

Corelite™



R2R

CLASS  
R

**CLASS R2R**  
T5 Recessed Retrofit

**COOPER** Lighting



## Save energy in style

### With Corelite's Class R2R Retrofit

The typical lighting retrofit consists of a low cost "kit" designed to reduce the quantity of lamps within existing light fixtures to reduce energy costs. The energy savings realized in lighting retrofits typically pays for itself within a few years, especially in parts of the country having the highest energy prices. Although a vehicle for savings, the typical lighting retrofit does nothing to improve the lighting quality within the work environment, leaving building owners feeling empty inside when the work is done.

In reaction to the lack of lighting quality in typical retrofits, Corelite designed the R2R Retrofit. The R2R provides all of the energy reduction capability and payback of the traditional retrofit and at the same times improves the lighting quality of interior space through innovative luminaire design. The end result is a more inviting, more productive, and more stylish work environment with a reduced carbon footprint.

- 3" depth
- Retrofits troffers or parabolics
- 89% luminaire efficiency\*
- One, two, or three T5/T5HO lamps
- Reduce lighting energy costs by as much as 30%\*\*
- Earn rebates
- Supports sustainable design
- Installs in less than 10 minutes

\* 2x2 with 2 - 14 watt T5 lamps.

\*\* When retrofitting a 3 - 32 watt T8 fixture to a 2 - 28 watt R2R there is a 30% wattage reduction.



### Before

This space utilizes a "parabolic troffer" that contains 3-32 watt T8 lamps (87 watts adjusted for ballast factor) providing an excess of light on the work surface and a lack of light on wall surfaces. The environment has a dark appearance since the lamp source is completely shielded from wall surfaces.

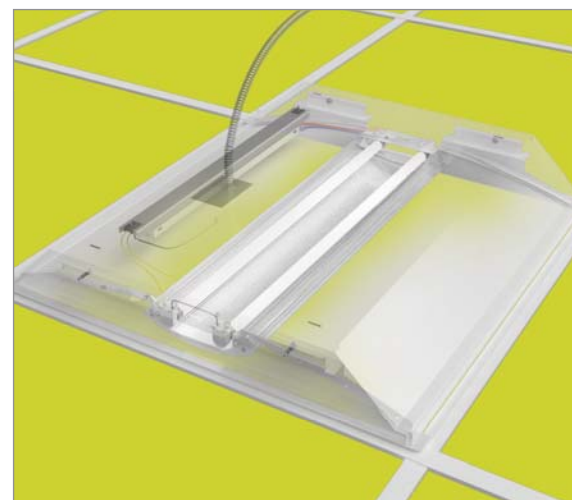
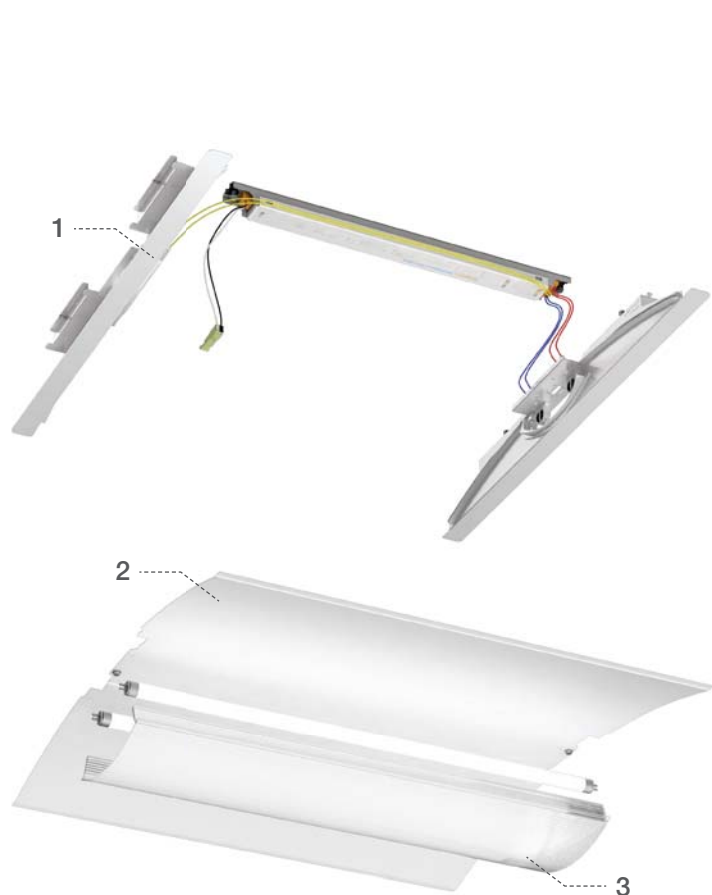


