FLTR
FLAT LENS TROFFER RETROFIT KIT

ILP
407-478-3759
www.ilp-inc.com

FEATURES

- Architectural Designed Flat Lensed Troffer
- One-piece Unit with Two Universal Mounting Brackets
- Average Install Time Less than 3 Minutes
- Lightweight Aluminum Matte White Finish Body
- Impact & Scratch Resistant PMMA Frosted Acrylic Lens
- Tamper Resistant Latch Option
- Advanced Wireless Controls Options
- 1x4, 2x2, 2x4 sizes
- 2,300 – 4,800 Delivered Lumens
- 3000K–4000K CCT
- >80 Color Rendering Index (CRI)
- Calculated L70 >100,000 hrs
- 0–10V Dimmable Driver
- 120–277V Universal Voltage
- 5 Year Warranty
- ETL Listed for Damp Locations

SUITABLE APPLICATIONS

- Education
- Healthcare
- Multipurpose Rooms
- Hallways
- Office
- Conference Rooms

ORDERING GUIDE:

SERIES		WATTS	DRIVER	CCT	DOORFRAME LATCH	
FLTR14	1x4 Flat Lens Troffer Retrofit Kit	19WLED	UNIV 120-277V	40	BLANK	Standard Latch
		30WLED		35	TRL	Tamper Resistant Latch
		45WLED		30		
FLTR22	2x2 Flat Lens Troffer Retrofit Kit	19WLED				
		30WLED				
		45WLED				
FLTR24	2x4 Flat Lens Troffer Retrofit Kit	26WLED				
		35WLED				
		45WLED				

OPTIONS		CONTROLS OPTIONS	
Factory Installed		**Basic**	
POSTP	Post Painted Aluminum	SR	Sensor Ready Module
EM5	5W LED Factory Installed Battery Backup	DR	DALI Ready Module
EM5/HE	5W LED Factory Installed Battery Backup–CEC Title 20 Compliant	BLD	Bi-Level Dimming Module (2 hot leads)
EM7	7W LED Factory Installed Battery Backup	ES/WWS/DR	EasySense Dual Rocker Wireless Wall Switch
EM7/HE	7W LED Factory Installed Battery Backup–CEC Title 20 Compliant	ES/PCD[3]	Pre-installed app on controlled device for commissioning
EM10	10W LED Factory Installed Battery Backup		
EM10/HE	10W LED Factory Installed Battery Backup–CEC Title 20 Compliant	**Advanced**	
EM12	12W LED Factory Installed Battery Backup	ES[2]	EasySense Sensor
SD347[1]	347V Step Down Transformer	5E/CU/IL	Enlighted 5E Individual Lighting (IL) Sensor w/ Control Unit
SD480[1]	480V Step Down Transformer	5E/CU/CL	Enlighted 5E Connected Lighting (CL) Sensor w/ Control Unit
		5E/CU/IOT	Enlighted 5E Internet of Things (IOT) Sensor w/ Control Unit
		5E/5W/IL	Enlighted 5E Individual Lighting (IL) Sensor w/ Aux Driver/5 Wire Connection
		5E/5W/CL	Enlighted 5E Connected Lighting (CL) Sensor w/ Aux Driver/5 Wire Connection
		5E/5W/IOT	Enlighted 5E Internet of Things (IOT) Sensor w/ Aux Driver/5 Wire Connection
		VDO[4]	Lutron Vive DFCSJ-OEM-OCC (Daylight & Occupancy)
		VRF[4]	Lutron Vive DFCSJ-OEM-RF (RF Only)

[1]Does not qualify for DLC
[2]Must be used with ES/PCD for commissioning
[3]One needed per project
[4]Must be used with SR Driver

