



Energy Saving LED Products



What We Do!

We manufacture LED Lights in the United States, including the following:

1. E26/E27 Light Bulb Adapter/replacements
2. MR16 Light Bulb Adapter/replacements
3. T5 & T8 Fluorescent Tube replacements

We also produce industry-specific lighting applications, products, technologies and methods of using LED luminance customized for OEMs in the market



Some Problems with Existing LED Technology?

1. Most LED light bulbs use a Cluster of LED's, which utilizes more energy and are inefficient
2. Many LED lights are simply not bright enough
3. Most LED light bulbs are directional and do not have a good light spread
4. LED lights have been too expensive!
5. LED Bulbs have run too hot!





Why Alta LED Products?

Our LED's are the brightest and most efficient in the marketplace today. Our LED's produce over 150 lumens per watt without a diffuser, in the cool white color temperature.

Our patent pending technology has significantly reduced the heat problems that are common with LED substrates. This technological breakthrough increases the brightness of our LED's and expands the life of our products.

Other competing LED in the market only produce 40-50 lumens per watt. In most cases the light production needs to be focused to obtain this even light level.



Advances with AltaLED's Technology?

- Our LEDs use constant current and DO NOT utilize pulse modulation
- Our LEDs run cooler than the competition, the temperature of our LEDs never rise above 110 degrees Fahrenheit
- Our LEDs run on AC to DC inverter only
- We can manufacture LED chips up to 30 Watts per chip, which is unheard of in the Industry
- Our chips have a luminance of over 150 Lumens per watt
- We can produce LEDs in the 3000, 5000, and 7000K color temperatures, respectively.
- Our color temperature ranges from the RGB (red, green, blue) color spectrum, along with differing white color ranges
- Our LEDs lights are dimmable
- AC current ranges from 90 to 277 Volt
- We offer a 5 year warranty on all of our LED products
- Our LEDs are made in the United States of America





E-AL4.4M LED Light Bulb

Our E26 Bulb is a direct replacement for incandescent and halogen light bulbs. This bulb consumes only 4.4 watts as opposed to the 75 watt incandescent bulb. This replacement can reduce your energy consumption up to 90% of your current use.

Light Usage:

Architectural, Down Lighting, Recessed Lighting fixtures

Specifications:

AC 90~277

Output 4.4 Watts

Lumen Count: 660 lumens for cool white

Color Temperature: 3000K warm white/soft white; 5000k cool white

light angle: 125°

life span: > 50,000 hours

5 Year Manufacturers Warranty

CE/RoHS certificate compliant

Recyclable Plastic Housing

Patent Pending technology

ETL Listing





E-AL8M LED Light Bulb

Our E26 Bulb is a direct replacement for incandescent and halogen light bulbs. This bulb consumes only 8 watts as opposed to a 100 watt incandescent bulb. This replacement can reduce your energy consumption up to 90% of your current use.

Light Usage:

Architectural, Down Lighting, Recessed Lighting fixtures

Specifications:

AC 90~277

Output 8 Watts

Lumen Count: 1275 lumens for cool white

Color Temperature: 3000K warm white/soft white; 5000k cool white

light angle: 125°

life span: > 50,000 hours

5 Year Manufacturers Warranty

CE/RoHS certificate compliant

Recyclable Plastic Housing

Patent Pending technology

ETL Listing





E-AL15M LED Light Bulb

Our E26 Bulb is a direct replacement for incandescent and halogen light bulbs. This bulb consumes only 15 watts as opposed to a 150 watt incandescent. This replacement can reduce your energy consumption up to 90% of your current use.

Light Usage:

Architectural, Down Lighting, Recessed Lighting fixtures

Specifications:

AC 90~277

Output 15 Watts

Lumen Count: 2220 lumens for cool white

Color Temperature: 3000K warm white/soft white; 5000k cool white

light angle: 125°

life span: > 50,000 hours

5 Year Manufacturers Warranty

CE/RoHS certificate compliant

Recyclable Plastic Housing

Patent Pending technology

ETL Listing





MR16 LED Light Bulb

Our MR16 Bulb is a direct replacement for halogen based MR16 bulbs in the marketplace today. Our bulb consumes only 3 watts as opposed to 50 watt halogen bulb. This replacement can reduce your energy consumption up to 90% of your current use.

