RENOVA™
Innovative Lighting Ideas
Energy Efficient Solutions

The LED Flat Panel Series (LFP) recessed luminaire family represents the latest development in edge-lit thin panel lighting technology. This type of Solid-State Lighting (SSL) technology is used to create a luminaire that produces light that appears consistent to the human eye across the diffuser panel. Light is transmitted from an LED array to the edges of the light guide and is re-directed within the light guide (through internal reflection within entire volume of medium) to insure that the light radiates from the front face of the light guide and through the light emitting diffuser. Light guides are highly engineered and designed using proprietary technology which ensures high efficiency, forward light emission and uniformity. Light emitted by the LEDs are guided by total internal reflection through the entire volume of the medium and then finally emitted from the light emitting diffuser of the luminaire. RENOVA's "LFP" Series luminaires have become increasingly popular in office lighting environments due to its delivery of high quality illumination as assessed by parameters such as lumen output (intensity), CRI (color rendering index) and VCP (Visual Comfort Parameter) / UGR (Unified Glare Rating). Other attributes with this type of luminaire include thin profile and streamlined design. Applications include:

- Commercial/Corporate Office Spaces
- Retail Spaces, Public Spaces and Airports
- Schools, Colleges and Universities
- Hospitals, Government Facilities and Military Bases

LED Flat Panel 2x4

Optional
Wireless Sensor
Shown Installed

Consult page 3 for current product DLC QPL listings.

project:

fixture type:

catalog #:

quantity:

ORDERING GUIDE

| LFP | 24 | - | - | - | - | - | - | - | - |

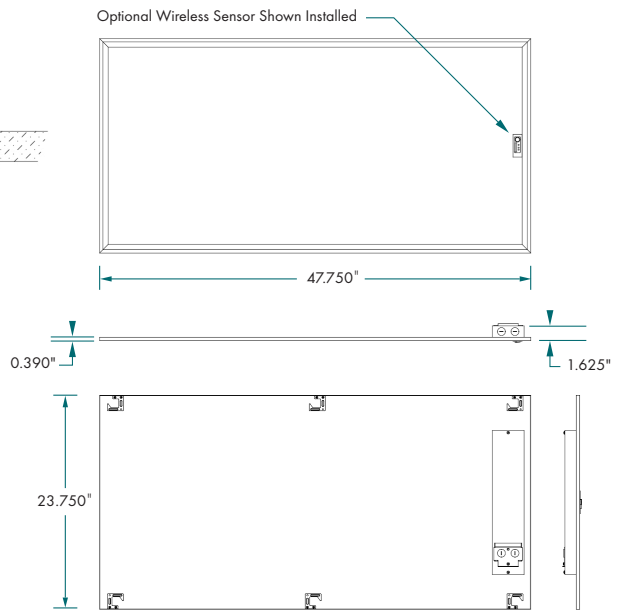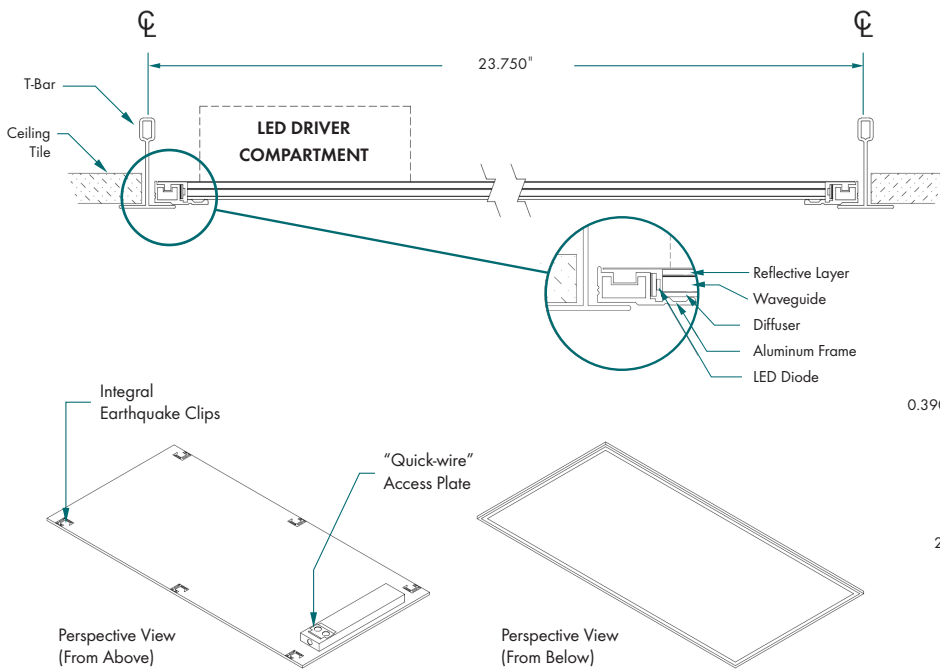| PREFIX/ SERIES	SIZE	OPTICS (DISTRIBUTION)	LUMEN OUTPUT	DRIVER VOLTAGE	DRIVER TYPE	COLOR TEMP.	DIFFUSER TYPE	TRIM COLOR AND FINISH	FIXTURE OPTIONS
LFP - LED Flat Panel	**24 -** 2x4	**N -** Normal **B -** Batwing **C -** Custom (Specify)	**L015 -** 1500 **L020 -** 2000 **L030 -** 3000 **L035 -** 3500 **L040 -** 4000 **L045 -** 4500 **L050 -** 5000 **L058 -** 5800 **L060 -** 6000 **L070 -** 7000 **L080 -** 8000 **LC -** Custom (Specify)	**UNV -** Universal Voltage (120v - 277v) (60 Hz) **120 -** 120v (LV1) **277 -** 277v (LV2) **347 -** 347v* *Special order only	**DM -** 0-10v Low Voltage Dimming (10% - 100%) (Standard) **DM1 -** 0-10v Low Voltage Dimming (1% - 100%) **SD -** Step Dimming (50% - 100%) **LV1 -** Line Voltage Dimming (120v) **LV2 -** Line Voltage Dimming (277v)	**C27 -** 2700 K* **C30 -** 3000 K* **C35 -** 3500 K **C40 -** 4000 K **C50 -** 5000 K* *Special Order Only Consult Factory for Details	**AF -** Frosted Linear Prism Acrylic Lens (Standard) **GR -** Glare Reducing Acrylic Lens **CS -** Custom (Specify)	**GW -** Gloss White Powder Coat **CS -** Custom (Specify)	**EMPK -** Emergency Battery Pack * **SNS200 -** Occupancy/ Vacancy/ Daylight Harvesting Wireless Sensor (PHILIPS EasySense) *5w/90min. duration is standard. Other options are available

