

FRTK - Fidelux Retrofit Troffer Kit Series

Product Description

FRTK Retrofit Kit Series is the ideal solution for renovating obsolete parabolic or any 2x4 & 2x2 fixture - ingenious structural design can reduce the difficulties of installation and maintenance. The main diffuser and slanted troffer help reduce glare and create a pleasant, uniform throw of the light in existing recessed troffer without the need to enter the ceiling space. A sleek, contemporary appearance is designed to enhance office, healthcare, retail and education interiors.

Features & Benefits

- FRTK series is an ideal illumination solution to upgrade fluorescent troffer to LED, energy saving and without need to actually break the ceiling plenum
- Compatible with both standard and narrow T-grids, they offer a simple retrofit that will improve the ceiling look
- Both the 2x2 and 2x4 retrofit kit troffer are manufactured with quality components and finishes, meaning a consistent, balanced lighting scheme
- External isolated power supply takes heat sensitive components away from the heat source

Applications

- Hospitals
- Schools
- Offices
- Retail

Mounting Options

- Retrofits Recessed, Surface, Drywall Installed Troffer

Regulatory & Voluntary Qualifications

- UL, Damp Location
- Most of our products are DLC listed, qualifying them for the highest rebates. Please check individual product specs for DLC status. Refer to DLC website by clicking this link: <https://www.designlights.org>
- Category: Integrated Retrofit Kits for 2x2 Luminaire



Performance Summary

Efficacy up to: 133 l/pw

CRI: 84 cri

CCT: 35/40/45/50K

Input Voltage: 100-277vac

Dimming: 0-10v

Watts: 30, 40, 50 watts

Lumens up to: 6 230

Operating Temp: -25° - +40°C

Operating Frequency: 50 - 60Hz

Power Factor @5000K: >0.93

Dimension: 2x2 & 2x4

L70 Lifespan: 566,000 hrs.(TM21)



FRTK Series Specification Summary

| DATA SOURCE | LM79 / DLC | LM79 / DLC | LM79 / DLC | LM79 / DLC |
|-----------------------------|-------------------------|---------------------|-------------------------|---------------------|
| Product Number | FRTK22-30W | FRTK22-40W | FRTK24-40W-30K | FRTK24-50W |
| Efficacy l/pw @ 5000K | 129.58 | 127.46 | 132.06 | 132.55 |
| Input Power Watts @ 5000K | 29.31 | 38.24 | 37.65 | 46.97 |
| Lumens @ 3500K | 3657 | 4708 | 4899 | 6047 |
| Lumens @ 4000K | 3657 | 4708 | 4899 | 6047 |
| Lumens @ 4500K | 3657 | 4708 | 4899 | 6047 |
| Lumens @ 5000K | 3798 | 4874 | 4972 | 6226 |
| Qualifications | UL, DLC 4.2 Premium | UL, DLC 4.2 Premium | UL, DLC 4.2 Premium | UL, DLC 4.2 Premium |
| CRI | 83.5 | 83.8 | 84.2 | 84.2 |
| Power Factor @ 120vac | 0.98 | 0.97 | 0.98 | 0.99 |
| THD @ 120vac | 10.11% | 8.91% | 8.98% | 7.31% |
| CCT/Kelvin Temp Options | 30/35/40/50 Kelvin | | | |
| Dimming | 0-10vac | | | |
| Input Voltage Options | 100 - 277vac | | | |
| Operating Frequency | 50-60 Hz | | | |
| Lens | Frosted | | | |
| Beam Angle | 116.7° | | | |
| L70 Lifespan | 566,000 hrs. L70 (TM21) | | | |
| Working Ambient Temperature | -20°C to +40°C | | | |
| Max Dimensions (in) | 22-1/8"x9-7/8"x 3-1/8" | | 46-7/8"x 9-7/8"x 3-1/8" | |
| Total Weight | 6-7 lbs | | 11-12 lbs | |
| Limited Warranty | 5 Yrs. | | | |