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LED SYSTEMS INFO[1]	3000K		3500K		4000K		Watts[2]	Replaces
Part Numbers	Lumens	LPW	Lumens	LPW	Lumens	LPW		
FLTR14-19WLED-UNIV-XX	2,254	119	2,287	122	2,319	124	19W	2T8
FLTR14-30WLED-UNIV-XX	3,461	115	3,511	117	3,561	119	30W	2T8
FLTR14-45WLED-UNIV-XX	4,867	109	4,937	111	5,018	112	45W	2T8
FLTR22-19WLED-UNIV-XX	2,180	115	2,199	117	2,217	118	19W	2T8
FLTR22-30WLED-UNIV-XX	3,328	111	3,357	112	3,385	113	30W	3T8
FLTR22-45WLED-UNIV-XX	4,663	105	4,695	106	4,735	107	45W	3T8
FLTR24-26WLED-UNIV-XX	3,038	118	3,141	122	3,244	126	26W	2T8
FLTR24-35WLED-UNIV-XX	3,945	113	4,081	117	4,217	121	35W	3T8
FLTR24-45WLED-UNIV-XX	4,794	108	4,956	111	4,972	110	45W	3T8

[1]Values are nominal, see IES file for more detail
[2]Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

SPECIFICATIONS

CONSTRUCTION
Lightweight aluminum white body for rigidity, durability & ease of installation. One-piece unit with two universal mounting brackets for quick and easy installation into grid and hard-lid ceilings. Optional paint after fabrication. Designed to achieve maximum performance and improved aesthetics.

ELECTRICAL
Class 2 LED light engine for high efficacy and long life. Calculated L70 > 100,000 hrs. LED Lumen Maintenance Estimates based on TM-21 projections for the light source at 25°C ambient. Power Factor > 0.90. Standard 120-277 Vac 0-10V dimmable (1%-100%) with optional 347-480 Vac step down transformer. Optional emergency battery backups available to meet critical life safety lighting requirements.

MOUNTING
One-piece door frame light engine with two universal mounting brackets for easy installation. Tamper resistant latch option provides additional security in applications where it is needed most. See page 4 for step-by-step troffer kit installation instructions.

WARRANTY
5 Year Warranty (Terms and Conditions apply)

OPTICS
Impact and Scratch resistant PMMA frosted acrylic lens. Optimized optical design provides soothing illumination and glare reduction for maximum visual comfort.

TROFFER COMPATIBILITY
Designed to fit into most existing parabolic and lensed troffers with a housing depth of 3⅛" or greater. ILP recommends a test installation prior to ordering project quantities. Contact factory for additional troffer compatibility confirmation & custom size configuration options.

CONTROLS
Factory installed advanced sensor options available. Sensor mounts within the body of the fixture, see controls page for more detail (pg.3). Inquire with manufacturer for more controls options, including customer supplied items.

CERTIFICATIONS
ETL Listed to US & Canadian safety standards. Suitable for damp locations. Type IC rated. American Recovery & Reinvestment Act Funding Compliant. Title 24 Compliant with sensor options; see local ordinance for qualification information.

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ADVANCED CONTROLS OPTIONS

EASYSENSE

ES

EasySense sensor combines occupancy sensing, daylight harvesting & institutional tuning in one compact solution. This is an ideal control for any commercial application. Each sensor allows you to turn on/off occupancy and/or daylight harvesting functions as well as set the full light output, background light level, occupancy prolong time, occupancy grace fading time and occupancy time out/hold time. Requires the use of EasySense Pre-Programmed Control Device (ES/PCD), or approved phone from compatibility list; one needed per project.

← Occupancy Sensor (PIR)
← Light Sensor
← Infrared Receiver
← LED Indicator
← NFC Antenna

ES/PCD

Pre-Programmed EasySense Control Device. One needed per project. Sensor can also be programmed with the approved compatible cell phone (listed below).

Compatible Cell Phones:

- LG G4
- Samsung S4 Mini
- Samsung S4
- Samsung S5
- Samsung S6
- Samsung Note 4
- Samsung Note Edge 1

ES/WWS/DR

Optional Wireless / Batteryless Dual Rocker Wall Switch. Up to 100ft range. Functions include: On/Off, dimming and setting of (2) scences for full room control.

