OVATION
by RENOVA Lighting

Prefix: KVN22

The Ovation Series LED Retrofit system has been developed to dramatically improve existing recessed troffer performance using Solid State Lighting (SSL) technologies. The Ovation 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

Ovation Series 2 x 2 Retrofit

Optional Wireless Sensor Shown Installed

DLC Application Category #14 "Integrated Retrofit Kits for 2x2 Luminaires"

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

KVN	22	N							
PREFIX/ SERIES	SIZE	OPTICS (DISTRIBUTION)	LUMEN OUTPUT*	DRIVER VOLTAGE	DRIVER TYPE	COLOR TEMP.	CRI	LENS (DIFFUSER)	RETROFIT OPTIONS
KVN - Ovation Series Retrofit Kit	**22**-2x2	**N** - Normal	**L015** - 1500 (11.7W) **L020** - 2000 (15.1W) **L030** - 3000 (22.2W) **L040** - 4000 (29.2W) **L050** - 5000 (39.6W) **L060** - 6000 (48.3W) **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	**Blan**k-80 CRI **9**-90 CRI* **S**-Sunlike 95 CRI* *Special Order Only	**AF** - Frosted Linear Prism Acrylic Lens (Standard)	**AR** - Air Return Slots **MPCxy** - Metal Pan Ceiling†† **HDCxyz** - Hard Ceiling†† **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††† **WLI**-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.

†† See page 2/4 for more information on dimensional requirements.

††† 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)

PRIOR TO RETROFITTING THE EXISTING FLUORESCENT FIXTURE, PLEASE NOTE THE FOLLOWING:
(Hg) 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.
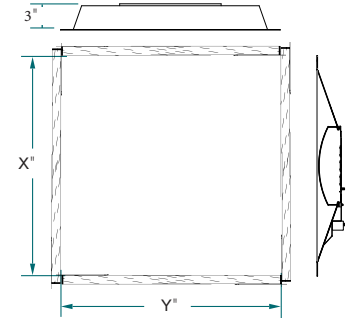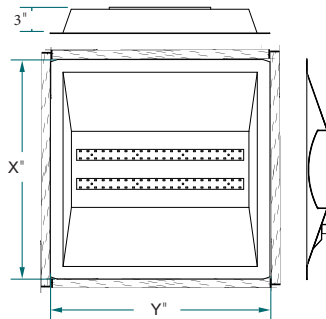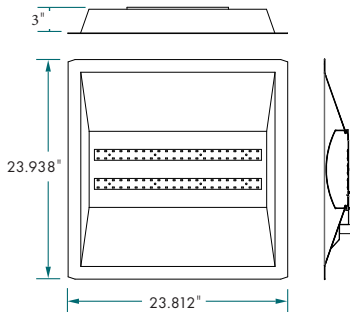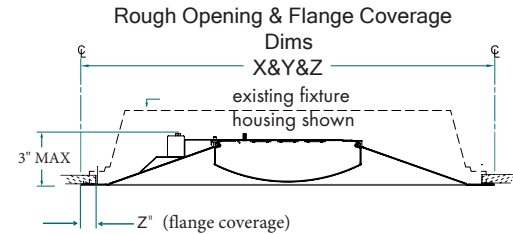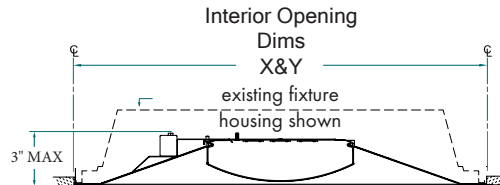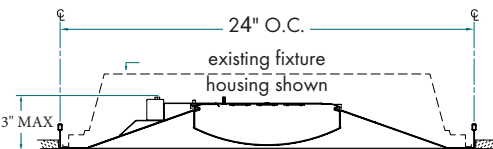
KVN 2x2 Cross Section

Prefix: KVN22

**T-GRID Mount
(Standard)**

**Metal Pan Mount
(MPC)**

**Hard Ceiling Mount
(HDC)**

Interior Opening
Dims
X&Y

Rough Opening & Flange Coverage
Dims
X&Y&Z

24" O.C.

existing fixture
housing shown

3" MAX

existing fixture
housing shown

3" MAX

existing fixture
housing shown

3" MAX

Z" (flange coverage)

3"

23.938"

23.812"

3"

X"

Y"

3"

X"

Y"

Ordering Code: MPC [X"] [Y"]

Ordering Code: HDC [X"] [Y"] [Z"]

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

- Retrofit kit is designed to be mounted into an existing prismatic or parabolic troffer installed into a standard grid (NEMA "G") or narrow grid (NEMA "NFG") ceiling T-grids. Consult factory for all other special mounting conditions.

ELECTRICAL

- Retrofit kits are UL/CUL Class II listed and labeled.
- LM80 performance for 50,000+ hours
- Driver disconnect provided where required to comply with US & Canadian codes.

QUALITY CONTROL

- All retrofit kits are designed, fabricated, painted, assembled, tested, packaged and shipped from RENOVA's manufacturing facility in Warick, 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 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.
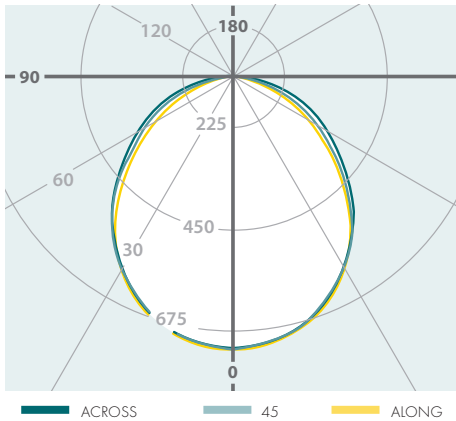
Photometric data, IES files and all other information is available on request.

