Description

The iLux® units are complete integrated wall-mounted lighting systems that can function as standalone devices or be part of a total Crestron® solution. The domestic units, CLS-C6, CLS-C6M, and international units, CLSI-C6, and CLSI-C6M, are functionally identical except that the CLS-C6M and CLSI-C6M include a built-in motion sensor. The CLS-C6 and CLS-C6M operate at 120 Vac; CLSI-C6 and CLSI-C6M operate at 230 Vac. For simplicity within this guide, the term "CLS-C6" is used except where noted.

SPECIFICATION	DETAILS
Power Requirements	
Domestic	Line Power, 120 Vac, 60 Hz
International	Line Power, 230 Vac, 50/60 Hz
Domestic Load Ratings[1]	
Max load per channel	800 W/VA (6.6 amps @ 120 Vac), expandable via CLS-EXP expansion modules (sold separately)
Min load per channel	15 W/VA (0.125 amps @ 120 Vac)
Max load per unit	1920 W/VA (16 amps @ 120 Vac)
International Load Ratings[1]	
Max load per channel	800 W/VA
Min load per channel	(3.5 Amps @ 230 Vac), expandable via CLS-EXP expansion modules (sold separately)
Max load per unit	25 W/VA (0.108 amps @ 230 Vac) 2200 W/VA (10 amps @ 220 Vac) 2300 W/VA (10 amps @ 230 Vac) 2400 W/VA (10 amps @ 240 Vac)
Load Types	LED[2], Incandescent, Magnetic Low-voltage, Neon/Cold Cathode, 2-Wire Dimmable Fluorescent, and Non-Dim Lighting; Electronic Low-voltage, 3 and 4-Wire Fluorescent, High-Inrush Switching, and 277 V via CLS-EXP Series expansion modules (sold separately)
Cresnet Power for Local Devices	4.8 watts maximum External power supply sold separately
Environmental Temperature Humidity	32 °F to 104 °F (0 °C to 40 °C) 10% to 90% RH (non-condensing)
Enclosure	Mounts in a 4-gang electrical box, 3 1/2 in (89 mm) deep minimum

1. If a unit is fed from an arc fault circuit interrupter, the maximum total load is 1,000 W/VA to avoid nuisance tripping.
2. For a list of compatible ballasts, visit www.crestron.com/lightingcompatibility.

Additional Resources

Visit the product page on the Crestron website (www.crestron.com) for additional information and the latest firmware updates. Use a QR reader application on your mobile device to scan the QR image.

Important Notes

WARNING: To avoid fire, shock, or death, turn off power at circuit breaker or fuse and test that power is off before wiring!

WARNING: New installations should be checked for short circuits prior to installing a CLS-C6. With the power off, close the circuit and then restore power. If the lights do not work, or a breaker trips, check and correct the wiring or fixture (if necessary). Install the dimmer only when the short is no longer present. The warranty is void if the dimmer is installed and operated with a shorted load.

CAUTION: To reduce the risk of overheating and possible damage to other equipment, do not use to control a receptacle or a motor-operated appliance.

CAUTION: TO REDUCE THE RISK OF OVERHEATING AND POSSIBLE DAMAGE TO OTHER EQUIPMENT, DO NOT INSTALL TO CONTROL A RECEPTACLE, A MOTOR-OPERATED APPLIANCE OR A TRANSFORMER-SUPPLIED APPLIANCE.

ATTENTION: GRADATEURS COMMANDANT UN BALLAST-AFIN DE RÉDUIRE LE RISQUE DE SURCHAUFFE ET LA POSSIBILITÉ D'ENDOMMAGEMENT À D'AUTRES MATÉRIELS, NE PAS INSTALLER POUR COMMANDER UNE PRISE, UN APPAREIL OPÉRÉ DE MOTEUR OU UN APPAREIL ALIMENTÉ PAR UN TRANSFORMATEUR.

NOTES: Observe the following points.

