

## TEG

### LED Architectural Recessed Troffer



#### Key Features

- An aesthetically pleasing LED recessed troffer that's ideal for new construction or retrofit applications.
- Available in 1x4, 2x2 & 2x4 models.
- Optional integrated motion sensor with daylight harvesting (Smart Blu™).
- Industry leading 10-Year warranty.

#### Electrical

- 120-277VAC input. <sup>2</sup>
- 0-10V dimming standard (Mark 7 interface).
- Operating temperature: -40°C to +40°C (-40°F to +104°F)

#### Mounting

- Lightweight and easy to install in standard T-Grid ceilings.
- Surface mounting optional with mounting kit accessory (sold separately).

#### Construction

- Housing is constructed of 22 gauge steel for exceptional durability.
- Pre-painted white finish is standard for the highest reflectance.
- Frosted ribbed acrylic lens is designed to maximize lumen output and minimize glare.

#### Optics

- Industry leading LEDs with 3000K, 3500K, 4000K, and 5000K CCT (minimum 80 CRI).
- Color tuning option available.
- Lumen Maintenance >161,000 hours (L70) <sup>1</sup>

#### Warranty

- Backed by National LED's industry leading 10-year warranty.

Project	Date
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Catalog Number	Type
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#### Product Performance Summary

<b>Lumen Output</b>	Up to 4,110 lumens
<b>Efficacy</b>	Up to 141 LPW
<b>CRI</b>	≥ 80 CRI
<b>Available CCT</b>	3000K, 3500K, 4000K or 5000K
<b>Warranty</b>	10-Year Warranty

#### Product Overview

The TEG architectural troffer is beautifully designed for applications that require lay-in troffers and is suitable for commercial, institutional and retail opportunities. The TEG features highly efficient low glare lighting, extreme power savings, along with low installation and maintenance costs. Its sleek profile, flexible design features, and simple mounting process make the TEG the perfect choice for schools, offices and many other projects needing a simple solution for T-Grid ceilings.

#### Product Applications

- Classrooms
- Conference Rooms
- Office Spaces
- Hallways/Corridors
- Industrial/Warehouses
- Convenience Stores
- Retail Areas
- Hospitals
- Health Care Facilities
- Commercial Spaces

#### Product Certifications/Approvals

- CSA Listed
- Complies with UL1598 and CSA 22.2
- DLC Premium Listed
- Suitable for indoor damp locations
- RoHS compliant



#### Ordering Information

Example: TEG1-1-22-UNVL-25-1-50

TEG1									
Series	Variant	Size	Input Voltage	Power	Driver	CCT			
1	Standard (No Controls)	14	1x4	UNVL 120-277V	21	21W	1 Philips Driver 0-10V	30	3000K
		22	2x2		25	25W		35	3500K
		24	2x4		30	30W		40	4000K
		40	40W <sup>3</sup>		50	5000K			
		50	50W <sup>3</sup>						
2	Smart Blu™ (With Controls & Color Tuning) <sup>3</sup>	14	1x4	UNVL 120-277V	29	29W	3 Blu-Drive Driver	T	2700K-6500K
		22	2x2						
		24	2x4						

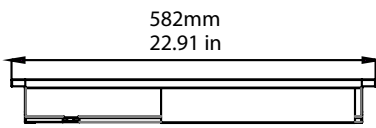
Accessories (Sold Separately)	
TDK-SMK-1-14	1x4 Surface Mount Kit
TDK-SMK-1-22	2x2 Surface Mount Kit
TDK-SMK-1-24	2x4 Surface Mount Kit
DW-14-GB	1x4 Drywall Flange Kit
DW-22-GB	2x2 Drywall Flange Kit
DW-24-GB	2x4 Drywall Flange Kit
ILB-CP10A-HE	Constant Power High-Efficiency LED Emergency Driver
ILB-CP12A	Constant Power LED Emergency Driver
IP710-LFZ	Leviton® Wall Control Dimmer

1. Product 'Lifetimes' refer only to the LED light engine, not the power source, and are based on the Illuminating Engineering Society's TM21 Projected Lumen Maintenance methodology at a 25° C / 77° F ambient temperature. The lifetimes are solely meant to be a guide for expected LED degradation and not a warranty or predictive of their actual life, which can be affected by ambient temperatures and other factors.  
 2. Canadian 347VAC available upon request, but not DLC Listed.  
 3. Option not currently DLC Listed.

