



# The **RKTF**<sup>TM</sup> Series

Troffer LED Retrofit Kit





Troffer LED Retrofit Kit



PROJECT: \_\_\_\_\_

DATE: \_\_\_\_\_

TYPE: \_\_\_\_\_

PREPARED BY: \_\_\_\_\_



## KEY FEATURES

**Power and Color Selectable** on selected models

**Quick Retrofit** for traditional linear fluorescent troffers

Transform into a fresh LED fixture in less than **5-minutes**

**Controls Ready** - optional motion, daylight or network controls

Optional **Emergency Battery Backup**

## TECHNICAL SPECIFICATIONS

### Compliance

#### UL Listed

UL 1598 Suitable for damp locations

#### IESNA LM79 & LM-80 Testing

PacLights LED luminaires have been tested by an independent laboratory in accordance with IESNA LM-79 and LM-80.

#### DLC Qualification

Selected models of this product are on the Design Lights Consortium (DLC) Qualified Products List and are eligible for rebates from DLC Member Utilities. To view our DLC qualified products, please consult the DLC Qualified Products List at [www.design-lights.org/qpl](http://www.design-lights.org/qpl)

### LED Characteristics

#### LEDs

Long-life, high-efficacy, surface-mount LEDs

#### LEDs Lifespan

100,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations.

#### Lumen Maintenance

L70 ≥ 100,000 hours

#### Color Rendering Index

>81

#### Color Uniformity

PacLights' range of Correlated Color Temperature follows the guidelines of the American National Standard for Specifications for the Chromaticity of Solid State Lighting (SSL) Products, ANSI C78.377

### Other

#### 5-Year Limited Warranty\*\*

The PacLights 5-year, limited warranty covers light output, driver performance and paint finish.

\*\*PacLights's warranty is subject to all terms and conditions found at [paclights.com/warranty](http://paclights.com/warranty)

### Construction

#### Ambient Temperature

Suitable for up to 50° C (122° F) ambient temperature

#### Cold Weather Starting

The minimum starting temperature is -4 F°/-20° C

#### Housing

Durable cold rolled steel housing provides strength and uniformity. Luminaire is pre-painted to enhanced smooth finish.

#### Installation

Replace existing 2x2, 2x4, 1x4 traditional linear fluorescent troffers, by utilizing the existing fixture housing. The kit provides all the components needed to perform the change out, completely assembled within the frame. The kit fits for both air return troffers and standard troffers.

#### Green Technology

Mercury and UV free, and RoHS compliant. Polyester powder coat finish formulated without the use of VOC or toxic heavy metals.

#### Lens

Frosted Polycarbonate lens

### Electrical

#### LED Driver

Designed to last ≥50,000 hours when at allowable operating temperature

Input Voltage: 120-277v AC, 50-60 Hz

0-10V dimming (dim to off); Power Factor > 0.95; THD < 13%

MODEL	Watt.	120v	208v	240v	277v
RKTF/2-14D-30/25/20	max 30W	0.28A	0.16A	0.14A	0.12A
RKTF/2-22D-30/25/20	max 30W	0.28A	0.16A	0.14A	0.12A
RKTF/2-24D-35/30/25	max 35W	0.32A	0.19A	0.16A	0.14A
RKTF/2-24D-45/38/34	max 45W	0.42A	0.24A	0.21A	0.18A

### Control Receptacle

Control receptacle included for field-installable plug & play lighting controls. Compatible with selected motion, daylight and network lighting controls.

STANDARD FEATURES

Field Selectable Power & Color (selected models)

Select the desired output power by sliding the respective wattage and/or color selection Dip Switches to the desired value, for different lumen or color outputs. Outputs can be changed before, during and after installation.

MODEL	Power(Wattage) Selectable	Color(CCT) Selectable
RKTF/2-14D-30/25/20	30W/25W/20W	3500K/4000K/5000K
RKTF/2-22D-30/25/20	30W/25W/20W	
RKTF/2-24D-35/30/25	35W/30W/25W	
RKTF/2-24D-45/38/34	45W/38W/34W	

Controls Ready

The RKTF is equipped as standard with a control receptacle, ensuring seamless compatibility with various lighting control options. This includes plug & play daylight and motion sensors, as well as networked lighting control systems, allowing for flexible and efficient lighting management.

