

TSL Series

Linkable LED Strip Lights



DESCRIPTION

The TSL Series includes 2', 4' and 8' linkable LED strip lights designed to replace fluorescent strip lighting. The TSL Series delivers general ambient lighting in a variety of indoor settings, including schools, hospitals, stores and is the perfect choice for both new construction and retrofits. This high-efficacy luminaire is a cost effective solution that provides long-life, uniform illumination and is incredibly easy to install with its mounting clips and access door behind the unit.

SPECIFICATIONS

Construction

- Steel housing in a white finish
- Available in three lengths and four different lumen packages
 - 2' Unit, 20 Watts, 2918 lumens
 - 4' Unit, 24 Watts, 3255 lumens
 - 4' Unit, 32 Watts, 4181 lumens
 - 8' Unit, 64 Watts, 7943 lumens
- Back access plate and snap-on mounting clips for easy installation

Optics/LEDs

- Polycarbonate lens that provides uniform illumination along the entire length of the luminaire with no visible LED pixilation
- General 120° distribution
- Efficacies up to 146 LPW maximize energy savings and utility rebates
- Available in 3500K, 4000K and 5000K CCT
- CRI of ≥80
- L90 rated at 50,000 hours

Electrical

- 120-277VAC, 50/60Hz
- 1-10V Dimming driver

Installation

- Back access plate for ease of wiring without disassembling unit
- Snap-on mounting clips allow for ease of surface mount or cable mount for suspension installation (suspension kit sold separately)
- Several knockouts along the enclosure for flexibility in mounting
- Not suitable for installation in T-bar ceilings without field mounting modifications to be determined by installer

Options (Factory Installed)

- Battery Backup
 - Integral UL924 Listed battery pack provides 800 lumens and 90 minutes of emergency run time for path of egress
 - Rated for ambient temperatures of 0°C to 40°C (32°F to 104°F)

Accessories (Field Installed)

- Dimming sensor with daylight harvesting capability available for additional energy savings (TL-MSD) can be controlled via DIP switches or remote control (sold separately)
- Remote control for sensor (TL-MSD-REMOTE) allows for field programming
- Cable and hook mount, 5' (TSL-CHK); two kits required for 8' units
- Linkable adaptor kit allows units to be linked end to end for continuous rows with seamless illumination, kit available for 4' or 8' units
 - Max units linkable = TSL-4-24, 30 pcs @ 120VAC, 60 pcs @ 277VAC
 - TSL-4-32, 22 pcs @ 120VAC, 44 pcs @ 277VAC
 - TSL-8-64, 14 pcs @ 120VAC, 30 pcs @ 277VAC

TESTING & COMPLIANCE

- cULus Listed for Damp Locations (consult factory for UL Listed options)
- DesignLights Consortium® (DLC) PREMIUM Qualified
- Operating temperatures: -20°C to 40°C (-4°F to 104°F)

AVAILABLE WHILE SUPPLIES LAST



Specs At A Glance*				
Length	2'	4'	8'	
Wattage (W)	20W	24W	32W	64W
Lumens (lm)	2918	3255	4181	7943
Efficacy (LPW)	146	132	132	130
Distribution	General 120°			
CCT	3500K, 4000K, 5000K			
CRI	≥80			
Input Voltage	120-277VAC, 50/60Hz			
Operating Temp	-20°C to 40°C (-4°F to 104°F)			
Certifications	UL Listed for Damp Locations, DLC PREMIUM			
Warranty	5 Years			
Weight	2.5 lbs	4.8 lbs	9 lbs	

*Nominal Wattage. Tested at 5000K CCT

Note: Environment and application will affect actual performance. Typical values and 25°C (77°F) used for testing. Specifications subject to change without notice.

