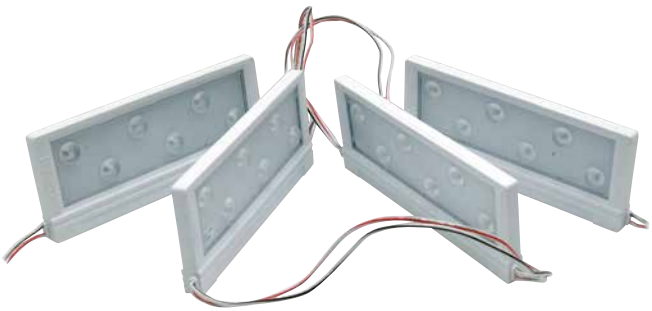
BoxLED® Plus DS

Double Sided LED Box Sign Modules



Key Features & Benefits

- Chain of double-sided linear white LED modules ideally designed to replace fluorescent tubes in new or retrofitted double faced box signs
- Utilizes Flat-Ray optical lens technology for uniform illumination of both sides of double sided signs
- Single board cuttable
- Fully integrated heat sink
- IP66 rated to protect against dust, moisture, and condensation in outdoor operation
- Lower sign maintenance costs due to a lifetime of 50,000 hours (L_{70}) at a T_A of 25°C
- Fast and easy installation with a click-and-play mounting track and bracket accessory system - eliminating the need to drill and screw modules to the track
- Backed by a five year warranty when paired with OPTOTRONIC 24V$_{DC}$ and 24V$_{DC}$ dimmable power supplies
- Energy efficient alternative to fluorescent lamps in new or retrofit applications
- Accessories available to directly retrofit T12HO fluorescent lamps using existing R17d sockets

The BoxLED Plus DS LED chain modules are an ideal signage solution to light double sided box signs in place of traditional fluorescent tubes. The modules feature both 5000K and 6500K color temperatures and utilize Flat-Ray optical lens technology for bright, uniform illumination of both sides of double sided signs. The BoxLED Plus DS lighting system ships in 21 foot chains consisting of 16 modules each with 12 LEDs. The chain can be cut in-between each module creating a custom fit for each installation. These modules snap easily into accessory tracks without drilling or screwing for incredibly fast and accurate installation. They are IP66 rated creating a seal against dust and moisture.

The BoxLED Plus DS modules are optimally paired with OPTOTRONIC® 24V$_{DC}$ power supplies available in both dimming and non-dimming models. These modules are listed in the UL Sign Components Manual (SAM) for new signage installations and are UL Classified for retrofit installations.

Track and socket accessories are available that turn the BoxLED Plus DS Modules into a direct retrofit for T12HO fluorescent lamps. The adapter sockets slide onto the ends of the new adapter track enabling the system to fit directly into R17d sockets. The same track and sockets can be used to retrofit any size T12HO up to F96, minimizing the number of SKUs that are required to be stocked.

Product Offering

Ordering Abbreviation	Lumens per Module	Color
BX-DS-PL-850	555	5000K
BX-DS-PL-865	555	6500K

Application Information

Applications

- Backlighting of double sided box signs
- Signage and illuminated advertising
- Retrofitting T12HO fluorescent lamps

Specifications and Certifications

Listed in the Sign Components Manual (SAM) (File # E258264))

The BoxLED Plus DS is UL Classified for sign retrofit (UL File # E311887)

Specification Data

Catalog #	Type
Project	
Comments	
Prepared by	

Ordering Information

Item Number	Ordering Abbreviation	Length (ft)	# of Modules	Module Pitch (in)	Color Temperature (CCT)	Voltage (V_{DC})	Power per Module (W)	Lumens per Module	Watts/ft	Lumens/ft	LPW
73737	BX-DS-PL-850	21	16	15.7	5000K	24	6.2	555	4.8	423	89
73502	BX-DS-PL-865	21	16	15.7	6500K	24	6.24	555	4.8	423	89

Note:
Data is related to entire unit measured at steady state. Data reflects statistical mean values. Actual data may differ depending on variances in the manufacturing process.

