

- **LED: better light for your eyes' health**
- **Reduce your Carbon Footprints**
- **Reduced Air Conditioning Costs**

## 1-2-3 LED **TUBE** UPGRADE TO SAVE ON YOUR LIGHTING EXPENSES

1. Turn off the light switch
2. Unscrew old fluorescent tube
3. Replace with the PX8 tube
4. Enjoy flicker-free, interference-free light for the next 15 years

PX8 LED Tube is designed for easy, simple, direct replacement for most current fluorescent tubes.

### ***Uncommon Features***

- >50,000-hour long service life
- Brightest tube in the business
- Save you on disposal and relamping costs

### ***Environmentally safe***

No glass  
No toxic mercury, lead, or phosphors  
100% recyclable

### ***More Efficient***

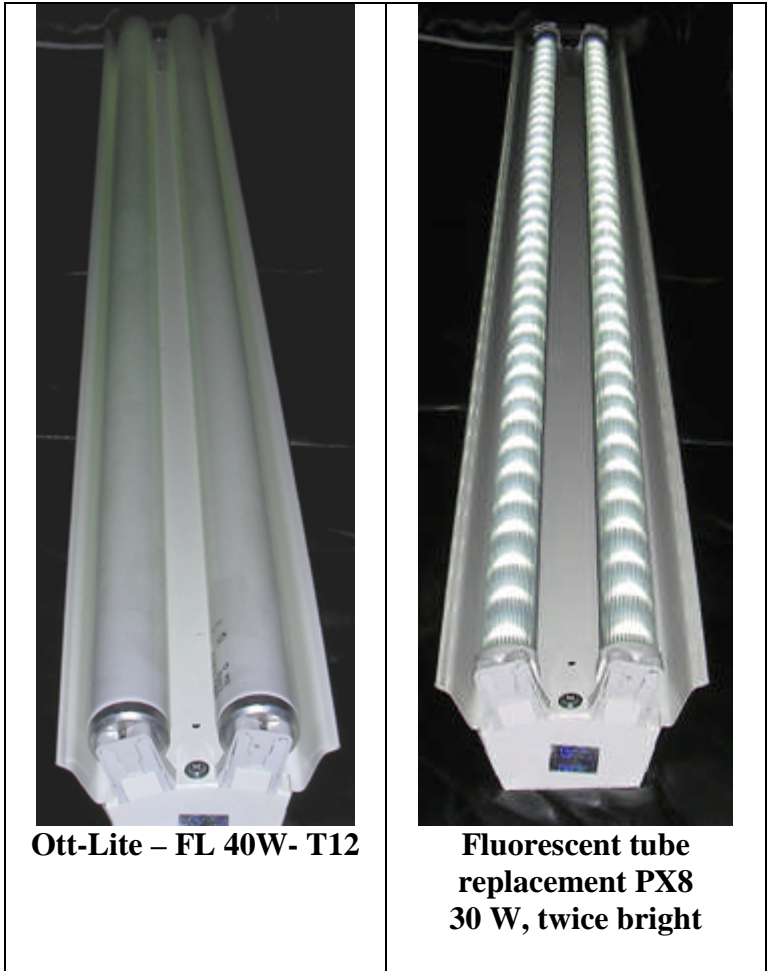
3000 lumens for neutral white (6000K), 2500 lumens warm white (3000K). One PX series tube can replace TWO T12 fluorescent tubes

### ***More Versatile***

PX8 loves cold temperature of cold storage display  
Available in warm and neutral white, also in many custom colors.

***Very long 15-year Service Life*** 5-year warranty

***Applications:*** retail space and warehouse, office, medical buildings, signage, architectural lighting.



Ott-Lite – FL 40W- T12

Fluorescent tube replacement PX8 30 W, twice bright

NIH BPA contract #: [HHSN263201000112B](#)

Electrical supplies, led-based light bulbs and tubes, assessment and installation services.

