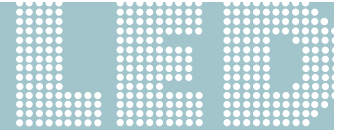




category: LED Prefix: RCN22

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



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

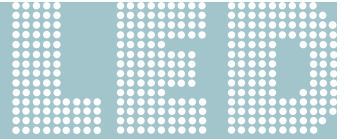
QUALITY CONTROL—All fixtures are designed, fabricated, assembled, tested, packaged and shipped from RENOVA's manufacturing facility. All fixtures and kits are inspected and labeled prior to shipment.

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

*Note: Specifications subject to change without notice.



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

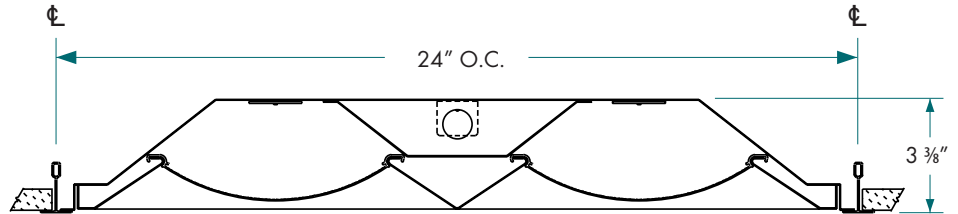


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2' x 2'



RCN 2x2 Cross Section



ORDERING GUIDE

RCN	22	-	-	-	-	-	-	-
PREFIX/SERIES	SIZE	OPTICS (DISTRIBUTION)	LUMEN OUTPUT	DRIVER VOLTAGE	DRIVER TYPE	COLOR TEMP.	LENS (DIFFUSER)	FIXTURE OPTIONS
RCN - Cynergy Series Recessed Fixture	22 - 2x2	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 - "DainTree" Sensor DT - "DainTree" Sensor EM - Emergency Battery Pack *

SAMPLE ORDERING NUMBER

RCN22-N-L020-UNV-DM-C30-AF



DLC Application Category #15
 "2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces"

NOTES:

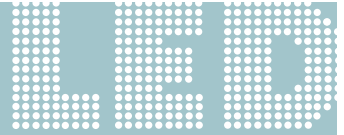
Philips Xitanium Drivers have adjustable output capability. A wide range of input watts/lumen output can be adjusted up or down on all models to suit a particular application. Always consult factory for the latest information.

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



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**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

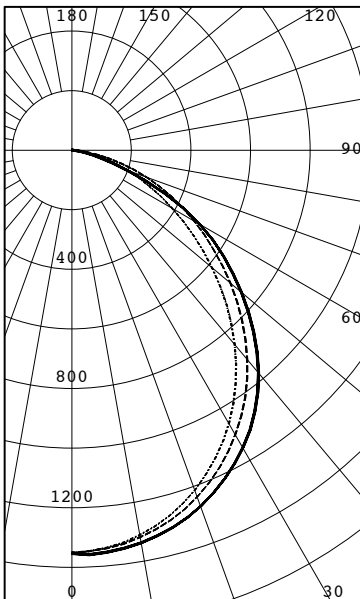
Zonal Lumen Summary

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	



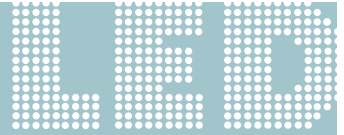
Coefficients of Utilizations (%)

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	0						
0	122	122	122	122	119	119	119	119	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

