



category: LED Prefix: RCN14

# 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 1x4

RoHS  
Compliant

LED  
lighting facts  
A Program of the IES ELC



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

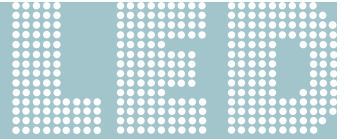
**QUALITY CONTROL**—All fixtures are designed, fabricated, assembled, tested, packaged and shipped from RENOVA's manufacturing facility. All fixtures and kits are inspected and labeled prior to shipment.

**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.



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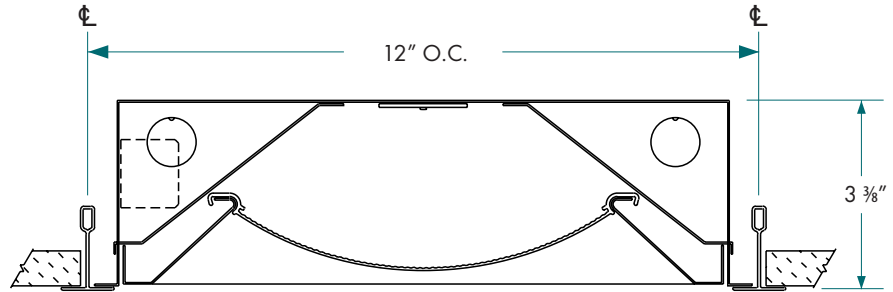


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1' x 4'



**RCN 1x4 Cross Section**



**ORDERING GUIDE**

<b>RCN</b>	<b>14</b>	-	-	-	-	-	-	-
PREFIX/SERIES	SIZE	OPTICS (DISTRIBUTION)	LUMEN OUTPUT	DRIVER VOLTAGE	DRIVER TYPE	COLOR TEMP.	LENS (DIFFUSER)	FIXTURE OPTIONS
RCN - Cynergy Series Recessed Fixture	14 - 1x4	N - Normal C - Custom (Specify)	L015 - 1500 L020 - 2000 L030 - 3000 L040 - 4000 L050 - 5000 L060 - 6000 L070 - 7000 LC - Custom (Specify)	UNV - Universal Voltage (120v - 277v) (60 Hz)  120 - 120v 277 - 277v 347 - 347v*  *Special order only	DM - 0-10v Low Voltage Dimming (10% - 100%) (Standard) SD - Step Dimming (50% / 100%) LV - Line Voltage Dimming *Specify Voltage (120v or 277v)	C27 - 2700 K* C30 - 3000 K* C35 - 3500 K C40 - 4000 K C50 - 5000 K*  *Special Order Only	AF - Frosted Linear Prism Acrylic Lens (Standard) CS - Custom (Specify)	AR - Air Return Slots OS - Occupancy Sensor DL - Daylight Harvesting Sensor OD - Occupancy/Daylight Sensor DS - Digital Sensor DT - "DainTree" Sensor EM - Emergency Battery Pack *

**SAMPLE ORDERING NUMBER**

RCN14-N-L020-UNV-DM-C30-AF



DLC Application Category #16  
 "1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces"

**NOTES:**

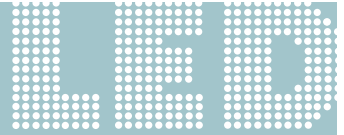
Philips Xitanium Drivers have adjustable output capability. A wide range of input watts/lumen output can be adjusted up or down on all models to suit a particular application. Always consult factory for the latest information.

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.