* "EMPK" option to be IOTA ILB CP05-B @ 5 watts/90 min. duration (standard). Consult factory for all available options.

** LFP Series Luminaires have a lumen output range from 1500 Lumens through 8,000 Lumens depending on length of fixture and driver/board configuration. Consult factory for correct catalog number on all custom configured lighting products.

PRIOR TO REPLACING AN 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.

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23.750"

T-Bar

Ceiling Tile

LED DRIVER COMPARTMENT

Reflective Layer
Waveguide
Diffuser
Aluminum Frame
LED Diode

Integral Earthquake Clips

"Quick-wire" Access Plate

Perspective View (From Above)

Perspective View (From Below)

Optional Wireless Sensor Shown Installed

47.750"

0.390"

1.625"

23.750"

CONSTRUCTION
• Precision extruded from aluminum alloy 6063-T5. Mitered, welded and ground smooth insuring a rigid and square assembly.

FINISH
• Gloss White polyester powder coat baked enamel for extreme durability.

LEDs / OPTICS
• High performance LED boards engineered and manufactured specifically for edge-lit purpose.
• LED Boards feature the latest mid-power LEDs for maximum performance, efficiency and longevity. LEDs provide 81,000+ hours of operation with at least 70% of initial lumen output (L_{70}).
• Standard color temperatures offered are 3500K and 4000K. Consult factory for all other color temperature options. 80 CRI (Minimum). RoHS Compliant.
• Always consult factory for the latest developments and improvements concerning LEDs and Optics.