Ordering Guide

BX	-	DS	-	PL	-	8	50
BX = Box		DS = Double Side		PL = Plus		8 = CRI > 80	Color Temperature 50 = 5000K 65 = 6500K

Power Supply Information

Item Number	Ordering Abbreviation	Max. No. of Modules
51598	OT50W/24V/120V/LP	6
51514	OT75W/24V/UNV	10
51522	OT96W/24V/UNV	13
51520	OT96W/24V/UNV/DIM	13
51627	OT240W/3X24V/120-240V/JBX	3 x 11*

*The OT240 has 3 channels at 80W each. Each channel can operate 11 modules for a total of 33 modules per OT240.

Notes:
1. These numbers are based on calculated “Maximum Board Wattage” value.
2. The listed “Maximum number of modules per power supply” values are only applicable when OPTOTRONIC power supplies are used.

Minimum and Maximum Ratings

Parameter	Values
Operating Temperature at Tc point	-25 to +70°C (-13 to +158°F)
Storage Temperature Range	-25 to +85°C (-13 to +185°F)
Voltage Range	+23…+25 V_{DC}

Notes:
1. Exceeding maximum ratings for operating and storage temperature will reduce expected lifetime or destroy the LED module.
2. Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the LED module.
3. The temperature of the LED module must be measured at the Tc point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

Accessories

71921 & 71922

73837 & 73838

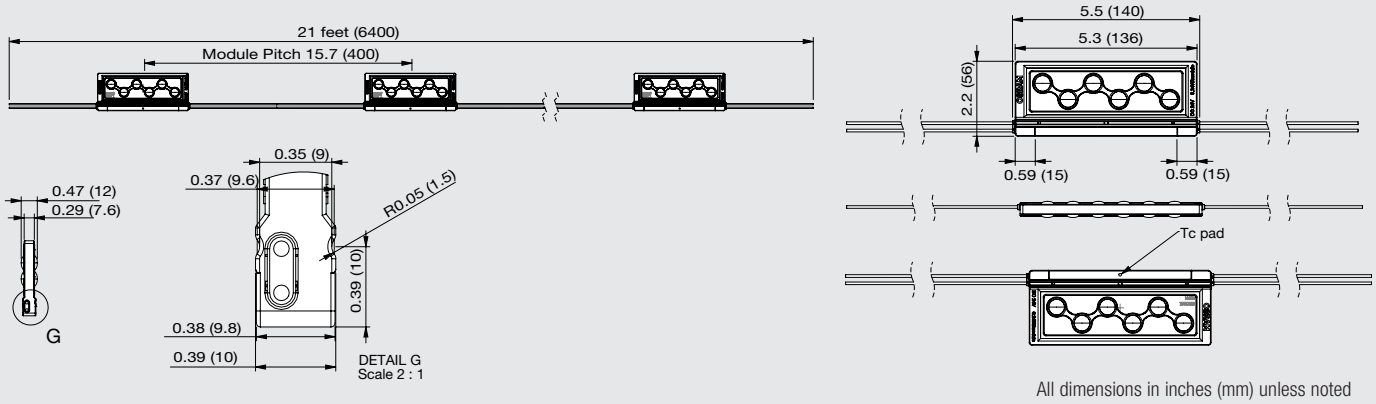
Item Number	Ordering Abbreviation	Description	Case Quantity
71921	BX-DS-MP	Aluminum Mounting Track 79" long with holes for Mounting Brackets (71922)	24 Units[1]
71922	BX-DS-MB	Mounting Brackets (Set of Left and Right)	30 Units[2]
73837	BX-RETRO-ADAPT	Adapter Sockets	30 Units[3]
73838	BX-DS-ADAPT-TRACK	Aluminum Adapter Track, 91.91" long with grooves to fit Adapter sockets (73837)	24 Units[4]

Notes:
1. Mounting tracks are sold in full cases of 24 units only
2. Mounting brackets are sold in full cases of 30 units only. Each case of 30 contains 15 left brackets and 15 right brackets.
3. Adapter Sockets are sold in full cases of 30 units only
4. Adapter Tracks are sold in full cases of 24 units only

