

Retail Case Study

Fry's Electronics



Main Achievements

- ▶ **Reduced 70% of lighting and resultant air conditioning energy consumption**
- ▶ **Complete optimized lighting management through smart control**
- ▶ **Maintained required light level performance, while reducing lamp power and total number of fixtures**

Background

Fry's Electronics was founded as a Silicon Valley retail electronics store to provide a one-stop-shop environment for hi-tech professionals. Fry's Electronics operates a chain of superstores which range in size from 50,000 to over 180,000 square feet per superstore. Fry's Electronics continues to keep hi-tech professionals supplied with products representing the latest technological trends and advances in the personal computer marketplace.

For several years, Fry's Electronics researched and tested numerous lighting technologies, in order to find a viable and cost effective energy efficient solution. This solution would also be required to maintain the existing warm and pleasant quality of light and shopping experience.

Original Situation

Fry's Electronics existing system included standard probe start Metal Halide highbay fixtures on the sales floor (400W) and in the stock room (250W), running at 100% power without any control options.

Snapshot

70%

Energy Savings

Lamp Power

Sales Floor:
Reduced from 400W to 320W;
Stock Room:
Reduced from 250W to 175W

Annual kWh Saved

35,263,107
(Complete Rollout)

Annual CO₂ Saved

25,319 metric tons
(Complete Rollout)

Simple Payback Period

7 Months
(Including Rebates)

Total Annual Savings

\$5,289,504
(Complete Rollout)

The Solution

Working on providing a solution for Fry's Electronics, West-Lite, the distributor, approached Metrolight to offer its energy efficient solutions for high-power lighting. After careful review and testing, Fry's Electronics concluded that the solution delivered on all their requirements. Along with the solution's performance, Metrolight's global presence and support, as well as West-Lite's service-level and expertise, cemented Fry's Electronics' decision to implement a complete roll out solution across all their existing locations nationwide as well as in new constructions going forward.

The solution consisted of Metrolight's SmartHID™-enabled fixtures, all digitally controlled from Fry's Electronics HQ. Lamp wattage was reduced from 400W to 320W on the sales floor, and from 250W to 175W in the stock room. In addition, dimming policies were implemented to match shopping traffic patterns.

The Result

The implementation of Metrolight's solutions delivered the following benefits while maintaining the existing store lighting look and feel:

Energy Savings

- ▶ 70% energy savings - achieved through the reduction of lamp power, reduction of fixtures, dimming and resultant air conditioning savings
- ▶ Maximized utility rebates - over 75% of the locations incorporated utility rebate awards driving the project paybacks as fast as 4 months time

Maintenance Savings

- ▶ Reduction of store's fixtures (~45%) resulted in reduced maintenance costs
- ▶ Streamlined store maintenance by monitoring real-time lamp condition
- ▶ Reduced maintenance costs with high lumen maintenance and increased lamp life

Advanced Control

- ▶ Flexibility – dynamically control and adjust individual store lighting from one central location. Change lighting conditions to suit store modifications, area-specific requirements, etc.
- ▶ Optimize revenue by controlling light levels that maximize shopping experience
- ▶ Visibility – track energy usage per store to the granular level of individual fixtures

Features	Before Installation	After Installation	Savings
Fixture Power Consumption (W)	400 / 250	320 / 175	80 / 75
Operating Hours/ Days	12 / 360	12 / 360	-
Annual Lighting-Related Energy Cost*	\$7,244,523	\$1,955,019	\$5,289,504
Total Annual Savings*		\$5,289,504	
Simple Payback/ ROI	7 Months (with rebates)		

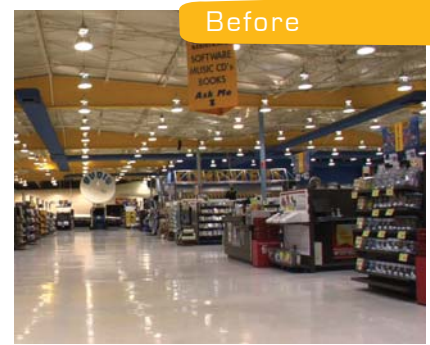
*Complete Rollout

About Metrolight

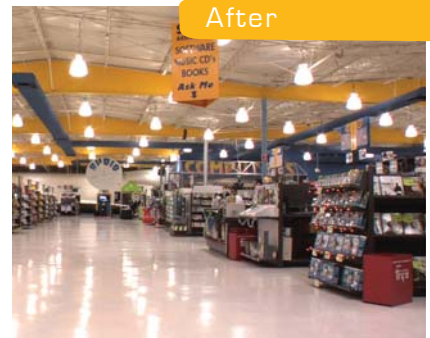
Metrolight provides proven energy-efficient eHID and LED solutions for high-power lighting. Metrolight's ballasts and managed lighting solutions are used in retail, industrial, commercial and municipal installations to reduce energy consumption and carbon emission by 70%. Pioneering lighting energy solutions since 1996, Metrolight operates worldwide with over 750,000 systems deployed and over 8 billion hours in operation. For more information, please visit our website at www.metrolight.com

West-Lite Supply Company Inc.

In 1981 West-Lite Supply Company, was founded in Los Angeles, CA with the purpose of becoming America's premier distributor of lighting products. With 5 branches strategically located throughout the country and years of dedicated service we are well on our way towards that goal. For more information, please visit www.west-lite.com



Before



After

"We thoroughly investigated several lighting technologies available in the market and already we have evidence that our decision was the right one. We reduced the number of fixtures, reduced the lamp power and have complete control over our lighting system, allowing us to maximize our savings."

Fry's Electronics Management Team

Customer testimonial available on YouTube:
<http://youtu.be/4ZLK-eFtRTg>