Specifications:
- Wireless
- Batteryless
- Dual Rocker
- ZigBee®
- 30–100ft Range

Functions:
1. On (Hold to brighten up)
2. Off (Hold to dim down)
3. Scene 1
4. Scene 2

LUTRON

VDO

Vive DFCSJ-OEM-OCC integral fixture control sensor with daylight & occupancy. Vive provides intuitive programming allowing for maximum flexibility with wireless communication & sensing as desired. Provided with factory installed components only. Lutron system provided by others. Sensor must be used in conjunction with Pico Switch/Dimmer. Cannot be used in conjunction with mechanical on/off power switch. Contact factory for more information.

VRF

Vive DFCSJ-OEM-RF integral fixture control with Radio Frequency (RF) communication. Vive provides intuitive programming allowing for maximum flexibility with wireless communication as desired. Providing with factory installed components only. Lutron system provided by others. Sensor must be used in conjunction with Pico Switch/Dimmer. Cannot be used in conjunction with mechanical on/off power switch. Contact factory for more information.

ENLIGHTED

5E/CU/IL

Bundled System with Enlighted 5E sensor (SU-5E-IL), Control Unit (CU-4E-FM) and Cable (CBL-5E-CU4-30N). Fixtures are controlled based on occupancy & ambient light. Includes ability to group fixtures together and connect to a switch to zone fixtures for group operation. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information.

5E/CU/CL

Bundled System with Enlighted 5E sensor (SU-5E-CL), Control Unit (CU-4E-FM) and Cable (CBL-5E-CU4-30N). Fixtures are controlled based on occupancy and ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. The Energy Manager provides data analysis for all data collected by the Enlighted Smart Sensors for energy, occupancy and environment. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information. (see image above)

5E/CU/IOT

Bundled System with Enlighted 5E sensor (SU-5E-IOT), Control Unit (CU-4E-FM) and Cable (CBL-5E-CU4-30N). Fixtures are controlled based on occupancy and ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. Energy Manager provides data analysis for all data collected by Enlighted Smart Sensors for energy, occupancy & environment. Additionally, the IOT functionality takes the data access and function beyond just lighting to a wide range of applications beyond the standard connected lighting controls. Provided with factory installed components only. Enlighted system provided by others.Contact factory for more information. (see image above)

5E/5W/IL

Bundled System with Enlighted 5E sensor (SU-5E-IL) & Cable (CBL-5E-CU4-30N) paired with a driver with auxiliary power and 5 wire connection. Fixtures are controlled based on occupancy and ambient light. Includes ability to group fixtures together and connect to a switch to zone fixtures for group operation. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information. (see image above)

5E/5W/CL

Bundled System with Enlighted 5E sensor (SU-5E-CL) & Cable (CBL-5E-CU4-30N) paired with a driver with auxiliary power & 5 wire connection. Fixtures are controlled based on occupancy and ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. The Energy Manager provides data analysis for all data collected by the Enlighted Smart Sensors for energy, occupancy and environment. Provided with factory installed components only. Enlighted system provided by others. Contact factory for more information. (see image above)
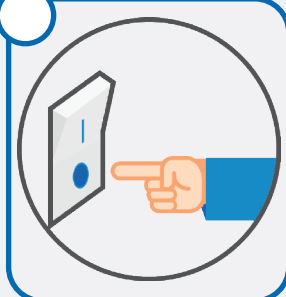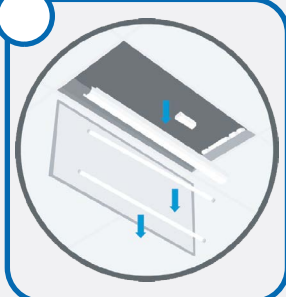
5E/5W/IOT

Bundled System with Enlighted 5E sensor (SU-5E-IOT) & Cable (CBL-5E-CU4-30N) paired w/ a driver w/ auxiliary power and 5 wire connection. Fixtures are controlled based on occupancy & ambient light. Includes individual lighting control plus connection to Enlighted Energy Manager. The Energy Manager provides data analysis for all data collected by Enlighted Smart Sensors for energy, occupancy & environment. Additionally, the IOT functionality takes the data access and function beyond just lighting to a wide range of applications beyond the standard connected lighting controls. Provided with factory installed components only. Enlighted system provided by others.Contact factory for more information. (see image above)