[www.nu-way.com](http://www.nu-way.com) - Contact Kim Nuyen, PMP - 301-975-0789 - Email: [nws@nu-way.com](mailto:nws@nu-way.com)

# AWARD-WINNING LED **BULB** UPGRADE TO SAVE ON YOUR LIGHTING EXPENSES

1. Turn off the light switch
2. Unscrew mercury-laden fluorescent bulb
3. Plug in Pearl-30 on existing socket
4. Enjoy flicker-free light for the next 15 years

Pearl-30 is designed for easy, simple, direct replacement for most current fluorescent bulbs.

## Uncommon Features:

- Pearl-30™ bulbs are designed to produce true daylight color generating more light spectrum and sunlight quality without heat or glare.

## Benefits:

- 85% electrical efficiency
- >60,000-hour long service life
- No signal interference critical for precise instruments to function.



## ***Environmentally safe***

No glass

No toxic mercury, lead, or phosphors

Reusable and recyclable

## ***More Efficient***

750 to 1500 lumens for neutral white or warm white

## ***More Versatile***

Pearl-30 starts fast in any temperature

Available in warm and neutral white, also in many custom colors.

***Very long 15-year Service Life*** 5-year warranty

***Applications:*** labs, jewelry stores, recess lights, conference rooms, galleries, museums.

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## Awards:

[http://www.designnews.com/info/2094-Golden Mousetrap Winners 2010.php](http://www.designnews.com/info/2094-Golden%20Mousetrap%20Winners%202010.php)

**Golden Mousetrap Winners 2010**

**BEST PRODUCT WINNERS 2010**

**GOLDEN MOUSETRAP Best New Products AWARDS**

*Design News' annual Golden Mousetrap Awards recognize engineering innovation and creativity in product design. This year awards were given in five major categories: electronics, materials, motion control/automation, rapid prototyping and design tools, as well as several subcategories. The record number of entries we received was distributed to our beat editors for judging based on their expertise in each technology. Give yourselves a pat on the back winners, you deserve it! And [click here](#) to read about this year's finalists.*

Category	Company	Product
<b>ELECTRONICS</b>		
Components, Hardware & Interconnects	PearlLED Inc.	Pearl-30
Digital Control/Embedded Computing	Fujitsu Microelectronics America	MB86298 "Ruby" Graphics Controller for Vehicle Information and Entertainment Systems
Power Management	National Semiconductor	SolarMagic Power Optimizer
Sensors & Vision	Hewlett-Packard	Inertial Microelectromechanical Systems (MEMS) Accelerometer
Test & Measurement	SKF Reliability Systems	SKF Machine Condition Advisor/CMA S 100-SL
<b>MATERIALS</b>		
Engineering Plastics	Greene, Tweed & Co.	Xycomp DLF
Fastening, Joining & Assembly Components	Smalley Steel Ring Co.	Hoopster® Retaining Ring
Materials Processing	Dymotek	Bump Pump Disposable Fluid Pump

[http://www.designnews.com/article/455313-LED Shines Brighter Runs Cooler.php](http://www.designnews.com/article/455313-LED%20Shines%20Brighter%20Runs%20Cooler.php)

# LED Shines Brighter, Runs Cooler

## Custom-designed IC, optics and heat sink combine to create a brighter, cooler LED

**Charles J. Murray, senior technical editor -- Design News, April 1, 2010**

A new LED bulb promises to offer more light at lower cost, while generating less heat.

Known as the Pearl-30, the new light-emitting diode (LED) produces 80 lm/W over the course of a 60,000-hour life and employs an extruded heat sink that is reportedly less costly than die-cast heat sinks.

"With our product, you use fewer LEDs but generate more light," says Trinh Nguyen, founder and CEO of PearlLED Inc., maker of the new product.

Nguyen accomplished that by combining a custom integrated circuit (IC) with a patent-pending optic design and then supporting the assembly with an extruded heat sink that creates turbulent air flow in the vicinity, providing more efficient cooling.

