

Ovation Series Recessed

Prefix: **RVN24**

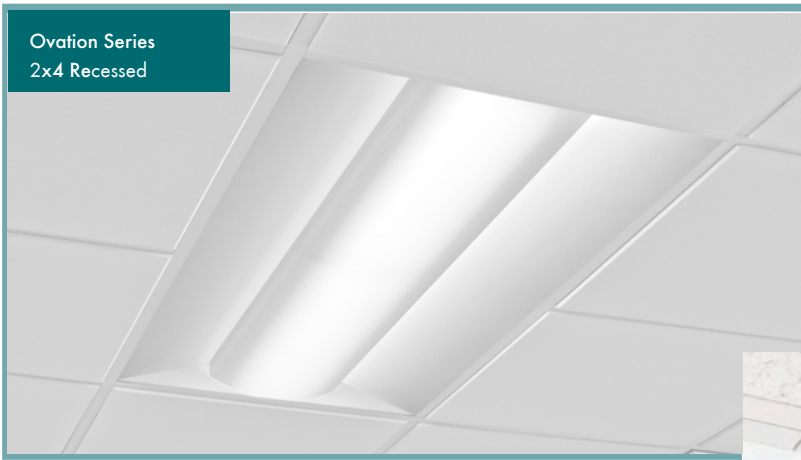
The Ovation Series LED Recessed Fixture family has been developed to dramatically improve energy efficiency and quality of light using Solid State Lighting (SSL) technologies. The Ovation Series LED Recessed Fixtures provide an attractive, energy efficient architectural look which has been specifically designed to replace existing fluorescent lighting or for use in new construction. 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



DLC Application Category #7
 "2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces"

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified



project:

fixture type:

catalog #:

quantity:

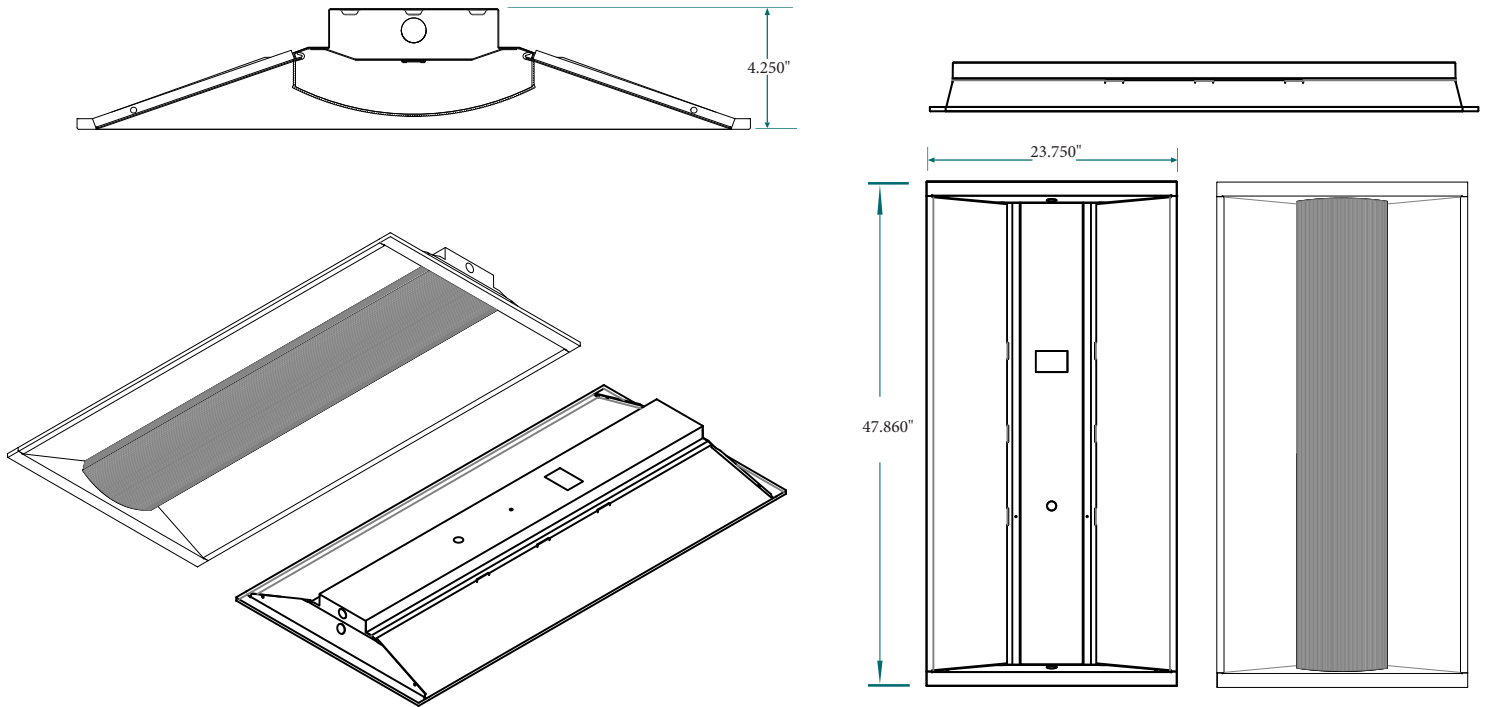
ORDERING GUIDE

RVN	24	N							
PREFIX/SERIES	SIZE	OPTICS (DISTRIBUTION)	LUMEN OUTPUT*	DRIVER VOLTAGE	DRIVER TYPE	COLOR TEMP.	CRI	LENS (DIFFUSER)	FIXTURE OPTIONS
RVN - Ovation Series Recessed	24-2x4	N - Normal	L015 - 1500 L020 - 2000 L030 - 3000 L040 - 4000 L050 - 5000 L060 - 6000 L070 - 7000 L080 - 8000 L090 - 9000 L100 - 10000 L110 - 11000 L120 - 12000 Lxxx - Custom (Specify)	UNV - Universal Voltage (120v - 277v) (50/60 Hz)	DM - 0-10v Low Voltage Dimming (10% - 100%) (Standard) DM1 - 0-10v Low Voltage* Dimming (1% - 100%) LH1 - Lutron Hi-Lume* Dimming (1% - 100%) LV - Line Voltage* Dimming (120V only) DA1 - Dali-2 and D4i cert* Dimming (1% - 100%) *Special Order Only	C27 - 2700 K* C30 - 3000 K* C35 - 3500 K C40 - 4000 K C50 - 5000 K* *Special Order Only	Blank -80 CRI 9-90 CRI* S -Sunlike 95 CRI* *Special Order Only	AF - Frosted Linear Prism Acrylic Lens (Standard)	AR - Air Return Slots SNS21x - Philips Wireless Sensor (EasySense)††† SVP -Silvair PIR Wireless Sensor††† SVM -Silvair Microwave Sensor†††† LAR - Lutron Athena Wireless control RF Only††††† LAP -Lutron Athena Wireless PIR Sensor††† LVR - Lutron Vive Wireless control RF Only††††† LVP - Lutron Vive Wireless PIR Sensor††† WLJ -Wave Linx Integral PIR Sensor††† Axx - Auxiliary output 12 or 24V EM - Emergency Battery Pack †

† Standard "EM" option to be NiCd Battery @ 5 Watts constant power @ 90 min. duration (standard). Consult factory for all available options.
 † † † PIR sensors provide: Occupancy/Vacancy, Daylight Harvesting, Task Tuning & Advanced Grouping control options. (max 12 ft mounting height, highbay options available upon request)
 † † † † Microwave sensor provides: Occupancy/Vacancy, Task Tuning, Energy Monitoring & Advanced Grouping control options. (Sensor not visible from exterior of fixture, max 12 ft mounting height)
 † † † † † RF sensors provide: Wireless fixture control only. (Wireless controls must be located within 60 ft (18 m) from each other in the line of sight, or 30 ft(9 m) through walls)

RVN 2x4 Cross Section

Prefix: RVN24



CONSTRUCTION

- Precision die-formed from 22 gauge cold rolled steel. (Other gauges available upon request)
- Mechanically fastened / resistance welded.
- Consult factory for all options or any modifications needed.

FINISH

- High Reflectance Matte White polyester powder coat baked enamel for extreme durability and superior fixture efficiency. Total Reflectance = 97%.

