

Lighting Services Inc

Integrating Control Simplicity



LEDEducation.2023
March 7-8 ~ NYC Hilton Midtown

Integrating Control Simplicity

Thank you for visiting us at LEDucation 2023. We appreciate your understanding of not providing literature at our exhibit. We believe that being good stewards of our planet includes not using paper or creating waste.

The following pages feature Lighting Services Inc's new LED product introductions demonstrated at LEDucation 2023.

A Commitment to Excellence

Lighting Services Inc (LSI) is the premier manufacturer of Track, Accent, Display and LED Lighting Systems. Since 1958, LSI has been dedicated to designing, engineering, and manufacturing the highest quality lighting systems.

During the last sixty five years, Lighting Services Inc has been part of an extraordinary revolution in architectural lighting - not just in the technical aspects of the industry, but also in the expectations of people all over the globe who experience the positive effects that exceptional lighting delivers.

Our reputation for creativity, innovative design, and leading technology, coupled with specification grade products and intelligent personalized service, has made us the manufacturer of choice among the most discriminating specifiers of lighting. It is the appreciation, respect, and continued support of our clients that we use to measure our success.

Our commitment for the future is to support the lighting community, and the global markets that we touch. With the development of new technologies and sustainable manufacturing processes, we will reduce our impact on the environment, while at the same time, increasing the availability of high quality lighting solutions. We will also continue to support our allied industry partners including the IALD, LIRC, IESNYC, and the DLFNY to foster awareness of excellence in lighting design.



LP230 and LP260 Series

The LP230 and LP260 fixtures are integrated with powerful 4 degree COB spotlights to produce clean, unsurpassed optical performance up to 70,000 CBCP.

Quick Notes:

- LP230: Designed for a COB LED module up to 13 Watts
LP260: Designed for a COB LED module up to 4 Watts
- Controls / Dimming options: ELV, 0-10V, DMX, or Integral dimmer
- LP230: 4° Optic produces 70000 CBCP with 810 lumens
LP260: 4° Optic produces 26000 CBCP with 270 lumens
- LP230: Delivered Lumens up to 370
LP260: Delivered Lumens up to 116
- All modules are replaceable with LSI SUP Kit
- TM-30 available
- Accessory cartridge for any double combination of LSI filters and accessories
- Optional Cross Baffle eliminates frontal spill light and glare when used with spread gels
- Recipient of 2023 ADEX Platinum Award



LP230 SERIES
MORE INFO HERE >>

LP260 SERIES
MORE INFO HERE >>

INLine Linear

INLine Linear is a luminous track section available in 2 or 4 ft lengths, for seamless integration with any LSI CONTROLTrack or POWERTrack run, providing diffused, wide angle light distribution.

Quick Notes:

- Designed with a tightly pitched integrated LED array up to 48 Watts
- Controls / Dimming options: ELV, 0-10V, or DMX
- 20 Amp Line Voltage Pass Thru, Patent No. 11,187,389
- Diffused 90° Optic for general light
- Optional curved optic for a different aesthetic
- System efficiency up to 105 lumens/watt
- Recipient of 2022 ADEX Platinum Award



INLINE LINEAR
MORE INFO HERE >>

LZ ZOOM Series

The LZ ZOOM is a compact, stemmed spotlight designed with zoom functionality enabling the beam to adjust from a 5 degree narrow spot to a 50 degree flood.

Quick Notes:

- Designed for a COB LED module up to 19 Watts
- Controls / Dimming options: ELV, TRIAC, 0-10V, DMX, or Integral dimmer
- Adjustable 5° Narrow Spot - 50° Flood optic produces up to 25,000 CBCP with 1856 lumens, delivered lumens up to 830
- All modules are replaceable with LSI SUP Kit
- TM-30 available
- Removable accessory cartridge for any combination of (2) size-ZM LSI accessories
- Recipient of 2020 ADEX Platinum Award



[LZ ZOOM SERIES](#) >>
[MORE INFO HERE](#)

BPM Image Projector

At 12" in length, the BPM Series is the brightest image projector in its class with uncompromising optical projection quality.

