



Silescent's
Circle-Lit™ LED Troffer
25 watts/fixture

Silescent® 2 x 2 LED Troffer Product Comparison 2A

*2x4 x 2-tube fluorescent fixture
replacement with
Silescent 25 watt
2 x 2 LED Troffer*



Sample Retrofit Installation

Applications:
Typical Business Environment
School Classroom/
Hallway/Hospital, etc...

Comparative Objectives...

Replace existing 2x4 Troffer with 2-tube x 32 watt fluorescent T5 lamp fixtures with the specific goals of:

- Reducing energy consumption;
- Improve lighting quality and distribution - overall;
- Reduce maintenance costs of ongoing re-lamping, cleaning and fixture replacements.

Silescent® combines LED technology with patent protected thermal management, electromechanical assembly and the industry's most advanced drive circuitry.

Relative Performance...

Total Savings achieved \$78.04/fixture/year

Evaluation Scope...

EXISTING 2-Tube, 2x4 Troffer Fixtures

Fixtures	Fluorescent 2x4 Troffer fixtures, 120VACin
Lamp	32 watt tubes x 2 = 64 watts/fixture (<i>no ballast</i>)
Ballast (Factor)	10% (7 watts/fixture; 71 watts/fixture)
Operating Use:.....	13 hours/day x 6 days/week x 52 weeks/year

REPLACEMENT Silescent Fixtures

Replacement Fixture	Silescent 25 watt Circle-Lit LED Troffer
Wattage	25 watts/fixture



(Detailed analysis on reverse side)

Summary of Savings...

Energy Savings: Considering equal usage

Considering Equal Usage:

Energy Savings: $(71w - 25w) \times 13 \text{ hrs/day} \times 312 \text{ days/yr} \times \$0.15/1,000\text{watts} = \dots\dots\dots \$27.99/\text{year/fixture}$

Added Savings from HVAC Cost Reductions:

Energy Savings: 30% savings (est.) of energy used to be realized from A/C = $\dots\dots\dots \$8.40/\text{year/fixture}$

TOTAL Energy Savings: $\$27.99/\text{year/fixture} + \$8.40/\text{year/fixture} = \dots\dots\dots \underline{\underline{\$36.39/\text{year/fixture}}}$

Maintenance Savings*: *Bulb/Ballast/Lens part replacements + Labor to replace these items.*

One Bulb replacement/year/fixture @ \$13.50/bulb = $\dots\dots\dots \$13.50/\text{year/fixture}$

Bulb replacement Labor: 15 min./bulb at \$30/hr (est.) x 1 bulb/year/fixture = $\dots\dots\dots \$7.50/\text{year/fixture}$

Each Ballast requires replacement every 3 years @ \$18/Ballast x 1/3 fixtures = $\dots\dots\dots \$5.40/\text{year/fixture}$

Ballast replacement Labor: 15 minutes/ballast at \$30/hr (est.) x 1/3 fixtures/yr = $\dots\dots\dots \$2.50/\text{year/fixture}$

Each Lens replaced on average every 2yrs @ \$18/Lens x 1/2 fixtures/yr = $\dots\dots\dots \$9.00/\text{year/fixture}$

Lens replacement Labor: 15 min./Lens at \$30/hr (est.) x 1/2 fixtures/yr = $\dots\dots\dots \$3.75/\text{year/fixture}$

**All replacement parts, labor costs and operating assumptions provided by qualified facilities manager*

TOTAL SAVINGS: $\$36.39 \text{ (energy)} + \$27.90 \text{ (parts)} + \$13.75 \text{ (Labor)} \approx \underline{\underline{\$78.04/\text{year/fixture}}}$

Additional Benefits...

- Full spectrum array based LED - improves visual acuity;
- Wide dispersion beam spread – provides even illumination with no dark shadows;
- Sanitary design allowing it to be easily cleaned;
- Extra-long 100,000 hour life rating – maintenance free operation.



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