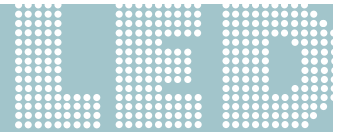




category: **LED** Prefix: **KCN24**  
**Cynergy Series Retrofit Kit**



project:

fixture type:

catalog #:

quantity:

**Innovative Lighting Ideas**  
**Energy Efficient Solutions**



*The Cynergy Series LED Retrofit system has been developed to dramatically improve existing recessed troffer performance using Solid State Lighting (SSL) technologies. This retrofit series provides an attractive, energy efficient architectural look which has been specifically designed to upgrade existing fluorescent recessed troffer style fixtures. Comfortable, low glare, uniform lighting is attributed to this style of retrofit. Typical applications for this type of product are interior spaces where finished ceilings and walls exist. Applications Include:*

- Commercial/Corporate Office Spaces
- Retail Spaces, Public Spaces and Airports
- Schools, Colleges and Universities
- Hospitals, Government Facilities and Military Bases



**Cynergy Retrofit 2x4**

**RoHS**  
Compliant

**LED lighting facts®**  
A Program of the U.S. DOE



Philips Fortimo LEDs Provide High Quality White Light with a High CRI Index.



Philips Xitanium High Efficiency Drivers Offer Many Degrees of Control Over Lumen Output and Input Watts



High Light Transmission Frosted Lens (Standard)



Precision Fabricated Frame Assembly (Air Return Slots are Optional) Custom Colors are Optional

## FEATURES

### CONSTRUCTION

- Precision die-formed from 22 ga. cold rolled steel.
- Mechanically fastened/resistance welded for superior construction.
- Finish on all internal bracketry to be prepainted. high reflectance gloss white polyester powder coat enamel.
- Finish on all external cosmetic trim to be postpainted "textured" high reflectance white polyester powder coat enamel. Custom colors are available.
- Heavy gauge steel (NYC) is optional.

**LEDs/OPTICS**—Philips Fortimo LEDline provides high quality white light in terms of color rendition and color consistency and are part of the Fortimo future proof promise. The color consistency is comparable with conventional fluorescent lighting. LEDline boards provide:

- Increased energy efficiency
- Improved temperature management
- System compatible with all Xitanium drivers
- Module efficiency up to 140 lm/w
- Minimum color rendering index (CRI) of 80
- Available in 3000k, 3500k, 4000k, and 5000k color temperatures
- Lambertian beam shape (Optics) emitted from LEDs helps provide even illumination
- RoHS Compliant
- Conflict-free electronic components
- UL Class 2 Recognized for dry & damp location

Always consult factory for the latest developments & improvements concerning LEDs and optics.

**DRIVERS**—Philips Xitanium LED Electronic Drivers are system matched to the Fortimo LED boards to provide high-efficiency and reliability. Some of the attributes include:

- 54 watt voltage output (max.)
- Robust construction provides protection against dust, moisture, and destructive vibrations.
- Adjustable output (factory set) to "dial in" lumen output and input watts
- Three available options for dimming include:
  - Low voltage 0-10v Dimming (120v-277v)
  - Line Voltage Dimming (120v or 277v)
  - Step Dimming (120v-277v)
- RoHS Compliant
- Conflict-free electronic components
- UL Class 2 Recognized for dry & damp locations

### LENS (Diffuser)

- Custom extruded profile for precision fit.
- Linear prisms designed for both visual appeal & control of lighting distribution.
- Extruded from 100% clear, virgin acrylic with 30% "DR" additive (used to resist breakage).
- Special formula high light transmission frosted acrylic polymer used for glare free shielding and high overall fixture efficiency.
- Consult factory for all available lens/diffuser options.

**MOUNTING**—Retrofit System is designed to be mounted in an existing recessed troffer. Please refer

to installation instructions for proper fit and sizing.

