

# THE POWER OF PREMIUM LED LIGHTING



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**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

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### 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%**

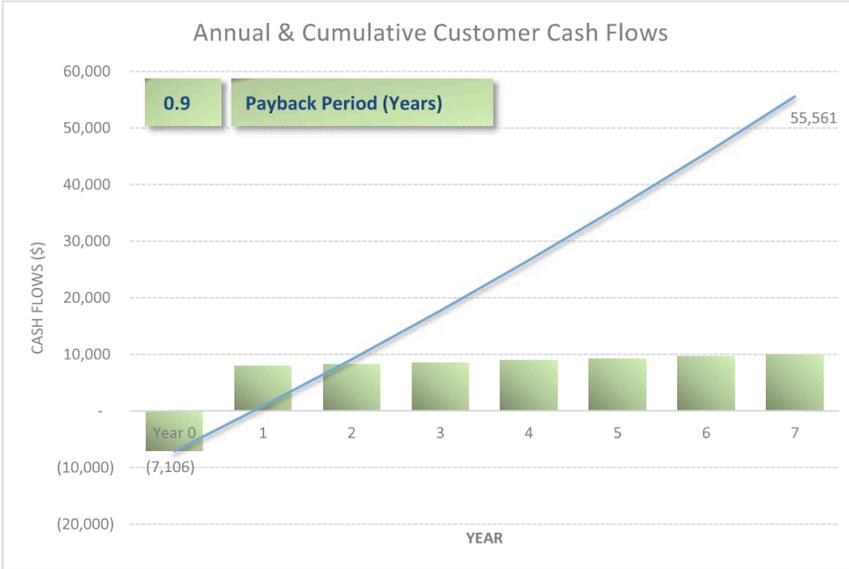


### LED IS **GREAT FOR THE ENVIRONMENT**

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
<b>Current annual lighting cost</b>	<b>\$10,539</b>	<b>LED annual lighting cost</b>	<b>\$2,585</b>	<b>LED annual savings</b>	<b>\$7,954</b>



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
<b>Net LED Retrofit Cost</b>	<b>\$7,106</b>

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	
CO2 Offset / yr	29 tons
CO2 Equiv. Trees Planted	1,306

## A SOLUTION THAT PAYS FOR ITSELF

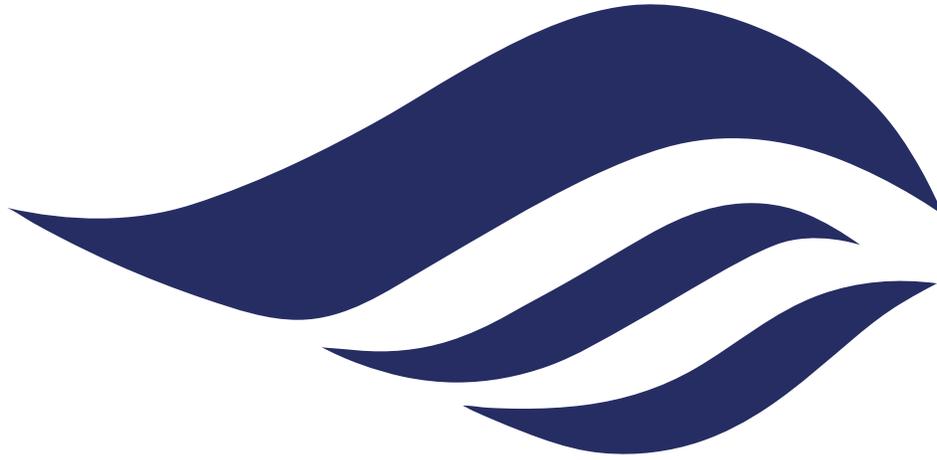
Because of the size and predictability of the savings created by an LED upgrade, projects make great candidates for financing. Often, the debt payments from a loan or lease will be less than the savings created by the project, resulting in net savings from day one.

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%	<b>Net Monthly Savings</b>	<b>\$2,783</b>

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





***For a Brighter Tomorrow***

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**Straits Lighting Company®**

Phone: 855.875.2533

Fax: 248.671.0624

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

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