

# Phase Cut Dimming Module



The Phase Cut Dimming Module (PCDM) provides an interface between the phase cut dimmable (forward and reverse phase) ballasts/LED drivers and the ENCELIUM® EXTEND Networked and ENCELIUM EDGE™ Standalone Wireless Light Management Systems. The PCDM is automatically addressed as soon as it is connected to the GreenBus II network. Individually addressable, the PCDM enables each group or zone of fixtures to be independently controlled and configured to best meet the needs of the facility.

The PCDM is designed to control load types such as Incandescent/Halogen lamps, Fluorescent ballasts, LED fixtures, and LED/CF lamps. Fixtures driven by a PCDM, when connected to ENCELIUM EXTEND Networked or ENCELIUM EDGE Standalone Wireless Light Management Systems, can be controlled via wallstations allowed in these systems. Additionally, loads connected to a PCDM when connected to the ENCELIUM EXTEND LMS can be controlled by Touch Screen Panels or from the Polaris 3D® software directly.

The PCDM has a built-in relay which provides ON/ OFF switching control in addition to smoothly dimming the fixtures.

## System Compatibility

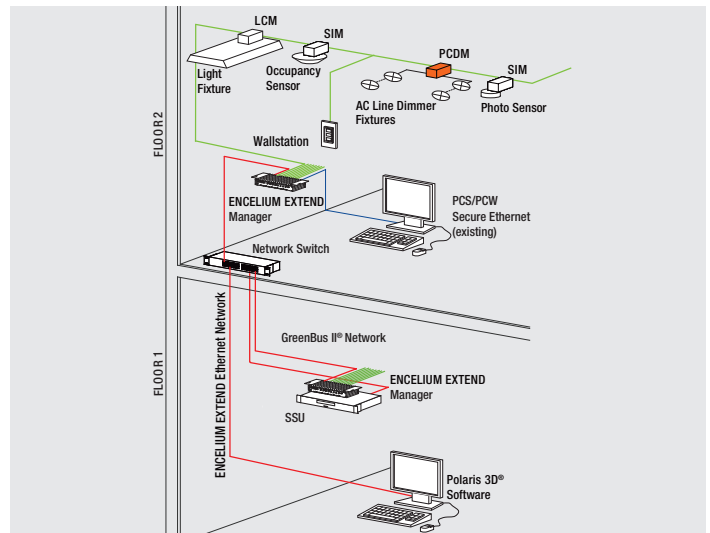
- Works with the ENCELIUM® EXTEND Networked Light Management System
- Works with the ENCELIUM EDGE™ Standalone Wireless Light Management System

## Key Features & Benefits

Expand ENCELIUM EXTEND Networked and ENCELIUM EDGE Standalone Wireless Light Management Systems capabilities with a PCDM to phase cut dimmable (forward & reverse) luminaires for:

- Adjusting light levels to respond to variable lighting requirements
- Scheduling luminaire group operation to lower energy use during off-peak occupancy
- Customizing lighting scenes for tailored experiences/tasks
- Adjusting luminaire group assignments for adjusted space layouts

## ENCELIUM® EXTEND Networked Light Management System Architecture



### System Architecture

This illustration shows how each component is easily integrated into the ENCELIUM EXTEND Networked Light Management System (LMS). GreenBus II is a two-wire communication topology for supplying data and power to the system. Each light fixture, sensor, and wall controller is daisy chained back to the ENCELIUM EXTEND Manager using pre-terminated 'click & go' GreenBus II communication cabling. Managers typically control individual floors and are linked via an Ethernet Network. Internet or LAN connection allows floor plan based control software to be operated anywhere on the network. For reference, the component shown on this data sheet is highlighted.