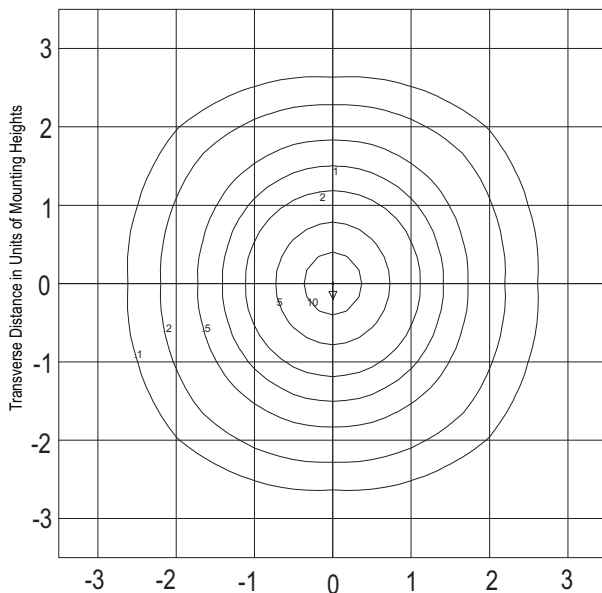
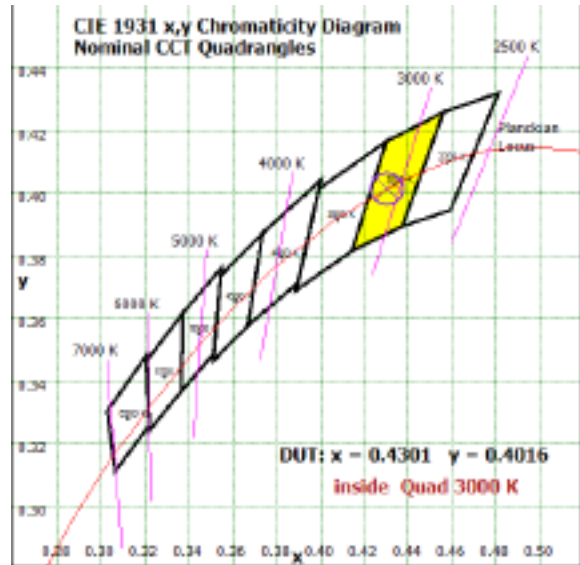
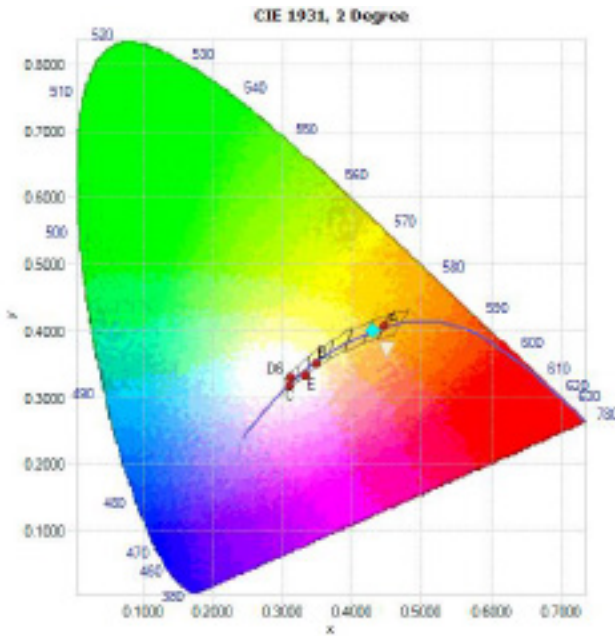


category: LED Prefix: RCN22
Cynergy Series High Efficiency LED Luminaire

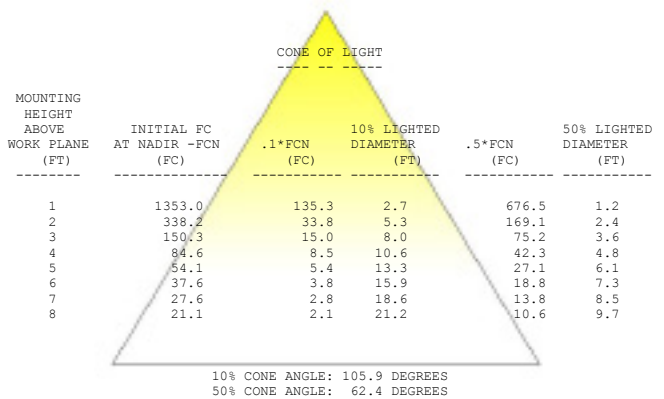


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Diagrams for Catalog #: L-RCN22-WN-L34-UNV-54DN-W40-C30-AF



street side house side



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



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RCN22-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-RCN22-WN-L34-UNV-54DN-W40-C30-AF
www.lightingfacts.com/products

Light Output (Lumens)	3480
Watts	29
Lumens per Watt (Efficiency)	87
Color Accuracy	90
Light Color	3000 (Bright White)

Light Color Scale: 2700K (Warm White) - 3000K (Bright White) - 3500K (Neutral White) - 4000K (Cool White) - 5000K (Daylight) - 6000K (Cool Daylight)

Model Number: L-RCN22-WN-L34-UNV-54DN-W40-C30-AF
 Type: Recessed Air-Tight Downlight