WARRANTY

- Five year warranty (Terms and Conditions apply)

Model: _____ Date: _____
 Accessories: _____
 Job Name: _____ Type: _____

Ordering Information (Example: TSL-4-32-4K-BB)

Series	Length/Wattage	CCT	Options	Accessories ² (Field Installed)
TSL	2-20 = 2', 20W	35K = 3500K	BB ¹ = Battery Backup	TL-MSC = Dimming occupancy sensor
	4-24 = 4', 24W	4K = 4000K		TL-MSC-REMOTE = Remote control for TL-MSC
	4-32 = 4', 32W	5K = 5000K		TSL-CHK ³ = 5' Cable + hook kit
	8-64 = 8', 64W			TSL-L4 = Linkable adaptor and wire harness for 4' units TSL-L8 = Linkable adaptor and wire harness for 8' units

Notes:

- ¹ Not compatible with linkable adaptor accessories (TSL-L4, TSL-L8)
- ² Order as a separate line item; shipped in a separate box for field installation
- ³ Two kits are required for TSL-8 (8') units

Sensor Settings

By selecting the combination of the DIP switches, sensor data can be precisely set for each specific application.

		1	2	
	I	ON	ON	100%
	II	ON	OFF	75%
	III	OFF	ON	50%
	IV	OFF	OFF	10%

Default setting with gray background

Detection area

Detection area can be reduced by selecting the combination on the DIP switches to fit precisely each application. Default set at 100%.

Occupancy Sensor
(Accessory TL-MSC)



		3	4	5	
	I	ON	ON	ON	5S
	II	OFF	ON	ON	30S
	III	ON	OFF	ON	90S
	IV	OFF	OFF	ON	3MIN
	V	ON	ON	OFF	20min
VI	OFF	OFF	OFF	+∞	

Hold time

Refers to the time period the lamp remains at 100% illumination after no motion detected. Default set at 30 seconds.

		6	7	8	
	I	ON	ON	ON	0S
	II	OFF	ON	ON	5S
	III	ON	OFF	ON	5min
	IV	OFF	OFF	ON	10min
	V	ON	ON	OFF	30min
	VI	OFF	ON	OFF	1h
VII	OFF	OFF	OFF	+∞	

Standby period

Refers to the time period the lamp remains at a low light level before it completely switches off in the long absence of people. When set to +∞ mode, the low light maintained until motion is detected. Default set to five minutes.

		1	2	3	4	
	I	OFF	OFF	ON	ON	2Lux
	II	OFF	OFF	OFF	ON	5Lux
	III	OFF	ON	ON	OFF	10Lux
	IV	OFF	OFF	ON	OFF	25Lux
	V	OFF	ON	OFF	OFF	50Lux
	VI	ON	OFF	OFF	OFF	100Lux
VII	OFF	OFF	OFF	OFF	Disable	

Daylight sensor

The sensor can be set to only allow the lamp to illuminate below a defined ambient brightness threshold. When set to Disable mode, the daylight sensor will switch on the lamp when motion is detected regardless of ambient light level. 50Lux, 30Lux: twilight operation, 10Lux, 5Lux: darkness operations only. Default set to disable.

Note - The daylight sensor is active only when lamp totally switches off.

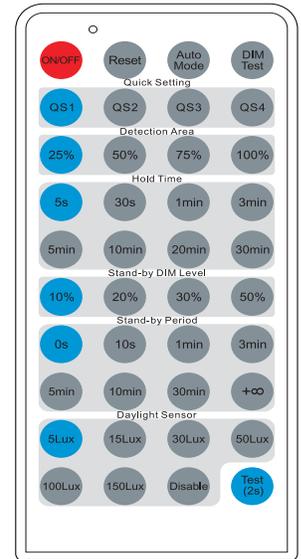
		5	6	
	I	ON	ON	50%
	II	OFF	ON	30%
	III	ON	OFF	20%
IV	OFF	OFF	10%	

Standby dimming level

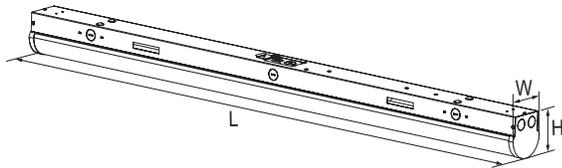
The low light level you would like to have after the hold time in the long absence of people. Default set as 30%.

