

# BULIT® Wireless Control Node

NWTL-111-1P / NWTL-111-2P



## Description

The NWTL-111 BULIT® is a distributed-intelligence controller designed to replace standard photocell modules on outdoor lighting fixtures. It connects to a 5- or 7-pin twist-lock receptacle compliant with NEMA standard C136.41 to provide ON/OFF and dimming control. The BULIT also connects to a WCG Wireless Network Manager via a robust and scalable self-healing wireless IP network.

## Operation

The BULIT operates on 120/277/347 or 208/240/480 volt input power supplied by the lighting fixture through the NEMA socket. Dimming is achieved using 0-10 volts on two pins integrated into the socket. Each node has a unique MAC address that can be automatically discovered as an IP address. Following simple configuration, the BULIT can execute self-contained astronomic schedules or provide control and monitoring functionality as part of a centrally managed coordinated network of wireless nodes. Compatible I/O control nodes can provide additional inputs and outputs on the network to support occupancy, daylighting and temperature sensors; switches and overrides; and ON/OFF and variable output controls.

## Self-Healing Wireless IP Control Network

Entuit's wireless control nodes, including BULITs and WIO Series devices, communicate with Wireless Network Managers over self-healing tree networks to ensure the highest quality radio data and throughput. The tree configuration can be managed, or the devices can configure their own network automatically. If the quality of a connection falls below a threshold level for a given node, the device will reroute its communications to the Network Manager. Control nodes and Network Managers communicate and connect to other building automation components through open standards.

## Applications

Entuit's wireless nodes are suitable for traditional HID fixtures as well as induction lighting and LED lighting fixtures. The wireless controls are ideal for both tightly arranged fixtures in parking lots and other area lighting applications, or linear street and pathway lighting applications. The nodes may also be integrated into parking structures, warehouses and industrial facilities by connecting a NEMA C136.41-compliant twist-lock socket to the lighting fixtures via a 5-wire flexible whip.



Fixture-mounted distributed intelligent outdoor lighting controller

Simple retrofit adds on/ off and 0-10 volt dimming control without rewiring

Connects to wireless self-healing IP control network

Compatible with secure, web-enabled building automation system (BAS)

Ideal for sustainable LED upgrade projects and Dark Sky initiatives

Delivers real-time power monitoring data including RMS voltage and current

## Features

- Simple plug and play setup with minimal configuration required
- Integral real time clock
- Internal calendar schedule for stand alone operation in case of network interruption
- Supports flexible grouping for zone control, including the ability to make simple post installation changes
- Compliant with NEMA standard ANSI C136.41-2013 for twist-lock connectors with dimming control
- AES 128-bit encrypted payload protection provides secure data delivery
- Compatible with Digital Lighting Management (DLM) platform
- Simplifies energy code compliance for multi-level lighting requirements

ITEM #	DESCRIPTION	VOLTAGE
NWTL-111-1P	BULIT Wireless Control Node, single phase	120/277/347 VAC
NWTL-111-2P	BULIT Wireless Control Node, dual phase	208/240/480 VAC

Entuit, Inc.

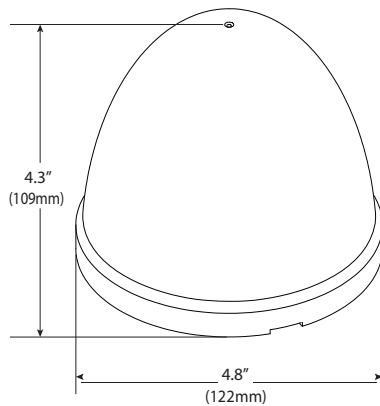
1930 Baseline Road - Grand Island, NY 14072 - phone (716) 775.9572 - www.EntuitInc.com - sales@entuitinc.com

## Specifications

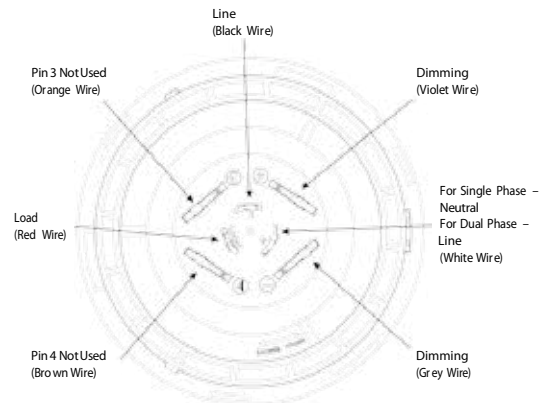
- Operating voltage: 120/277/347 VAC, single phase or 208/240/480 VAC dual phase; 50/60Hz
- Power consumption: <2 Watts
- Radio: 2.4 GHz IEEE 802.15.4
- Up to 1000' range between nodes
- IPEX connector, internal antenna
- 128-bit AES encryption
- On/Off/Dim (0-10V)
- Power monitoring data from smart meter IC available to Wireless Network Manager
  - RMS voltage
  - RMS current
  - Active power
  - Power factor
  - Frequency
- Operating conditions: -40 to 158 °F (-40 to 70 °C)
- IP 53 rated (requires vertical mounting, with twist-lock plug at bottom of device)
- FCC part 15 compliant
- UL and cUL listing pending; UL 773 for outdoor use
- 5 year warranty; extended warranty available

## Dimensions & Connector

### Product Dimensions



### Connector Wiring



## Connecting

### Typical System Components