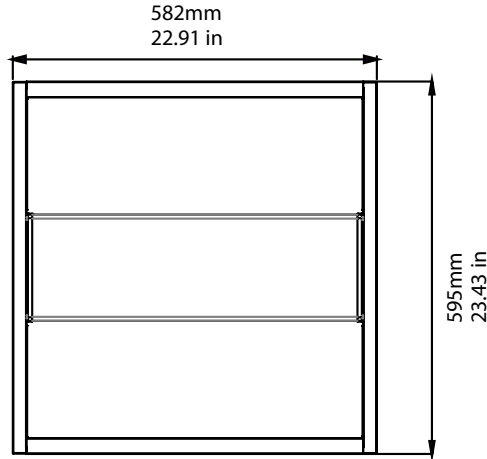
### Dimensions

Model	Net Weight
1x4	9 lbs. (4.1kg)
2x2	8 lbs. (3.6kg)
2x4	13 lbs. (5.9kg)

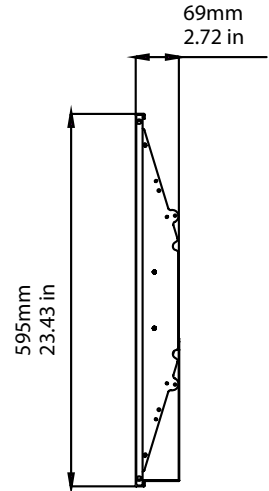
**2x2 Model  
(Side View)**



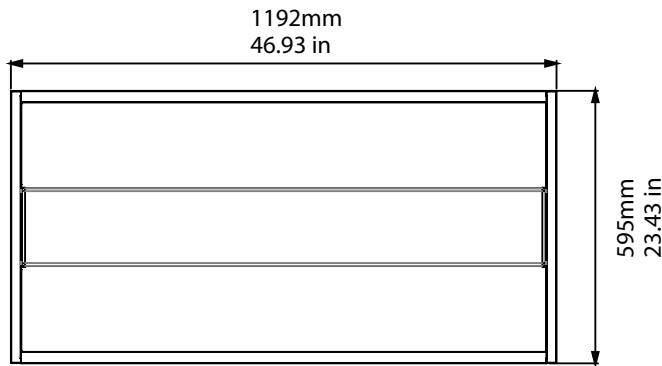
**2x2 Model  
(Bottom View)**



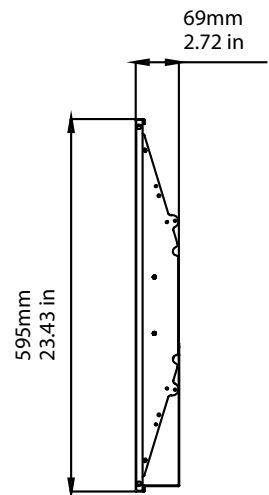
**2x2 Model  
(End View)**



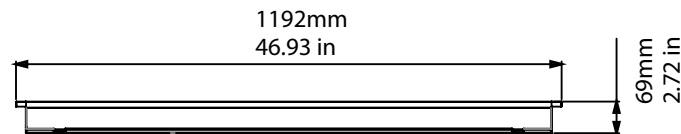
**2x4 Model  
(Bottom View)**



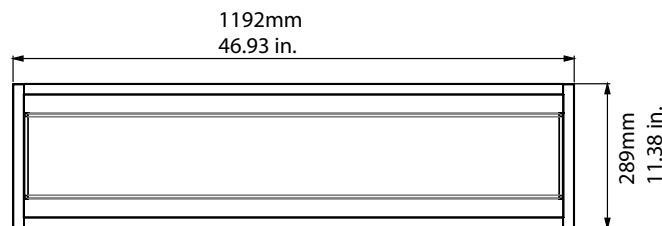
**2x4 Model  
(End View)**



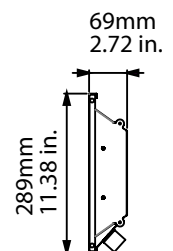
**2x4 Model  
(Side View)**



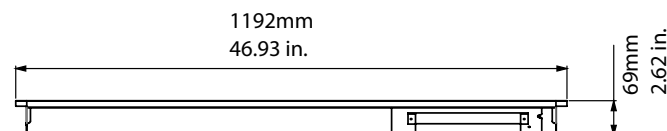
**1x4 Model  
(Bottom View)**



**1x4 Model  
(End View)**



**1x4 Model  
(Side View)**



## LED Architectural Recessed Troffer

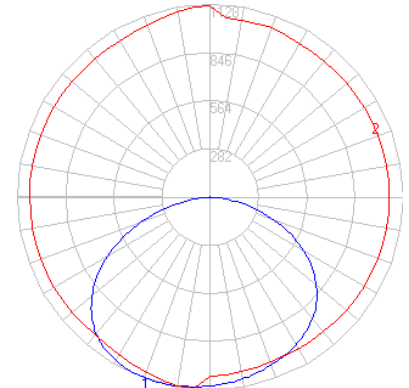
### Performance Data

#### Luminaire Photometric Data

Model Number	<b>TEG1-1-24-UNVL-25-1-50</b>
Issue Date	<b>02/26/2019</b>
IESNA	<b>LM-63-2002</b>
Lamp	<b>LED</b>
Total Input Watts	<b>24.7</b>
Total Lumens	<b>3,520</b>
Efficacy	<b>141 LPW</b>
Spacing Criterion	<b>0°-180° = 1.28   90°-270° = 1.48</b>

#### Zonal Lumen Summary

Zone	Lumens	% Fixt
0-30	872.11	24.80
0-40	1444.16	41.00
0-60	2633.52	74.80
0-90	3518.30	100.00
0-180	3520.09	100.00



Model	System Level Power	Delivered Lumens	Efficacy	CCT	L70 Calculate Life	L85 Calculate Life
TEG1-1-14-UNVL-25-1-30	25.3W	3,220L	125 LPW	3000K	161,000 Hours	75,000 Hours
TEG1-1-14-UNVL-25-1-35	25.3W	3,230L	129 LPW	3500K	161,000 Hours	75,000 Hours
TEG1-1-14-UNVL-25-1-40	25.3W	3,390L	135 LPW	4000K	161,000 Hours	75,000 Hours
TEG1-1-14-UNVL-25-1-50	25.3W	3,320L	132 LPW	5000K	161,000 Hours	75,000 Hours
TEG1-1-14-UNVL-30-1-30	30.6W	3,760L	123 LPW	3000K	161,000 Hours	75,000 Hours
TEG1-1-14-UNVL-30-1-35	30.6W	3,870L	126 LPW	3500K	161,000 Hours	75,000 Hours
TEG1-1-14-UNVL-30-1-40	30.6W	3,910L	128 LPW	4000K	161,000 Hours	75,000 Hours