BoxLED Plus DS modules mounted in Mounting Track with Mounting Brackets

BoxLED Plus DS modules mounted in Adapter Track with Adapter sockets

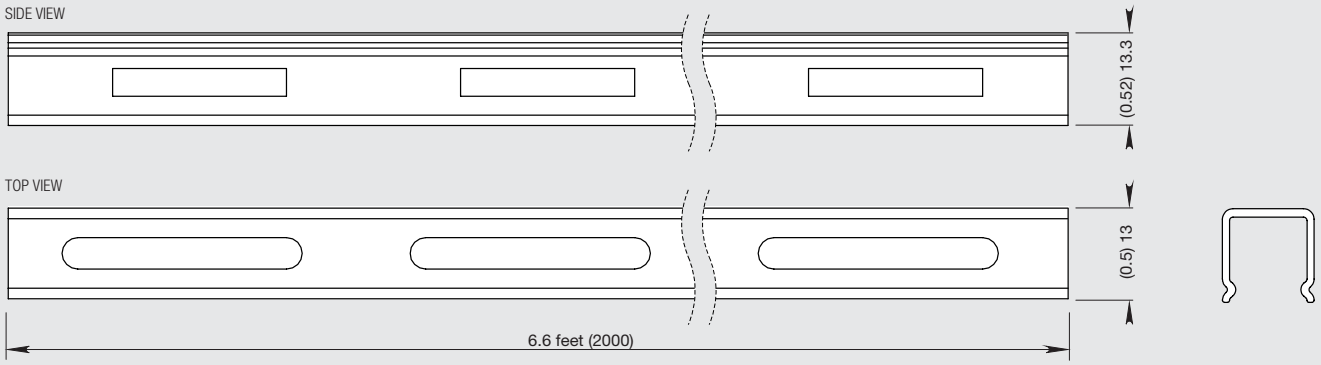
Assembly Diagram



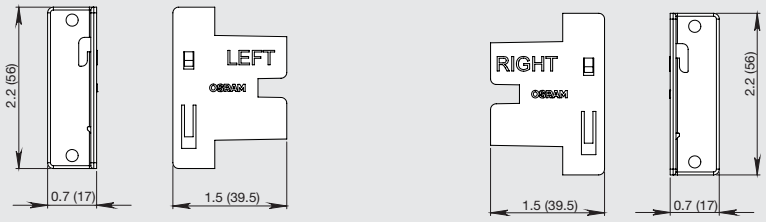
All dimensions in inches (mm) unless noted

Mounting Accessories

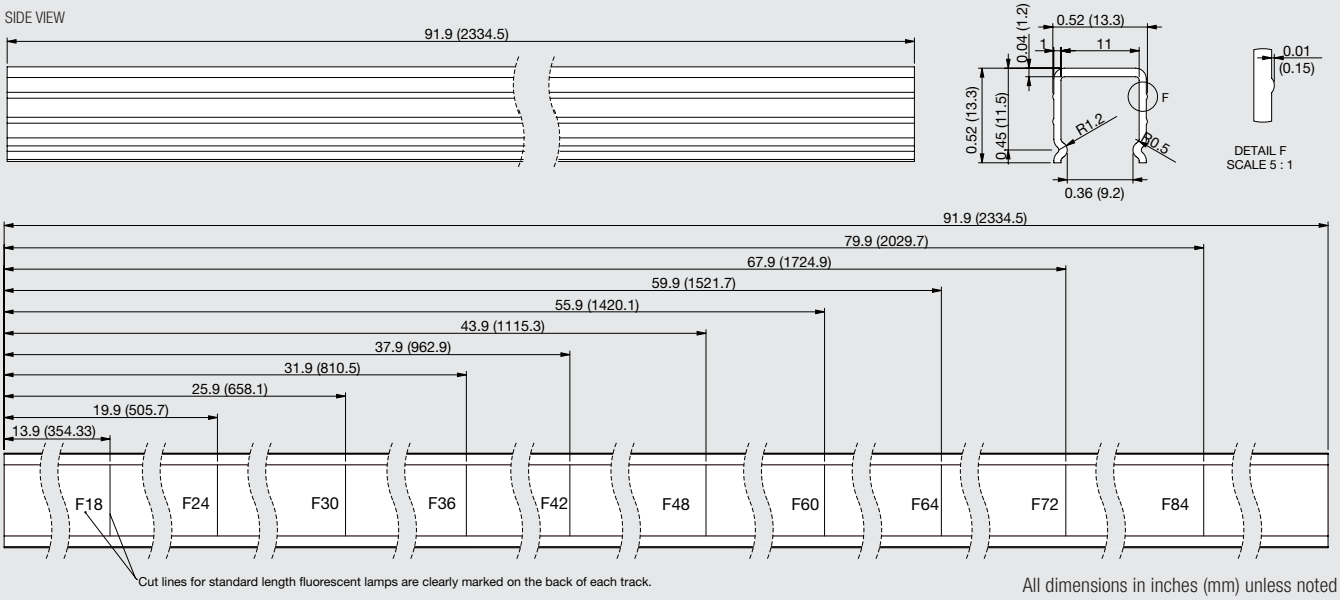
Mounting Track (71921)