### After

The "Parabolic Troffers" have been retrofitted with the 80%+ efficient 2-28 watt T5 R2R's and the energy consumed per fixture has been reduced by 28 watts per fixture. Additionally, the overall quality of the environment has been improved due to the unique performance attributes of the R2R that deliver a subtle vertical lighting effect to wall surfaces creating a bright and inviting environment, while still maintaining IES recommended light levels on the work surfaces.

**30% wattage reduction and improved visual comfort\*\***

## Component Summary



### 1. Ballast / Bracket Assembly

The innovative pre-wired ballast / bracket assembly is installed first and it serves as the foundation of the R2R given its unique mechanical features that allow for the mounting of the reflector, lamps, and lens. The assembly was designed with the contractor in mind with captive self-drilling hardware that makes life a little easier when most of your day is spent on a ladder.

### 2. Reflector

After the ballast / bracket assembly is installed, the contractor then mounts the reflector to the brackets by drilling 2 captive screws into the ballast / bracket assembly. The reflector has a beautiful matte-white finish that creates a soft low brightness glow when combined with the lamps and lens.

### 3. Lens

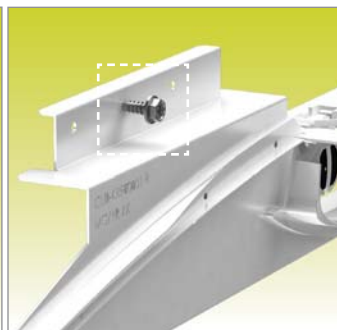
The signature Class R acrylic frosted lens diffuses the lamp image while also transmitting lamp lumens to both the task and vertical room surfaces. The lens positively snaps onto features within the ballast / bracket assembly for a secure fit. Intuitive lens retention features allow for easy lens removal and luminaire maintenance.

## Contractor Friendly Features

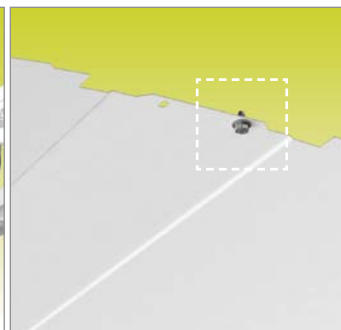
### ■ Captive Hardware



Ballast

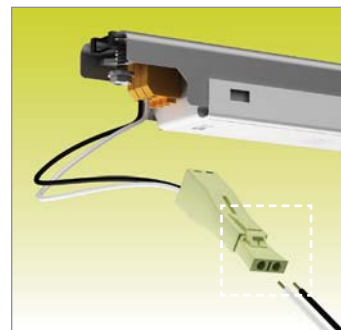


Ballast / Bracket Assembly



Reflector

### ■ Quick-Connect Power



Ballast and Connector

## INSTALLS IN 10 MINUTES!

## How To Install

The R2Rs innovative assembly design easily installs in less than 10 minutes with its captive hardware and quick connect power feed

