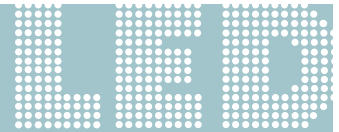




category: **LED** Prefix: **RCN22**

## Cynergy Series High Efficiency LED Luminaire



project:

fixture type:

catalog #:

quantity:

**Innovative Lighting Ideas  
Energy Efficient Solutions**



*The Cynergy (CYN) Series has been developed for illumination of interior spaces where superior advanced LED lighting is required together with high fixture efficiency. This series provides an attractive, energy efficient architectural look which has been specifically designed to replace existing parabolic troffer style fixtures.*

*Comfortable, low glare, uniform lighting is attributed to this style of fixture.*

*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 Recessed 2x2**

**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**—Luminaire is designed to be mounted in a standard NEMA Type "G" T-Bar ceiling grid.

### 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 fixtures are designed, fabricated, assembled, tested, packaged and shipped from RENOVA's manufacturing facility. All fixtures and kits are inspected and labeled prior to shipment.

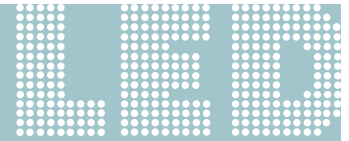
**WARRANTY**—5-year limited warranty. Please refer to RENOVA's website at [www.renova.com/sales/warranties](http://www.renova.com/sales/warranties) for the latest warranty terms and conditions.

\*Note: Specifications subject to change without notice.



Innovative Lighting Ideas  
Energy Efficient Solutions

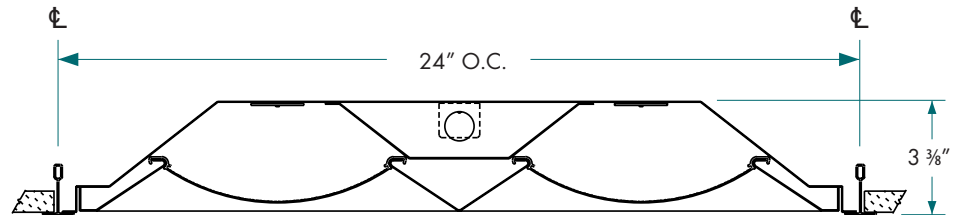
category: **LED** Prefix: **RCN22**  
**Cynergy Series** High Efficiency LED Luminaire



2' x 2'



RCN 2x2 Cross Section



ORDERING GUIDE

L	-	RCN	22	-		-		-		-		-		-	
LIGHT SOURCE		PREFIX/ SERIES	SIZE	REFLECTOR MATERIAL	OPTICS (DISTRIBUTION)	LUMEN OUTPUT	DRIVER VOLTAGE	DRIVER TYPE	INPUT WATTS	COLOR TEMP.	OPTIONS				
LED		Recessed Cynergy Series	2x2	M Miro4 (95% TR)  W White Paint (91% TR)  X White Optics (96% TR)	F - Focused N - Normal S - Spread  *Normal is Standard	L23 - (2300)* L27 - (2700)* L34 - (3400) L38 - (3800)* L43 - (4300)* L45 - (4500)*	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	W23 - (23)* W30 - (30)* W40 - (40) W45 - (45)* W54 - (54)* W57 - (57)*	C30 - (3000K) C35 - (3500K) C40 - (4000K) C50 - (5000K)	AF - Frosted Linear Prism Acrylic Lens (Standard)  AR - Air Return Slots				

SAMPLE ORDERING NUMBER

L-RCN22-WN-L34-UNV-54DN-W40-C30-AF



DLC Application Category #15  
"2x2 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.

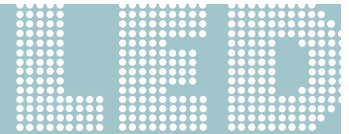
Photometric data, IES files and all other information is available on request.

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.





category: **LED** Prefix: **RCN22**  
**Cynergy Series** High Efficiency LED Luminaire



Innovative Lighting Ideas  
Energy Efficient Solutions

2' x 2' Photometric Data for Catalog #:  
**L-RCN22-WN-L34-UNV-54DN-W40-C30-AF**



The following reports were used to  
compile the data listed below:

- Integrating Sphere Test Report #37099
- Photometric Indoor Test Report #37098

Delivered Lumens	3,474
Efficacy (Lumens/Watt)	86.7
Power	40.08w
Voltage	120v
Power Factor	.990
THD	11.4%
CRI	81.0
CCT	3096K
LED Life	50,000+ hrs