TEG1-1-14-UNVL-30-1-50	30.6W	3,980L	130 LPW	5000K	161,000 Hours	75,000 Hours
TEG1-1-22-UNVL-25-1-30	25.0W	3,160L	126 LPW	3000K	161,000 Hours	75,000 Hours
TEG1-1-22-UNVL-25-1-35	25.0W	3,250L	130 LPW	3500K	161,000 Hours	75,000 Hours
TEG1-1-22-UNVL-25-1-40	25.0W	3,260L	131 LPW	4000K	161,000 Hours	75,000 Hours
TEG1-1-22-UNVL-25-1-50	25.0W	3,330L	133 LPW	5000K	161,000 Hours	75,000 Hours
TEG1-1-22-UNVL-30-1-30	31.3W	3,880L	124 LPW	3000K	161,000 Hours	75,000 Hours
TEG1-1-22-UNVL-30-1-35	31.3W	3,990L	128 LPW	3500K	161,000 Hours	75,000 Hours
TEG1-1-22-UNVL-30-1-40	31.3W	4,040L	129 LPW	4000K	161,000 Hours	75,000 Hours
TEG1-1-22-UNVL-30-1-50	31.3W	4,110L	131 LPW	5000K	161,000 Hours	75,000 Hours
TEG1-1-24-UNVL-25-1-30	24.7W	3,370L	135 LPW	3000K	161,000 Hours	75,000 Hours
TEG1-1-24-UNVL-25-1-35	24.7W	3,320L	135 LPW	3500K	161,000 Hours	75,000 Hours
TEG1-1-24-UNVL-25-1-40	24.7W	3,330L	137 LPW	4000K	161,000 Hours	75,000 Hours
TEG1-1-24-UNVL-25-1-50	24.7W	3,520L	141 LPW	5000K	161,000 Hours	75,000 Hours
TEG1-1-24-UNVL-30-1-30	30.5W	3,680L	120 LPW	3000K	161,000 Hours	75,000 Hours
TEG1-1-24-UNVL-30-1-35	30.5W	3,800L	125 LPW	3500K	161,000 Hours	75,000 Hours
TEG1-1-24-UNVL-30-1-40	30.5W	3,830L	126 LPW	4000K	161,000 Hours	75,000 Hours
TEG1-1-24-UNVL-30-1-50	30.5W	3,910L	128 LPW	5000K	161,000 Hours	75,000 Hours

## LED Architectural Recessed Troffer

### Accessories

**TDK-SMK-1-14 1x4 Surface Mount Kit**

**TDK-SMK-1-22 2x2 Surface Mount Kit**

**TDK-SMK-1-24 2x4 Surface Mount Kit**

### Overview

The TDK-SMK surface mount kits allow for the TDK and TEG recessed lighting solutions to be field installed in plenum-less spaces. Designed for use on the surface of drywall or concrete ceilings, these surface mount kits are ideal for offices, educational facilities, healthcare facilities, and any other indoor applications where surface mount troffer installation is required. The TDK-SMK is available in 1x4, 2x2, or 2x4 configurations.