FLTR

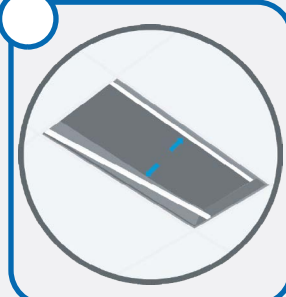## FLAT LENS TROFFER RETROFIT KIT

INSTALLATION INSTRUCTIONS

STEP 1
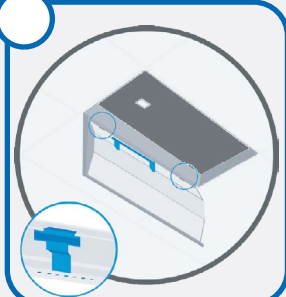
Shut off or disconnect power to the fixture.

STEP 2

Remove existing fluorescent lamps and components, then disconnect existing connections to the fluorescent ballast.
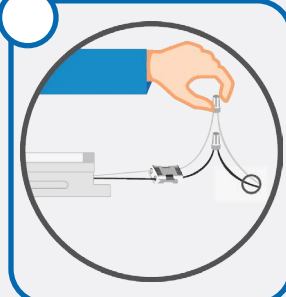
STEP 3

Gently lift the original housing and insert the brackets between the housing and the T-grid.
Allow the housing to rest on the brackets, securing them in place.
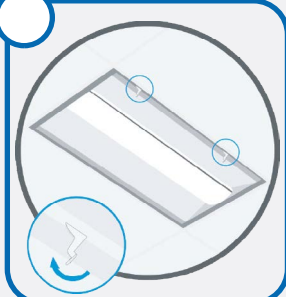Optional tether included on the mounting brackets to secure the kit to the housing.

STEP 4

Hang the FLTR body by hooking the T-hinges into the respective slots in the bracket.

STEP 5

Connect the FLTR to AC power and ground.

STEP 6

Rotate the FLTR body up into the fixture and close the latches. Fasten provided tamper proof screw into latch hole if TRL (Tamper Resistant Latch) option is ordered. Turn on or reconnect power to the fixture to complete the installation.
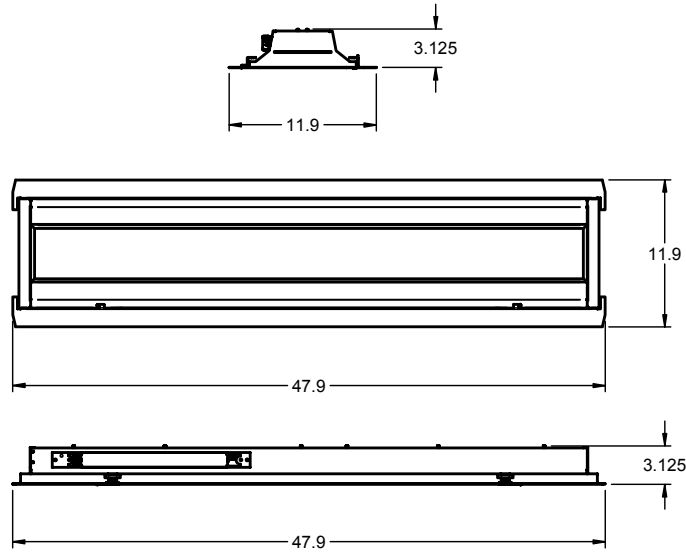
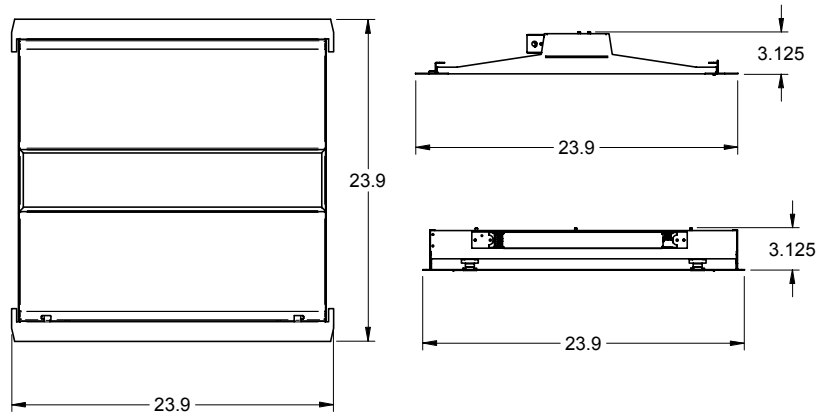ILP recommends a test installation prior to ordering project quantities.

