



## Reference Guide – NetSense Platform Network Module

### Overview

The Sensity Systems NetSense platform introduces an open architecture-based Light Sensory Network that can be deployed at the same time as Sensity LED retrofits and new LED luminaires.

The NetSense platform leverages standards-based IPv4/6 (Internet Protocol version 4 or 6) data transports that support a variety of application-specific sensors and software analytics to deliver multi-service capabilities at each LED retrofit/new luminaire.

Savings derived from converting to LED lighting help fund the deployment of this sophisticated platform, which enables light owners to leverage their investment in LEDs by running a variety of software applications, spanning both lighting-specific and non-lighting-related services.

### Electrical Specifications

- AC Input: 100-277 VAC, Max current up to 10A

### Environmental Specification

- Operating Temperature: -20C to 65C
- Storage Temperature: -20C to 85C

### Antenna and Radio Specification

- External antenna installation is constrained to any Omni-directional antenna rated  $\leq 8\text{dbi}$  and supporting 2.4/ 5GHz frequencies. Antenna specification is provided only by Sensity engineering and has been validated to meet the requirements imposed by FCC through testing.
- Canadian Radio (IC) Requirement: Frequency 5250GHz has been disabled thus channels 48 and 52 are deemed inoperable. Inoperability is defined through factory installed software.

### Serviceability

- There are no serviceable items within the module. Per FCC requirements, the unit cannot be serviced by any end user; regardless if in-warranty or out of warranty.

If the unit is malfunctioning or causing interference with existing radio devices;

- Determine cause of interference and remove suspect device from service
- Contact Sensity Systems Customer Service at 1-855-500-SENS (7367)

### Conditions and Limitations

- NetSense Platform Network Module (LSNM) is granted as a Modular Transmitter by the FCC. Under this grant, any installation of the LSNM into a Sensity Approved luminaire (host) must comply with Conducted and Radiated limits outlines by FCC 47CFR Part 15 Class A.
- The LSNM module cannot be co-installed into a (host) containing additional radio's or broadcasting devices.



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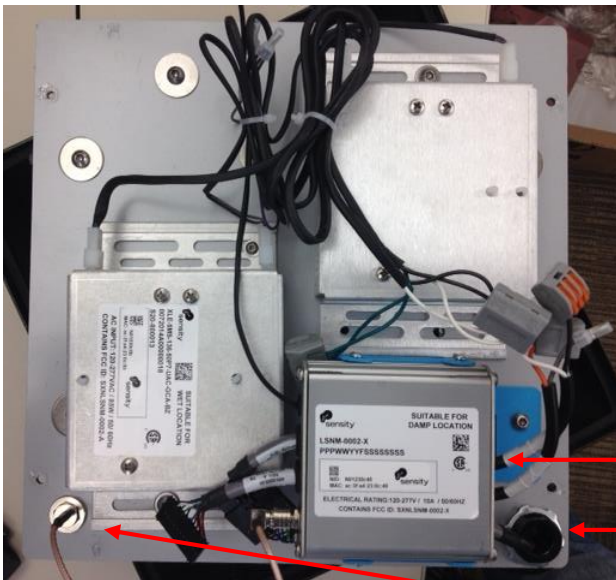
### Installation/ Integration Guidelines

- NetSense Platform Network Module (LSNM) must only be installed into outdoor, non-residential locations.
- Installation is only allowed into approved Sensity Systems luminaires
- Only professional installation is allowed through Sensity authorized factories
- Motion sensor and antenna must be installed into a downward facing position, relative to ground. This module has no colocation restrictions if installed as intended.
- All wiring connections must be made in accordance to local NEMA and NEC building codes

### Installation Reference

#### (Typical installation, luminaire type may vary)

1. Mount module using bracket to luminaire base
2. Install Sensor Pod and Antenna into required locations
3. Connect wiring via **Installation Wiring Guide** (below)
4. Connect antenna cable from antenna to module
5. Complete power on self-test to verify functionality (below)



**Luminaire Assembly (internal)**

**Network Module**

**Sensor Pod**

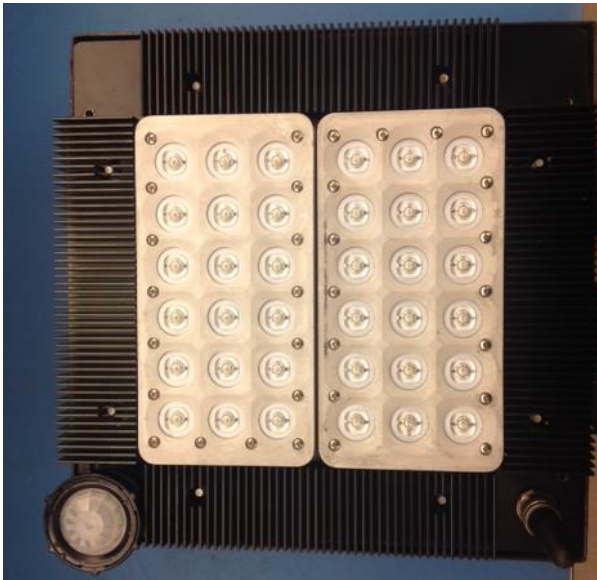
**Antenna**



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**Luminaire Assembly  
(external – side view)**

