

FRT - Fidelux Retrofit Troffer Series

Product Description

FRT Retrofit Kit Series is the ideal solution for renovating obsolete parabolic or any 2x4 & 2x2 fixture by delivering quality of light and refreshing the space. FRT is suitable for replacing fixtures with at least 3-3/8" overall depth. The FRT Retrofit kit is recommended for offices, schools, hospitals, commercial and other general lighting applications. FRT Retrofit kit comes with options like; 0-10V dimming, occupancy and dual sensors, emergency battery pack.

Features & Benefits

- Retrofits prismatic & parabolic troffers with fixture depth greater than 3-1/8". Low profile - Fits in most fixtures
- Fully integrated reversible hinged optical, assembly allows for rapid troffer conversion. Practical install process, installs in 3-4 minutes, saves time and money
- Upgrade to modern full distribution architectural aesthetics providing controlled soft, uniform light distribution without pixelation
- Reduces job site waste by reusing existing fixture housing. Color Rendering Index (CRI) >80
- Available in both 2x2 and 2x4 configurations

Applications

- For remodeling or renovating office, hospital, retail, and other low bay environments with T-bar ceiling with 2'x4' & 2'x2' ceiling grids
- The whole set is with one piece and enclosed steel framed bracket
- Easy installation - under 5 minutes installation - no need to remove existing lighting fixture

Mounting Options

- Troffer Retrofit Kit

Regulatory & Voluntary Qualifications

- UL, Damp Location Rated
- 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>



Performance Summary

Efficacy up to: 140 l/pw

CRI: 83- 83.1 cri

CCT: 3000K / 3500K / 4000K / 5000K (Standard)

Dimming: 0-10v

Operating Temp: -30 - +40C

Input Voltage: AC 100-277V

Operating Frequency: 50 / 60Hz

Power Factor up to: ≥ 0.93

Beam Angle: 120°

Sizes: 2x2, 2x4

L70 Lifetime Hrs(TM21 calculated): 154,000+ Hours & L70



FRT Series Specification Summary

DATA SOURCE	DLC	DLC	
Product Number	FRT22-25W	FRT24-40W	
Nominal Efficacy l/pw	131 l/pw	140 l/pw	
Input Power Watts @ 3000k	25.73	36.68	
Lumens @ 3000K	3360	5120	
Lumens @ 3500K	3360	5200	
Lumens @ 4000K	3415	5200	
Lumens @ 5000K	3415	5200	
CRI	83 cri	83 cri	
THD @ 120VAC	22.35%	20.16%	
Operating Frequency	50/60Hz		
CCT/Kelvin Temp Options	30/35/40/50 Kelvin		
Dimming	0-10vac		
Input Voltage Options	120-277vac		
Regulatory & Voluntary Qualifications	UL, DLC 4.2, Damp Location		
Beam/Field Angle	120°		
Power Factor	0.90	0.93	
L70 Lifespan	154,000hrs. L70 (TM21)		
Ambient Working Temp	-30°C to +40°C Ambient		
Max Dimensions (in)	22 1/8" x 22 1/8" x 3 1/8"	46 7/8" x 22 1/8" x 3 1/8"	
Total Weight	20lbs	40lbs	
Limited Warranty	5 Yrs.		

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

FRT Series Product Ordering Guide

Example: FRT22-25W-30K-UNV-

Product	CCT/Color Temp	Voltage	Controls & Dimming	Emergency Backup
FRT22-25W	30K (3000 Kelvin) *	UNV (100-277vac Std.)	D (0-10v Dimming Std.)	Blank (No EM)STD
FRT24-40W	35K (3500 Kelvin)			EM15 (15W adjustable EM pack with 90 min battery life
FRT24-50W (No DLC)	40K (4000 Kelvin)			
	50K (5000 Kelvin)			

* = Special Order (contact Fidelux for lead time)

Factory Installed Options

EM15 15W Adjustable EM Pack - 4w,7w,12w & 15w options ,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-509S Line Voltage PIR occupancy Sensor with daylight, SLV & AO for Bi-Level or SmartDim control with ceiling surface mount