Notes

Values are nominal unless noted +/- 5%
Specifications change without notice

FRTK Series Product Ordering Guide

Example: FRTK22-40W-35K-EM10

| Product | CCT/Color Temp | Emergency Backup |
|------------|-------------------|---|
| FRTK22-30W | 35K (3000 Kelvin) | EM15 (15w Emergency pack with 90 minutes) |
| FRTK22-40W | 40K (3500 Kelvin) | |
| FRTK24-40W | 45K (4000 Kelvin) | |
| FRTK24-50W | 50K (5000 Kelvin) | |

Factory Installed Options

EM15 15watt Emergency Driver, 100-277vac, 0-10V dimmable, 90 minute battery life

Field Installed Sensor Options

LOS-509S Line Voltage PIR occupancy sensor with daylight, SLV for on/off switching control with ceiling surface mount
LOD-500S Line voltage PIR occupancy sensor with daylight, SLV & AO for bi-level control with ceiling surface mount
LOD-509S Line voltage PIR occupancy sensor with daylight, SLV & AO for bi-level or SmartDIM control with ceiling surface mount
LRD-509 Line voltage PIR occupancy sensor with daylight, SLV & AO for SmartDIM control, remote setting with ceiling surface mount
SRP-280 Sensor Remote Programmer / Controller (option only for LRD-509S)

Note: SLV = Switched Line voltage AO = Analog output (0-10v)

Field Installed Sensor Mounting Options

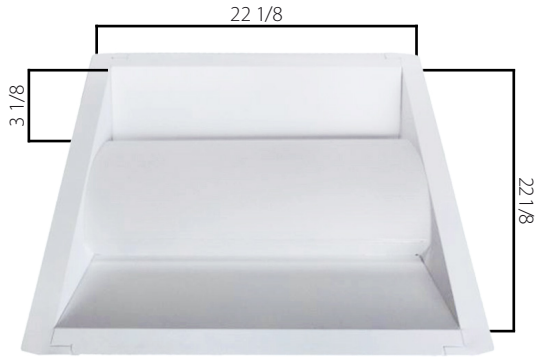
S Ceiling Surface-mounting bracket that will let you mount sensor directly to ceiling
C Junction Box mounting bracket for using a 4" Round Junction Box or 1900 box with single gang plaster ring. (Not available w/Lens E)

Field Installed Sensor LENS Options

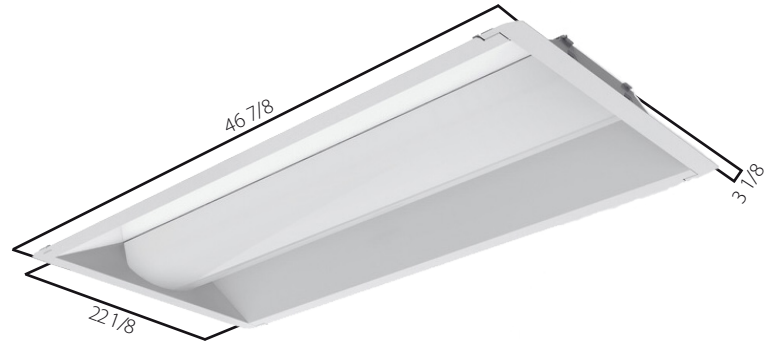
Lens A STANDARD CONE
Lens B 6X EXTRA WIDE CONE
Lens C 3X HIGH BAY CONE
Lens D 2X STANDARD ROUND FLAT
Lens E 4X EXTRA WIDE DOME
Lens F AISLE WAY ARCH

