide feed-back to users regarding the condition of lamps and ballasts, energy usage, power quality, and exact location of the fixture.

Fixtures can be addressed and grouped for unified on/off, high-low stepped dimming with off, tri-level stepped dimming with off, or 0-10 volt linear dimming operation. The TOP900 modules provide adjustable photo-cell thresholds as well as an time of day and astronomical clock with up to 9 time-of-day actions for additional savings.

Through the use of LumeStar front-end software, grouping and operational parameters are simply set. In addition, high-value indicators regarding the health of the fixture, lamp/ballast failure, energy consumption, and power quality are relayed back to the user on whatever schedule the user chooses. No longer will crews have to drive from location to location looking for outages and day burners. Work orders are automatically generated for the customer.

The Lumewave's Gateway Modules automatically select network and channels to insure interference-free operation. Gateways are highly reliable with a range of 5 miles (base station, antenna dependent) and networks may have an unlimited number of devices on them. A minimum of one gateway is required per site.

Four Gateways Interfaces are available:

1. USB
2. Ethernet
3. Wi-Fi
4. Cellular



Control HID, LED, LEP & Induction Lamps

- Control Profiles and interfaces
 - Power to fixture on/off
 - Bi-level with OFF
 - 0-10V (sink) dimming control with 0V turning fixture power Off
 - Dimming control in 5% increments
- Control Events & Schedules
 - Weekday & weekend schedules
 - Special event schedule
 - Schedule up to 9 control events/day
 - Scheduled events based on time of day and/or astronomical time
 - Schedule use of motion sensors and photocell
 - Real-time commands and overrides
- Power Metering (Revenue Grade)
- Data Logging
- Failure detection and reporting
- Photocell thresholds synchronization
- Motion detector input
- Emergency call button input
- Over the air flashing (program updates)

Electrical Specifications

- Replaces existing photocell & receptacle
- No need to penetrate fixture to pull wires
- All wiring routed through threaded 1/2" nipple
- Operating Voltage: 90-305Vac 50/60Hz
- Operating Temperature: -40C to +70C
- Fixture Power Contact: 1000W/1800VA
- Dimming: 0-10V (Sink)
- Failsafe: Power ON, Lamp High, 0-10V = 100%
- Motion detector input
- Emergency Call Button Input
- Photocell daytime override
- Tilt sensor for knock-down alert (Optional)
- Real-time Clock w/battery backup
- Programmable Time of day and/or Astronomical time control events and schedules
- Distributed process – Event schedules executed at unit. No need for frontend to be on line
- Real-time overrides of all control functions
- Real-time (demand incident) overrides of all schedules
- IP65
- ANSI 136.10
- FCC, IC
- Complies with UL 773 and UL 916

Wireless Specifications

Wireless Standard: IEEE 802.15.4
Operating Frequency: 902–928Mhz
Spread Spectrum: Direct Sequence
Channels: 10
RF power: +24dbm (250mw)
Antenna: Internal
Range: Base to TOP module = 1-5 miles (LOS)
Range: TOP to TOP @ 25' AGL (LOS) = 1 mile typical
Range Extender: TOP module can be repeater to extend range
FCC/IC Modular Approved

Low Voltage Control Wiring

1. White – Ext Relay 1
2. Yellow – Bi-Level (n/o)
3. Brown – Bi-Level (common)
4. Violet – 0-10V control
5. Black – GND
6. Red – 12V
7. Blue – Motion Sensor Input
8. Green – Call Button Input

Line Voltage Wiring

- Line (Black)
- Common (White)
- Switched Power (Red)