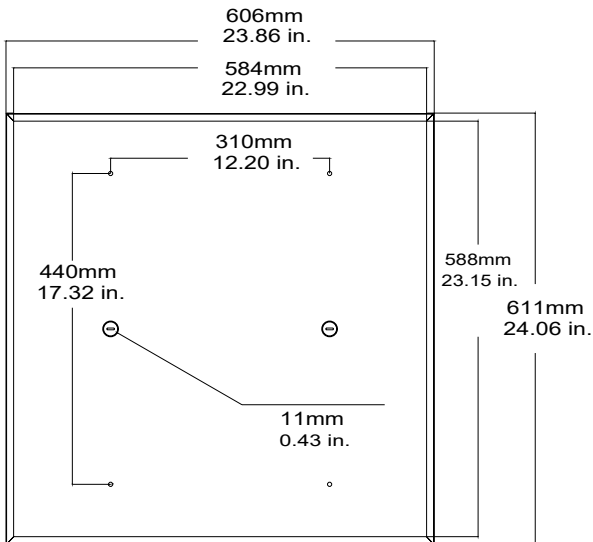
### Key Features

- Surface mounted kits that facilitate easy installation of recessed troffers in non-plenum spaces.
- Available in 1x4, 2x2, or 2x4 configurations.
- Multiple knockouts offer flexible location for power feed.
- Extruded aluminum construction with white powder coat finish ensures maximum protection against potential rust.
- Formed edges are smooth for safe handling while installing.
- Mounting holes provided for surface mounting to the ceiling.

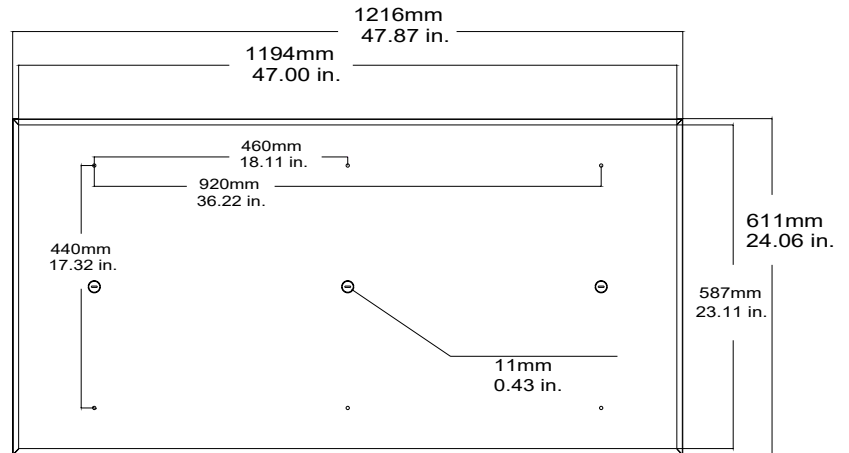


### Specifications

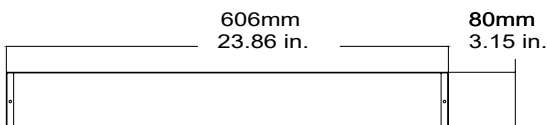
**2x2 (Top View)**



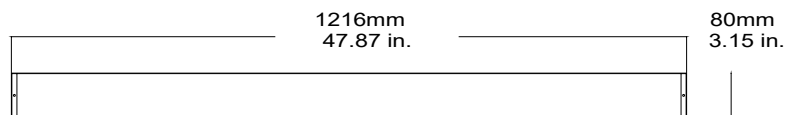
**2x4 (Top View)**



**2x2 (Side View)**



**2x4 (Side View)**



## LED Architectural Recessed Troffer

### Accessories

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**DW-14-GB 1x4 Drywall Flange Kit**

**DW-22-GB 2x2 Drywall Flange Kit**

**DW-24-GB 2x4 Drywall Flange Kit**

### Overview

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Drywall flange kits act as T-Bar frames to support recessed troffer luminaires in wood, drywall, or plaster ceilings. From the room side, flange kits mimic the appearance of T-Bars in a baked white enamel finish.