FRTK Series Design Details & Photometry

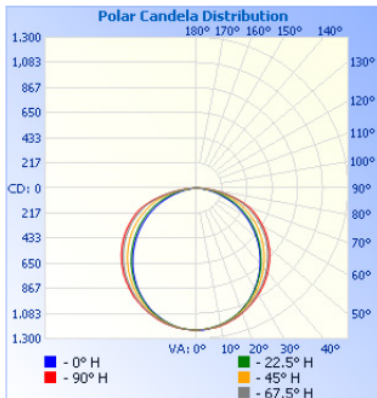
2x2



2x4



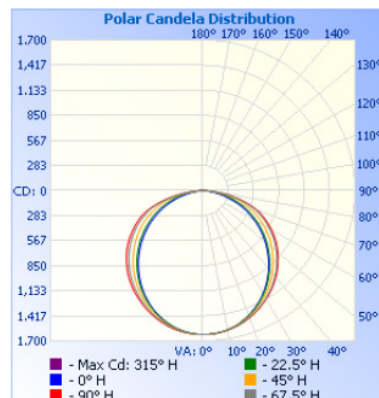
Photometric Data - FRTK22-30W-35K



| Illuminance at a Distance | | Center Beam fc | | Beam Width | |
|---------------------------|---------|----------------|----------|------------|--|
| 17.0 ft | 4.24 fc | 45.7 ft | 67.5 ft | | |
| 34.0 ft | 1.06 fc | 91.5 ft | 135.0 ft | | |
| 51.0 ft | 0.47 fc | 137.2 ft | 202.5 ft | | |
| 68.0 ft | 0.26 fc | 182.9 ft | 270.0 ft | | |
| 85.0 ft | 0.17 fc | 228.6 ft | 337.6 ft | | |
| 102.0 ft | 0.12 fc | 274.4 ft | 405.1 ft | | |

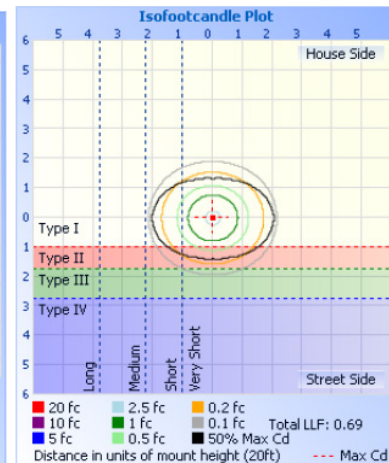
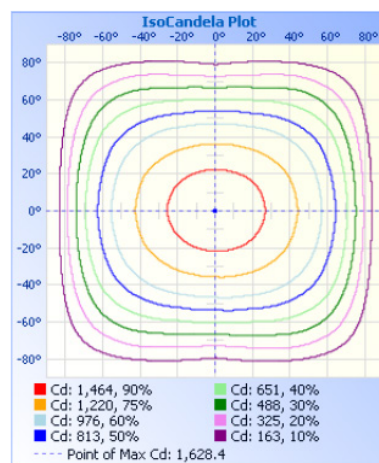
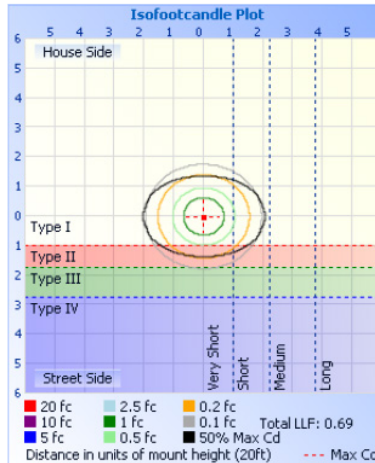
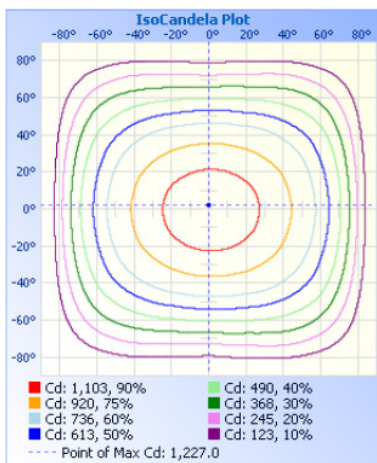
■ Vert. Spread: 106.7°
 ■ Horiz. Spread: 126.5°