LED'S/OPTICS

- High performance LED boards manufactured specifically for interior lighting. LED boards feature the most current LEDs for maximum performance, efficiency and longevity.
- Standard color temperatures offered are 3500K and 4000K. Consult factory for all other color temperature options. 80 CRI (Minimum) standard, 90 CRI and Sunlike 95 CRI Options available.
- RoHS Compliant.
- Always consult factory for the latest developments and improvements concerning LEDs and Optics.

DRIVERS

- Electronic, constant current type. Universal voltage (120v-277v) .
- 0-10v dimmable. 10-100% (Standard) 1-100% (Optional).
- Line Voltage Dimming Drivers are optional.
- Auxiliary output (Optional) used to power various sensors / wireless modules. (12 or 24Vdc options specify when ordering)
- Suitable for dry and damp locations.
- UL Recognized Class P, RoHS Compliant.

LENS (DIFFUSER)

- Extruded from 100% clear, virgin acrylic.
- Extruded linear ribs provide clean, aesthetic architectural look.

MOUNTING

- Recessed fixtures are designed to be mounted into a standard NEMA "G" T-grid ceiling. Consult factory for all other special mounting conditions.

ELECTRICAL

- Recessed fixtures are UL/CUL Listed and labeled for dry / damp locations.
- LM80 performance for 50,000+ hours
- Bi-level dimming option allows 50% power for compliance with common energy codes.
- Driver disconnect provided where required to comply with US & Canadian codes.

QUALITY CONTROL

- All fixtures are designed, fabricated, assembled, tested, packaged and shipped from RENOVA's manufacturing facility in Warwick, RI (USA).

WARRANTY

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

NOTES:

LED Dimming 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.

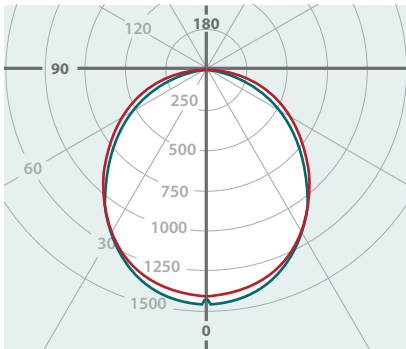
Photometric data, IES files and all other information is available on request.

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.



Catalog #: RVN24-N-L040-UNV-DM-C40-AF-XX
 Photometric Test Report #: 11347031-1263955
 Delivered Lumens: 3771
 Efficacy (Lumens/Watt): 129.1
 Power: 29.20w @ 120 VAC
 Power Factor: 0.997
 Current THD: 6.14%
 CRI: 82.6
 CCT: 3931 K
 LED Life: 50,000+ hrs

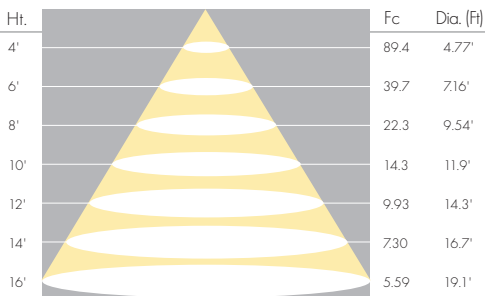
Candela Distribution Polar Plot



180 Deg. Plane (Green line)
 270 Deg. Plane (Red line)
 0 Deg. Plane (Blue line)
 90 Deg. Plane (Orange line)

Spacing/Mounting Height: 1.19
 SC (Along): 1.19 SC (Across): 1.19

Cone of Light Tabulation



Coefficients of Utilizations (%)
Effective Floor Cavity Reflectance 20 Per (pfc=0.20)

pcc	pw	80				70				50		
		70	50	30	10	70	50	30	10	50	30	10
RCR	0	4490	4490	4490	4490	4385	4385	4385	4385	4190	4190	4190
	1	4094	3911	3747	3599	3991	3825	3675	3540	3664	3541	3428
	2	3724	3410	3151	2932	3624	3339	3100	2897	3204	3003	2829
	3	3398	2999	2690	2443	3304	2939	2652	2421	2826	2580	2378
	4	3114	2661	2330	2076	3027	2611	2301	2062	2516	2246	2033
	5	2868	2383	2044	1794	2788	2340	2022	1784	2260	1979	1764
	6	2651	2149	1813	1571	2579	2113	1795	1564	2045	1761	1549
	7	2461	1952	1623	1391	2396	1922	1609	1386	1863	1581	1376
	8	2293	1785	1465	1245	2234	1758	1453	1241	1708	1431	1233
	9	2145	1640	1332	1123	2091	1618	1322	1120	1575	1304	1114
	10	2013	1516	1219	1021	1964	1496	1211	1018	1459	1195	1014

Luminaire Summary CD./SQ.M.