- Codes: Install in accordance with all local and national electrical codes.
- Installation: This product should be installed by a qualified electrician.
- Wiring: Use copper wire only. For supply connections, use wire rated for at least 75°C. The CLS-C6 requires a neutral wire connection for operation.
- Lamp Type: For use with permanently installed LED, incandescent, magnetic low voltage, neon/cold cathode, 2 wire dimmable fluorescent, and non-dim lighting only. Electronic low voltage, 3 and 4 wire fluorescent, high inrush switching, and 277 V via CLS EXP Series expansion modules (sold separately).
- Temperature: For use where temperatures are between 32° to 104°F (0° to 40°C).
- Electrical Boxes: Devices mount in standard 4-gang electrical boxes. For easy installation, Crestron recommends using 3 1/2 in (89 mm) deep electrical boxes.
- Spacing: If mounting one device above another, leave at least 4 1/2 in (115 mm) vertical space between them.

Installation

The following tools and hardware are required for installation.
- A 4-gang electrical box (not supplied), 3 1/2 in (89 mm) deep, minimum.
- Phillips torque screwdriver (not supplied)
- Four 7/8 in (~22 mm) pan head Phillips screws (supplied)

If the planned configuration includes connection to shade controllers, keypads, or a Crestron control system, the following items are also required:
- Cresnet® network cable(s) (not supplied)
- Terminal block connector(s) (two supplied)

For detailed configuration options, refer to the latest version of the Crestron CLS-C6 & CLS-C6M iLux Lighting System Operations Guide (Doc. 6347), which is available from the Crestron website (www.crestron.com/manuals).

Check that any required Cresnet wiring has been installed and verified. Then, use the following procedure to install the iLux unit (CLS-C6M is shown in the illustrations).

1. Feed the wires (power line from the distribution panel, load wires, plus any required Cresnet cables) through the holes in the electrical box.
2. Hold the rear of the CLS-C6M unit and remove the front panel and cover assembly by carefully pulling out and up from the bottom edge.

CLS-C6M Installation
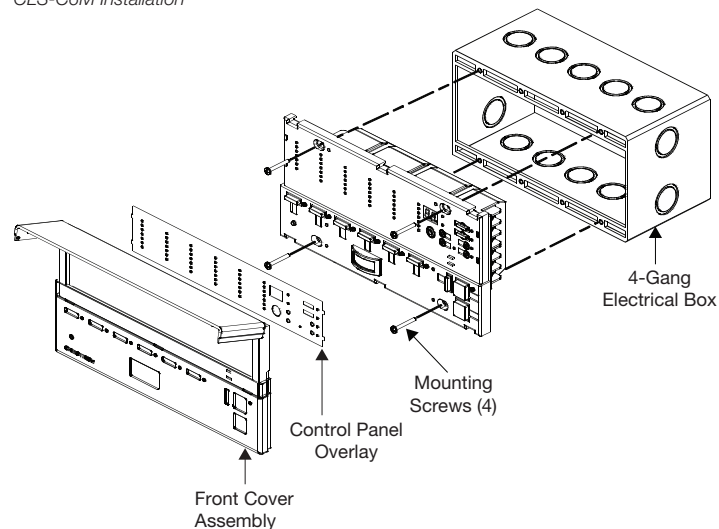
3. Remove the control panel overlay from the unit (it is held in place by small tabs and lifts off) to reveal the upper mounting screw holes.
4. Refer to the diagram below for connection of the ac wiring. All wires to be inserted in the screw terminals should be stripped 7/16 inch (~11 mm), and screws should be tightened to between 8 and 10 in.-lbs. (0.90 to 1.13 Newton meters). The maximum wire size is 12 AWG (3 mm2).
5. Connect each load wire to the corresponding LOAD terminals on the unit, connect the power line hot wire from the circuit breaker to the HOT terminal on the unit, connect all neutral wires to the NEUTRAL terminal on the unit, and connect all ground wires to the (ground) terminal on the unit.
6. If Cresnet cabling is part of the installation, attach the supplied terminal block connector(s) to the Cresnet cable(s) and plug into the appropriate port(s) on the unit. Make certain that there is a minimum 1/4 inch (~6 mm) separation between the Class 2 Cresnet wiring and the Class 1 ac wiring.

NOTE: Use a 15 or 20 A circuit breaker depending on installation requirements. Refer to specifications for load rating details.

NOTE: CLS-EXP expansion modules can be used in place of any or all loads shown above. Refer to expansion module documentation for wiring details.