Photometric Data - FRTK24-40W-35K



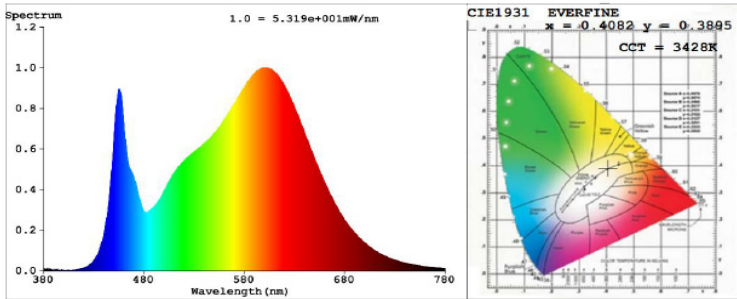
| Illuminance at a Distance | | Center Beam fc | | Beam Width | |
|---------------------------|---------|----------------|----------|------------|--|
| 17.0 ft | 5.63 fc | 46.4 ft | 68.3 ft | | |
| 34.0 ft | 1.41 fc | 92.8 ft | 136.5 ft | | |
| 51.0 ft | 0.63 fc | 139.1 ft | 204.8 ft | | |
| 68.0 ft | 0.35 fc | 185.5 ft | 273.1 ft | | |
| 85.0 ft | 0.23 fc | 231.9 ft | 341.3 ft | | |
| 102.0 ft | 0.16 fc | 278.3 ft | 409.6 ft | | |

