Overview

EcoSystem Lighting Networks are easily used with Emergency (essential) lighting systems. EcoSystem ballasts may be used for Emergency and egress lighting. EcoSystem ballasts used for Emergency lighting must be separated physically and electrically from utility (normal/non-emergency) power devices; however, the EcoSystem Bus may be wired to both normal/non-emergency fixtures and Emergency fixtures as well.

This application note details emergency fixture wiring for EcoSystem ballasts.

For information on using emergency ballasts and dimming ballasts see Lutron Application Note #50.

Wiring Details: EcoSystem Bus wired NEC® Class 2

Use the following wiring guide when the EcoSystem Bus wires (E1 & E2) are wired according to NEC® Class 2 wiring codes.

Wiring to EcoSystem Ballasts in Emergency and Normal Fixtures (EcoSystem Bus NEC® Class 2)
Wiring Details: EcoSystem® Bus Wired NEC® Class 1

Use the following wiring guide when the EcoSystem Bus (E1 & E2) wires are wired according to NEC® Class 1 wiring codes.

Wiring to EcoSystem Ballasts in Emergency and Normal Fixtures (EcoSystem Bus NEC® Class 1)

![Wiring Diagram]

Additional Information

During normal operation (utility power is present), all EcoSystem ballasts will operate as programmed. When utility power fails, the EcoSystem ballast, powered with an Emergency feed, will turn on to its programmed Emergency light level (100% by default) and ignore all other inputs.

Notes

- In all examples shown, the EcoSystem Bus Supply or EcoSystem Energi Savr Node™ unit must be powered via normal/non-emergency power ONLY.

- When using a ballast module (ie: C5-BMF-2A), wire the device like the EcoSystem ballasts shown. The ballast module will power the ballast(s) to which it is wired in an emergency condition.

- Emergency lighting codes vary by locale and may require more stringent separation of normal and essential lighting circuits. Always consult local code prior to completing an EcoSystem installation.
UL924 Compliance with EcoSystem®

Using a LUT-ELI-3PH with a EcoSystem Bus Supply or EcoSystem Energi Savr Node™ unit ensures that the system is compliant with UL924. Follow the wiring diagram in the LUT-ELI-3PH for mains wiring. Use the diagram below to complete the installation. There can be up to 20 Bus Supplies or 32 or EcoSystem Energi Savr Node units connected to one LUT-ELI-3PH.

Example 1: LUT-ELI-3PH with EcoSystem Bus Supply

Wiring Summary:

• Wire Power Pack Red Wire (+24 V) to LUT-ELI-3PH terminal 8 (V+)
• Wire Power Pack Black Wire (Common) to LUT-ELI-3PH terminal 7 (Circuit Common) and to EcoSystem Bus Supply Terminal 5 (Common)
• Wire Signal wire from LUT-ELI-3PH (terminal 1) to EcoSystem Bus Supply terminal 6 (CCI-Emergency)

Note: When normal power fails and the LUT-ELI trips, the EcoSystem Bus Supply stops powering the EcoSystem bus, and all emergency ballasts will turn on to their emergency light level.

Note: The LUT-ELI-3PH includes panic closure inputs as well. Consult the LUT-ELI-3PH instructions for wiring details.
Example 2: LUT-ELI-3PH with EcoSystem Energi Savr Node™ Unit

Wiring Summary:
- Wire Power Pack Red Wire (+24 V-) to LUT-ELI-3PH terminal 8 (V+)
- Wire Power Pack Black Wire (Common) to LUT-ELI-3PH terminal 7 (Circuit Common)
- Wire Signal wire from LUT-ELI-3PH (terminal 1) to Energi Savr Node Emerg input

Note: When normal power fails and the LUT-ELI trips, the EcoSystem Energi Savr Node stops powering the EcoSystem bus, and all emergency ballasts will turn on to their emergency light level.

Note: The LUT-ELI-3PH includes panic closure inputs as well. Consult the LUT-ELI-3PH instructions for wiring details.
UL924 Compliance with Quantum®

Using a LUT-ELI-3PH with a Quantum Bus Supply ensures that the system is compliant with UL924. Follow the wiring diagram in the LUT-ELI-3PH for mains wiring. Use the diagram below to complete the installation. Only 1 Bus Supply per hub needs to be connected per LUT-ELI-3PH. There can be up to 5 Quantum hubs connected to one LUT-ELI-3PH.

Wiring to Quantum Bus Supply

Wiring Summary:

- Wire Power Pack Red Wire (+24 V-) to LUT-ELI-3PH terminal 8 (V+)
- Wire Power Pack Black Wire (Common) to LUT-ELI-3PH terminal 7 (Circuit Common) and to Quantum Bus Supply Terminal 5 (Common)
- Wire Signal wire from LUT-ELI-3PH (terminal 1) to Quantum Bus Supply terminal 6 (CCI-Emergency)

Note: When normal power fails and the LUT-ELI-3PH trips, the Quantum Bus Supply stops powering the EcoSystem bus, and all emergency ballasts will turn on to their emergency light level.

Note: The LUT-ELI-3PH includes panic closure inputs as well. Consult the LUT-ELI-3PH instructions for wiring details.