FLTR
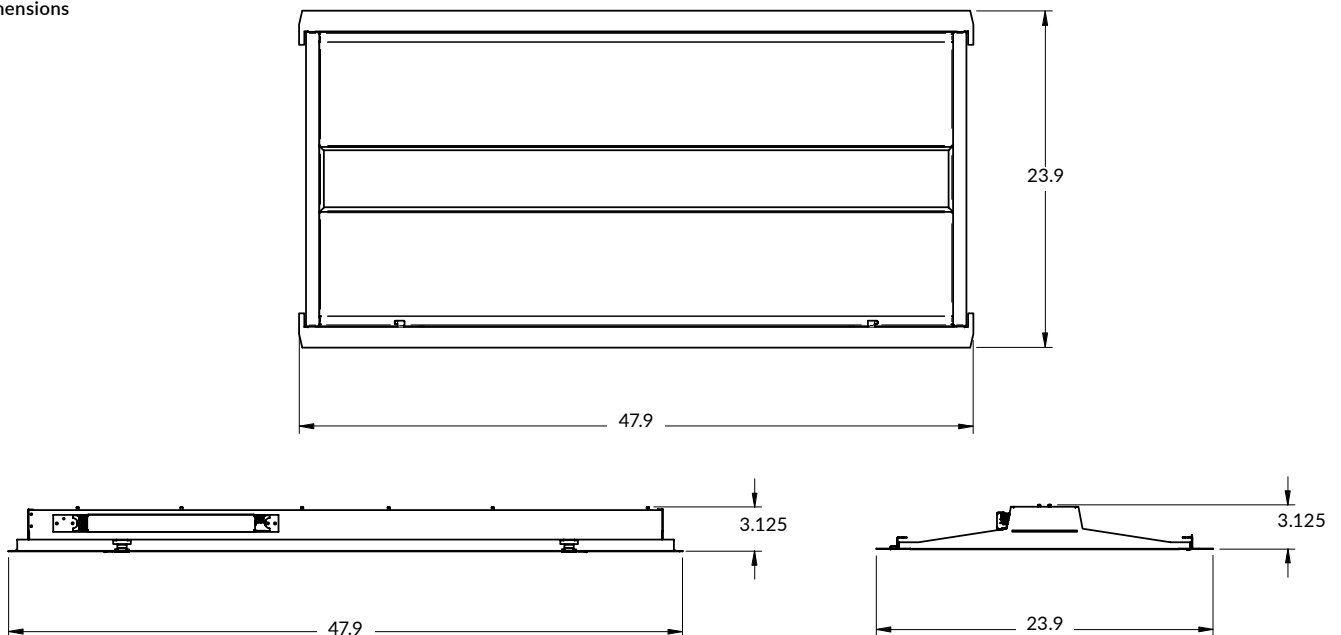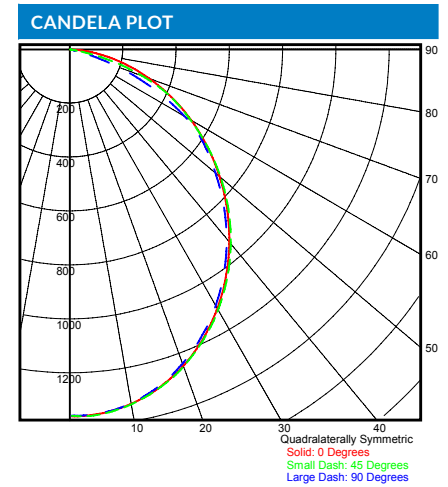## FLAT LENS TROFFER RETROFIT KIT