■ Vert. Spread: 107.5°
 ■ Horiz. Spread: 127.0°

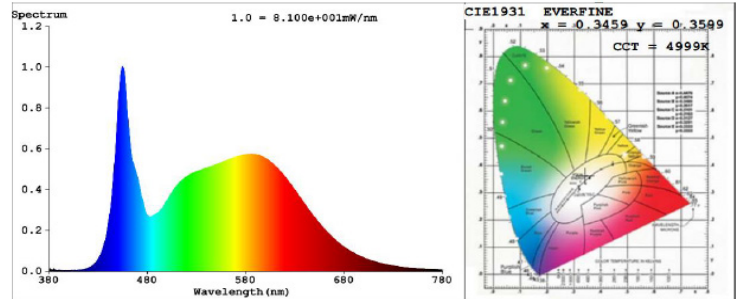


Spectral Power Distribution & Chromacity Diagram

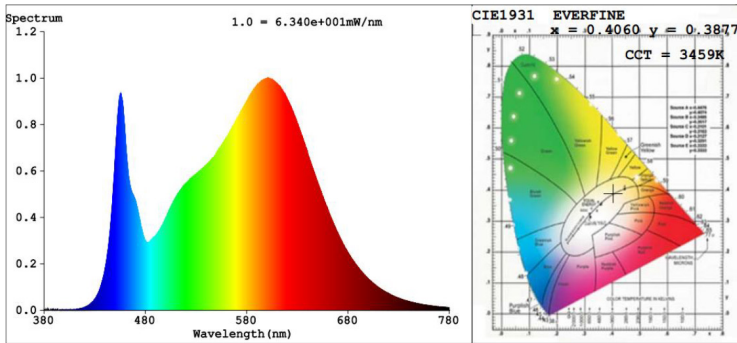
FRTK22-30W-3500K



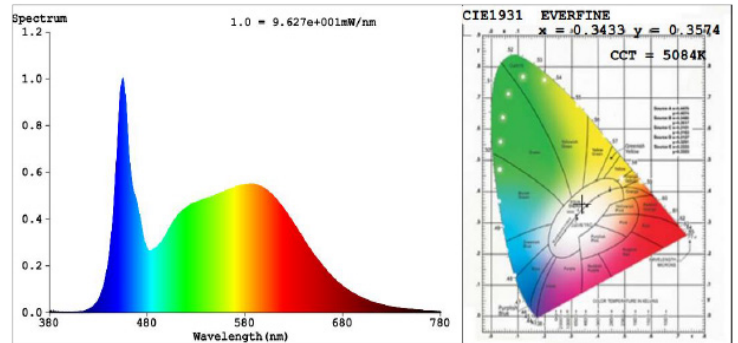
FRTK22-30W-5000K



FRTK24-40W-3500K



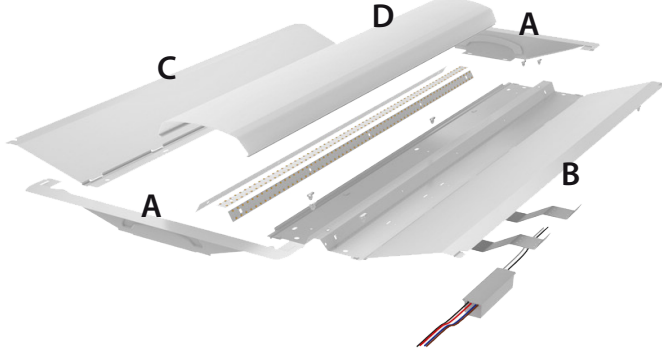
FRTK24-40W-5000K



FRTK Series Installation Instructions

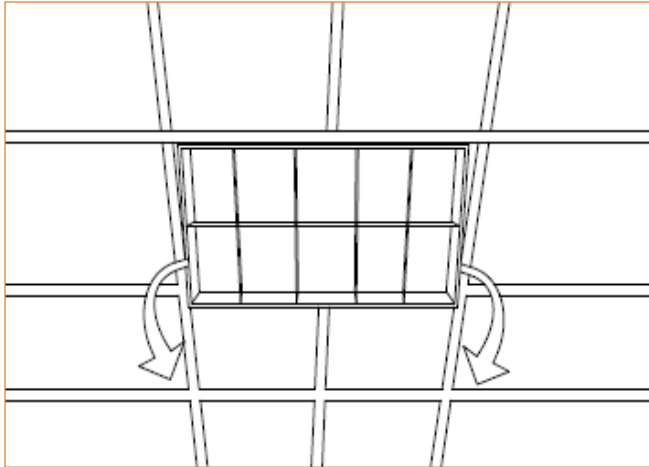
For all FRTK Series Troffer Product

Components and tools required

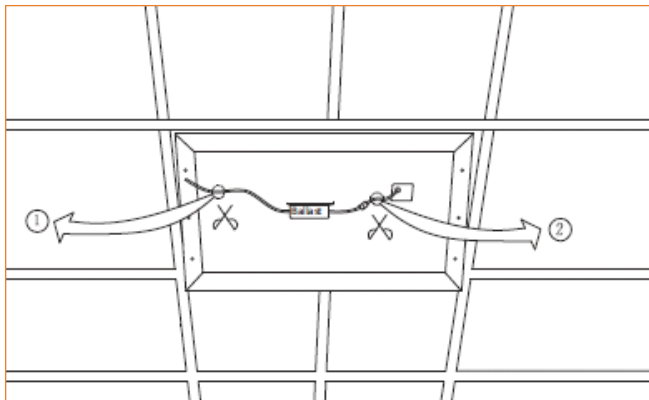


A - Side panel (x2) **B** - LED panel (x1) **C** - Closing panel (x1) **D** - Diffuser (x1)

Installation steps



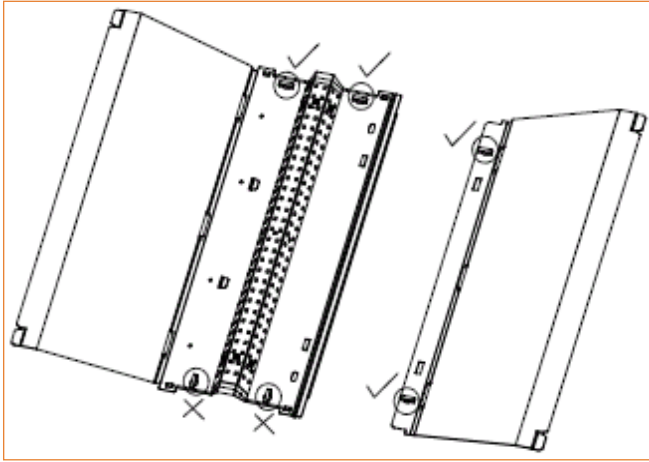
1. Turn power off and take out original cover and tubes.