Field Installed Sensor Mounting Options

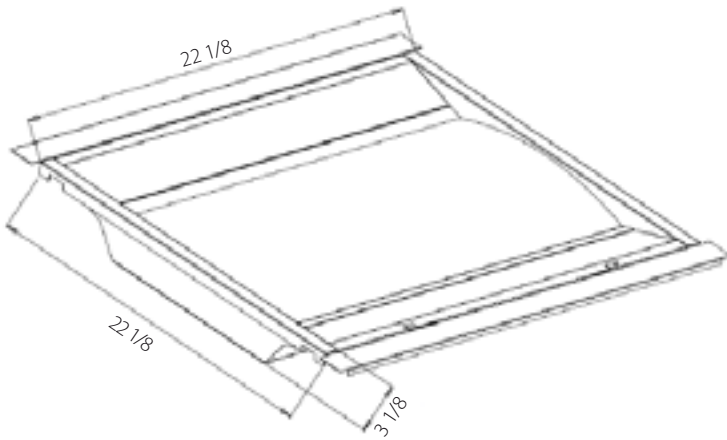
CMB-500 Recessed Ceiling or Wall Mounting Bracket (to be used for line voltage in conjunction w/ 1900 box w/ plaster ring or single gang switch box)

Field Installed Sensor LENS Options (Lens are included in Sensor price)

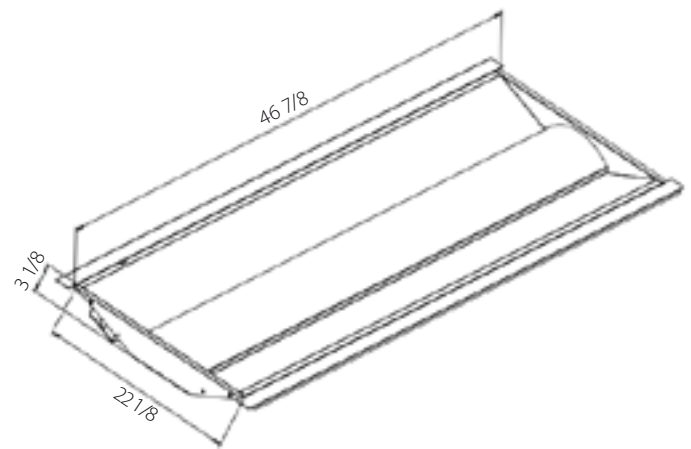
Lens Option	Description	Recommended Height
Lens A	Standard Cone	8-15'
Lens B	6x Extra Wide Cone	8-10'
Lens C	3x High Bay Cone	15-30'
Lens D	2x Standard Round Flat	8-20'
Lens E	4x Extra Wide Dome	8-20'
Lens F	Aisle Way Arch	8-40'

FRT Series Design Details & Photometry

2x2



2x4

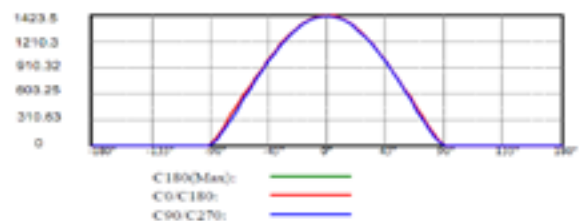
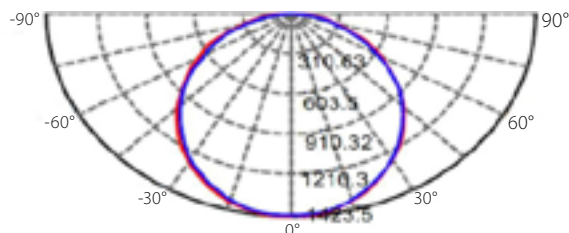


Photometry

FRT24-40W-30K-UNV-D

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminance as the source resulting in a luminaire efficiency of 100%.