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**1' x 4' Photometric Data for Catalog #:  
 L-RCN14-WN-L28-UNV-54DN-W31-C30-AF**



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

- Integrating Sphere Test Report #77742
- Photometric Indoor Test Report #77741

Delivered Lumens	2,833
Efficacy (Lumens/Watt)	90.8
Power	31.21w
Voltage	120v
Power Factor	.984
THD	14.1%
CRI	81.3
CCT	3068K
LED Life	50,000+ hrs

See TM-21 Data Sheet

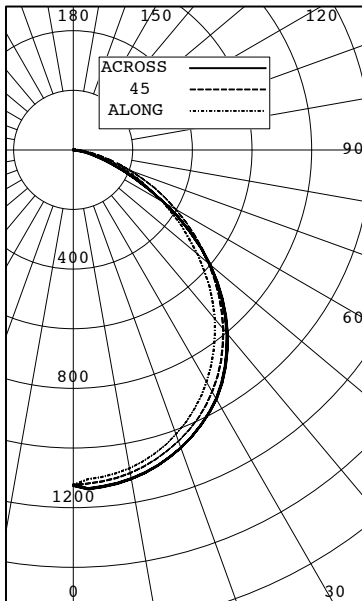
**Zonal Lumen Summary**

Zone	Lumens	%Luminaire
0-30	867	31.24
0-40	1404	50.59
0-60	2357	84.95
0-90	2774	100.00
40-90	1371	49.41
60-90	418	15.05
90-180	0	0.00
0-180	2774	100.00

**Intensity (Candlepower) Summary**

**Output Lumens**

Angle	Along	22.5	45.0	67.5	Across	
0	1125	1089	1125	1125	1125	
5	1102	1118	1117	1123	1134	108
10	1085	1100	1101	1108	1120	
15	1055	1071	1074	1083	1096	303
20	1013	1030	1038	1049	1061	
25	960	981	992	1006	1017	456
30	896	919	935	951	961	
35	821	846	864	881	889	537
40	739	763	783	796	803	
45	646	671	692	702	706	526
50	545	572	595	600	599	
55	443	472	496	490	477	427
60	344	373	397	370	350	
65	256	284	300	255	231	269
70	180	205	208	159	140	
75	115	135	128	92	81	122
80	62	75	65	47	42	
85	22	26	21	17	15	26
90	0	0	0	0	0	



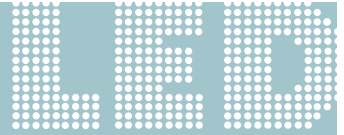
**Coefficients of Utilizations (%)**

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

L-RCN14-WN-L28-UNV-54DN-W31-C30-AF  
 Independent Test Report #77741  
 Efficacy (Lumens/Watt): 90.8  
 Spacing/Mounting Height: 1.3  
 SC (Along): 1.2 SC (Across): 1.3