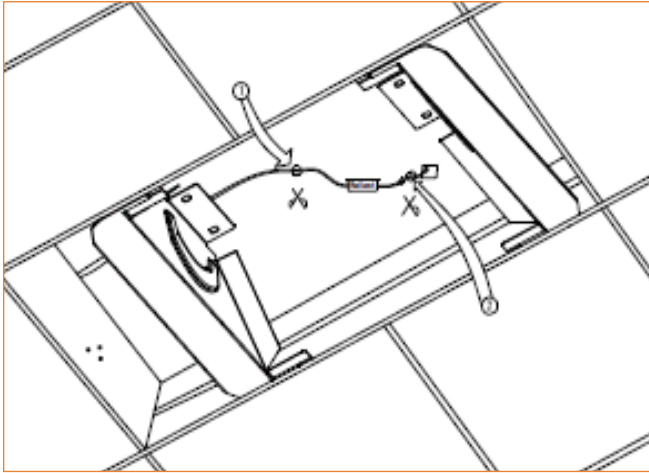
2. Remove all the parts such as lamp holder, starter etc. Cut off power wire as shown in ①. If the distance between ballast and ceiling surface is lesser than 3 inch, cut wire ② and remove ballast.

FRTK Series Installation Instructions

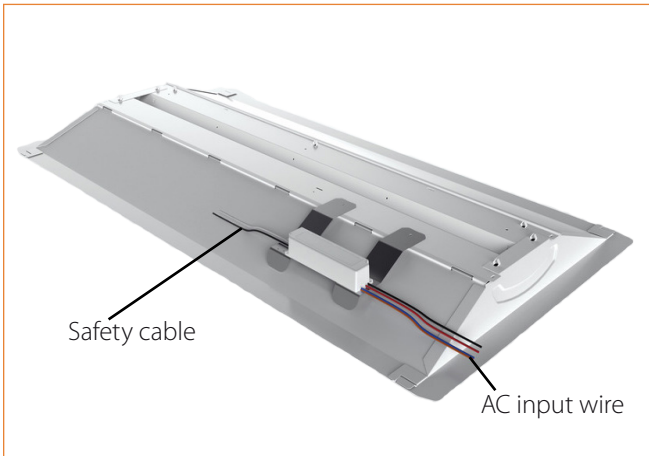
For all FRTK Series Troffer Product



3. Fix the supplied fasteners (6 pcs in all) to LED panel (B) and closing panel (C) separately and pay attention to the directions.



4. Install side panel (A) in between troffer.



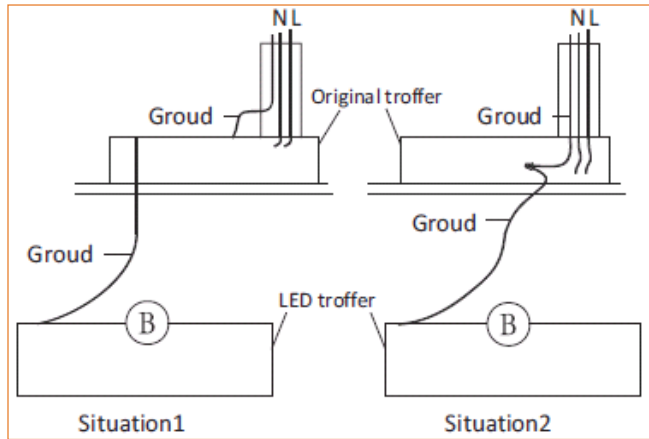
5. Connect LED panel (B)'s DC 0-10V dimmable wire, ground wire and AC input wire well. Drill two 4.2mm dim holes in the original bottom troffer by tools. Fixate the safety cable to the bottom troffer by screw.