Zonal Lumen Density												
Y	C0	C45	C90	C135	C180	C225	C270	C315	Y	Zone	Total	%Lums, Lamp
10	1938	1948	1941	1943	1930	1928	1922	1932	0-10	185.5	185.5	3.46, 3.46
20	1873	1883	1879	1880	1845	1848	1860	1861	10-20	538.1	723.6	13.5, 13.5
30	1742	1752	1759	1754	1692	1717	1721	1739	20-30	831.8	1555	29, 29
40	1488	1539	1473	1539	1459	1499	1443	1547	30-40	1013	2568	47.9, 47.9
50	1199	1166	1150	1187	1158	1156	1122	1192	40-50	1037	3605	67.3, 67.2
60	852.0	772.9	792.2	806.3	817.7	784.6	781.2	802.7	50-60	892.0	4496	83.9, 83.9
70	447.3	378.9	389.4	404.2	430.5	399.2	387.7	396.2	60-70	597.0	5093	95, 95
80	97.29	67.30	39.75	73.80	95.38	78.59	37.50	74.86	70-80	238.3	5332	99.5, 99.5
90	0.0057	0	0	0	0.3138	0	0	0	80-90	22.84	5355	99.9, 99.9
100	0	0	0	0	2.669	0.5541	0.1426	0.5396	90-100	0.2409	5355	99.9, 99.9
110	0.2475	0	0	0	4.638	1.400	0.9154	1.445	100-110	0.8055	5356	99.9, 99.9
120	0.3729	0	0	0.3001	2.913	1.886	1.340	1.882	110-120	0.9280	5357	99.9, 99.9
130	0.3706	0.1943	0	0.3023	1.239	2.048	2.042	2.150	120-130	0.7962	5357	100, 100
140	0.3124	0.1943	0	0.3359	0.9304	2.048	2.255	2.149	130-140	0.7316	5358	100, 100
150	0.6197	0.2270	0.4922	0.3359	1.177	2.048	2.605	2.149	140-150	0.6648	5359	100, 100
160	0.8026	0.5205	0.4225	0.3359	1.177	1.557	2.463	1.914	150-160	0.5185	5359	100, 100
170	0.8686	1.103	1.337	1.041	1.177	1.333	2.394	1.915	160-170	0.3571	5360	100, 100
180	0.9295	1.236	2.184	1.276	1.177	1.268	2.042	1.342	170-180	0.1413	5360	100, 100
DEG	Luminous Intensity: cd									Unit: 1m		



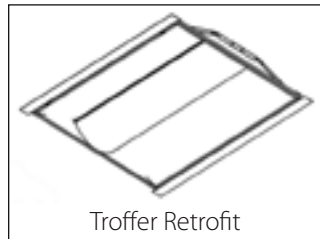
FRT Series Installation Instructions

for all FRT Series Troffer Product

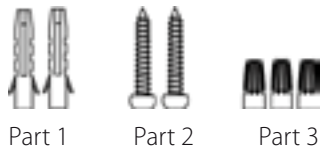
IMPORTANT: Read carefully before installation and retain for future reference.

- 1.) RISK OF ELECTRIC SHOCK. TURN MAIN SWITCH AND CIRCUIT BREAKER TO "OFF" POSITION BEFORE SERVICE OR RELAMPING.
- 2.) All electrical connections must be in accordance with local codes, ordinances, and National Electrical Code. If you are unfamiliar with proper electrical wiring or connections, secure the services of a qualified licensed electrician.
- 3.) Proper grounding of the fixture is essential for protection from shock, correct operation of the electronic driver and the elimination of electrical interference.

Items Provided



Items Provided



Auxiliary Tool

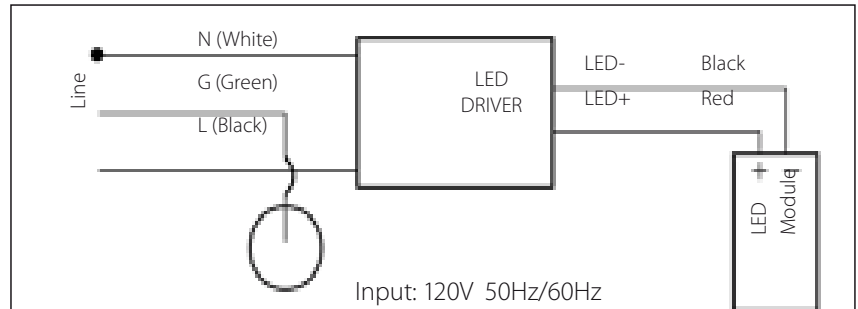
Accessories Package List

Part	Description	Quantity
1	Toggle Nut	2
2	Screw	2
3	Wire Connector	*1 or 3

*Remarks:

If non-dimmable fixture, only 1 pcs wire connector, instead of 3 pcs is needed for ground wire.