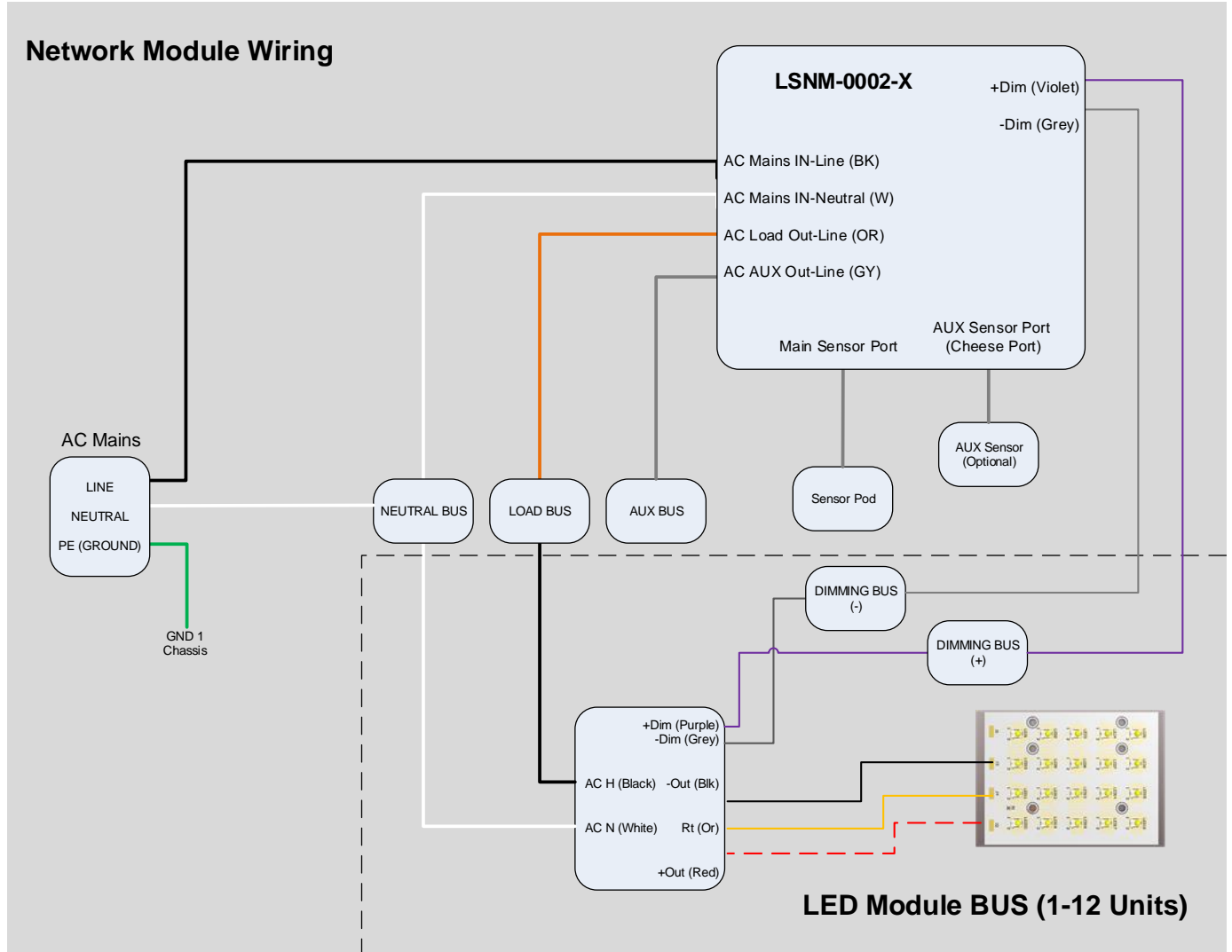


**Luminaire Assembly  
(external – top/ down view)**



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## Installation Wiring Guide