Sensor Remote Settings (Remote Control TL-MSR-REMOTE)

Button	Function	Remarks																														
	Constant ON/OFF	Press the "ON/OFF" button, the light goes to a constant on or constant off mode, sensor is disabled. Press "Reset" or "Auto Mode" button to quit from this mode.																														
	Reset	Press "Reset" button, all parameters can be set via DIP switch.																														
	Sensor Mode	Press "Auto Mode" button, the sensor will start to work and all parameter settings will remain the same as the previous status before the light was switched on/off.																														
	DIM Test	Press "DIM Test" button, the 1-10Vdc dimming interface will be dimming automatically according to the dimming level you want, after 2s, the parameters of the sensor will be returned to the latest settings.																														
	Test Mode	The button "Test (2s)" is for testing purpose only. The sensor will go to test mode: Detection sensitivity: 100% Hold time: 2 seconds Stand-by period: 0s Daylight sensor: Disable *This mode can be exited by pressing "reset" or any button on the remote control. The sensor setting is changed accordingly.																														
	Scene Mode	<table border="1"> <thead> <tr> <th>Scene Options</th> <th>Detection Area</th> <th>Hold Time</th> <th>Stand-by Period</th> <th>Stand-by DIM level</th> <th>Daylight Sensor</th> </tr> </thead> <tbody> <tr> <td>QS1</td> <td>100%</td> <td>30s</td> <td>1 min</td> <td>10%</td> <td>5Lux</td> </tr> <tr> <td>QS2</td> <td>100%</td> <td>1 min</td> <td>3 min</td> <td>10%</td> <td>10Lux</td> </tr> <tr> <td>QS3</td> <td>100%</td> <td>5 min</td> <td>10 min</td> <td>10%</td> <td>30Lux</td> </tr> <tr> <td>QS4</td> <td>100%</td> <td>10 Min</td> <td>30 Min</td> <td>10%</td> <td>Disable</td> </tr> </tbody> </table> <p>Note: Detection area/hold time/stand-by period/stand-by DIM level/daylight sensor can be adjusted by pressing corresponding button. The latest setting does not change until the end user changes it.</p>	Scene Options	Detection Area	Hold Time	Stand-by Period	Stand-by DIM level	Daylight Sensor	QS1	100%	30s	1 min	10%	5Lux	QS2	100%	1 min	3 min	10%	10Lux	QS3	100%	5 min	10 min	10%	30Lux	QS4	100%	10 Min	30 Min	10%	Disable
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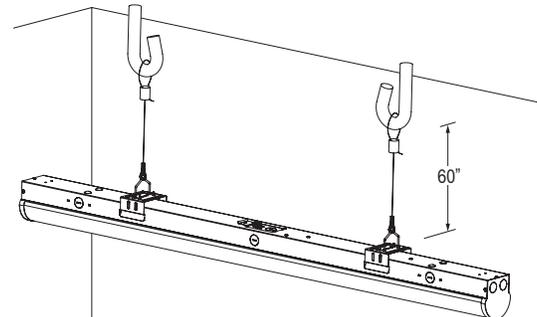


Dimensions



Model	L	W	H
TSL-2	24.0"	3.2"	3.5"
TSL-4	48.0"	3.2"	3.5"
TSL-8	96.0"	3.2"	3.5"

Cable + Hook Assembly (Accessory TSL-CHK)



Linkable Accessories



Kit includes translucent linkable adapter and wire harness. (TSL-L4 or TSL-L8)



Seamless illumination for continuous rows using linkable adapter kit. (TSL-L4 or TSL-L8)