PERFORMANCE

		Models	Lumen Package	Wattage	CCT Setting	Lumen Output
Delivered Lumens, 80 CRI	2 x 4'	RKTF/2-24D-35/30/25	3,400	25w	3500K	3,250
					4000K	3,500
					5000K	3,375
			4,100	30w	3500K	3,900
					4000K	4,200
					5000K	4,050
	2 x 4'	RKTF/2-24D-45/38/34	4,800	35w	3500K	4,550
					4000K	4,900
					5000K	4,725
			4,600	34w	3500K	4,420
					4000K	4,760
					5000K	4,590
Delivered Lumens, 80 CRI	2 x 2'	RKTF/2-22D-30/25/20	2,700	20w	3500K	2,600
					4000K	2,800
					5000K	2,700
			3,400	25w	3500K	3,250
					4000K	3,500
					5000K	3,375
	1 x 4'	RKTF/2-14D-30/25/20	4,100	30w	3500K	3,900
					4000K	4,200
					5000K	4,050
			2,700	20w	3500K	2,600
					4000K	2,800
					5000K	2,700

ORDERING INFORMATION

RKTF™ generation 2

Family	Size	Model	CCT	Options
RKTF/2				
	22D 2x2'	20 20w	35/40/50	EM500
		25 25w	3500K	Emergency battery backup (500 lumen, 90 mins)
	14D 1x4'	30 30w	4000K	EM1000
		30/25/20	5000K	Emergency battery backup (1,000 lumen, 90 mins)
		30/25/20w Selectable	Selectable	MCP
	24D 2x4'	25 25w		Bi-level PIR motion and daylight (harvesting) Dual Sensor control
		30 30w		WBP
		34 34w		Wireless bluetooth networked control w/ PIR & daylight sensor (NLC)
		35 35w		
		38 38w		
		45 45w		
		35/30/25		
		35/30/25w Selectable		
		45/38/34		
		45/38/34w Selectable		

## HOW IT WORKS

### RETROFIT STRATEGY

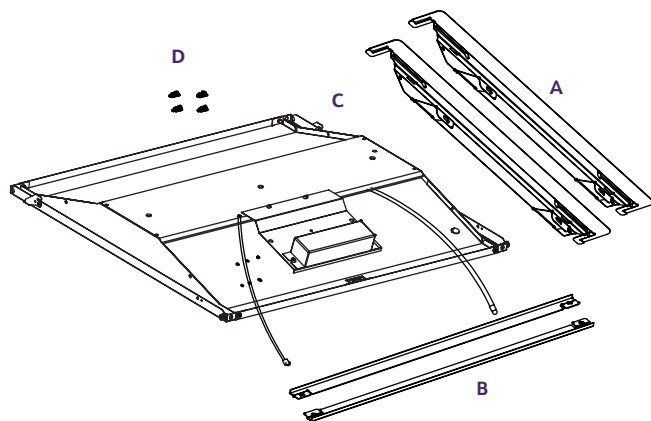
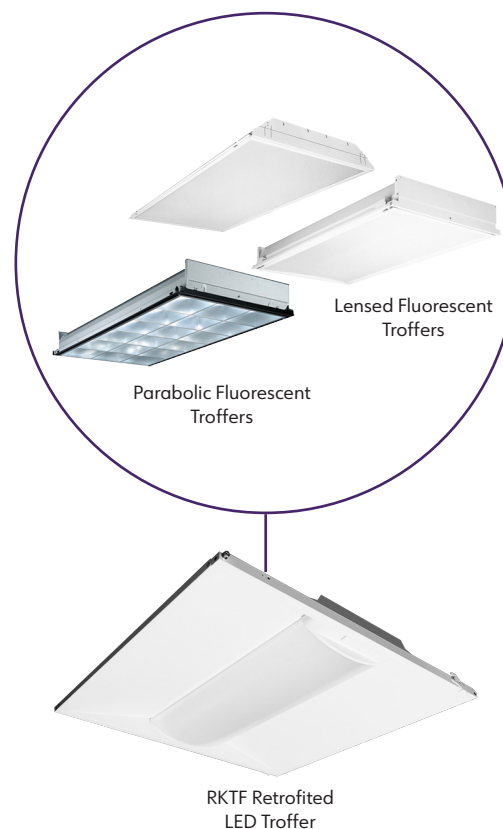
SYSTEM	BALLAST FACTOR	LUMENS	INPUT WATTS	LED ENERGY SAVINGS
<b>2x2 LED Retrofitted Troffer</b>	-	<b>4,100</b>	<b>30 *</b>	-
2 Lamp 34W T12 U-Bend	0.88	4,420	74	60%
2 Lamp 32W T8 U-Bend	0.88	4,275	58	49%
2 Lamp 24W T5HO	1.0	3,145	54	45%
<b>2x4 LED Retrofitted Troffer</b>	-	<b>6,100</b>	<b>45 *</b>	-
3 Lamp 32W T8 HBF	1.18	6,960	93	52%
3 Lamp 32W T8 NBF	0.88	6,681	89	50%
<b>2x4 LED Retrofitted Troffer</b>	-	<b>4,800</b>	<b>35 *</b>	-
2 Lamp 32W T8 HBF	1.18	4,658	65	46%
2 Lamp 28W T5	1.0	4,675	63	44%
2 Lamp 32W T8 NBF	0.88	4,468	59	41%