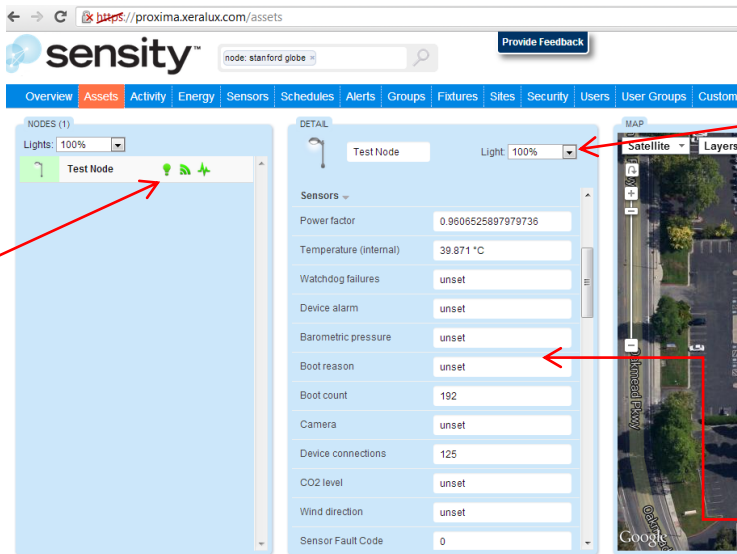




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### Luminaire Installation and Verification Procedure

- Power up luminaire containing netsense networking element using rated voltage. Network Node should connect to wireless gateway/repeater automatically once power is applied
- Connect to customer server to control and collect data from a luminaire containing network node.  
**Note:** Please contact your sales representative if web address, userid and password is not provided.
- Verify following items from the server website:
  - Network node appears on the server. (If network node do not appear on the server, there please verify that gateway/repeaters are powered up.)
  - The WIFI status shows network connection.
- Verify that dimming functionality controlled by network node and LED driver work as expected (dim from 100 to 50% and turn on/off light).
- Verify that temperature (external) measured by sensor is within reasonable values.



Provides status of light, WIFI (network connectivity) and sensor alarms.

Use the menu to control light and dimming levels.

Provides status of boot counts and power meter related values (current, voltage, power etc)

Picture showing key identifier on LSN server website

- Move luminaire from original location to correct location by changing latitude/longitude or dragging the symbol.

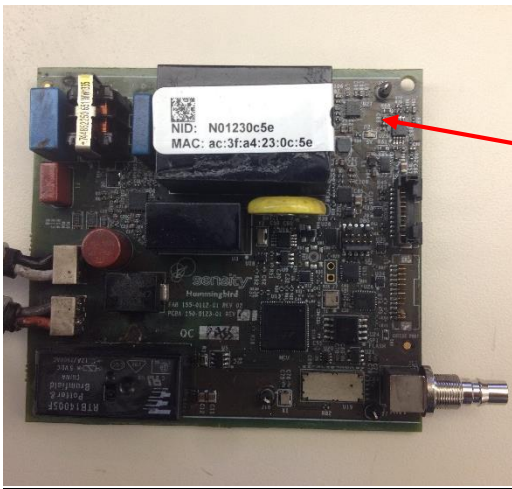


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### Product Labeling Guidelines

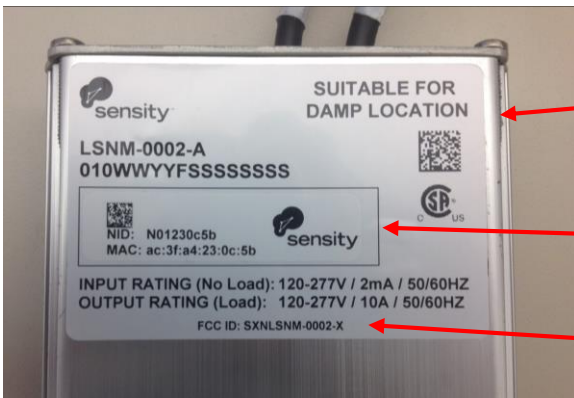
- Product is to be labeled in accordance to Sensity Systems 'LSNM-0002-0X Marking Instructions' document; no other changes or revisions to placement, script, font or size is allowed.
- Refer to below for brief detail of label placement

### Board Level



Network Identifier

### Enclosure Level



Network Enclosure Product Label

Network Identifier

FCC Identifier

### Product Level Installation Label Placement



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**Network Enclosure Product Label**

**Luminaire Product Label**

### FCC Warning Statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Modifying the equipment without Sensity Systems prior authorization may result in the equipment no longer complying with FCC requirements for Class A digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense. [CFR reference 15.21]

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. [CFR reference 15.105]

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Sensity Systems, will void the user's authority to operate the equipment.