### Key Features

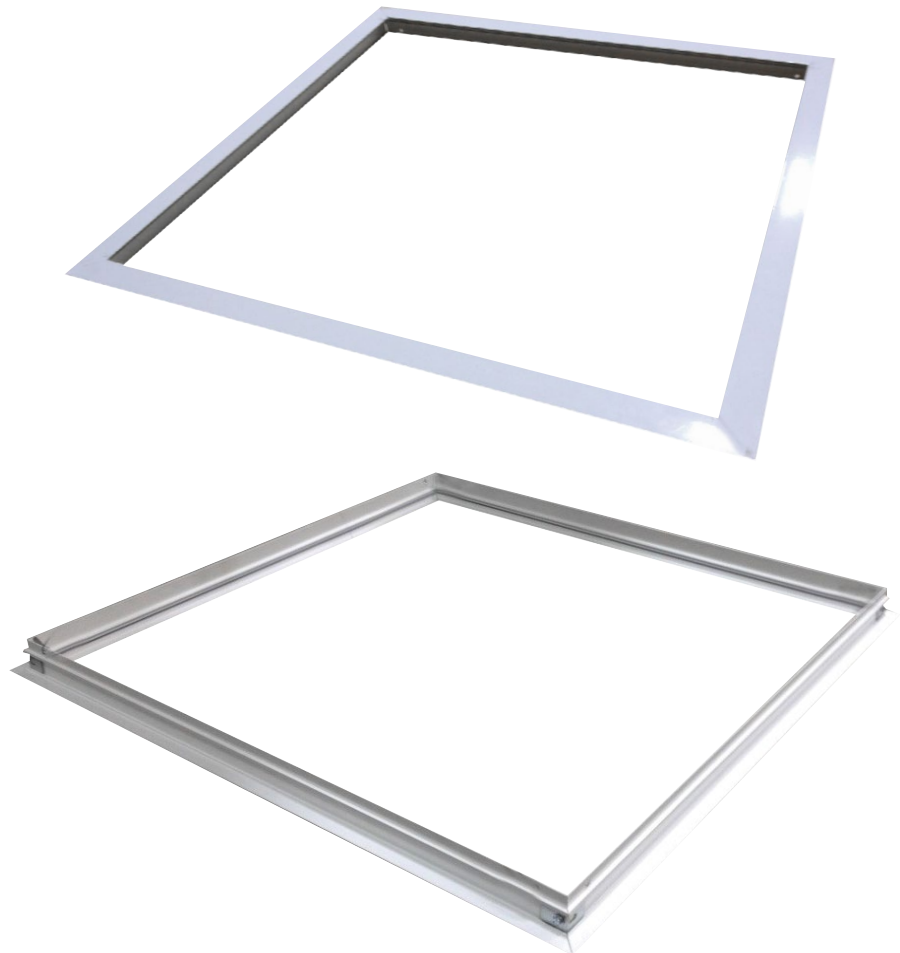
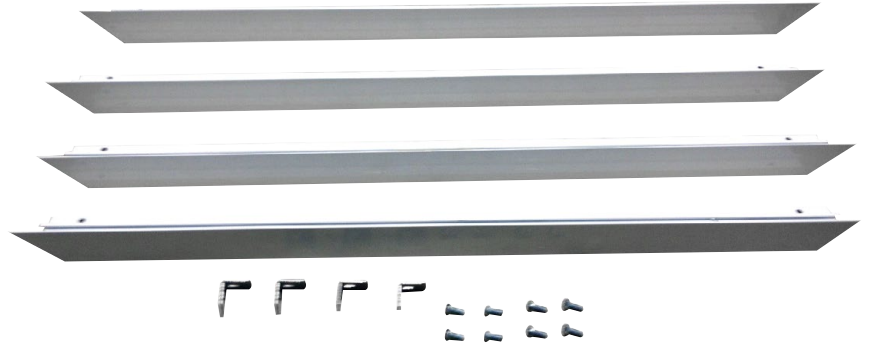
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- 22 gauge steel, pre-painted white finish.
- All kits include: (2) side flanges, (2) end flanges, (4) corner brackets, and (8) thread cutting screws.

