

LSI - Dimming Application Sheet

This guide defines the standard dimming applications available for LumeLEX, BPM, LP and UV Series product families – Examples: LX2044, LX2047, LX2060, LX2084, LP1, BPM.

Dimming will not negatively affect the already long life expectancy of our product, in fact, it will actually increase the life of the LED due to the reduced temperature and drive current of the LED. Dimming will not negatively affect the color or quality of the light from our product. Additionally, the color shift associated with dimming is almost eliminated in LED's; except for the intentional effect in the Dim to Warm series.

All LumeLEX™, BPM, LP, and UV Series Fixtures can be specified compatible with various dimming technologies:

- “TE” - **Standard:** Trailing Edge / Reverse Phase / Electronic Dimmers Low-Voltage
- “ED” - **Integral:** on-board integral dimmer
- “LE” - **Leading Edge** – Leading Edge / Forward Phase / TRIAC Dimmers
- “L2” - **Lutron® LTE®** – Lutron Leading Edge, 2-wire Forward Phase Dimming
- “L3” - **Lutron® L3D®** - Lutron digital dimming, 2-wire power, plus 2-wire EcoSystem digital control
- “10” - **0-10V:** Analogue 2-wire Control, 2-wire constant power
- “DX” - **DMX:** DMX-512 protocol, 3- control wires, local addressing, and local dimming options.

See separate LSI approved dimmer list for specific dimming control options.

The remainder of this dimming application sheet is specific to the dimming system specified:

“TE” – Standard Trailing Edge: Most LSI LED fixtures are compatible with Trailing Edge dimming as standard, these fixtures use drivers that are controlled using the trailing edge of the input power. These drivers are compatible with most electronic low-voltage electronic dimmers that use Trailing Edge/ Reverse Phase dimmers. LED and Low-voltage fixtures can be mixed on the same track circuit, but the correct dimmer for the given load must be used. The total load must not exceed the dimmers capacity. Do not use products with leading edge or magnetic transformers on the same track circuit.

“LE” – Leading Edge: The other type of 2 wire dimming is Leading Edge dimming. Fixtures specified with LE dimming come equipped with drivers that are controlled using the leading edge of the input power and are compatible with Leading Edge / Forward Phase / Triac type dimmers. LE available on 120V only.

“ED” – Integral Dimmer: On board dimming fixtures feature an accessible potentiometer that adjusts the light level of the LED via an integral circuit on the fixture. Most fixtures house the potentiometer in a special track fitting and must be specified as such. (I.E. an LX2044-xxxx-00-TE120W with an integrated dimmer becomes an LX2044-xxxx-0E-ED120W). **DO NOT USE FIXTURES WITH INTEGRAL DIMMERS ON CIRCUITS THAT ARE DIMMED** (Do not dim a dimmer, as it may damage the fixture or dimming system).

“L2” – Lutron LTE: Most LSI fixtures can be compatible with Lutron forward phase dimming. When a fixture is specified with “L2” in the part number, it is equipped with a Lutron Hi-Lume A-Series **LTE** Driver that can be used to 1% dimming on Lutron approved dimmers. Lutron LTE is available in 120V only.

“L3” – Lutron L3D: Most LSI fixtures are also compatible with another Lutron dimming scheme. Fixtures specified with “L3” in the part number are equipped with a Lutron Hi-Lume A-Series **L3D** Driver that uses 2-wire EcoSystem digital control. Compatible only with Lutron approved Ecosystem controls.



“10” – 0-10V: All LSI LED fixtures can also be compatible with 0-10V dimmers, these fixtures feature a driver utilizing 0-10V analogue dimming. These fixtures can be used with 2-wire 0-10V (purple and gray) dimmers and do not dim to off. Separate switching needed to power off fixtures.

“DX” – DMX: Some fixtures can be specified with “DX” in the part number, they are equipped with LSI DMX dimming. Using LSI CONTROLTrack the fixtures can receive data and power from a single track run. LSI DMX fixtures can also be pipe or grid mounted. Refer to the individual fixture specifications sheets for mounting options. Can be dimmed locally by setting DMX address to 901-999 (1-100% intensity).