\* lower wattage models and sensors can be selected for maximum energy savings

### THE KIT

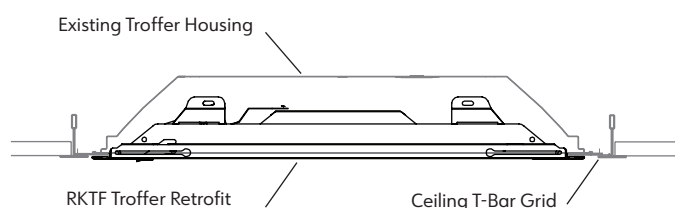
RKTF series troffer LED retrofit kit comes completely assembled as a lensed kit. It requires only a few minutes to install, reduces labor costs compared with installing the whole new fixture, and reduces waste.

The Troffer Retrofit Kit provides the ideal way to replace existing 2x2, 2x4, 1x4 recessed troffers, by utilizing the existing fixture housing. The kit provides all the components needed to perform the change out quickly and efficiently, allowing for system upgrades without disturbing the ceiling. The LED troffer retrofit is completely assembled within the frame. With its special design, the kit fits for both air return troffers and standard troffers.



KIT COMPONENTS	QTY
A. End Plates	2
B. Side Plates	2
C. Door Assembly Body	1
D. Self-tapping Screws	4

Existing Troffer	Required Housing Inner Height
2' x 2'	78mm (3-1/16 in)
2' x 4'	78mm (3-1/16 in)
1' x 4'	100mm (3-15/16 in)



#### STEP 1

Disconnect power wires, remove lens, tubes, ballast and cover of the host troffer



#### STEP 2

Insert provided end plates, and side plates if necessary, between the host troffer and T-grid



#### STEP 3

Hang the retrofit door assembly to the end plates installed in step 2, connect the wires



#### FINISH!

Close and secure the retrofit door assembly, remove protective film of the lens.

\* refer to installation guide for detailed instructions

## CONTROL Options

### Passive Infrared Bi-level Motion & Daylight Control (option: -MCP)



A PIR sensor can detect changes in the amount of infrared radiation impinging upon it, which varies depending on the temperature and surface characteristics of the objects in front of the sensor. It can be mounted as high as 40 ft high and contains a signature 3-step dimming function, which is perfect for areas that require a light change notice totally switching off the light. Optional daylight(threshold) function will turn off fixture on pre-set level of ambient light. Control parameters are adjustable by an optional wireless commissioning device.