*For the dimmable wire:

- 1) If there is unnecessary to dim, no need to connect dimmable wire and the connector can't be removed.
- 2) If there is necessary to dim, connect dimmable wire to Vdc and the dimmable wire should be rated 300V.

FRTK Series Installation Instructions

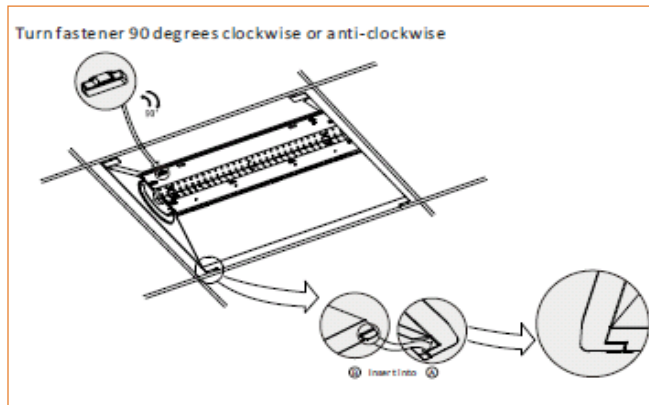
For all FRTK Series Troffer Product



*AC input wire connect with part 1 or 2 based on situations:

Situation 1: Screw grounding cable from LED panel (B) to original troffer if host fixture ground connection is made through host fixture.

Situation 2: Connect to the incoming ground lead from conduit.



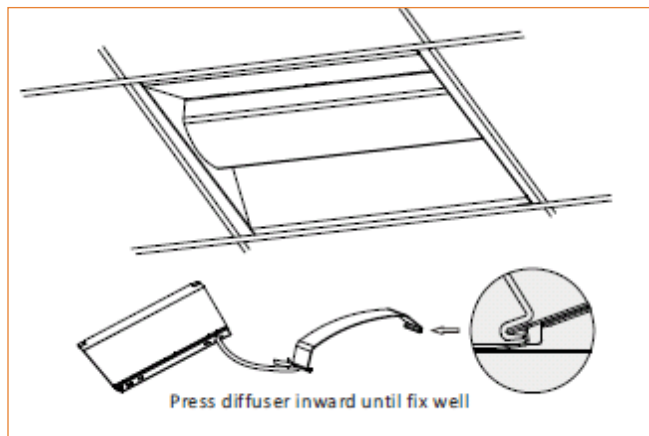
6. Install LED panel (B) in between troffer, making sure the tabs at each corner of the LED panel slide into the respective slots on the side panel. Install closing panel (C) in between troffer. Fixate panels and establish ground by turning fastener 90 degrees.

WARNING ⚠

RISK OF FIRE OR ELECTRICAL SHOCK

Avertissement: Risque de choc électrique

While installing LED panel (B) and Closing panel (C), make sure the electrical wiring is not clamped between panels.



7. Press Diffuser (D) inward and make sure fix well. Turn power on. This retrofit kit is on. The installation is finished.

Important Safeguards

- 1) Before installing this fixture or doing any maintenance, make sure to turn off the power supply.
- 2) Do not use outdoors.
- 3) Do not use this equipment for other than intended use.
- 4) Product must be installed in accordance with NEC or your local electrical code. If you are not familiar with these codes and requirements, consult a qualified electrician.

WARNING ⚠

RISK OF ELECTRICAL SHOCK

Avertissement: Risque de choc électrique

Access above ceiling required

For dry locations only

WARNING ⚠

Turn power off at circuit breaker or fuse box.

Do not rely on wall switch alone to turn off power.

Failure to do so may cause a shocking hazard and damage this electronic fixture!