Wiring Diagram



FRT Series Installation Instructions

for all FRT Series Troffer Product

- 1.) To avoid the possibility of electrical shock turn of power supply before installation or servicing this fixture.
- 2.) Remove Lens (Louver) from existing fixtures.
- 3.) Slide Universal Frame bracket under the fixture and between the T-Bar (Fig. 1-1)
- 4.) Repeat above step for the other side of the fixture. (Fig. 1-2)
- 5.) Place Light Engine Lens Assembly's hinge pins into the universal frame brackets. (Fig. 1-3)

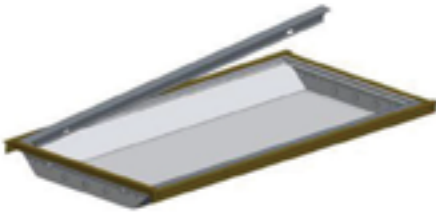


Fig. 1-1

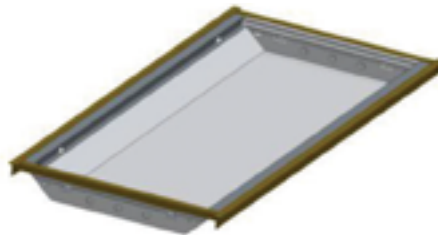


Fig. 1-2

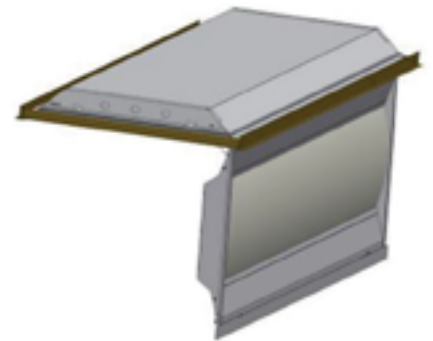


Fig. 1-3

- 1.) With the provided self tapping screws attach safety cable into the existing fixture. (Fig. 1-4)
- 4.) Wire the ground with a wire nut. Connect incoming power lines to fixture with provided disconnects. (Fig 1-5)
- 5.) Raise the frame and push up into the existing fixture and close the latches. The latch should lock into the previously installed universal frame brackets. (Fig. 1-6)

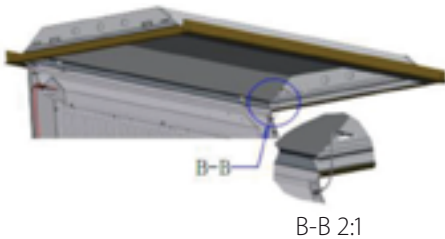


Fig. 1-4

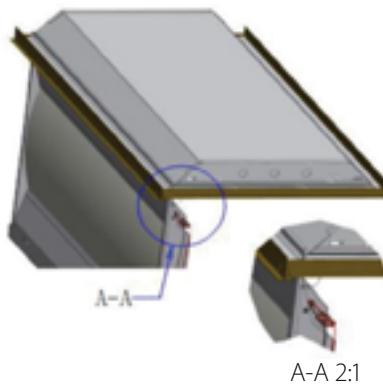


Fig. 1-5

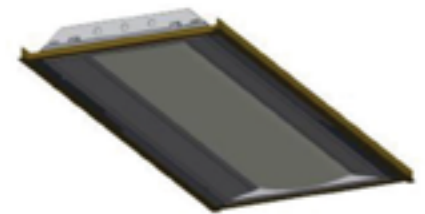


Fig. 1-6