### Specifications

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- 1x4 Rough Opening: 48.66" x 12.74"
- 2x2 Rough Opening: 24.66" x 24.66"
- 2x4 Rough Opening: 48.66" x 24.74"



## LED Architectural Recessed Troffer

### Accessories

### ILB-CP10A-HE - Constant Power High-Efficiency LED Emergency Driver

#### Overview

The ILB-CP10-HE from IOTA Engineering is a UL Listed LED emergency driver for field or factory installation that allows the same LED fixture to be used for both normal and emergency operation. In the event of a power failure, the ILB-CP10-HE switches to the emergency mode and operates the existing fixture for 90 minutes. The unit contains a battery, charger, and converter circuit in a single enclosure and is available in different mounting configurations for individual fixture requirements. The ILB CP10-HE will operate an LED array load at 10 watts with constant power at a rated output voltage of 10V-60V.

#### Key Features

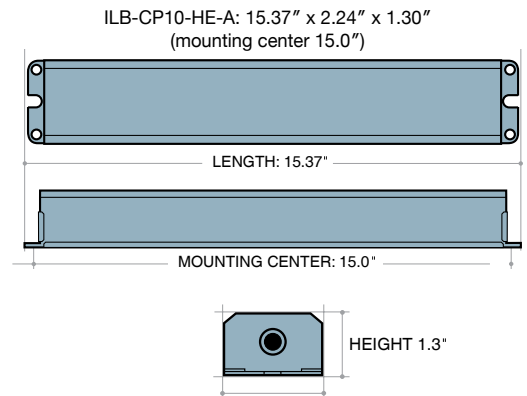
- High-efficiency performance meets CA T20 battery charger efficiency standards.
- UL Listed (UL924/UL1310) for factory and field installations.
- Patented constant power design maintains illumination throughout the 90-minute runtime with no light degradation.
- Two-wire universal AC input.
- Output Class 2 compliant.
- Six mounting configurations available.
- Long life high temperature Ni-Cad battery.
- Includes single-piece TBTS test switch and charge indicator accessory kit.
- Meets or exceeds all NEC, IBC, and Life Safety Code Emergency Lighting requirements.



#### Specifications

Input Voltage.....	(Universal) 120-277VAC, 50/60Hz
Input Rating (120V/277V).....	3.7 Watts (max)
Output Voltage <sup>1</sup> .....	10-60VDC Class 2 Compliant
Output Current.....	1.0A (@10VDC) - 0.16A (@60VDC)
Output Power.....	10 Watts (constant)
Max. AC Driver Output Current.....	3A <sub>dc</sub>
Power Factor .....	≥ 0.9 at 120VAC <sup>2</sup>
Surge Protection.....	Meets ANSI/IEEE C62.41.2-2002
Emergency Operation.....	90 minutes
Operating Temp.....	0° to 55° C
THD .....	< 20%
Battery.....	High Temp Nickel-Cadmium 24 Hour Recharge 7-10 Year Life Expectancy
Weight.....	(-A, -R) 4.0 lbs. (-B, -TM) 3.5 lbs. (-J, -R-J) 3.75 lbs.
Certifications .....	cUL Listed for factory and field installation CA T20 Appliance Efficiency Database

1. Max. output voltage in emergency mode is 58.5 VDC with a + tolerance of 1.5 volts  
2. PF ≥ 0.85 at 277VAC



#### Emergency Lumen Performance - ILB-CP10-HE

Approx. Luminaire Efficacy	Minute 1	Minute 45	Minute 90
100 lm/W	1000	1000	1000
110 lm/W	1100	1100	1100
120 lm/W	1200	1200	1200
130 lm/W	1300	1300	1300

## LED Architectural Recessed Troffer

### Accessories

### ILB-CP12A - Constant Power LED Emergency Driver

#### Overview

The ILB-CP12 from IOTA Engineering is a UL Listed and Classified LED emergency driver that allows the same LED fixture to be used for both normal and emergency operation. In the event of a power failure, the ILB-CP12 switches to the emergency mode and operates the existing fixture for 90 minutes. The unit contains a battery, charger, and converter circuit in a single can and is available in different mounting configurations for individual fixture requirements. The ILB-CP12 will operate an LED array load at 12 watts with constant power at a rated output voltage of 10V-60V.

#### Key Features

- UL Listed (UL924/UL1310) for factory and field installations.
- Patented constant power design maintains illumination throughout the 90-minute runtime with no light degradation.
- Two-wire universal AC input.
- Output Class 2 compliant.
- Six mounting configurations available.
- Long life high temperature Ni-Cad battery.
- Includes single-piece TBTS test switch and charge indicator accessory kit.
- Meets or exceeds all NEC, IBC, and Life Safety Code Emergency Lighting requirements.