### Remove Existing Components



Remove Door Frame

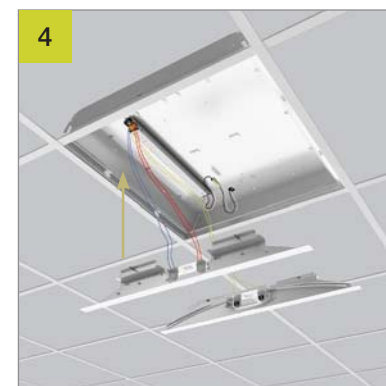


Remove Lamps / Gear Tray

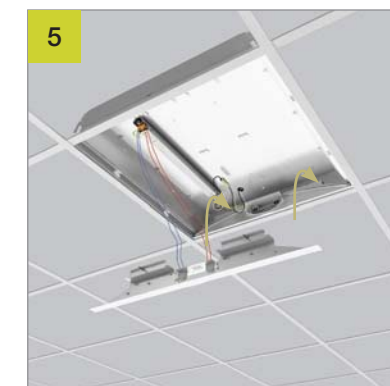


Remove Ballast / Sockets

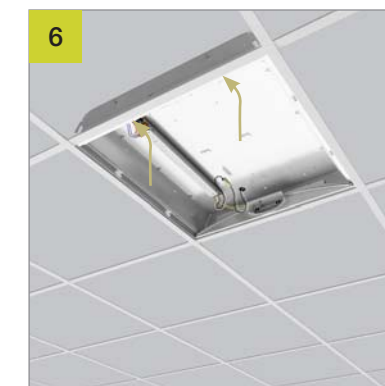
### Install New Components



Install Ballast



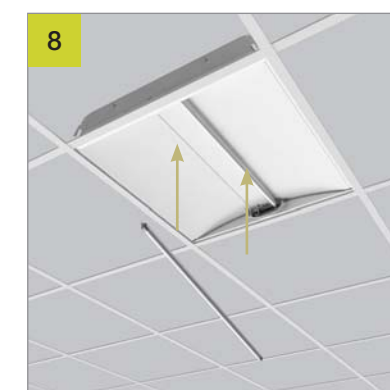
Install Mounting Bracket #1



Install Mounting Bracket #2



Install Reflector



Install Lamps



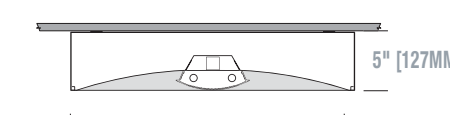
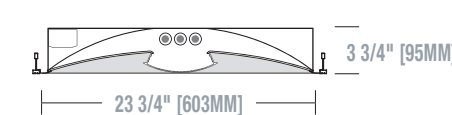
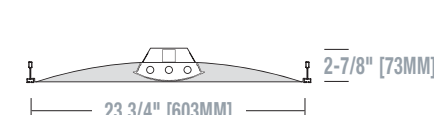
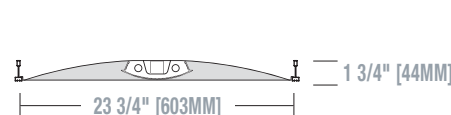
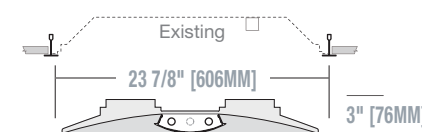
Install Lens



CLASS

## Retrofit broadens the range of the Class R family

The Class R Retrofit is a new addition to a large family of architectural luminaires designed for new construction, and with its introduction the entire Class R series has become the most versatile and well-rounded family in its class. The core concept behind Class R consists of one simple style and set of performance attributes that is woven through six distinct recessed and surface lighting applications. Each application involves solving a unique spatial, structural, energy, and/or technical lighting challenge.



### Retrofit with high design and performance

The T5 R2R combines innovative lighting performance and modern styling. Its signature low profile design provides retrofit capability for the majority of recessed troffers and parabolics. The combination of 80%+ efficiency and retrofit functionality make R2R a perfect vehicle for earning utility rebates and reducing energy costs.

### The Problem Solver

The Class R1 is the ultimate problem solver with a 1-3/4" overall depth that allows it to fit within the height of standard ceiling grid. The ultra low profile depth avoids HVAC and sprinkler system obstructions and allows for efficient luminaire spacing regardless of the plenum challenges. In addition to its low physical profile the R1 has ultra high efficiency and a clean, timeless appearance.