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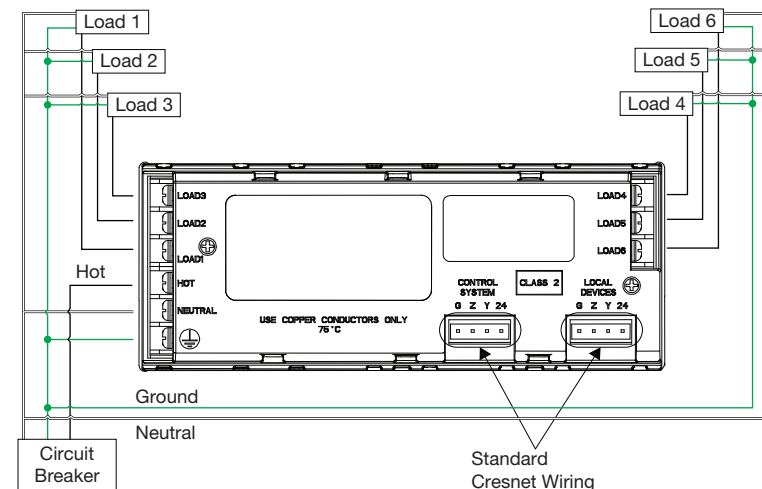
7. Carefully tuck all wires into the electrical box and fasten the unit to the electrical box using the four 7/8 inch (~22 mm) Phillips screws supplied.
8. Reattach the control panel overlay to the front panel by inserting the four tabs into the slots on the unit, and install the hinged front cover assembly by lining it up at the top and pressing the bottom edge until it snaps into position.

Adding External Power Supplies

Additional power supplies are required to support more than four keypads or shade controllers on the LOCAL DEVICES network. Also, each C2N-SDC-DC, CSM-QMT50-DCCN and CSC-DCCN shade controller requires its own additional power supply. The diagram below illustrates a scenario where an external power supply is required to add a shade controller and other devices to a network that already contains four shade controllers. The actual number of external power supplies required depends on the system configuration. The illustrations on the following pages show a variety of installation configurations.

NOTE: Always use Crestron Certified Wire.

*Adding External Power Supply for C2N-SDC-DC Controlled Shades*
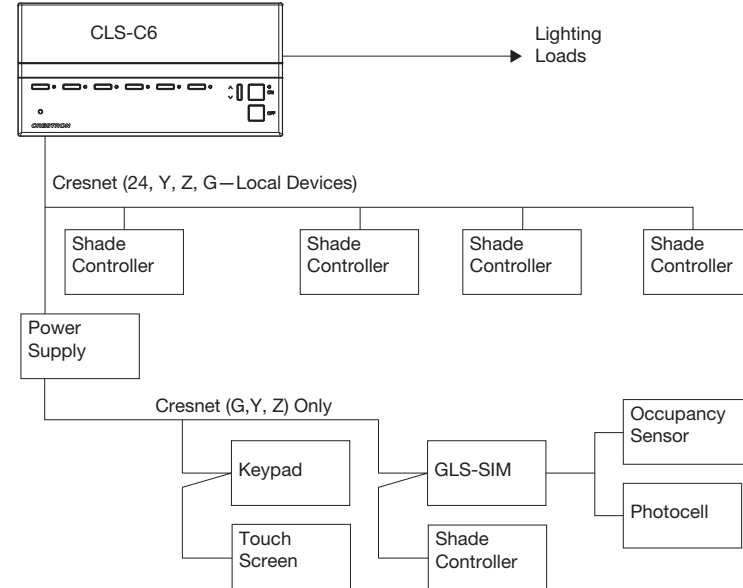
*Adding External Power Supply for CSM-QMT50-DCCN and CSC-DCCN Controlled Shades*
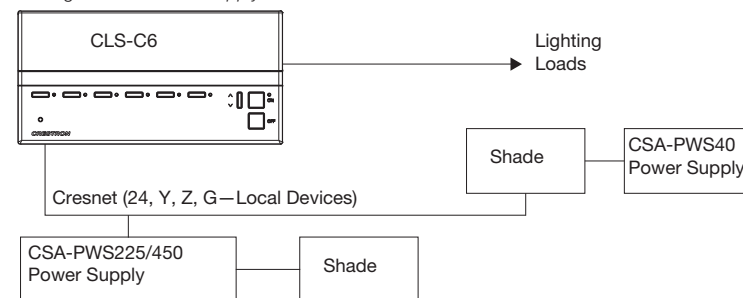
Wiring Occupancy Sensors and Photocells