## Ordering Information

Item #	Ordering Description	Field Bus	Modifiers
56315	EN-PCDM-GB2	GB2	—

## Specifications

- Dimensions: 4.75" W X 5.0" L X 2.24" H (120.7mm W x 127mm L X 56.9mm H)
- Operating temperature range: 0°C (32°F) to 40°C (104°F)
- Maximum case temperature: 70°C (158°F)
- Suitable for mounting on a standard square 4 11/16" junction box
- Weight: 1.3 lbs (0.59 kg)
- Dimming Type: Phase Cut (Forward, Reverse and Ballast)
- Controllable load types: Incandescent/ Halogen, Fluorescent ballasts, LED fixtures and compatible LED/CFL lamps.\*
- Connects to the ENCELIUM® EXTEND Networked and ENCELIUM EDGE™ Standalone Wireless Light Management Systems via two ports that accept GreenBus II® Network connections
- Input Voltage: 120-277 V<sub>AC</sub> 50/60Hz
- Maximum Output Load Ratings:\*  
120 V<sub>AC</sub>: 450W, 3.8 A MAX  
277 V<sub>AC</sub>: 900W, 3.3 A MAX
- Built-in short circuit protection
- cULus Listed
  - Energy Management Equipment (UL 916)
  - Emergency Lighting and Power Equipment (UL 924)
- Electromagnetic requirements: Meets IEC 61000-4-2
- Transient protection: ANSI C62.41 Category A
- Suitable for indoor dry locations only
- FCC 47 CFR Part 18

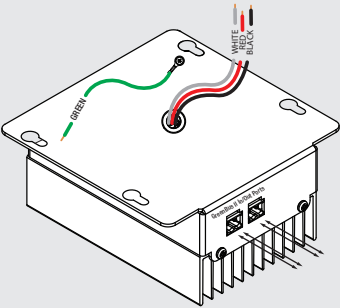
\*Install in accordance with all applicable national and local electrical and building codes.

## Compatible Load Types

The Phase Cut Dimming Module (PCDM) is compatible with incandescent/Halogen lamps and ELV LED lamps or LED drivers. It is not compatible with ELV/MLV transformers or MLV LED drivers. The below parts are identified as incompatible loads.

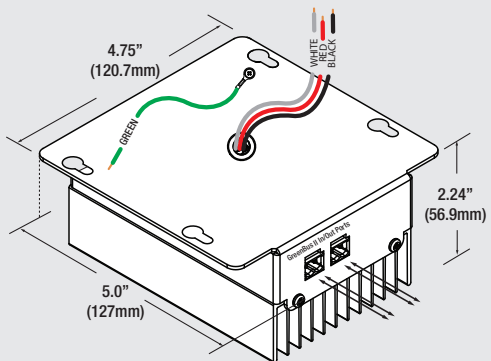
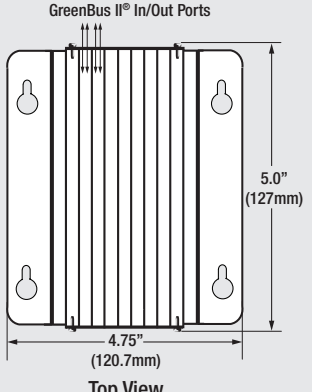
MFG	Part no/Description
Luminii	PSD Series Class II
Luminance	L7510-1 A19 Dimmable LED Light Bulb

## Phase Cut Dimming Module



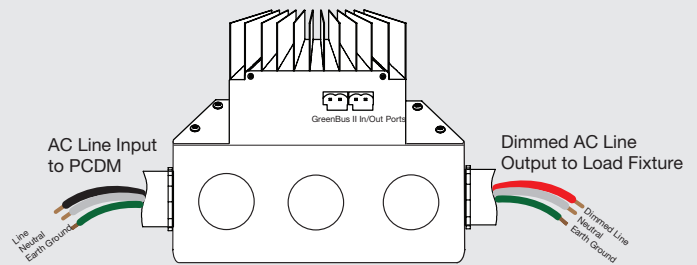
Wire Color	Function	Wire Length
BLACK	AC Line In	10"
WHITE	Neutral	10"
RED	Dimmed AC Line Out	10"
GREEN	Earth Ground	10"

## Dimensions

## Mounting Detail

The mechanical construction allows for simple installation of the PCDM on top of a standard square 4 11/16" junction box (as shown here). It is recommended to use a 4 11/16" junction box as the mounting holes on the PCDM properly align with the holes on the junction box. GreenBus II® communication wiring is still accessible from the outside of the junction box, while all necessary wiring to the load (single or multiple ballasts/LED fixtures) is done on the inside. The recommended maximum distance between the PCDM and the last fixture it controls is 50 feet. For detailed mounting and wiring instructions, refer to the ENCELUM® EXTEND Contractor Installation Manual.



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