- Fixture integral
- PIR motion
- Daylight threshold
- Daylight harvesting
- Wireless configurable

#### -MCP Sensor Control Option Specification \*default setting

Manual Trim/Dim	0%-100%; Quick Preset 50%/75%/100%*
Sensitivity	Sensor-Off/50%/100%*
Hold Time (before dim)	30s/5min*/15min/30min
Daylight Threshold	1/20/50 Fc, or Disable*, or current lux level (CAL)
Daylight Harvesting	Set to desired light level, Enable/Disable*
Stand-by Time(before turn off)	10s/5min/15min/30min*/1h, or Never
Stand-by Dimming Level	10%/30%/50%*
Detection Height	up to 15ft
Detection Radius	up to 48ft



SE-KE-IFS06R



SE-KE-RM51

Optional wireless commissioning device can be purchased separately to customize settings.

### Networked Lighting Control (option: -WBP)



Network Lighting Controls (NLC) offer Luminaire Level Lighting Control (LLLC) based on Bluetooth-enabled Mesh Networking of Luminaires. Individual addressability enables luminaires to be communicated with each other within the zone/network. Luminaires can be grouped, trim and controlled by using the smart device app or connected wall switches. Scheduling, scene and sensors can be added for automation among the lights within the zone/group.

- **(-WBP)** Wireless bluetooth networked control with PIR occupancy and daylight harvesting sensor



- Fixture integral
- PIR motion sensor
- Daylight sensor
- Bluetooth Mesh Networked
- App configurable



KEILTON-IFS108



iOS/Android APP will be used to commissioning or customize settings of options: -WBP networked controls.

## EMERGENCY BACKUP Options

### Emergency Battery Backup (-EM500 / -EM1000)



RKTF series emergency backup models save time and cost in the installation. When there is a power outage, the emergency backup driver and battery will power the RKTF to a brightness of up to 1,000 lumen for at least 90 mins.

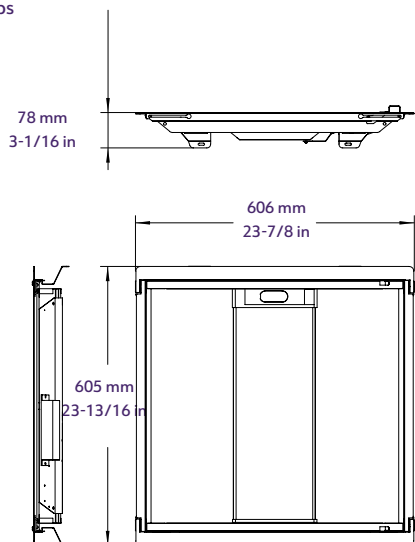
#### Options:

- **(-EM500)** 500 lumen for at least 90 mins
- **(-EM1000)** 1,000 lumen for at least 90 mins

## DIMENSIONS

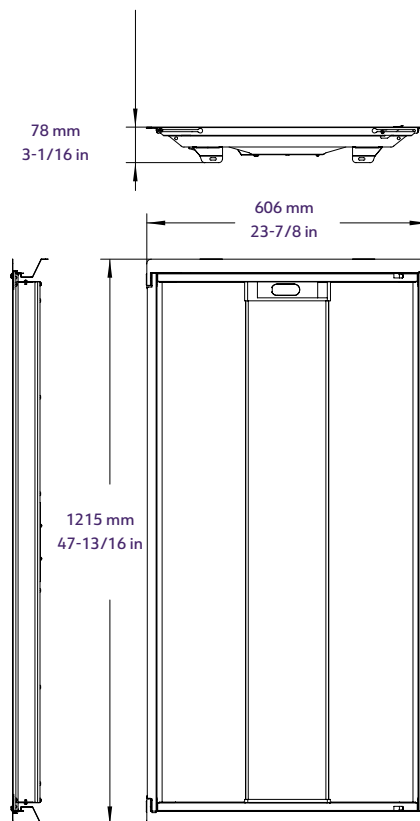
### RKTF/2 - 22D (2x2 Ft)

Weight 8.7 lbs



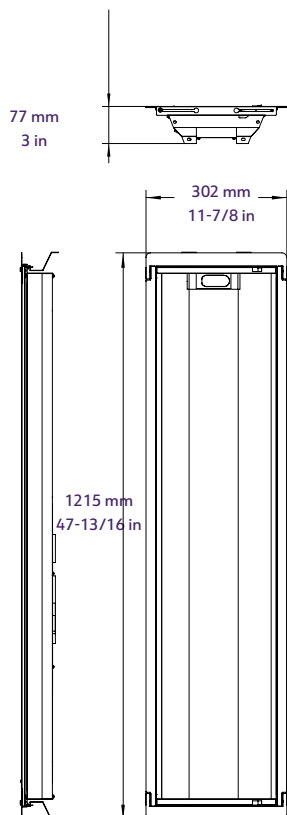
### RKTF/2 - 24D (2x4 Ft)