NOTE: Before using the CLS-C6, ensure the device is using the latest firmware. Check for the latest firmware for the CLS-C6 at www.crestron.com/firmware. Firmware is loaded onto the device using Crestron Toolbox™.
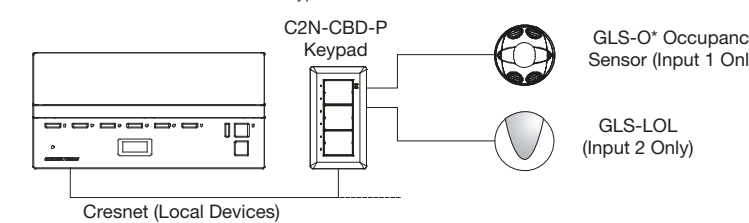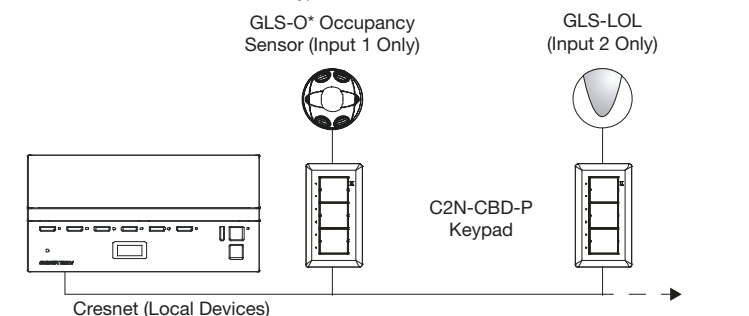
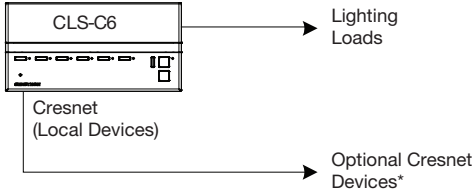*CLS-C6M with One GLS-SIM and C2N-IO*
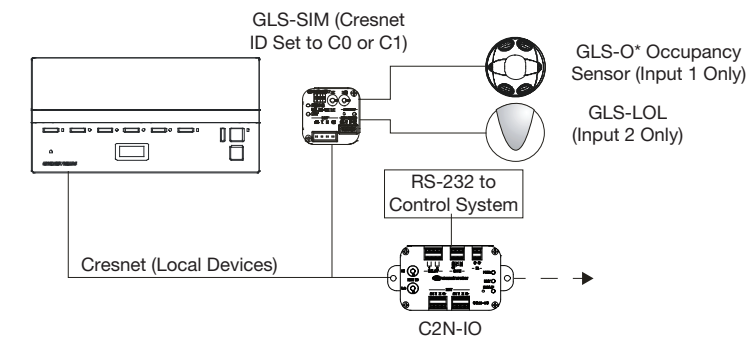
CLS-C6 with Two GLS-SIM Units
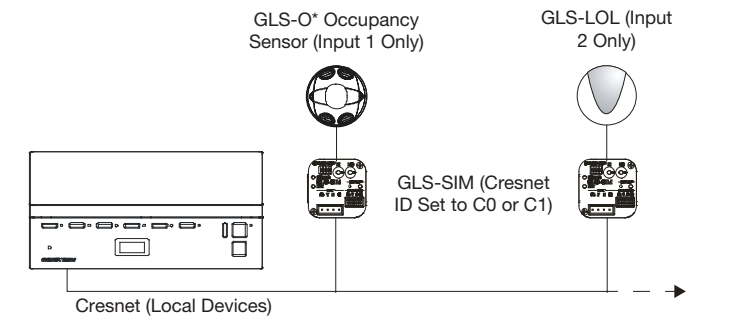
CLS-C6 with One C2N-CBD-P Keypad
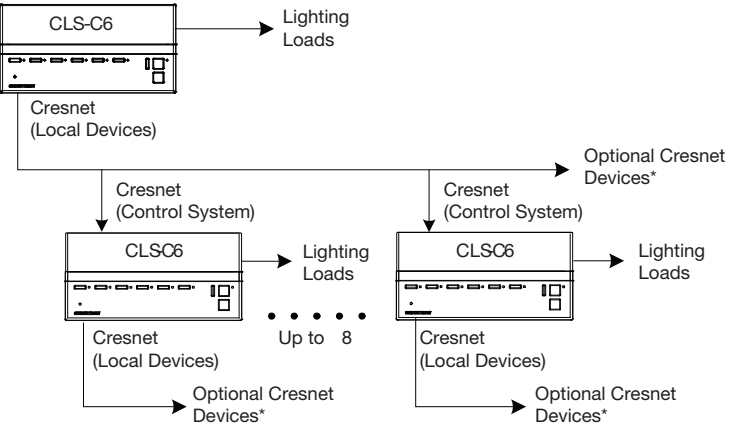