PearlLED claims the Pearl-30 will last 15 years, put out 2,000 lm of luminous flux and offer 85-percent energy savings over conventional incandescent bulbs. Its light spectrum can also be set via a "color gamut" programming circuit, thus enabling it to do color mixing.

Nguyen says the biggest advantages of the new product are best seen over the course of its lifetime. "Every watt we save means the user gets an extra \$35 over the life of the product," he says.

PearlLED also designed the heat sink for the assembly, which is said to be one of the key reasons its costs are lower. "We designed for minimum weight and maximum heat exchange," Nguyen says. "Our heat sink is made of extrusion, which is why our cost is the lowest in the business. Other companies use die casting or they assemble the heat sink, fin by fin.

The bottom line, however, is efficiency. "We put out four times as much light as our competitors," Nguyen says.

"And we're twice as efficient." *For more information, go to <http://designnews.hotims.com/27742-527>.*

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Nu-Way Systems affiliates with a number of lighting manufacturers and suppliers to meet all your lighting needs. The table below represents the best value for LED bulbs and tubes **made and assembled in USA** with some components might come from overseas.

Quantity	Part Number	Description	Angle	Lumens	Total Lumens	\$Price	Price Total
	P30AN	Par-30 Neutral white	30	750		99	
	P30BN	Par-30 Neutral white	30	1,000		119	
	P30CN	Par-30 Neutral white	30	1,500		129	
	P30AW	Par-30 Warm White	30	750		99	
	P30BW	Par-30 Warm White	30	1,000		119	
	P30CW	Par-30 Warm White	30	1,500		129	
	PX8N	T8-T12 replace Neutral	120	3,000		119	
	PX8W	T8-T12 replace Warm	120	2,500		129	

## PX8™ Fluorescent Tube Replacement Installation and Operation Guide

Please read these instructions carefully on using the PX8 tube before operation to ensure safety. Keep these instructions handy for future reference

**Warning: RISK OF SHOCK.** Fluorescent lamp fixtures contain hazardous voltages. Use care to remove power to the fixture before working on them. Make sure you have a stable base (such as a sturdy ladder) before working on fixtures in hard to reach location. Be careful when removing old glass tubes since they are fragile and contain toxic materials. Safety glasses and gloves recommended, and remember to dispose of your old glass tube properly. Never attempt to disassemble the PX8 tube. There are no user-serviceable parts inside.

Before beginning, ensure the tube you are replacing and the fixture you have is designed for use with 25, 32, or 40 watt, 40-inch, bi-pin fluorescent tubes. The PX8 is compatible with fixtures designed for T8, T10, and T12 tubes.

### Installation:

1. Remove power to the fixture that will be converted to PX8 tubes
2. Remove cover of fixture according to manufacturer's instructions if necessary. Clean the cover while you have it off.
3. Remove carefully the existing fluorescent tubes and dispose of them properly.
4. Install the PX8 tubes in the fixture. Ensure they are seated properly and firmly.
5. Replace the cover and re-energize the fixture. Ensure proper operation.

While the PX8 tube contains advanced circuitry that makes it compatible with almost all known fluorescent tubes and ballast types (magnetic, electronic, preheat), there may be ballasts or fixtures that employ non-standard techniques of construction or operation. If you notice any unusual operation or have other difficulties, please contact [sales@pearlled.com](mailto:sales@pearlled.com). We would appreciate your feedback and suggestions on how we can make our product even better.

The PX8 will automatically reduce the power consumption of the fixture optimally to maximize energy savings. The PX8 tube is design for 10-year life and beyond, contains no mercury (HG) or lead (PB). Do not modify the fixture to bypass the ballast or use a LED driver — the PX8 was designed to work with conventional fluorescent ballasts only. At end of life, the unit can be shipped back to the factory for recycling. For latest product information visit [Pearlled.com](http://Pearlled.com).

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