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.
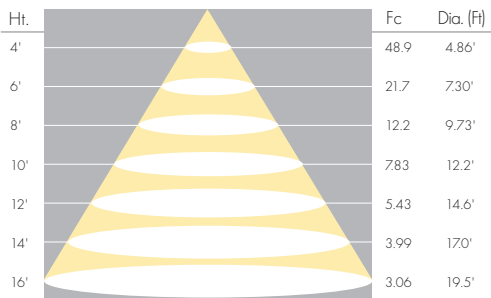
OVATION
by RENOVA Lighting

Catalog #: KVN22-N-L020-UNV-DM-C40-AF
Photometric Test Report #: 10551935-803984
Delivered Lumens: 2029
Efficacy (Lumens/Watt): 121.5
Power: 16.73w @ 120 VAC
Power Factor: 0.991
Current THD: 5.13%
CRI: 82.7
CCT: 3924 K
LED Life: 50,000+ hrs

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

pcc		80			70			50	
pw		70	50	30	70	50	30	50	30
RCR	0	119	119	119	116	116	116	111	111
	1	110	105	101	107	103	100	99	96
	2	101	94	87	99	92	86	88	83
	3	93	83	76	90	81	75	79	73
	4	86	75	67	84	73	66	71	64
	5	79	67	59	77	66	58	64	57
	6	73	60	52	71	59	51	58	51
	7	67	54	46	66	53	46	52	45
	8	63	49	41	61	49	41	47	40
	9	58	45	37	57	44	37	43	36
	10	54	41	33	53	40	33	39	33

Candela Distribution Polar Plot

ACROSS   45   ALONG

Spacing/Mounting Height: 1.2
SC (Along): 1.2 SC (Across): 1.2

Luminance Summary CD./SQ.M.

Angle	Along	45.0	Across
45	2272	2413	2469
55	1941	2171	2312
65	1584	1954	2237
75	1242	1834	2187
85	828	1480	1567

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	599	29.52
0-40	966	47.63
0-60	1633	80.49
0-90	2029	100.00
40-90	1063	52.37
60-90	396	19.51
90-180	0	0
0-180	2029	100.00

Horizontal Footcandles
Mounting Height = 8'–0' A.F.F.
Maximum Calculated Value = 12.23 Fc
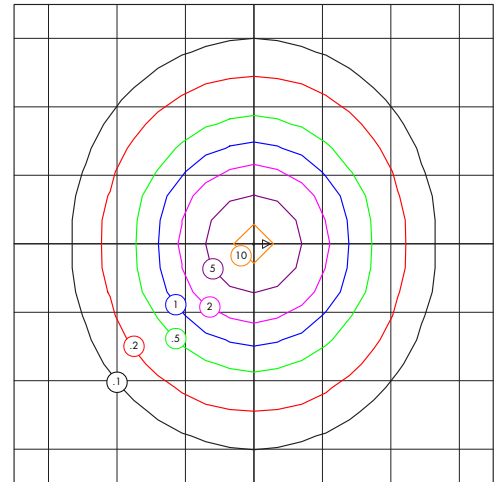
Grid Lines in Units of Mounting Height

10 fc   5 fc   2 fc   1 fc   .5 fc   .2 fc   .1 fc

Cone of Light Tabulation

Ht.	Fc	Dia. (Ft)
4'	48.9	4.86'
6'	21.7	7.30'
8'	12.2	9.73'
10'	7.83	12.2'
12'	5.43	14.6'
14'	3.99	17.0'
16'	3.06	19.5'

OVATION
by RENOVA Lighting

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

RENOVA Catalog Number	Delivered Lumens	Input Watts	Lumens per Watt	DLC – QPL Classification
KVN22-N-[L015 to L060]-UNV-DM-C35-AF-SNS[2,3]00-[BLANK, EM, AR]	1500-6116	**Varies by Output**	128.60	Standard
KVN22-N-[L015 to L060]-UNV-DM-C35-AF-SNS[2,3]00-[BLANK, EM, AR]	1500-6116	**Varies by Output**	130.34	Standard
KVN22-N-L020-UNV-DM-C35-AF-xx	1870	15.39	121.51	Standard
KVN22-N-L020-UNV-DM-C40-AF-xx	1826	15.37	118.8	Standard
KVN22-N-L030-UNV-DM-C35-AF-xx	2760	23.39	118.00	Standard
KVN22-N-L030-UNV-DM-C40-AF-xx	2836	23.39	121.28	Standard
KVN22-N-L040-UNV-DM-C35-AF-xx	3674	32.41	113.36	Standard
KVN22-N-L040-UNV-DM-C40-AF-xx	3776	32.41	116.51	Standard
KVN22-N-L050-UNV-DM-C35-AF-xx	4697	39.64	118.49	Standard
KVN22-N-L050-UNV-DM-C40-AF-xx	4827	39.64	121.78	Standard
KVN22-N-L060-UNV-DM-C35-AF-xx	5533	48.35	114.44	Standard
KVN22-N-L060-UNV-DM-C40-AF-xx	5686	48.35	117.62	Standard