### Mainstream Shallow Recessed

In appearance R2 is identical to the R1 although it is 1" deeper along its center axis. This design adaptation provides better lens uniformity, slightly better luminaire efficiency and the ability to integrate either 1 lamp or 3 lamps in order to accommodate a greater variety of lighting applications. This added flexibility has taken low depth lighting into the mainstream and defined a new category of lighting.

### Lamp versatility and fully luminous appearance

R3 is Class R's most versatile and most visually appealing family member. Choose between 3T5, 3T8, or 2 biax lamps in profile. Its unique backlight panel design creates a ideal balance of brightness between the center lens and the side lenses providing the perfect blend of visual comfort and lighting performance with efficiencies as high as 85%. Remaining true to its name, the R3 solves the problem of depth by offering a complete lamp package at 1" less than most luminaires in its class.

### The Perfect Complement

Remember when you had to use industrial looking fluorescent "wraparounds" in hard to light areas such as bathrooms, stairwells, corridors, copy rooms, and utility closets? Corelite's Class RS has put an end to these days. It carries a substantial lumen package and the signature styling and performance of the Class R family in an ultra low profile unobtrusive design.

### When recessed simply will not work

When architecture simply does not allow for recessed lighting you can still maintain the Class R style and performance in a simple, easy to install surface mount box. The universal design accommodates all Class R recessed products.

## A Sustainable Decision

### Retrofit equals “Recycle”

When retrofitting you are recycling the metal from an existing luminaire. When installing new luminaires an old fixture needs to be removed and discarded or recycled. Even if the old luminaire is recycled there are negative environmental aspects associated with the recycling of old light fixtures such as: metal and paint impurities introduced into the environment, labor and hauling costs, recycling process operational costs and its environmental impact.



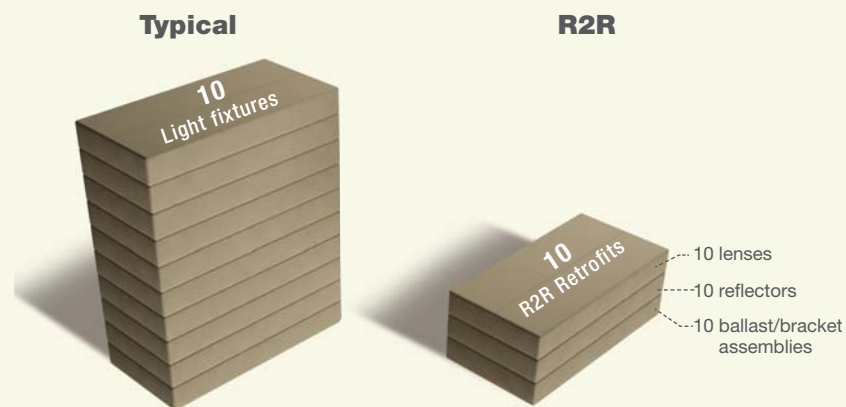
### Less energy consumed means more natural resources preserved

Light equals energy, energy equals natural resources. The Class R retrofit was designed specifically to reduce the amount of energy required to light typical architectural spaces by using less lamps and increasing luminaire efficiency. Energy consumption can be reduced by as much as 30% and this energy savings can be linked directly to a reduced burden on our scarce natural resources utilized to generate electricity.