Light Usage:

Architectural, Display Lighting, Down Lighting,
Recessed Lighting fixtures

Specifications:

DC 12V

Output 3 Watts

Lumen Count: 500 lumens for cool white

Color Temperature: 3000K warm white/soft white; 5000k
cool white

life span: > 50,000 hours

5 Year Manufacturers Warranty

CE/RoHS certificate compliant

Patent Pending technology

ETL Listing





T8 LED Tube

Our T8 LED Light Tube is a direct replacement for fluorescent light tubes. This LED light tube consumes only 13 watts, as opposed to 32 and above watt fluorescents. This replacement can reduce your energy consumption up to 50% of your current use.

Light Usage:

Architectural, Down Lighting, Lighting fixtures

Specifications:

AC 90~277

Output 13 Watts

Lumen Count: 2800 lumens for soft white

Color Temperature: 3500K soft white

light angle: 175°

life span: > 50,000 hours

5 Year Manufacturers Warranty

CE/RoHS certificate compliant

Recyclable Plastic Housing

Patent Pending technology

ETL Listing





Advantages of LED's

1. **Energy Efficiency-** Drastically reduce your expenditure on energy consumption, which can reduce current energy cost by more than 80%
2. **Mercury Free-** LED lights contain No Lead and Mercury, which are hazardous materials and negatively effect the environment
3. **Reduce Maintenance costs-** LED lights last over 5 years reducing your maintenance costs replacing defective light bulbs.
4. **Life expectancy-** LED's last are over 50,000 hours, as compared to 8,000 to 12,000 for Compact Fluorescent lighting.
5. **Cool Temperatures-** LED's are cooler than Incandescent and CFL lighting sources, reducing your expenditure on HVAC.
6. **High Durability-** No filament or tube to break, which creates a safer environment for Students and Faculty.
7. **Fully Dimmable-** Unlike fluorescent lamps, LED's can be dimmed to conserve more energy usage.

Example of Large Building Savings LAUSD Energy Efficiency Efforts



Los Angeles Unified School District's Lighting Retrofit Saves \$652,000 Annually

Los Angeles Unified School District's (LAUSD) lighting project saves \$652,000 each year. The district has cut roughly 5 million kilowatt-hours, a 6% drop relative to 2004 by installing 10,000 efficient lights (T5 fluorescent lights and light-emitting diode [LED] exit signs) in schools and other facilities.

LAUSD, the recipient of a 2005 Flex Your Power Energy Efficiency Honorable Mention, has saved approximately 219,000 therms of natural gas annually by removing redundant HVAC systems and by upgrading other equipment. The district has directed that all new schools will be built to meet Leadership in Energy and Environmental Design (LEED) Gold standards.



Light Comparison

T5 Fluorescent Lighting

- 54 Watts of Energy Usage
- 4,850 Lumens of 360 degree light
- Light last up to 20,000 hours
- 3,500k color temperature

AltaLED T5 LED Lighting

- 13 Watts of Energy Usage
- 2,850 Lumens of totally Directional Light
- Light last up to 50,000 hours
- 3,500 Color temperature

AltaLED T5 LED light represents a **63% savings in energy** based on wattage consumption as compared to a Standard T5 Fluorescent Lighting.

AltaLED T5 replacement has same brightness as a Fluorescent T5 replacement with lower lumen output. The LED T5 light output focuses downward, as compared to a standard Fluorescent T5, which loses 40% of light output shining multi-directionally up into the light fixture.



Classroom Energy Savings Example

Cost to use T5 Fluorescent Bulbs

Cost \$0.009 per hour to use T5 Bulbs

Average Class uses 12 T5 Bulbs

12 Bulbs x \$0.009 = 0.108 is cost per class
per hour

10 hours of Light usage x \$0.108 = \$1.08
per class per day

\$1.08 per day x 54 classrooms = \$58.32 is
total cost of energy usage of all
classrooms

365 Days of usage x \$58.32 =

**\$21,286.82 cost of energy usage per
year**

Cost to use AltaLED T5 Bulbs

Cost \$0.006 per hour to use our T5 Bulbs

Average Class uses 12 T5 bulbs

12 Bulbs x \$0.006 = \$0.072 is cost per
class per hour

10 hours of Light usage x \$0.072 = \$0.72
per class per day

\$0.72 per day x 54 classrooms = \$38.88 is
total cost of energy usage of all
classrooms

365 Days of usage x \$38.88 =

**\$14,191.20 cost of energy usage per
year**

Classroom size based on new Valley Region HS #4 in Granada Hills.