CLS-C6 with Two C2N-CBD-P Keypads

Method 1: Standalone CLS-C6; Most Common Use

Why? Simplest way to control up to six lighting loads and six shade control groups. No control system required.

Method 2: Primary CLS-C6 with Multiple Secondary CLS Units

WHY? A large room with more than six lighting loads and shade groups. No control system required.

Scene recall and master dimmers affect the entire room. The user can still adjust each circuit individually. For details on room combining, refer to CLS/CLSI-C6 & CLS/CLSI-C6M iLux Light System Operations Guide (Doc. 6347).

Method 3: Same as Method 1 plus a 2-Series Control System
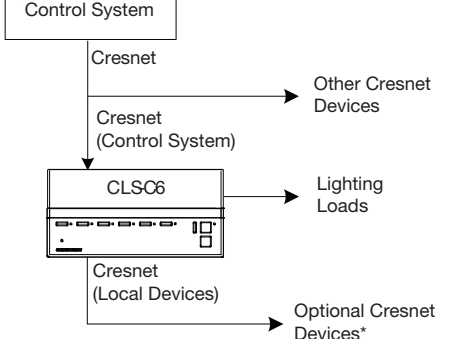
Why? Control system can control and monitor operation of the lighting system. It can trigger lighting scenes from touch screens, RF wireless remotes, computers, or real-time clock. Buttons on lighting system can control other functions.

The lighting system still operats on its own if the control system is not running.

Method 4: Variation of Method 3 with a Large Room
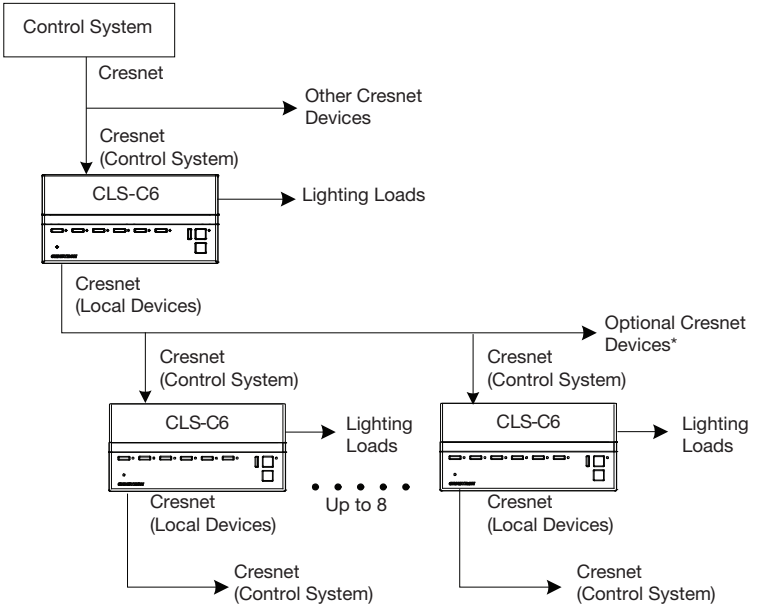
Method 5: Control System with multiple CLS-C6 Units on the Main Cresnet Network
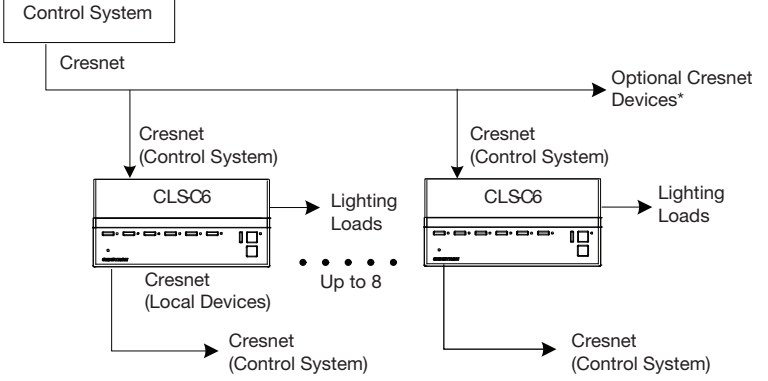
Why? Monitor and control lighing in multiple independent rooms. Combine rooms in any arrangement under program control. Includes all the features of the other configurations. Each individual CLS-C6 can operate without a control system.