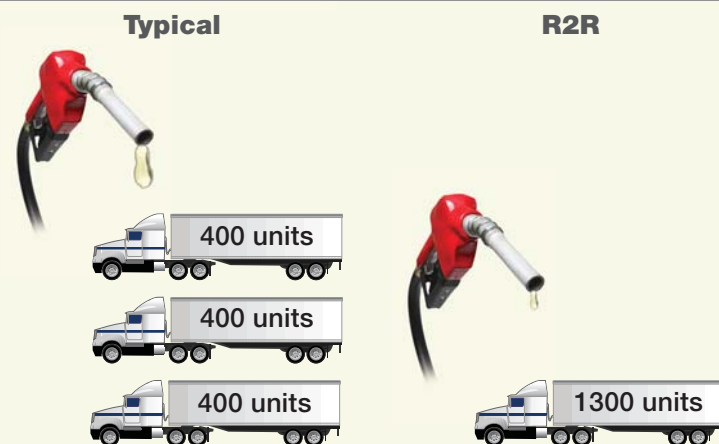
### Reduce packaging by two-thirds\*

The minimalistic R2R design breaks down beautifully into a streamlined “job-pack”. Corelite can place 10 lenses, 10 ballast-bracket assemblies, and 10 reflectors into 3 boxes that normally accommodate 1 new fixture per box. This represents a huge reduction in packaging and an obvious reduction in the environmental burden of packaging.



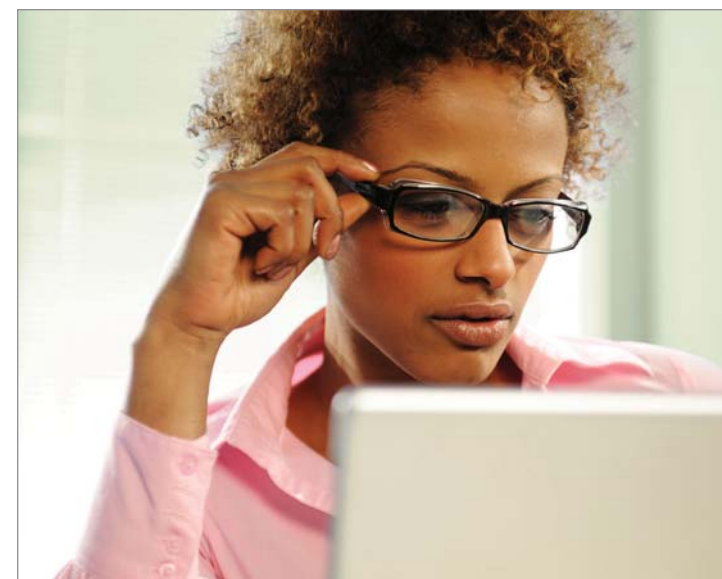
### Reduce gas by two-thirds\*

We did the simple math. 400 “1-box-per-fixture-2x4” fixtures fit on a tractor trailer and 1300 “Corelite R2R 2x4’s” fit on the same tractor trailer. This means that on large projects, more than three times more gas is required to ship a “1-box-to-one-fixture” concept versus the Corelite job-pack. The environmental impact is obvious, and huge!



\*Assumption: Comparison based on typical new fixture packaging conventions for a full trailer load of fixtures.

## Consider Humans Before Payback



Human beings are the most important asset of any organization and their well being within the work environment has a profound effect on their performance. Lighting and visual comfort play a large role in a person’s ability to perform office tasks. Before any changes are made to existing lighting systems these human factors need to be closely evaluated prior to energy cost payback discussions.

Given its sensitivity to both human factors and cost factors, the R2R Retrofit is the perfect answer to the employee-minded organization that is interested in reducing their carbon footprint, and their energy costs. The R2R delivers a subtle glow to wall surfaces that enhances the mood and spatial perception of space while delivering IES recommended light levels to the task for optimum visibility of the work surface.

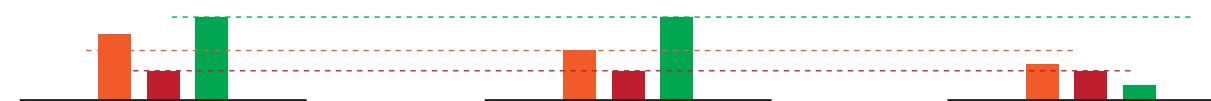
Class R2  
New Luminaire



Class R2R  
Retrofit



Typical Retrofit  
Lamp / Ballast / Reflector



Same cost of energy payback as R2R with 20% greater installed cost and high quality of lighting.