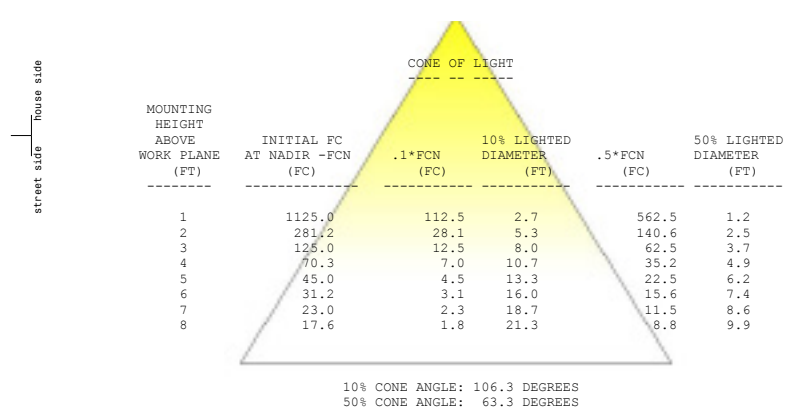
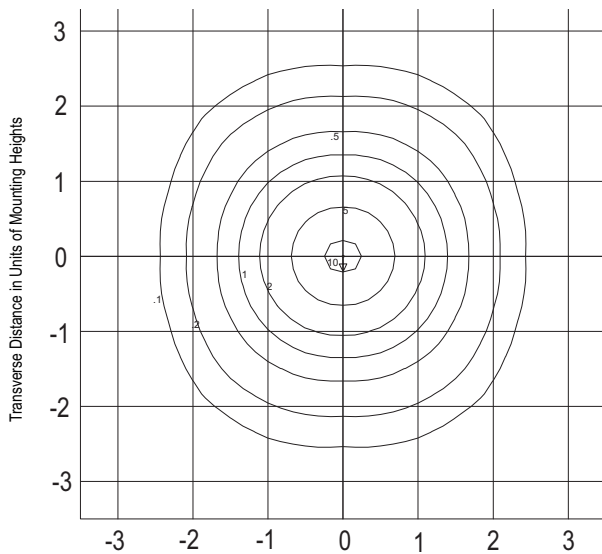
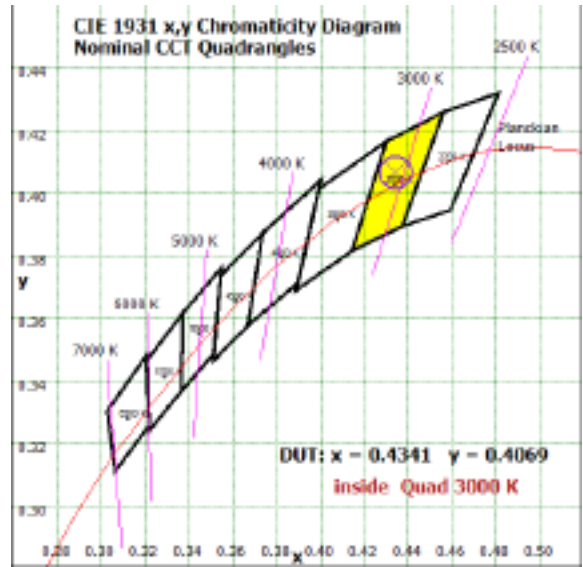
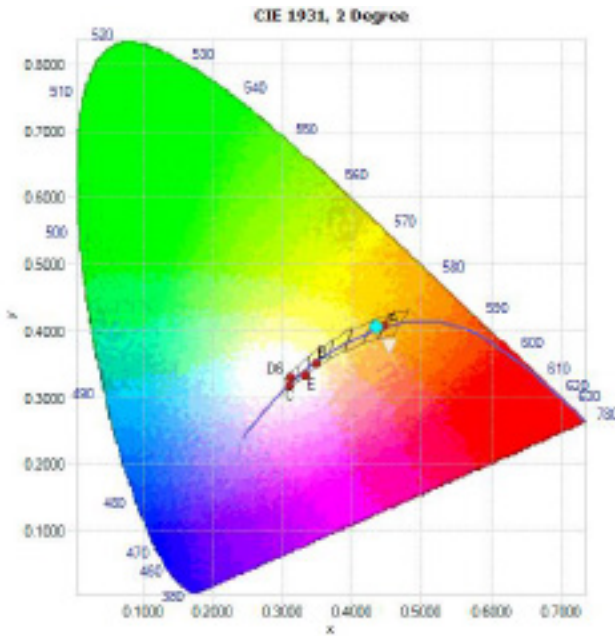


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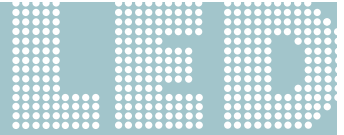
Diagrams for Catalog #: L-RCN14-WN-L28-UNV-54DN-W31-C30-AF



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.



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**RCN14-N-L020-UNV-DM-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-RCN14-WN-L26-UNV-54DN-W31-C30-AF  
[www.lightingfacts.com/products](http://www.lightingfacts.com/products)

Light Output (Lumens)	2823
Watts	31.21
Lumens per Watt (Efficacy)	90
Color Accuracy (Color Rendering Index (CRI))	81
Light Color (Correlated Color Temperature (CCT))	3000 (Bright White)

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