Quick Notes:

- Designed for a COB LED module up to 19 Watts and produces up to 15,000 CBCP
- Controls / Dimming options: ELV, TRIAC, 0-10V, DMX, or Integral dimmer
- Locking zoom lens produces smooth, continuous change of beam size: 20° through 60°
- Integral drop-in accessory holder accepts industry standard size "E" Gobos, custom projection patterns and dichroic color filters
- Four cool-touch framing shutters on 3 planes for creating unlimited variations of geometric shapes, including true triangles
- Spring loaded front accessory holder for gel media
- Recipient of 2022 ADEX Platinum Award



[BPM SERIES](#) >>
[MORE INFO HERE](#)

LX2020 Series

The LumeLEX 2020 Series is a tightly focused LED fixture, specifically designed for short and medium throw applications. This efficient, 4 watt LED fixture creates a 4 degree beam with 26,000 CBCP with 270 lumens.

Quick Notes:

- Designed for a COB LED module up to 4 Watts
- Controls / Dimming options: ELV, 0-10V, DMX, or Integral dimmer
- 4° Optic produces 26000 CBCP with 270 lumens, delivered lumens up to 182
- All modules are replaceable with LSI SUP Kit
- TM-30 available
- Removable accessory cartridge for any double combination of size-AAA LSI filters and accessories
- Recipient of 2017 ADEX Platinum Award



LX2020 SERIES
MORE INFO HERE >>

LX2044 Series

The LumeLEX 2044 Series is a clean, elegant stem mounted fixture which uses high performance LED source technology with versatile optical performance for the most demanding applications of museum and retail accent lighting.

Quick Notes:

- Designed for Xicato (19mm and 9mm), COB, Bridgelux, Tunable White and Dim to Warm LED Modules
- Controls / Dimming options: ELV, 0-10V, DMX, or Integral dimmer
- 20° Optic produces 8100 CBCP with 2700 lumens, delivered Lumens up to 2200
- All modules are replaceable with LSI SUP Kit
- TM-30 available
- Accessory holder accepts up to two size-AA LSI filters and accessories
- Recipient of 2022 ADEX Platinum Award



LX2044 SERIES
MORE INFO HERE >>

LPW8 Wall Wash Series

The LPW8 Series is an elegant, stem mounted wall wash fixture powered by COB LED technology. Utilizing an asymmetric TIR optic, the LPW8 produces 2725 lumens (38 watts) of a seamless, even wash of light for the most demanding applications of museum and retail lighting.

Quick Notes:

- Designed for a COB LED module up to 38 Watts
- Controls / Dimming options: ELV, 0-10V, DMX or Integral dimmer
- Asymmetric optic produces a wide flat field with 2725 lumens, delivered lumens up to 1194
- TM-30 available
- Internal accessory clips accept LSI gels
- Recipient of 2016 ADEX Platinum Award



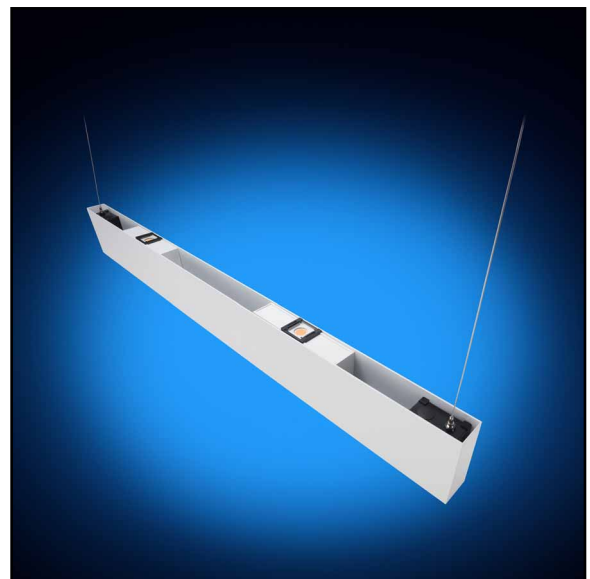
LPW8 SERIES
MORE INFO HERE >>

Gemini Series

The Gemini Series is a suspended lighting fixture system that combines the versatility of LSI Track or CONTROLTrack™ along with the functionality of an indirect LED lighting system utilizing Xicato XTM (19mm) modules. Can be specified in 4-foot, 8-foot or 12-foot sections with a variety of track selections. LX Gemini Series can also be easily joined together to make continuous straight runs or grid configurations of efficient indirect uplight with either 1 or 2 Circuit 120/277V track.