LINE DRAWINGS

1x4 Dimensions

3.125

11.9

11.9

47.9

3.125

47.9

2x2 Dimensions

23.9

23.9

3.125

23.9

3.125

23.9

2x4 Dimensions

23.9

47.9

3.125

47.9

3.125

23.9

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PHOTOMETRIC REPORTS

LUMINAIRE DATA

Part Number	FLT14-30WLED-UNIV-40
Description	1' x 4' Flat Lens Troffer Retrofit Kit with flat frosted acrylic lens, 3,500 lumens,
Fixture Lumens (lm)	3,561 lm
Wattage (W)	30 W
Efficacy (lm/W)	119 lm/W
Mounting	Recessed
Spacing Criteria	0° = 1.22, 90° = 1.20

ZONAL LUMEN SUMMARY

Zone	Lumens (lm)	% Fixture
0° - 40°	1,688	48%
0° - 60°	2,903	83%
0° - 90°	3,561	100%
90° - 180°	0	0%
0° - 180°	3,561	100%

CANDELA PLOT

Quadralaterally Symmetric
Solid: 0 Degrees
Small Dash: 45 Degrees
Large Dash: 90 Degrees

LUMINAIRE DATA

Part Number	FLT22-30WLED-UNIV-40
Description	2' x 2' Flat Lens Troffer Retrofit Kit with flat frosted acrylic lens, 3,400 lumens,
Fixture Lumens (lm)	3,385 lm
Wattage (W)	30 W
Efficacy (lm/W)	119 lm/W
Mounting	Recessed
Spacing Criteria	0° = 1.20, 90° = 1.20

ZONAL LUMEN SUMMARY

Zone	Lumens (lm)	% Fixture
0° - 40°	1,574	47%
0° - 60°	2,698	81%
0° - 90°	3,385	100%
90° - 180°	0	0%
0° - 180°	3,385	100%

CANDELA PLOT

Quadralaterally Symmetric
Solid: 0 Degrees
Small Dash: 45 Degrees
Large Dash: 90 Degrees
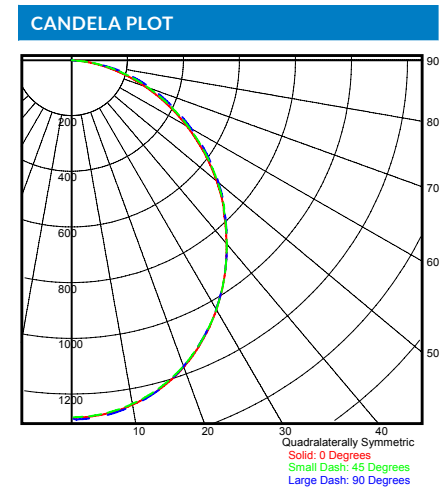
LUMINAIRE DATA

Part Number	FLT24-35WLED-UNIV-40
Description	2' x 4' Flat Lens Troffer Retrofit Kit with flat frosted acrylic lens, 4,200 lumens,
Fixture Lumens (lm)	4,217 lm
Wattage (W)	35 W
Efficacy (lm/W)	120 lm/W
Mounting	Recessed
Spacing Criteria	0° = 1.21, 90° = 1.21

ZONAL LUMEN SUMMARY

Zone	Lumens (lm)	% Fixture
0° - 40°	1,896	47%
0° - 60°	3,263	80%
0° - 90°	4,217	100%
90° - 180°	0	0%
0° - 180°	4,217	100%

CANDELA PLOT

Quadralaterally Symmetric
Solid: 0 Degrees
Small Dash: 45 Degrees
Large Dash: 90 Degrees