See TM-21  
Data Sheet

**Zonal Lumen Summary**

Zone	Lumens	%Luminaire
0-30	1032	31.16
0-40	1663	50.23
0-60	2789	84.23
0-90	3312	100.00
40-90	1648	49.77
60-90	522	15.77
90-180	0	0.00
0-180	3312	100.00

**Intensity (Candlepower) Summary**

**Output  
Lumens**

Angle	Along	22.5	45.0	67.5	Across	
0	1353	1353	1353	1353	1353	
5	1340	1342	1341	1345	1355	130
10	1312	1316	1320	1327	1338	
15	1270	1275	1285	1298	1311	362
20	1212	1220	1236	1255	1270	
25	1140	1152	1174	1199	1215	540
30	1056	1071	1100	1129	1150	
35	959	978	1014	1048	1071	632
40	850	874	915	951	974	
45	735	762	807	841	862	617
50	616	646	694	725	743	
55	499	530	582	608	622	509
60	388	420	473	493	495	
65	289	318	370	366	346	339
70	203	229	270	234	201	
75	130	153	174	126	103	154
80	69	85	87	57	48	
85	24	28	24	18	16	29
90	0	0	0	0	0	

**Coefficients of Utilizations (%)**

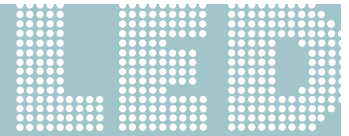
Sq. Ft. Room	90				80				70				50				30				10				0	
	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0	0			
0	122	122	122	122	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	113	109	105	101	111	107	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	104	97	91	86	102	95	90	85	100	93	88	84	90	86	82	87	83	80	84	81	78	76				
3	96	86	79	73	94	85	78	72	92	82	77	72	81	75	71	78	73	69	76	72	68	66				
4	89	78	70	64	87	77	69	63	85	75	68	63	73	67	62	71	65	61	69	64	60	58				
5	83	70	62	55	81	69	61	55	78	68	60	55	66	59	54	64	58	53	62	57	53	51				
6	76	63	55	49	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45				
7	70	57	48	43	69	56	48	42	67	55	47	42	54	46	42	52	46	41	51	45	41	39				
8	65	52	43	38	64	51	43	37	62	50	42	37	49	42	37	48	41	37	46	41	36	35				
9	60	47	39	33	59	46	38	33	58	46	38	33	44	38	33	44	37	33	42	37	32	31				
10	56	43	34	29	55	42	34	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27				

L-RCN22-WN-L34-UNV-54DN-W40-C30-AF  
Independent Test Report #37098  
Efficacy (Lumens/Watt): 86.7  
Spacing/Mounting Height: 1.3  
SC (Along): 1.2 SC (Across): 1.3

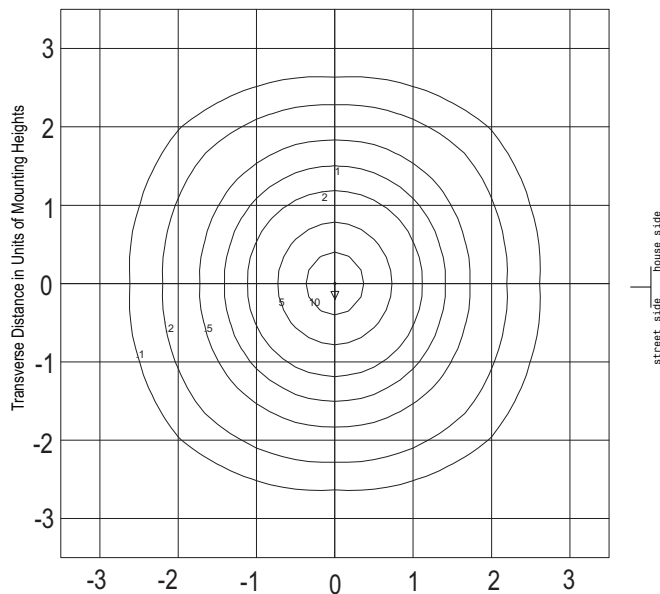
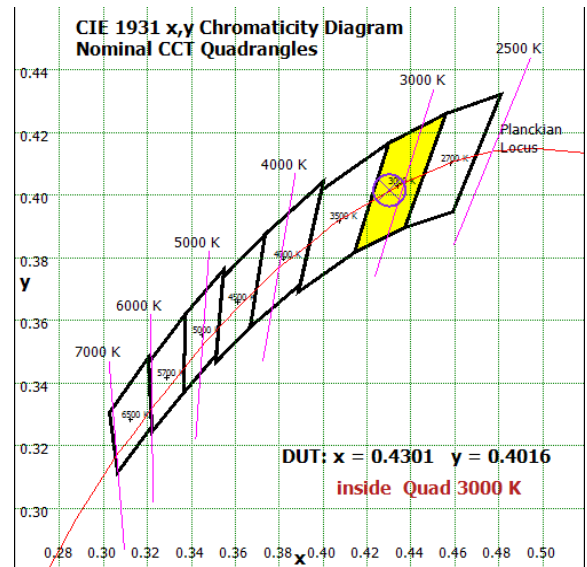
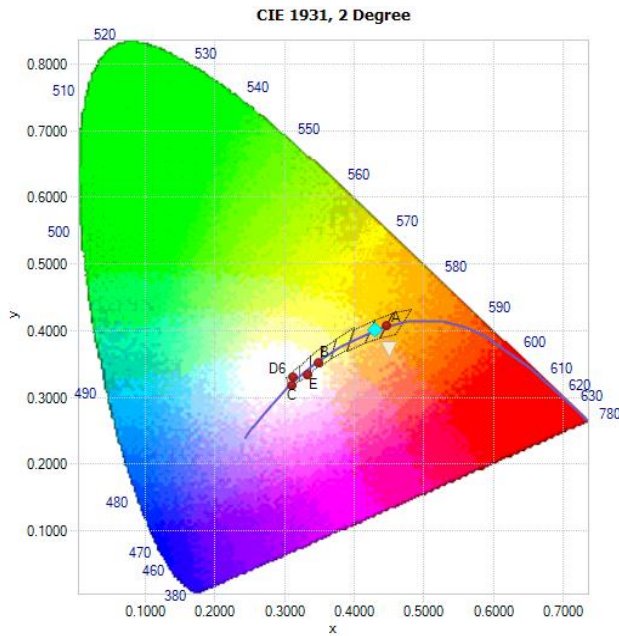