DRIVERS
• Electronic, high efficiency, programmable, linear, constant current type.
• Universal voltage 120v-277v / 50-60Hz type (standard).
• Features include constant lumen maintenance, end of life indication and LED thermal protection.
• 0-10v dimmable. 10%-100% dimming (standard). 0%-100% dimming is optional.
• Factory programmed drive current, Dim to Off function and Soft-Start function.
• Step-Dim and Line Voltage dimming drivers are available as an option.
• Auxiliary ouput (optional) used to power various sensors & wireless controls.
• Suitable for dry and damp locations.
• UL / CUL Class 2 Recognized (or Class-P). RoHS compliant.
• Low THD (total harmonic distortion). Power Factor > 0.90

LENS (DIFFUSER)
• PMMA (polymethyl methacrylate) acrylic lens with proprietary light guide panels for optimal light distribution and efficiency.
• Uniform Illumination with no visible LED pixilation.

MOUNTING
• Recessed luminaires are designed to be mounted into a standard NEMA "G" T-Bar ceiling. Consult factory for all other special mounting conditions.
• Easy installation in new construction or retrofit applications.
• Standard earthquake clips provide secure installation in T-Bar Grid ceilings.
• Suitable for installation in ceilings where damp conditions and existing insulation exist.
• Adapter kits are available for special applications such as plaster (hard) ceilings. Always consult factory for all available options or special requests.

ELECTRICAL
• Recessed fixtures are UL/CUL listed for Dry / Damp Locations and insulated ceilings (IC-Rated) for use in ambient temperatures from -25 deg. C to 50 deg. C (-13 deg. F to 122 deg. F)
• DLC Listings – Consult Page 3 for DLC QPL listed products. Always consult the DLC QPL for current information regarding luminaire performance data.
• Complies with RoHS (Restriction on Hazardous Substances) requirements.
• Complies with FCC Part 15, Part B.
• Complies with IEEE C.62.41, input transient protection (2.5kV).
• Bi-Level dimming option allows 50% power for compliance with common energy codes.
• LED Driver disconnect provided as required by U.S. and Canadian Electrical Codes

QUALITY CONTROL
• All luminaires are inspected and 100% light tested prior to packaging and shipping. All products are shipped from RENOVA's manufacturing facility and corporate headquarters located in Warwick, RI (USA).

WARRANTY
• 5-Year limited warranty. Please refer to RENOVA's website at www.renova.com/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.

2x4 LED Flat Panels as listed on the DLC Qualified Products List (QPL)

DLC Product ID #	Classification	Technical Req. Version	Catalog Number	Delivered Lumens	Input Watts	Efficacy (LPW)	Color Temp. (CCT)	Color Rendition Index (CRI)
PLPSJVOYNP2D	Premium	v4.3	LFP24-N-L035-UNV-DM-C35-AF-XX-XX	3419	27.2	125.8	3311 K	80.4
PL5URN4V4ACH	Premium	v4.3	LFP24-N-L035-UNV-DM-C40-AF-XX-XX	3535	27.6	127.9	3944 K	80.6
PLAF0J9MNRBC	Premium	v4.3	LFP24-N-L035-UNV-DM-C50-AF-XX-XX	3678	27.8	131.9	4855 K	80.5
PL7RT3NXDDTG	Premium	v4.3	LFP24-N-L045-UNV-DM-C35-AF-XX-XX	4440	34.9	127.2	3324 K	83.2
PLYQVFR5CLI4	Premium	v4.3	LFP24-N-L045-UNV-DM-C40-AF-XX-XX	4507	34.8	129.5	4024 K	82.0
PLIII3ODXCC3	Premium	v4.3	LFP24-N-L045-UNV-DM-C50-AF-XX-XX	4756	35.8	132.8	5058 K	81.2
PLK88G6BOSOC	Premium	v4.3	LFP24-N-L058-UNV-DM-C35-AF-XX-XX	5734	45.2	126.8	3455 K	83.4
PLBCVGADFXCH	Premium	v4.3	LFP24-N-L058-UNV-DM-C40-AF-XX-XX	5819	44.6	130.4	3986 K	82.4
PLO3NK5Y7DKX	Premium	v4.3	LFP24-N-L058-UNV-DM-C50-AF-XX-XX	6032	45.1	133.7	5108 K	82.9