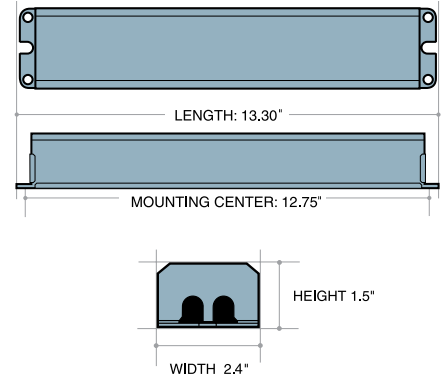


#### Specifications

Input Voltage.....	(Universal) 120-277VAC, 50/60Hz
Input Rating (120V/277V).....	3.7 Watts (max)
Output Voltage <sup>1</sup> .....	10-60VDC Class 2 Compliant
Output Current.....	1.2A (@10VDC) - 0.2A (@60VDC)
Output Power.....	12 Watts (constant)
Max. AC Driver Output Current.....	3Adc
Power Factor .....	≥ 0.9
Emergency Operation.....	90 minutes
Operating Temp.....	0° to 55° C
THD .....	< 20%
Battery.....	High Temp Nickel-Cadmium 24 Hour Recharge 7-10 Year Life Expectancy
Weight.....	(-A, -R) 4.0 lbs. (-B, -TM) 3.5 lbs. (-J, -R-J) 3.75 lbs.
Certifications .....	cUL Listed and classified for factory and field installation

<sup>1</sup> Max. output voltage in emergency mode is 58.5 VDC with a + tolerance of 1.5 volts

ILB-CP12-A: 13.3" x 2.375" x 1.5"  
(mounting center 12.75")



### Emergency Lumen Performance - ILB-CP12

Approx. Luminaire Efficacy	Minute 1	Minute 45	Minute 90
100 lm/W	1200	1200	1200
110 lm/W	1320	1320	1320
120 lm/W	1440	1440	1440
130 lm/W	1560	1560	1560

## LED Architectural Recessed Troffer

### Accessories

#### IP710-LFZ - Leviton® Wall Control Slide Dimmer

##### Overview

Leviton offers many products that will help lower electrical costs and add convenience to everyday living. By simply replacing standard switches with dimmers reduces energy consumption and extends bulb life. IllumaTech Preset Dimmers feature a low-profile fluid slide bar movement for fine adjustment of light levels or fan speeds that's accompanied by an easy-to-use ON/OFF preset switch. The switch provides quick ON/OFF control without disturbing your favorite pre-selected settings. Most feature a built-in LED locator light, as well.

##### Key Features

- 1200VA, 120/277 Volt AC 60Hz
- Single-Pole & 3-Way
- IllumaTech Preset Electro-Mechanical Electronic 0-10VDC LED Power
- Supply Dimmer - White face assembled on device. Ivory and Light Almond available.



##### Specifications

**Switch Type:** Single-Pole & 3-Way

**Style Name:** IllumaTech

**Type:** Electro-Mechanical

**Load Type:** Electronic 0-10VDC

0-10VDC LED Power Supply

**Load Rating:** 1200VA

**Voltage:** 120/277 Volt AC 60Hz

**Action:** Standard ON/OFF

**Protection:** Radio/TV Filter

**Color:** White Ivory Light Almond

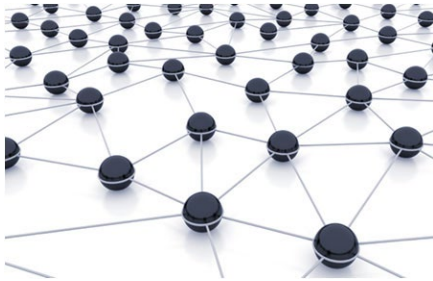
**Standards and Certifications:** UL/CSA







*Simple, Affordable, and Effective  
Bluetooth Lighting Control*  
iOS and Android Compatible APP



**SMART BLU™** is a wireless lighting control system that utilizes Bluetooth 4.0 Mesh Network technology to transmit lighting control data from a smartphone to Lights & Switches (**Nodes**). Nodes cooperate in the transmission of data to ensure integrity.

**SMART BLU™** enables significant power and maintenance savings for LED lighting through simple automation processes while allowing for individual freedom to adjust as necessary.

Mesh Networks (**Zones**) can range from 1 to 100 Nodes maximum. Buildings may be divided into many different Zones with each having its own distinct encryption and QR Code. For example, a School may have classrooms, corridors, gym and offices divided into Zones. An Office Tower could have each floor divided into open area, perimeter offices, meeting rooms and reception Zones.



Nodes consist of Lights, Switches, & Gateways. Lights may include onboard motion detectors and daylight photo sensors.



