

<b>Project</b>	
<b>Type</b>	
<b>Notes</b>	
<b>Catalog No.</b>	
<b>Date</b>	

## EX Series – LED Retrofit (Extrusion)

The EX Series Universal Retrofit Kit, dramatically enhances existing fixture efficiencies creating substantial energy savings. An excellent alternative to standard retrofit designs and is ideally suited for commercial strip, vaportite, wrap and troffer fixtures.



### Specifications

#### Applications

- Strip
- Troffers
- Vaportites
- Wraparounds

#### Construction

- Module kits, no lamp sockets needed
- Magnet on the back for easy installation
- Aluminum backing for heatsink, independent to fixtures

#### Options

- Sensors can be integrated for additional energy savings
- Frosted or clear lens
- Dimming

#### Warranty

- Five-year warranty. Terms and Conditions Apply.  
See warranty documentation for more information.

#### Certification

- Adheres to LM79, LM80 and TM21 industry standards
- ETL Listed
- DesignLights Consortium® (DLC) qualified. Please check the DLC Qualified Products List at <http://www.designlights.org/> to confirm which versions are qualified.
- Lighting Facts
- RoHS Compliant



## Catalog Ordering Example

**EX04-413-N1-35K-UFD**



Family	Configuration	Color	Kit	Options
EX02	109-N1	30K 35K 40K 50K	U (Universal)	<b>FF</b> (Frosted Lens & Non-Dimming) <b>FD</b> (Frosted Lens & Dimming) <b>CF</b> (Clear Lens & Non-Dimming) <b>CD</b> (Clear Lens & Dimming) <b>NF</b> (No Lens & Non-Dimming) <b>ND</b> (No Lens & Dimming)
	209-N1			
	209-H1			
	309-N1			
	309-H1			
	409-N1			
EX03	112-N1			
	212-N1			
	212-H1			
	312-N1			
	412-N1			
	412-H1			
EX04	113-N1			
	213-N1			
	213-H1			
	313-N1			
	413-N1			
	413-H1			
	125-N1			
	225-N1			
	155-N1			
	255-N2			

## Performance Data

5000K			
Configuration	System Wattage (W)	Delivered Lumens (lm)	Description
109-N1	10.5	1155	(1) 2' Light Engine, (1) Driver, Normal Mode
209-N1	20.4	2244	(2) 2' Light Engine, (1) Driver, Normal Mode
209-H1	24.3	2677	(2) 2' Light Engine, (1) Driver, High Mode
309-N1	29.5	3245	(3) 2' Light Engine, (1) Driver, Normal Mode
309-H1	36.6	4024	(3) 2' Light Engine, (1) Driver, High Mode
409-N1	48.4	5324	(4) 2' Light Engine, (1) Driver, Normal Mode
112-N1	15.5	1729	(1) 3' Light Engine, (1) Driver, Normal Mode
212-N1	28.8	3075	(2) 3' Light Engine, (1) Driver, Normal Mode
212-H1	34.1	3751	(2) 3' Light Engine, (1) Driver, High Mode
312-N1	40.7	4477	(3) 3' Light Engine, (1) Driver, Normal Mode
412-N1	57.6	6150	(4) 3' Light Engine, (1) Driver, Normal Mode
412-H1	68.1	7381	(4) 3' Light Engine, (1) Driver, High Mode
113-N1	16.4	1882	(1) 4' Light Engine, (1) Driver, Normal Mode
213-N1	29.9	3465	(2) 4' Light Engine, (1) Driver, Normal Mode
213-H1	37.5	4323	(2) 4' Light Engine, (1) Driver, High Mode
313-N1	44.3	4873	(3) 4' Light Engine, (1) Driver, Normal Mode
413-N1	52.2	6002	(4) 4' Light Engine, (1) Driver, Normal Mode
413-H1	66.3	7621	(4) 4' Light Engine, (1) Driver, High Mode
125-N1	27.2	3680	(1) 4' Light Engine, (1) Driver, Normal Mode
225-N1	54.4	7360	(2) 4' Light Engine, (1) Driver, Normal Mode
155-N1	59.2	6968	(1) 4' Light Engine, (1) Driver, Normal Mode
255-N2	118.4	13936	(2) 4' Light Engine, (2) Drivers, Normal Mode

Specifications and Dimensions subject to change without notice. Contact factory for updates: (909) 948-8878

## Safety Warning

**FOR YOUR SAFETY, READ AND FOLLOW ALL INSTRUCTIONS TO PREVENT ELECTRIC SHOCK OR FIRE**

- **INSTALLATION REQUIRES KNOWLEDGE OF LIGHTING LUMINAIRE ELECTRICAL SYSTEMS-** Contact qualified electrician prior to installation.
- **DISCONNECT POWER BEFORE INSTALLATION**
- **DO NOT ALTER PRE-EXISTING HOLES OR DRILL NEW HOLES**
- **CHECK FOR INCLOSED WIRING COMPONENTS PRIOR TO DRILLING-** Luminaire wiring, ballasts, power supplies or other electrical parts may be damaged.
- **USE ONLY ON COMPATIBLE LUMINAIRES-** Installation requires specific dimensions and construction features.
- **PROTECT WIRING FROM ABRASION-** Do not expose wiring to sharp objects or edges of sheet metal.

## Installation Instructions

1. Disconnect Power to the circuit supplying power to the fixture
2. Removed the existing lamps and fixture
3. Disassemble new fixture to allow access to the LED Driver
4. Run existing power supply wires into fixture through fixture knock-out or end plug on fixture
5. Mount the fixture to surface or hang fixture with appropriate fixture mounting hardware (Be sure to follow local building codes for the appropriate fixture installation methods.)
6. Connect power supply wires to supplied wire disconnect to provide power to fixture
7. Re-assemble fixture
8. Re-connect power and check installation

## Technical Information

<b>Available CCT</b>	30K, 35K, 40K & 50K
<b>CRI</b>	80+
<b>Delivered Lumens</b>	See Performance Data
<b>Dimming</b>	0-10V Dimming Standard
<b>Efficacy</b>	105+ LPW
<b>Input Frequency</b>	50/60 Hz
<b>L70</b>	238,000
<b>Light Source</b>	LED Board
<b>Power Factor</b>	> 0.90
<b>Power Source</b>	LED High Efficiency Power Supply
<b>Rated Wattage</b>	See Performance Data
<b>Temperature Rating</b>	-40°C – 50°C Ambient
<b>THD</b>	< 20%
<b>Voltage</b>	120V to 277V

## Application Photo



## Photometric Data

**EX04-213-N1-35K-UFD** Tested in accordance to IESNA LM-79

### Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-10	132.70	2.63%
10-20	378.50	7.52%
20-30	569.74	11.31%
30-40	683.90	13.58%
40-50	711.93	14.14%
50-60	662.91	13.16%
60-70	561.39	11.15%
70-80	434.31	8.62%
80-90	312.66	6.21%
90-100	219.70	4.36%
100-110	150.13	2.98%
110-120	93.39	1.85%
120-130	51.43	1.02%
130-140	31.55	0.63%
140-150	20.54	0.41%
150-160	12.63	0.25%
160-170	6.88	0.13%
170-180	2.36	0.05%

### Polar Graph