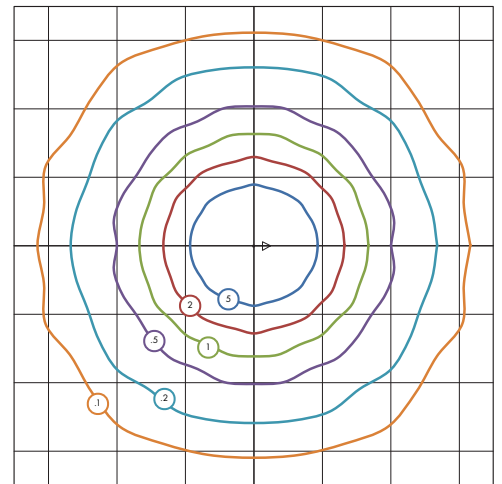
Angle	Along	45.0	Across
0	2072	2072	2072
45	1694	1725	1797
55	1524	1599	1726
65	1339	1512	1730
75	1116	1522	1802
85	846	1478	1634

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1081	28.7%
0-40	1738	46.1%
0-60	2962	78.5%
0-90	3771	100.0%
40-90	2033	53.9%
60-90	809	21.5%
90-180	0	0.0%
0-180	3771	100%

Horizontal Footcandles

Mounting Height = 8"-0" A.F.F.
 Maximum Calculated Value = 12.23 Fc



Grid Lines in Units of Mounting Height

5fc (Blue), 2fc (Red), 1fc (Green), .5fc (Purple), .2fc (Dark Blue), .1fc (Orange)



RVN Series LED Luminaires Listed on the DLC Qualified Products List (QPL)

RENOVA Catalog Number	Delivered Lumens	Input Watts	Lumens per Watt	DLC - QPL Classification
[R,S]VN24-N-[L015 to L070]-UNV-DM-C35-AF-SNS[2,3]00-[BLANK, EM, AR]	1500-7004	Varies by Output	144.53	Standard
[R,S]VN24-N-[L015 to L070]-UNV-DM-C35-AF-SNS[2,3]00-[BLANK, EM, AR]	1500-7004	Varies by Output	142.59	Standard
RVN24-N-L030-UNV-DM-C35-AF-xx	2886	22.19	130.10	Standard
RVN24-N-L030-UNV-DM-C40-AF-xx	2966	22.19	133.67	Standard
RVN24-N-L040-UNV-DM-C35-AF-xx	3799	29.24	129.92	Standard
RVN24-N-L040-UNV-DM-C35-AF-xx	3771	29.20	129.14	Standard
RVN24-N-L050-UNV-DM-C35-AF-xx	5586	41.09	135.95	Standard
RVN24-N-L050-UNV-DM-C40-AF-xx	5741	41.09	139.72	Standard
RVN24-N-L060-UNV-DM-C35-AF-xx	5808	48.49	119.78	Standard
RVN24-N-L060-UNV-DM-C40-AF-xx	5969	48.49	123.10	Standard
RVN24-N-L070-UNV-DM-C35-AF-xx	6492	55.86	116.22	Standard
RVN24-N-L070-UNV-DM-C40-AF-xx	6672	55.86	119.45	Standard
RVN24-N-L080-UNV-DM-C35-AF-xx	7391	65.38	113.05	Standard
RVN24-N-L080-UNV-DM-C40-AF-xx	7596	65.38	116.19	Standard
RVN24-N-L090-UNV-DM-C35-AF-xx	8729	68.55	127.34	Standard
RVN24-N-L090-UNV-DM-C40-AF-xx	8971	68.55	130.87	Standard