Weight 14.1 lbs



### RKTF/2 - 14D (1x4 Ft)

Weight 8.1 lbs



## FINISHES

all models

White



# NETWORKED CONTROLS MADE EASY

**Keilton Networked Controls**, a DLC® Qualified Networked Lighting Controls Product, make it easy for facilities to save energy, improve occupancy comfort and achieve code compliance by adding Luminaire Level Lighting Controls (LLLC) to indoor and outdoor applications. It allows for easy field installation of sensors and network nodes with selected PacLights controls ready fixtures. Using the Keilton app, nodes can be commissioned without the need for a gateway or internet access.

**Keilton®**



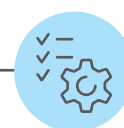
**A Cost-Effective Decentralized Architecture**

**Direct Mobile Device Provisioning**

**Best-In-Class Scale, Performance & Reliability**



INSTALL



COMMISSION



CONTROL



LEARN MORE, VISIT  
[www.paclights.com/NLC](http://www.paclights.com/NLC)



## FEATURES

- Luminaire Level Lighting Control (LLLC)
- Bluetooth-enabled Mesh Networking of Luminaires and Devices
- Individual Addressability, address individual or multiple luminaires
- High-end and Low-end Trim
- Zoning & Grouping
  - ◊ Add and control up to 100 devices per zone
  - ◊ Add unlimited zones to scale for bigger installation
  - ◊ Create unlimited groups (combination of sensor or network nodes) within a zone
  - ◊ Link and control the whole group or zone
- Scene control
  - ◊ Create and link scenes to individual lights or groups within a zone
  - ◊ Select scene with App or wall switch
- Time Scheduling for individual lights, groups or scenes
- Sensors integrated with BLE, occupancy and daylight sensing
- Multi-level Dimming, Daylight Harvesting and Occupancy controls
- Manual/Automatic ON/OFF and Automatic partial ON/OFF control capability
- Control with wireless wall switch or smart device
- Secure commissioning with Keilton App
- Up to 100 ft node-to-node and 50 ft node-to-device
- Demand Response option (works with OpenADR gateways)
- Controlled 120v 20A Receptacle available
- Other control features to meet code compliance



Keilton and its logo is a trademark of Litetrace; **PacLights** and its logo is a trademark of PacLights, LLC  
DLC and its logo is a trademark of DesignLights Consortium.  
Keilton is the qualified system name listed on the DLC Networked Lighting Controls QPL.


NETWORKED

CONTROLS for

RKTF series

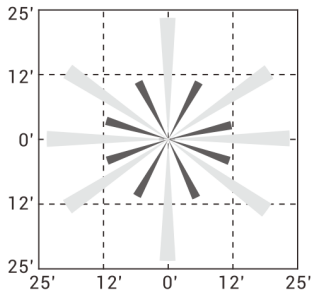
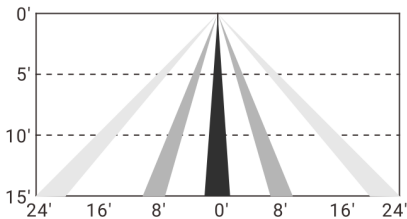


NETWORKED NODES WITH SENSOR

SKU	DESCRIPTION	FUNCTION	OPTION ORDER CODE
KEILTON-IFS108	<div>  <div> <div>KEILTON IFS108 BLUETOOTH MESH NODE W/ PIR DLH SENSOR</div> <div></div> </div> </div>	<div> <div>Enable network controlled - on &amp; off, dim, trim, zone, group, scene &amp; schedule, etc.</div> <div>And, PIR occupancy &amp; daylight (harvesting) sensing.</div> </div>	-WBP



without KEILTON-IFS108



Height 15ft

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DLC and its logo is a trademark of DesignLights Consortium.

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