

# GOING RETRO(FIT) IN STYLE: THREE EASY STEPS TO AN LED TROFFER UPGRADE

An LED retrofit troffer upgrade should be quick and simple. So should choosing one.

The days when upgrading flickering fluorescent troffers to super-efficient LEDs was scary expensive are long gone – and those harsh and buzzy T8s can be too. LED retrofit options for fluorescent troffers now offer up to 80% energy savings, improved light quality and best of all, lower prices. There's never been a better time to take the retrofit leap, but do your homework – not all products are created equal.



## STEP ONE: MAKE THE CASE

Compared to fluorescent fixtures, virtually any LED option will offer much greater efficiency, longer lifespans, lower operating costs and better light quality. But you've got some choices to make, and your goal for the upgrade will determine the best solution.

Do you want to improve the look and feel of your space? Maximize your energy savings and payback? Completely conceal those outdated fluorescent troffers? Or do you simply want the basic benefits of LED lighting for the least amount of money upfront? And what about dimming – is it a must-have? Making a list of your target goals will help keep you in scope and on budget.



## STEP TWO: CHOOSE YOUR UPGRADE TYPE

Use the table provided to weigh the pros and cons of each choice against your goals and budget for the upgrade. Quick and simple.




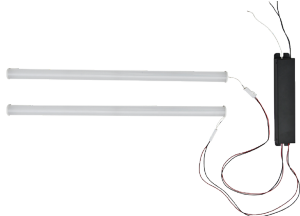






## STEP THREE: GET IT DONE

First, remove those old fluorescent tubes. Handle them with care and recycle them as required by law. (It's the last time you'll have that chore.)

Install your selected hardware. Careful with that ladder – it's easy to get carried away by all that wonderful new lighting. Flip the switch. Nod approvingly at the improved light. And if you happen to be looking at a ceiling boasting a set of awesome ZR-RK Series Retrofit troffers, congratulate yourself on your extraordinary perspicacity and good taste. Then bask in the glory. And the better light.

## Land on a Retrofit troffer kit?

For maximum improvement with minimum effort, see how Cree Lighting's ZR-RK Series Retrofit Kit stacks up.

WHAT TO CONSIDER	LED TUBE (TLED)	LED LIGHT BAR AND DRIVER	LED RETROFIT TROFFER KIT	ZR-RK SERIES RETROFIT KIT
What am I getting?				
What I am doing?	Just replace fluorescent tubes for instant LED illumination. Lowest upfront cost and simplest installation – with trade-offs.	Replace the existing troffer's ballast and fluorescent sockets and lightbars to the troffer's interior via magnets and screws. Better efficiency than TLEDs.	New kit parts slide or snap into the existing troffer housing to completely conceal the old fixture with a fresh, modern look.	Just three parts that snap and lock for a simple, fast solution.
Red flags?	<ul style="list-style-type: none"> <li>• So-so efficiency and light output</li> <li>• Makes those ugly 80s-style troffers even more noticeable</li> <li>• Huge variations in product quality out there – go with a brand name</li> </ul>	<ul style="list-style-type: none"> <li>• Installation time can add up to cut, split and reconnect the wiring, remove the old ballast, and install the driver and lightbars.</li> <li>• Old parabolic or prismatic fixtures still have the same tired-looking aesthetic</li> </ul>	Many kits are on the market, and their performance, quality and engineering vary widely – stick to the winners and look for quality, easy installation and a solid warranty.	Well, the ZR-RK Retrofit Kit looks virtually identical to a new ZR Series troffer. So for projects mixing new fixtures and retrofits, you could forget which is which.
Desired energy savings	\$	\$\$	\$\$\$	\$\$\$\$ - Up to 80% over existing fixtures
Total fixture efficiency				 - Up to 141 LPW
Leaves plenum undisturbed	✓	✓	✓	✓
Little or no maintenance	✓	✓	✓	✓
Installation costs – including time	\$	\$\$	\$\$\$	\$\$\$ - 3 parts that snap and lock in minutes
Upgrades existing troffer to a modern, clean look	✗	✗	✓	State-of-the-art modern optics, matte finish and clean, crisp lines matching the ZR Series.
Zero risk of damage from ballast incompatibility	✗	✓	✓	✓
Dimmable	✗	✓	✓	✓
Optional intelligent lighting controls	✗	✗	✓	Ability to work with sensors for advanced lighting controls like dimming, occupancy sensing and daylight harvesting.
Utility rebate qualification	Very few rebates out there; trend is moving away from rebates.	More rebates here; look for solutions mostly at DLC Standard Certification level.	Most rebates here; look for solutions mostly at DLC Premium Certification level.	DLC Premium certification that could lower your unit cost as much as 40%.
Product life and warranty length	Typically 1 to 3 year warranty	Typically 3 to 5 year warranty	Typically 3 to 5 year warranty	5-year warranty backed by Cree Lighting
Manufacturer reputation and support	Buyer beware - shop and compare	Shop and compare	Shop and compare	Cree Lighting is a leader in innovative, intelligent lighting solutions.
Bottom Line	<b>GOOD</b> Installs just like a fluorescent tube and uses the existing ballast. Wide variance in product quality. As LED lighting goes, mediocre energy efficiency and light quality, but it gets you the LED lighting.	<b>BETTER</b> A lot more upside for only 15-20% cost above TLEDs, but products are more complex and time-consuming to install and offer fewer options. Same outdated troffer – and the optics are better, but not ideal.	<b>BEST</b> For about 15-20% more than the cost of LED lightbars and drivers, you can give the troffer an updated aesthetic, enjoy better energy efficiency, and choose from tons of options and styles.	<b>BEST IN CLASS</b> With DLC Premium certification for maximum utility rebates, you can transform the space to a modern look for only about 20% more than the initial cost of LED lightbar and driver kits, and see payback in as little as 18 months.