### ELECTRICAL

- Long-life LEDs and high-efficiency drivers provide superior quantity and quality of illumination for extended service life. Cynergy series is rated to deliver LM80 performance for 50,000+ hrs.
- Bi-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.
- Ballast disconnect provided where required to comply with US & Canadian codes

### CONTROLS

- Compatible with industry standard 0-10v Dimming, Step Dim, and Line Voltage Dimming controls. (Per driver type selection.)

### LISTINGS & CERTIFICATIONS

- UL/CUL Listed for safety (1598)
- UL/CUL Listed for Dry/Damp Locations
- RoHS Compliant
- Lighting Facts (U.S. Department of Energy) Certified

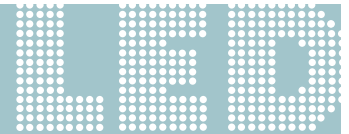
**QUALITY CONTROL**—All retrofit components are designed, fabricated, assembled, tested, packaged and shipped from RENOVA's manufacturing facility. All retrofit components and kits are inspected and labeled prior to shipment.

**WARRANTY**—5-year limited warranty. Please refer to RENOVA's website at [www.renova.com/sales/warranties](http://www.renova.com/sales/warranties) for the latest warranty terms and conditions.

\*Note: Specifications subject to change without notice.



category: **LED** Prefix: **KCN24**  
**Cynergy Series Retrofit Kit**



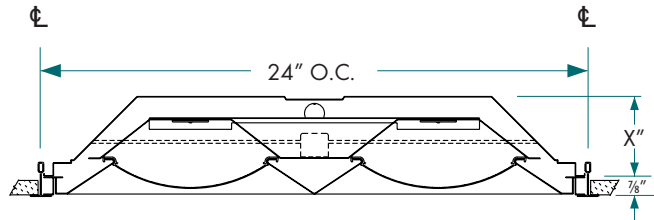
Innovative Lighting Ideas  
Energy Efficient Solutions

2' x 4'

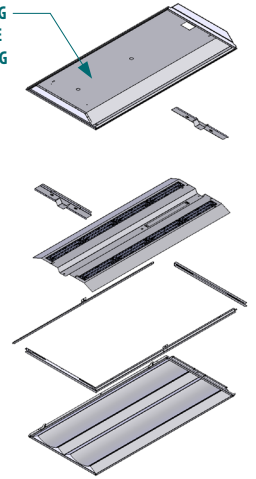


**KCN24 Retrofit Kit  
(Shown Installed)**

**KCN 2x4 Cross Section**



**EXISTING  
FIXTURE  
HOUSING  
SHOWN**



**ORDERING GUIDE**

L	- KCN	24	-	-	-	-	-	-	-	-
LIGHT SOURCE	PREFIX/SERIES	SIZE	REFLECTOR MATERIAL	OPTICS (DISTRIBUTION)	LUMEN OUTPUT	DRIVER VOLTAGE	DRIVER TYPE	INPUT WATTS	COLOR TEMP.	OPTIONS
LED	Recessed Cynergy Series Retrofit Kit	2x4	M Miro4 (95% TR) W White Paint (91% TR) X White Optics (96% TR)	F - Focused N - Normal S - Spread  *Normal is Standard	L31 - (3100)* L39 - (3900) L44 - (4400) L51 - (5100) L53 - (5300)	120 - 120v, 60 Hz 277 - 277v, 60 Hz UNV - 120v-277v, 60 Hz (Multi-Tap)	54 DN - 0-10v Dimming (Standard) 54 XR - Line Voltage Dimming (120v) 54 XV - Line Voltage Dimming (277v) 54 SN - Step Dimming	W28 - (28)* W38 - (38) W44 - (44) W52 - (52) W56 - (56)	C30 - (3000K) C35 - (3500K) C40 - (4000K) C50 - (5000K)	AF - Frosted Linear Prism Acrylic Lens (Standard)  AR - Air Return Slots

**SAMPLE ORDERING NUMBER**

L-KCN24-WN-L31-UNV-54DN-W30-C30-AF



DLC Application Category #33  
"Retrofit Kits for 2x4 luminaires for Ambient Lighting of Interior Commercial Spaces"

**NOTES:**

Philips Xitanium Drivers have adjustable output capability. A wide range of input watts/lumen output can be adjusted up or down on all models to suit a particular application. Always consult factory for the latest information.

