

# THE POWER OF PREMIUM LED LIGHTING



---

**This case study focuses on a busy office** in Michigan. The company switched from fluorescent lamps to Straits LED fixtures, drastically improving their energy consumption and savings.

## BEFORE



## AFTER



Office space before and after T8 fluorescents were replaced with **X-Series LED T8** tubes. 15 watt X-Series tubes are a direct replacement for 32 watt fluorescents.

## IMPACT BY THE NUMBERS

---



### LED WILL **SAVE YOU MONEY**

The simple fact is that LED lights can emit the same amount of light as fluorescent lamps at a fraction of the wattage. **Total Savings: \$62,000, Annual Return on Investment: 115%, .89 Years to Recoup Investment (Simple Payback)**



### LED EMITS **HIGHER QUALITY LIGHT**

LED light allows for greater light acuity and higher color rendering index. **Increase in Light Levels: 22%**



### LED LAMPS **LAST LONGER**

Given dramatically improved heat sink technology, LED lights are much less prone to failure than fluorescent and HID. **New Expected Lamp Hours: 50,000**  
Increase in useful life vs current light



### LED IS ELIGIBLE FOR **GRANTS, INCENTIVES & REBATES**

To speed adoption of energy-efficient lighting, federal and state government agencies, as well as utility providers, offer rebates or other incentives that can have a meaningful impact on project economics. **Estimated Rebates: \$3,760**



### LED IS A **SAFER PRODUCT**

LEDs do not require harmful gasses like mercury to produce light. **Reduction in Mercury Levels: 100%**

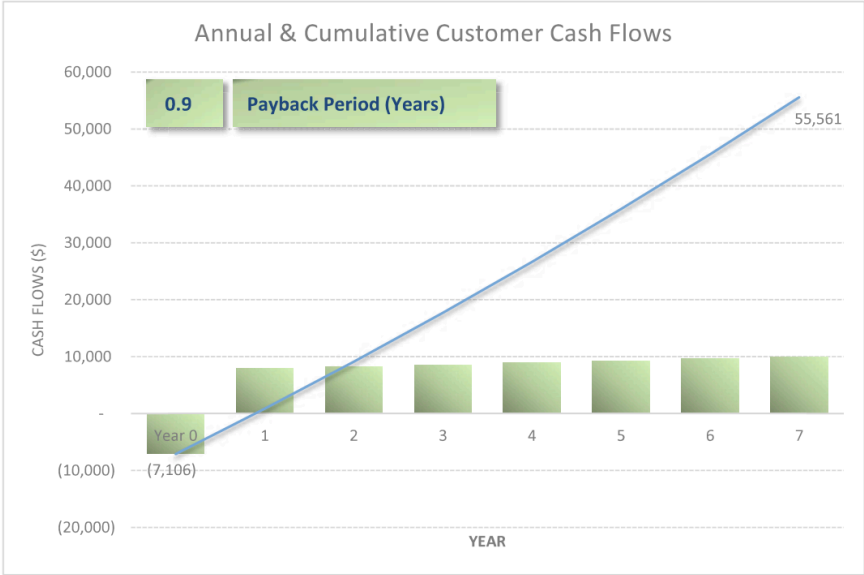


### LED IS **GREAT FOR THE ENVIRONMENT**

LED lighting can make a large impact in helping organizations meet their enterprise sustainability goals. Removing **29 tons of CO2** from the atmosphere is equivalent to offsetting **6 cars** or planting **1,306 trees**.

