

## ▶▶▶ T5 Fluorescent vs. T5 LED Case Study

Retailer X approached Tresco Lighting to outfit their stores with fluorescent, or in the alternative LED.



### T5 Fluorescent

Description	Wattage	Qty Cost/EA	Extended
3' T5 Fluorescent	21W	15 /\$19.73	\$295.95
2' T5 Fluorescent	13W	8 /\$18.50	\$148.00

**TOTAL MATERIAL COST: \$443.95**

**Maintenance Cost** (30,000 hr period)  
46 Bulbs X \$4.00      **Replacement Bulb Cost: \$184.00**

**Labor to Replace Bulbs**  
3 hours X \$20/hour      **Labor for Replacements: \$60.00**

**Disposal Fee (bulbs)**  
\$0.60 per bulb X 46 bulbs      **Total Bulb Disposal Fee: \$27.60**

**Energy Cost to Operate (30,000hr period)**

Description	Watts/EA	Qty	Total Watts
3' T5 Fluorescent	21	15	315
2' T5 Fluorescent	13	8	104
			<b>Total Watts 419</b>

419W X 30,000hrs/1000 X .10/Kwh  
Energy Cost to Operate: **\$1,257.00**

**TOTAL LIFETIME COST: \$1,972.55**

Note: Most T5 Fluorescent Ballasts are 20K rated.



### T5 LED

Description	Wattage	Qty Cost/EA	Extended
3' T5 LED, Daylight	14W	15 /\$41.25	\$618.75
2' T5 LED, Cool	7W	8 /\$24.35	\$194.80

**TOTAL MATERIAL COST: \$813.55**

**Maintenance Cost** (30,000 hr period)  
0 Bulbs Required      **Replacement Bulb Cost: \$0.00**

**Labor to Replace Bulbs**  
0 labor required      **Labor for Replacements: \$0.00**

**Disposal Fee (bulbs)**  
0 bulbs to dispose of      **Total Bulb Disposal Fee: \$0.00**

**Energy Cost to Operate (30,000hr period)**

Description	Watts/EA	Qty	Total Watts
3' T5 LED, Daylight	14	15	210
2' T5 LED, Cool	7	8	56
			<b>Total Watts 266</b>

266W X 30,000hrs/1000 X .10/Kwh  
Energy Cost to Operate: **\$798.00**

**TOTAL LIFETIME COST: \$1,611.55**

400 stores x \$361 savings would equal \$144,400 (20.14%) savings for Retailer X over a 3 year period for choosing LED over fluorescent.