Photometric data, IES files and all other information is available on request.



**MERCURY-FREE**



**PRIOR TO RETROFITTING THE EXISTING FLUORESCENT FIXTURE, PLEASE NOTE THE FOLLOWING:**

Fluorescent lamps contain small amounts of mercury. Such lamps are labeled "Contains Mercury" and / or with the symbol "Hg." Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycling and disposal can be found at [www.lamprecycle.org](http://www.lamprecycle.org).

RENOVA products are constantly being improved; therefore the information shown is subject to change without notice. Always consult your lighting representative or RENOVA Lighting Systems, Inc. for the latest information.

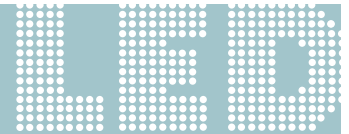


**VETERAN  
OWNED**

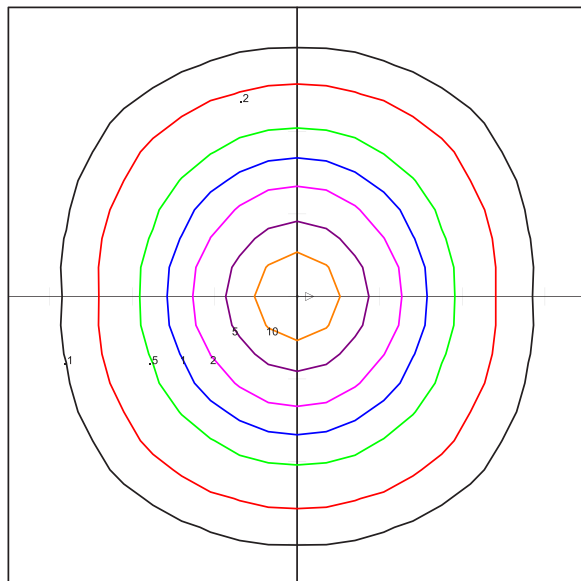
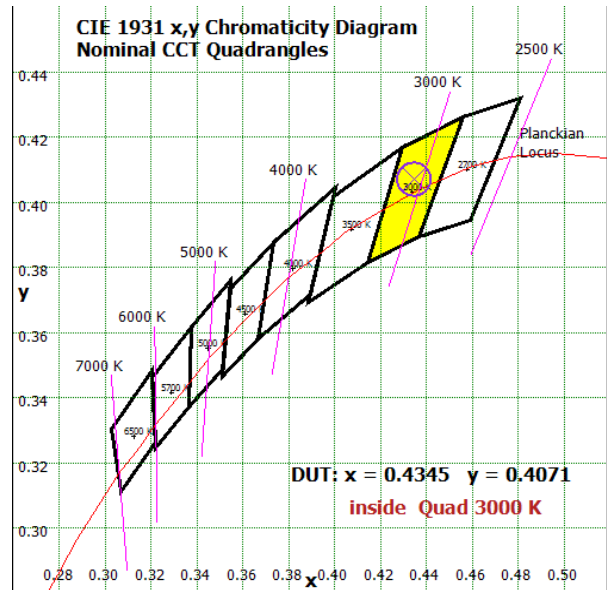
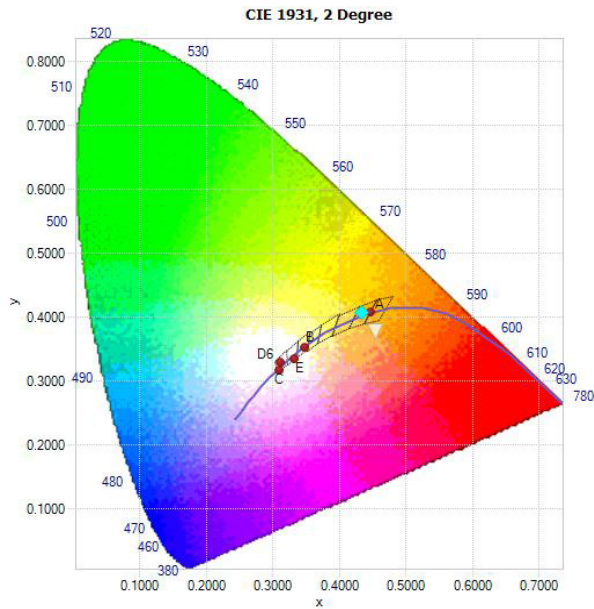
## Page 3/5