Innovative Lighting Ideas  
Energy Efficient Solutions

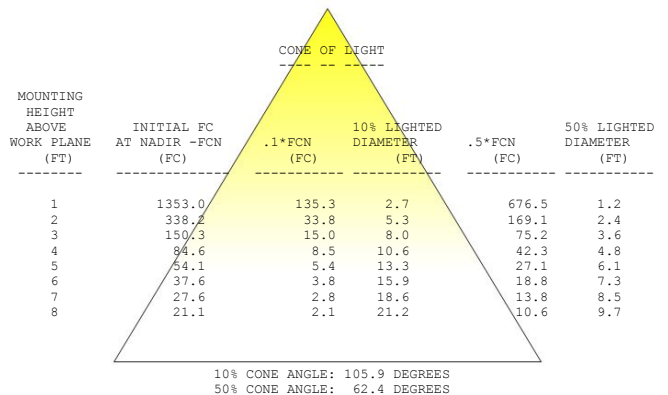
category: **LED** Prefix: **RCN22**  
**Cynergy Series** High Efficiency LED Luminaire



Diagrams for Catalog #: L-RCN22-WN-L34-UNV-54DN-W40-C30-AF

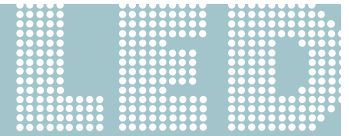


Isofootcandle values are based on a mounting height of 10', with the luminaire located at 0.0. Isofootcandle values are calculated from the direct contribution of the luminaire only. Wall, ceiling, and floor contributions are not included. Grid lines are in increments of mounting height.





category: **LED** Prefix: **RCN22**  
**Cynergy Series** High Efficiency LED Luminaire



Innovative Lighting Ideas  
Energy Efficient Solutions

**L-RCN22-WN-L34-UNV-54DN-W40-C30-AF**




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-RCN22-WN-L34-UNV-54DN-W40-C30-AF

[www.lightingfacts.com/products](http://www.lightingfacts.com/products)



RENOVA Lighting Systems, Inc.  
A Program of the U.S. DOE

Light Output (Lumens)	3400
Watts	39
Lumens per Watt (Efficacy)	87

Color Accuracy

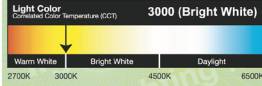
Color Rendering Index (CRI)

80

Light Color

Correlated Color Temperature (CCT)

3000 (Bright White)



2700K 3000K 4000K 6500K

Warm White Bright White Daylight

All 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 [www.lightingfacts.com](http://www.lightingfacts.com) for the Label Reference Guide.

Registration Number: 589H-BB/FM4 (12/11/2013)  
Model Number: L-RCN22-WN-L34-UNV-54DN-W40-C30-AF  
Type: Recessed Kit - Troffer Grid Ceiling