Quick Notes:

- Designed for the Xicato™ XTM (19mm) LED module up to 17 Watts
- Controls / Dimming options: ELV or 0-10V
- System efficiency up to 90 lumens/watt
- All modules are replaceable with LSI SUP Kit
- Accessory gel holder, size-GEM
- Clear gel provided to prevent dust collection
- Recipient of 2017 ADEX Platinum Award



GEMINI SERIES
MORE INFO HERE >>

CONTROLTrack FAQ

1. What protocols does CONTROLTrack support?

LSI currently supports 0-10V and DMX. Other protocols that can be transmitted over two or three conductors are also feasible as a custom option.

2. Will my non-CONTROLTrack fixtures work with CONTROLTrack?

LE (Leading Edge) and TE (Trailing Edge) fixtures can be used on CONTROLTrack but will be "Switched" only, meaning that when CONTROLTrack has power, and the fixture power switch is ON, the fixture will illuminate to full brightness. The ONLY way to turn these fixtures OFF is to turn the power switch OFF or to turn power off to the CONTROLTrack.

ED (Integral Dimming) fixtures can be used on CONTROLTrack and can be dimmed locally at the fixture as they are with other types of LSI track.

3. Can I intermingle 2-circuit POWERTrack with CONTROLTrack?

Please consult the factory before attempting to intermingle POWERTrack and CONTROLTrack.

4. Can I intermingle protocols on CONTROLTrack?

It is possible to intermingle protocols by switching the control type at End Feeds, X, T, L or Straight Joiners, however, each section of track can only be ONE protocol at a time.

5. Can the Gemini System incorporate CONTROLTrack?

Yes, the track in the Gemini System can be CONTROLTrack.

6. Is there recessed CONTROLTrack?

Yes, recessed flangeless CONTROLTrack is available. Applications requiring recessed FLANGED track will require the use of a flanged recessed housing with Surface CONTROLTrack integrated into it.

7. Can you use Dim to Warm on CONTROLTrack?

Yes, Dim to Warm fixtures can be used with CONTROLTrack using 0-10V. Tunable White fixtures specified as DMX can also act as a Dim to Warm option but will require specific programming to achieve this function. Programming is by-others.

8. Can CONTROLTrack be vertically (wall) mounted?

Yes.

9. Can I dim the track with phase dimming in addition to existing controls?

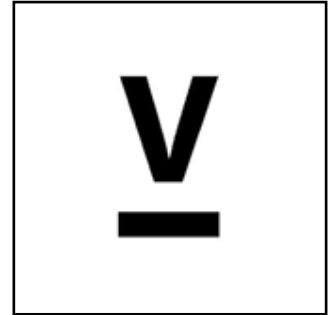
No, CONTROLTrack MUST be powered by switched power (Breaker or Relay ONLY). Powering CONTROLTrack via a dimmer of any kind (Even when set to "Switched" mode) will damage the fixtures on the track. To eliminate parasitic power draw when the fixtures are "off", the circuit powering the track must be switched off via a breaker or relay, by-others.



[SURFACE CONTROLTRACK INFO >>](#)

[RECESSED CONTROLTRACK INFO >>](#)

0-10V FAQ



1. How does 0-10V dimming work?

0-10V dimming is analog dimming done through two low voltage control wires from the dimmer to the LED driver. These control wires are typically purple and pink (see driver diagram). The DC voltage over the control wires varies between zero and ten volts to change the intensity of the LED. At ten volts, the light will be at its max intensity or 100%. At zero volts, the light will dim to its minimum light level.

2. Do I need to commission 0-10V fixtures?

No, there is no commissioning or software needed when using 0-10V controllable fixtures.

3. How many fixtures can I dim on a 0-10V control circuit?

In order to determine the number of fixtures that can be controlled on a 0-10V circuit, you must know the current rating of the controller, the ability of the controller to handle the inrush current of the total load, and the sink capabilities of the controller and drivers on the circuit. The total load must be lower than the rating of the 0-10V controller and the controller must be rated to handle the total inrush current of the load.