category: **LED** Prefix: **KCN24**  
**Cynergy Series** Retrofit Kit



**Diagrams for Catalog #: L-KCN24-WN-L44-UNV-54DN-W44-C30-AF**



Renova Lighting Systems Inc  
 L-KCN24-WN-L44-UNV-54DN-W44-C30-AF (Blue Rset)

Horizontal Footcandles  
 Scale: 1 Inch = 10 Ft.  
 Mounting Height = 10.00 Ft  
 Maximum Calculated Value = 16,68 Fc

MOUNTING HEIGHT ABOVE WORK PLANE (FT)	CONE OF LIGHT				
	INITIAL FC AT NADIR (FC)	.1*FCN (FC)	10% LIGHTED DIAMETER (FT)	.5*FCN (FC)	50% LIGHTED DIAMETER (FT)
1	1668.0	166.8	2.7	834.0	1.2
2	417.0	41.7	5.5	208.5	2.5
3	185.3	18.5	8.2	92.7	3.7
4	104.2	10.4	10.9	52.1	4.9
5	66.7	6.7	13.6	33.4	6.2
6	46.3	4.6	16.4	23.2	7.4
7	34.0	3.4	19.1	17.0	8.6
8	26.1	2.6	21.8	13.0	9.9

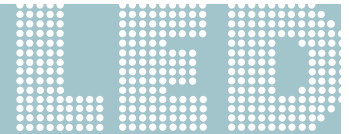
10% CONE ANGLE: 107.5 DEGREES  
 50% CONE ANGLE: 63.2 DEGREES





Innovative Lighting Ideas  
Energy Efficient Solutions

# category: LED Prefix: KCN24 Cynergy Series Retrofit Kit



## L-KCN24WN-L31-UNV-54DN-W30-C30-AF

**LED lighting facts**  
A Program of the U.S. DOE

The U.S. Department of Energy's LED Lighting Facts® Program has verified product performance based on industry-standardized testing.



For details, see: RENOVA Lighting Systems, Inc.  
Model # L-KCN24-WN-L31-UNV-54DN-W30-C30-AF  
[www.lightingfacts.com/products](http://www.lightingfacts.com/products)

LED lighting facts® A Program of the U.S. DOE	
Light Output (Lumens)	3100
Watts	30
Lumens per Watt (Efficacy)	103
Color Accuracy Color Rendering Index (CRI)	80
Light Color Correlated Color Temperature (CCT)	3000 (Bright White)
2700K 3000K 4500K 6500K	
Warranty**	Yes
At results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.	
** See <a href="http://www.lightingfacts.com/products">www.lightingfacts.com/products</a> for details.	
Registration Number: 568H-296742 (1/21/2015) Model Number: L-KCN24-WN-L31-UNV-54DN-W30-C30-AF Type: Retrofit Kit - Troffer/Gold Ceiling	

## L-KCN24-WN-L39-UNV-54DN-W38-C30-AF

**LED lighting facts**  
A Program of the U.S. DOE

The U.S. Department of Energy's LED Lighting Facts® Program has verified product performance based on industry-standardized testing.



