

UL 924 Lighting Control With 0-10V Dimming

Intelligent Lighting Controls provides UL 924 operation using two methods. The LightLEEDer UL 924 listed relay control panel and by using remotely mounted shunt trip UL 924 relay devices per individual area controlled.

Meeting UL 924

The LightLEEDer UL 924 listed panel has relay driver modules that will force ON the relays designated when normal power is lost to the relay panel. These panels can be sized from 8 to 64 relays and are used in larger application such as open office, warehouse, and large public spaces. Any 0-10V dimming controlled lights in these spaces will also automatically go to 100% when the panel controller loses normal power. This is done automatically within the dimmer control module that will revert to an open control signal when the control power is lost – resulting in the dimmer going to 100% light level.

When the EVO panel is used for smaller spaces such as offices or classrooms that is large enough to require an emergency lighting operation ILC will employ a remotely mounted UL 924 shunt relay to bypass the normal control relay operation. The EVO panel uses the R20D relay with internal 0-10V dimming control and this dimming control will automatically open when power is lost to the EVO controller resulting in any dimmed lighting going to a 100% light level.

This Automatic revert to 100% dimming level is the result of the dimming circuit opening when not controlled from the LightLEEDer panel or EVO panel as normal power is lost to the controller. An optional shunt trip bypass relay device with an internal 0-10V dimming bypass relay can be used if requested but are not required.

This type of UL 924 bypass relay with 0-10V relay is only required when the 0-10V dimming module or R20D relay is not directly controlled by the LightLEEDer or EVO panel for that area. Normal control operations including dimming control between ILC panels can be networked, but UL 924 requires each emergency lighting area to react directly to the local conditions of the space. In this case the dimming control should be connected to the LightLEEDer or EVO panel that monitors the same normal power circuit to be bypassed or a UL 924 bypass device with a relay for 0-10V bypass may be required.