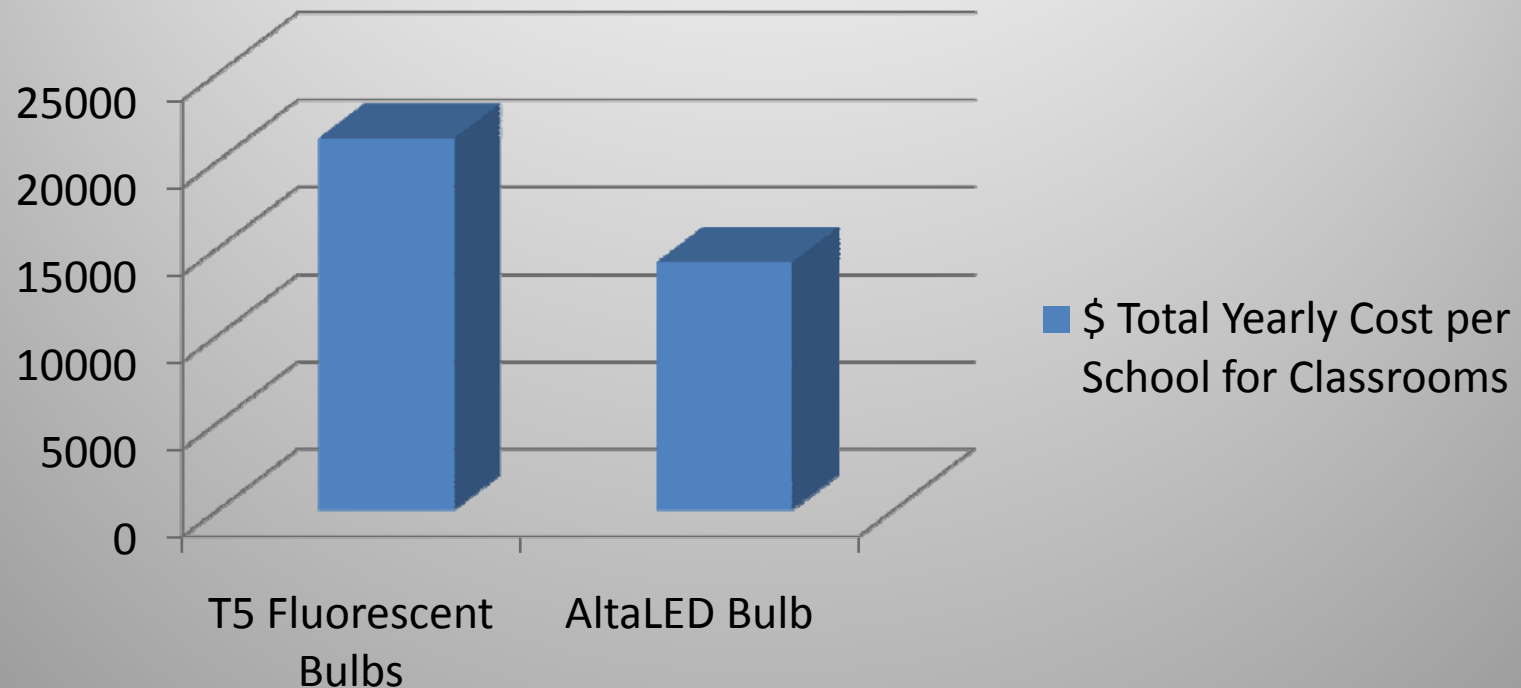
School count based on figures from LAUSD fingertip fact sheet for 2007-2008 school year.

Light bulb count based on CHPS Best Practices Manual 2006.



Total Energy Savings

\$ Total Yearly Cost per School for Classrooms



LED lights represent a savings of **\$7,095.62** in energy savings over a one year period. This savings over the current 1,190 schools in the LAUSD represents a savings of over **\$8,443.787.80** annually.



Light Comparison for E Bulb

Incandescent Light Bulb

- 100 Watts
- Typically 900 Lumens
- Typically Last 800 hours

Compact Fluorescent Bulb

- 23 Watts
- Typically 900 Lumens
- Typically last 10,000 hours

AltaLED Bulb

- 4.4 watts
- 625 Lumens
- 50,000 hour life

AltaLED LED lights are **95% more energy efficient** than Incandescent Light Bulbs.

AltaLED LED lights are **81% more energy efficient** than Compact Fluorescent Light Bulbs.



AltaLED Product Information

Additional product information can be found at the following:

<http://www.altaled.com>

If you have any questions regarding our products you can email us at the following:

info@altaled.com