For details, see: RENOVA Lighting Systems, Inc.  
Model # L-KCN24-WN-L39-UNV-54DN-W38-C30-AF  
[www.lightingfacts.com/products](http://www.lightingfacts.com/products)

LED lighting facts® A Program of the U.S. DOE	
Light Output (Lumens)	3900
Watts	38
Lumens per Watt (Efficacy)	102
Color Accuracy Color Rendering Index (CRI)	80
Light Color Correlated Color Temperature (CCT)	3000 (Bright White)
2700K 3000K 4500K 6500K	
At results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.	
Visit <a href="http://www.lightingfacts.com">www.lightingfacts.com</a> for the Label Reference Guide.	
Registration Number: 568H-296742 (1/21/2015) Model Number: L-KCN24-WN-L39-UNV-54DN-W38-C30-AF Type: Retrofit Kit - Troffer/Gold Ceiling	

## L-KCN24-WN-L44-UNV-54DN-W44-C30-AF

**LED lighting facts**  
A Program of the U.S. DOE

The U.S. Department of Energy's LED Lighting Facts® Program has verified product performance based on industry-standardized testing.



For details, see: RENOVA Lighting Systems, Inc.  
Model # L-KCN24-WN-L44-UNV-54DN-W44-C30-AF  
[www.lightingfacts.com/products](http://www.lightingfacts.com/products)

LED lighting facts® A Program of the U.S. DOE	
Light Output (Lumens)	4400
Watts	44
Lumens per Watt (Efficacy)	100
Color Accuracy Color Rendering Index (CRI)	80
Light Color Correlated Color Temperature (CCT)	3000 (Bright White)
2700K 3000K 4500K 6500K	
At results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.	
Visit <a href="http://www.lightingfacts.com">www.lightingfacts.com</a> for the Label Reference Guide.	
Registration Number: 568H-005571 (1/21/2015) Model Number: L-KCN24-WN-L44-UNV-54DN-W44-C30-AF Type: Retrofit Kit - Troffer/Gold Ceiling	

## L-KCN24-WN-L51-UNV-54DN-W52-C30-AF

**LED lighting facts**  
A Program of the U.S. DOE

The U.S. Department of Energy's LED Lighting Facts® Program has verified product performance based on industry-standardized testing.



For details, see: RENOVA Lighting Systems, Inc.  
Model # L-KCN24-WN-L51-UNV-54DN-W52-C30-AF  
[www.lightingfacts.com/products](http://www.lightingfacts.com/products)

LED lighting facts® A Program of the U.S. DOE	
Light Output (Lumens)	5100
Watts	52
Lumens per Watt (Efficacy)	98
Color Accuracy Color Rendering Index (CRI)	80
Light Color Correlated Color Temperature (CCT)	3000 (Bright White)
2700K 3000K 4500K 6500K	
At results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.	
Visit <a href="http://www.lightingfacts.com">www.lightingfacts.com</a> for the Label Reference Guide.	
Registration Number: 568H-000038 (1/21/2015) Model Number: L-KCN24-WN-L51-UNV-54DN-W52-C30-AF Type: Retrofit Kit - Troffer/Gold Ceiling	

## L-KCN24-WN-L53-UNV-54DN-W56-C30-AF

**LED lighting facts**  
A Program of the U.S. DOE

The U.S. Department of Energy's LED Lighting Facts® Program has verified product performance based on industry-standardized testing.



For details, see: RENOVA Lighting Systems, Inc.  
Model # L-KCN24-WN-L53-UNV-54DN-W56-C30-AF  
[www.lightingfacts.com/products](http://www.lightingfacts.com/products)

LED lighting facts® A Program of the U.S. DOE	
Light Output (Lumens)	5300
Watts	56
Lumens per Watt (Efficacy)	94
Color Accuracy Color Rendering Index (CRI)	80
Light Color Correlated Color Temperature (CCT)	3000 (Bright White)
2700K 3000K 4500K 6500K	
At results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.	
Visit <a href="http://www.lightingfacts.com">www.lightingfacts.com</a> for the Label Reference Guide.	
Registration Number: 568H-000304 (1/21/2015) Model Number: L-KCN24-WN-L53-UNV-54DN-W56-C30-AF Type: Retrofit Kit - Troffer/Gold Ceiling	