## LED Architectural Recessed Troffer

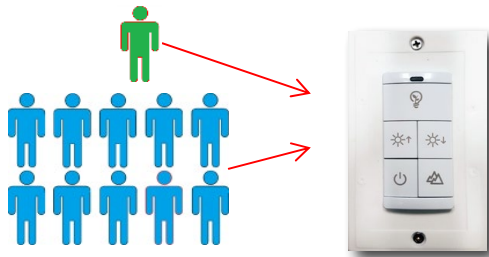
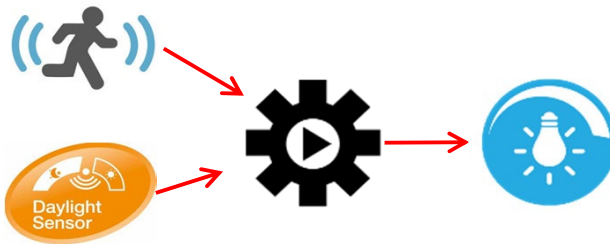
### Smart Blu™ Bluetooth Lighting Control (Cont.)



Lights may be offered in one color (monodimmable) or in two colors (2-channel dimmable). 2-channel Lights may be color-tuned anywhere from very warm to very cool.

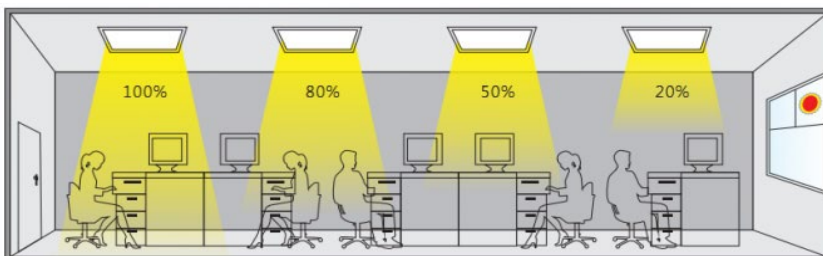
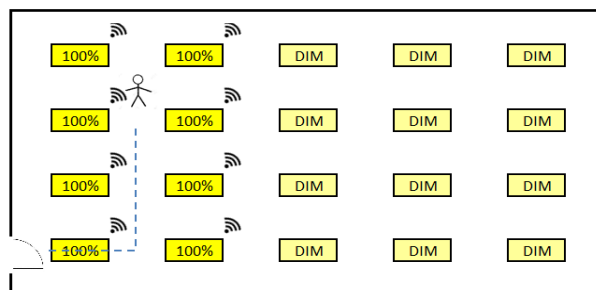


Lights may be supplied without sensors or they may be supplied with motion and/or photo sensors to allow automation of Light level control.



Lights may be controlled individually or in Groups. They can be set to operate automatically via sensors and/or respond to manual switches or smartphones.

Lights may also be linked such that if one Light motion sensor is tripped, all other Lights in the Group respond in unison thus making the whole space appear lit and less foreboding.



Daylight Harvesting is taking advantage of natural light that enters an interior space through windows by

adjusting artificial lighting to save power. **SMART BLU™** can dim Lights closest to windows lower than Lights further away from windows.




## Automation Defaults

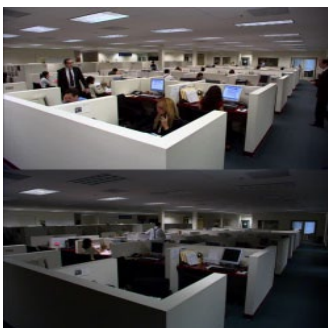


**SMART BLU™** incorporates Motion and Photo detectors. Motion detectors sense the presence of people and Photo detectors measure light levels. When enabled, these detectors can automatically make light level adjustments within a space without requiring manual adjustments by the occupants. The idea is to Automatically provide the right amount of light when it is needed and to dim or shut lights Off when it is not. The purpose of making automatic adjustments is to **save on energy and maintenance costs.**

**SMART BLU™** allows you to set Automation Defaults (Brightness, and Motion/Photo Detectors) for individual Lights or Groups of Lights. These may be disabled by choosing static Scenes via the APP or from physical Switches.

Automation Defaults may be set in two different sections of the APP; “Lights” and “Groups”. ***NOTE: If you set an Automation Default in one section, then alter the settings in another section, the LAST settings you make will be expressed by the system.***

An Automation icon  will appear in the following sections where it applies.



Scenes may be created with Groups and/or Individual Lights by adjusting brightness levels and color temperature (if available). Consider meeting rooms or classrooms when presentations are given and you wish to dim the light to view a smartboard or TV but still wish to provide light on the presenter.