Mounting Brackets (71922)



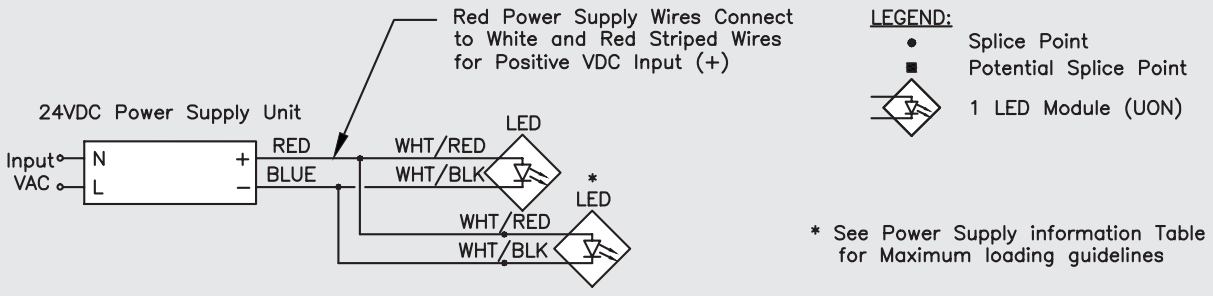
Adapter Track (73838)



Cut lines for standard length fluorescent lamps are clearly marked on the back of each track.

All dimensions in inches (mm) unless noted

Wiring Diagram



Safety Information

WARNING: ONLY QUALIFIED PERSONNEL SHOULD PERFORM INSTALLATION.

TO AVOID ELECTRICAL SHOCK OR COMPONENT DAMAGE, DISCONNECT POWER BEFORE ATTEMPTING INSTALLATION OF THE POWER SUPPLIES AND/OR MODULES.

Failure to install the power supplies and/or LED modules in accordance with the National Electric Code (NEC), all applicable Federal, State and local electric codes as well as the specific Underwriter's Laboratories (UL) safety standards for the installation, location and application may cause serious personal injury, death, property damage and/or product malfunction.

1. The LED module itself and all its components shall not be subjected to mechanical stress and assembly must not damage or destroy conducting paths on the circuit board.
2. Installation of LED modules shall be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
3. Observe correct electrical polarity, incorrect polarity may destroy the module.
4. Electrostatic Discharge (ESD) precautions shall be incorporated when handling or installing the module. (For more information, reference document # LED093 ESD Protection for LED Systems.)
5. Circuit boards should be attached securely to the accessory track. Heavy vibration should be avoided.

Assembly Information

1. It is recommended all modules are mounted using the available mounting track and brackets.
2. The LED module shall not be subject to mechanical stress or heavy vibration.
3. When using power supplies other than OSRAM OPTOTRONIC®, power supply output voltage has to be 24.0V ± 1.0V.
4. For complete installation instructions, refer to BoxLED Plus DS Installation Instructions LED446.

Warranty

5 Year Full System Warranty. Please refer to OSRAM SYLVANIA Signage Systems Warranty Document (LED087).

OSRAM

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