4. How do I troubleshoot 0-10V?

Troubleshooting 0-10V is simple compared to other dimming protocols. The issue is either going to be a bad driver or wiring/dimmer issues. The first step would be to disconnect the purple and pink wires from the dimming circuit. Next, cause a short by touching the pink and purple wires together. If the driver is functioning properly, the fixture will dim to its lowest light output. If the driver is working, this means that there is a fault in the wiring or the dimmer is bad. If the fixture does not respond to the short with the control wires, this would mean that there is a driver issue. The solution would be a replacement driver. Note: 0-10V control wires are polarity sensitive.

5. How many control groups does LSI CONTROLTrack allow in 0-10V mode?

LSI CONTROLTrack carries 3 conductors on the control side. This allows for (2) 0-10V control zones. Control zone can be selected on every 0-10V fixture via a discretely hidden switch.

6. How far can the fixtures be from the 0-10V dimmer?

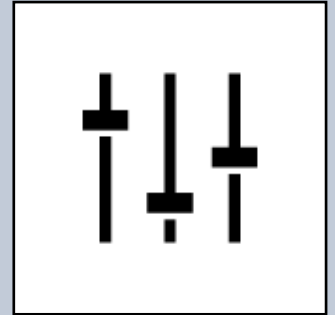
The distance between the fixtures and the 0-10V dimmer depends on a number of variables including the gauge of the wire, the allowable voltage drop, and the source rating of the drivers. As a general rule, keeping the voltage drop below 0.3V is good practice.

The equation to determine the maximum distance between the fixtures and the dimmer is:

$$d = \frac{V_D}{R \times n \times I}$$

Where "d" is the distance of the wire run, "VD" is the voltage drop, "R" is the resistance of the wire per foot, "n" is the number of drivers, and "I" is the current sourced by each driver. It should be noted that this equation will give a recommended distance but other influences such as noise and inductance should be taken into account based on the site conditions.

DMX FAQ



- 1. What fixtures are compatible with DMX control?**

Most of LSI's fixtures can be specified with DMX control. Please see the product catalog or ask your LSI Representative for information regarding DMX controlled fixtures.
- 2. Can DMX be branched, spliced, or looped?**

No, CONTROLTrack DMX layouts must be made in such a way that the DMX is in daisy chain topology. No splitting, looping, or splicing is allowed between track sections without proper DMX branching equipment. Additionally a terminator must be placed at the end of every DMX run.
- 3. What are the limits on the number of fixtures and length of DMX run?**

The DMX protocol supports a maximum of 512 addresses per Universe. LSI fixtures have a 1, 2, or 4 address profile depending on the fixture specified. Each section of DMX CONTROLTrack can support up to 32 devices, per the DMX protocol standard. The maximum recommended length of a single DMX CONTROLTrack run is 400'. Please consult the LSI factory for additional support for DMX layouts.
- 4. How many universes per track layout?**

The number of DMX universes per track layout is dependent on the quantity of fixtures and addresses required to control those fixtures.
- 5. What DMX controller do I need?**

LSI CONTROLTrack is Control System agnostic, if the controller outputs DMX and meets the needs of the project, any DMX Control System can be used with LSI CONTROLTrack.
- 6. How do I set the DMX address on the fixture?**

Fixtures are addressed via rotary or push-button encoders and on select models, can be set via RDM
- 7. Are you developing any app-based controllers for use with the CONTROLTrack?**

No, if an app-based controller is desired, there are various 3rd party app based DMX options that can be integrated with LSI CONTROLTrack.
- 8. Can DMX be bypassed, or can a DMX fixture operate in "Stand alone mode"?**

Yes, all non-RDM fixtures can be dimmed locally by setting the DMX address to 900-999 (0-100% respectively). When set to these addresses, the fixture will not respond to DMX.
- 9. Can I control Non-LSI devices with CONTROLTrack?**

Yes, there is a data takeoff fitting (TRK-SC-TO-120Z) that will provide a DMX jack and fused 120V outlet.
- 10. What if my space is not wired for DMX?**

LSI offers a wireless DMX solution which can get the DMX signal from your controller to CONTROLTrack and does not require additional DMX wiring. Please contact the factory for more information regarding wireless DMX solutions.



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