Supported Devices

The following table lists devices supported by the CLS-C6 units and their power requirements

Supported Devices and Power Requirements

NAME	DESCRIPTION	CRESNET POWER FACTOR (W)		MAX QTY
C2N-DB6	6-Button Keypad	3 watts		16
C2N-DB8	8-Button Keypad	3 watts		16
C2N-DB12	12-Button Keypad	3 watts		16
C2N-CBD/CBF (All Models)	Cameo® Keypad	0.5 watts		16
C2NI-CB & INETI-CB	Cameo Keypad (International)	0.5 watts		16
C2N-IO	Control Port Expansion Module	1 watt		1
C2N-SDC	Shade and Drape Controller	3 watts		16
C2N-SDC-DC	Shade and Drape Controller, 24V DC	Up to 32 watts		16
C2N-SSC-2	Somfy® Shade Controller	1 watt		16
CNX-B2	2-Button Keypad	3 watts		16
CNX-B4	4-Button Keypad	3 watts		16
CNX-B6	6-Button Keypad	3 watts		16
CNX-B8	8-Button Keypad	3 watts		16
CNX-B12	12-Button Keypad	3 watts		16
CSC-ACCN	Shade Interface	N/A		16
CSC-DCCN	Shade Interface	N/A		16
CSC-DRPCN	Drapery Track Interface	N/A		16
CSM-QMT50-DCCN	Crestron Shade Motor	N/A		16
GLS-SIM	Sensor Integration Module	1 watt plus attached sensor wattage	Partitions	36
			Occupancy Sensing	2
			BMS Integration	4
GLS-ODT & GLS-OIR Series	Occupancy Sensors	1 watt		2
TPS-4L	3.6 in Wall-Mount Touch Screen	5 watts		2
TPS-6L	5.7 in Wall-Mount Touch Screen	15 watts		2

Testing

The following illustration shows the front panel of the unit and the controls used during installation.

Front Panel Controls and Indicators
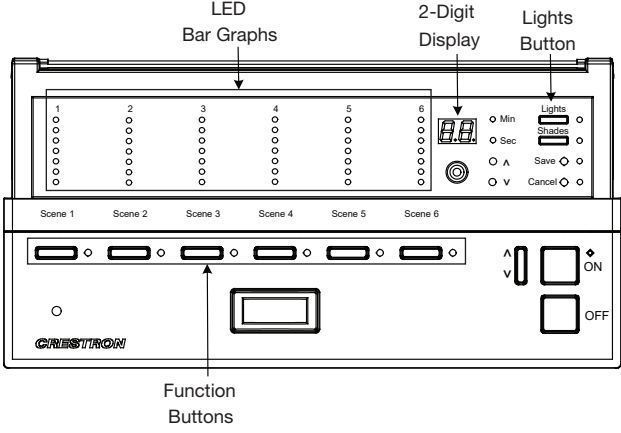
Verify the basic installation and wiring connections as follows:

1. Press the Lights button to enable manual light control, and press the right side and the left side of each of the function buttons to increase and decrease the lighting level of those loads. Verify that the intended loads and corresponding LED bar graphs respond appropriately.
2. Press the OFF button to turn off all loads. The loads ramp down to off while the two-digit display counts down to off (blank). Two seconds after all lights have turned off, the unit's master air-gap relay opens making it safe to service the lighting installations.

Troubleshooting

The following table provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

CLS-C6 and CLS-C6M Installation Troubleshooting

Trouble	Possible Cause(s)	Corrective Action
The unit does not function.	Unit is not receiving line power.	Verify that the unit is properly connected to the power line, and that the circuit breaker is closed.
The loads turn on and off, but do not dim.	The loads are not connected.	Verify that the loads are operational, and that they are connected to the iLux unit.
	Wrong load type settings are made.	Correct the load type settings.*
The lights flicker at low levels.	There are incorrect low-end limit settings.	Change the low-end limit setting.*