The R2R provides the best balance of low installed cost, quick energy cost payback, and high lighting quality.

Good payback but compromised quality of lighting.

■ Cost of Material and Labor    ■ Cost of Energy    ■ Quality of Lighting



Download payback calculators and more at...

[www.cooperenergysolutions.com](http://www.cooperenergysolutions.com)

The Cooper Energy Solutions site provides a wealth of information and tools that will help you become an environmental steward while showing you how to earn rebates with R2R.



## Class R2R Retrofit

Recessed | Direct | T5 | T5HO

Low profile T5 retrofit with architectural fit, form and finish designed to reduce energy costs, and carbon footprints.



- 3" Depth
- Retrofits Troffers or Parabolics
- 89% Luminaire Efficiency\*
- One, Two, or Three T5/T5HO Lamps
- Reduce lighting energy costs by as much as 30%\*\*
- Earn Rebates
- Supports Sustainable Design
- Installs in less than 10 minutes

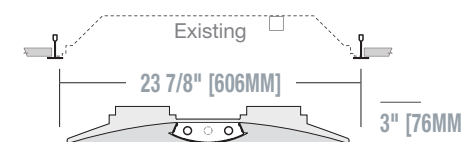
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## Class R2R Retrofit

### ORDERING INFORMATION:

SAMPLE NUMBER:R2R-WL-2N5-1C-UNV-24-T1



#### BALLAST / BRACKET ASSEMBLY

The Class R2R Retrofit Ballast-Bracket assembly is a fully tested electro-mechanical assembly that consists of 2 pre-paint white 20 gauge steel mounting brackets pre-wired to factory installed sockets and an electronic ballast. Low depth brackets (3" height) allow for installation into both louvered "Parabolics" and shallow 3" "Troffers".

Prior to installation the existing ballast, lens/louver frame, ballast covers, and socket trays must be removed from the existing fixture. Then Ballast-Bracket assembly is adhered to the existing luminaire body via PSA (pressure sensitive adhesive). The ballast adhesive temporarily holds the ballast-bracket assembly into place so that the installer can grab his drill and accurately drive the captive screws into the existing housing. Next each mounting bracket is installed onto either end of the existing luminaire and connected to existing luminaire body via proprietary captive self-drilling screws. All hardware is zinc plated.

#### REFLECTORS

Powder coat painted matte white .020" thick one-piece reflector mounts to ballast bracket assembly via 2 captive self-drilling screws. The flat reflector design contorts into signature Class R lens reflector shape via integral curved injection molded rail on the Ballast-Bracket assembly. The reflector seals the luminaire creating a UL listed electrical splice compartment.

#### LENS

Luminaire lens is UV resistant acrylic with an optically designed prism structure that diffuses lamp image and provides high light transmission and high luminaire efficiency (80%+).

#### ELECTRICAL

T5/T5HO fixtures use UL listed Class P program rapid start universal voltage electronic ballasts with pre-installed quick disconnect. Standard ballast factor of 1.0 and Power Factor of 98% with less than 10% THD.

#### SERIES

R2R=Class R2R Retrofit Recessed

#### REFLECTOR

W=White

#### SHIELDING

L=Lens

#### NUMBER OF LAMPS

1=1 Lamp

2=2 Lamps

3=3 Lamps

#### LAMP TYPE

N5=T5 Normal Output

T5=T5 High Output

#### NUMBER OF CIRCUITS\*

1=1 Circuit

2=2 Circuits

#### WIRING\*

C=Standard Circuit

#### VOLTAGE\*

120=120V

277=277V

347=347V

UNV=Universal (120V-277V)

#### SIZE

22=2'x2'

24=2'x4'

#### CEILING TYPE

T1=1" Grid

2x2

2x4

PROJECT NAME:

TYPE:

CATALOG #:

\* Not all options available. Please consult your Cooper Lighting Representative for availability and technical information. Specifications and dimensions subject to change without notice.

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