# FINANCIAL OVERVIEW

CURRENT ANNUAL LIGHTING COST		LED ANNUAL LIGHTING COST		ANNUAL SAVINGS WITH LED	
Energy (kWh)	65,283	Energy (kWh)	23,481	Energy (kWh)	41,802
Energy (\$)	\$7,181	Energy (\$)	\$2,583	Energy (\$)	\$4,598
Maintenance (\$)	\$3,358	Maintenance (\$)	\$2	Maintenance (\$)	\$3,356
				HVAC (\$)	\$0
Current annual lighting cost	\$10,539	LED annual lighting cost	\$2,585	LED annual savings	\$7,954



LED RETROFIT COST	
Estimated Material Cost	\$10,251
Estimated Installation Cost	\$0
Estimated Sales Tax	\$615
Purchase Price (Tax Included)	\$10,866
Utility Company Rebates	(\$3,760)
Federal Tax Incentives	TBD
Net LED Retrofit Cost	\$7,106

FINANCIAL SUMMARY	
Net Purchase Price	\$10,866
LED Annual Savings	\$7,954
Monthly Cost of Waiting	\$663
Payback Period	0.9
IRR (7 year)	115%
Total LED Lifetime Savings	\$62,667
Net LED Lifetime Savings	\$55,561

ENVIRONMENTAL IMPACT	
C02 Offset / yr	29 tons
C02 Equiv. Trees Planted	1,306

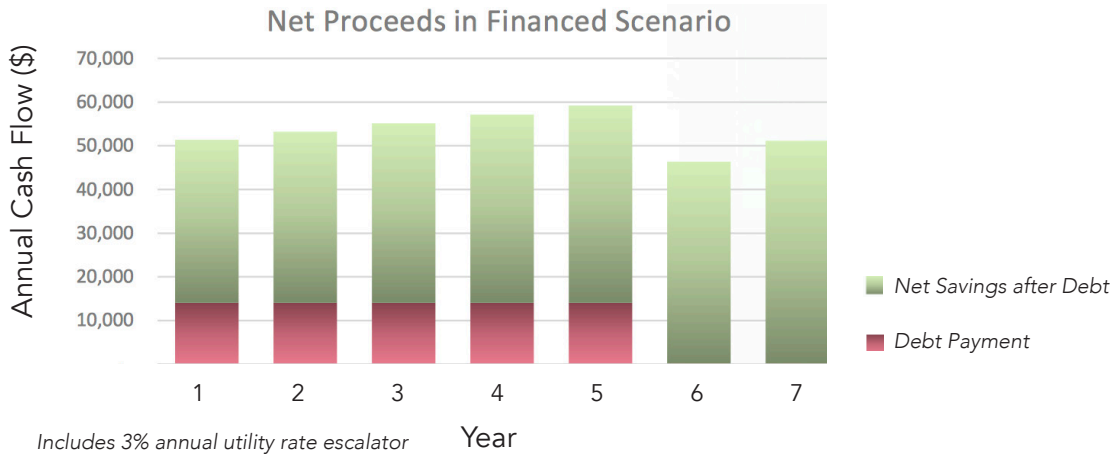
## A SOLUTION THAT PAYS FOR ITSELF

Because of the size and predictability of the savings created by an LED upgrade, projects make great candidates for financing. Often, the debt payments from a loan or lease will be less than the savings created by the project, resulting in net savings from day one.

The analysis below shows your expected project cash flows in a financed scenario:

Amount Borrowed	\$62,055	Monthly Savings	\$3,954
Loan Term	5 Years	Monthly Debt Payment	\$1,171
Interest Rate	5.0%	Net Monthly Savings	\$2,783

### CUSTOMER RETAINS 100% OF SAVINGS AFTER THE LOAN TERM







***For a Brighter Tomorrow***

---

**Straits Lighting Company®**

Phone: 855.875.2533

Fax: 248.671.0624

Email: [info@straitslighting.com](mailto:info@straitslighting.com)

Straits Lighting is constantly developing and improving its products. For this reason, all product and service descriptions in this document are intended as a general guide, and we may change specifications from time to time in the interest of product development, without prior notification or public announcement. All descriptions in this publication present only general particulars of the goods to which they refer and shall not form part of any contract. Data in this guide has been obtained in controlled experimental conditions. However, The Straits Lighting Company cannot accept any liability arising from the reliance on such data to the extent permitted.