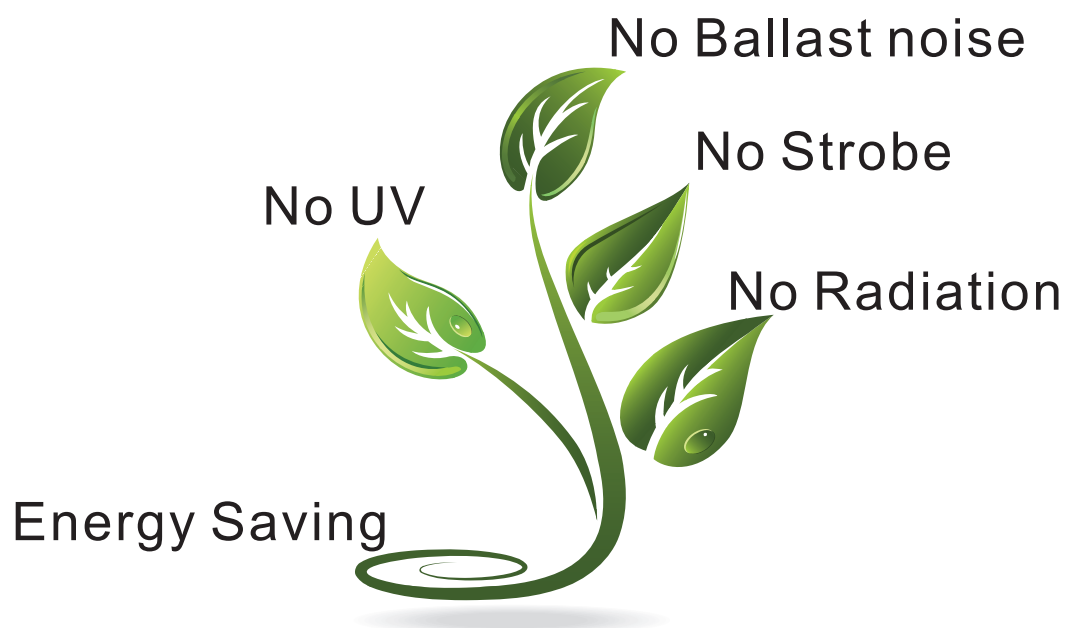# Characteristics of T8 LED tubes

T8 LED tubes have Long lifespan,

and environment friendly.
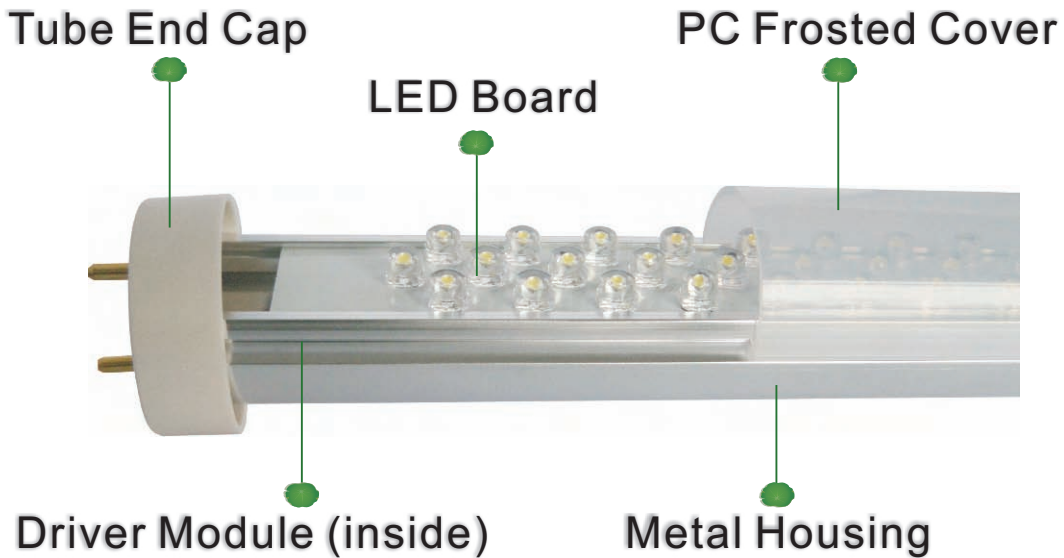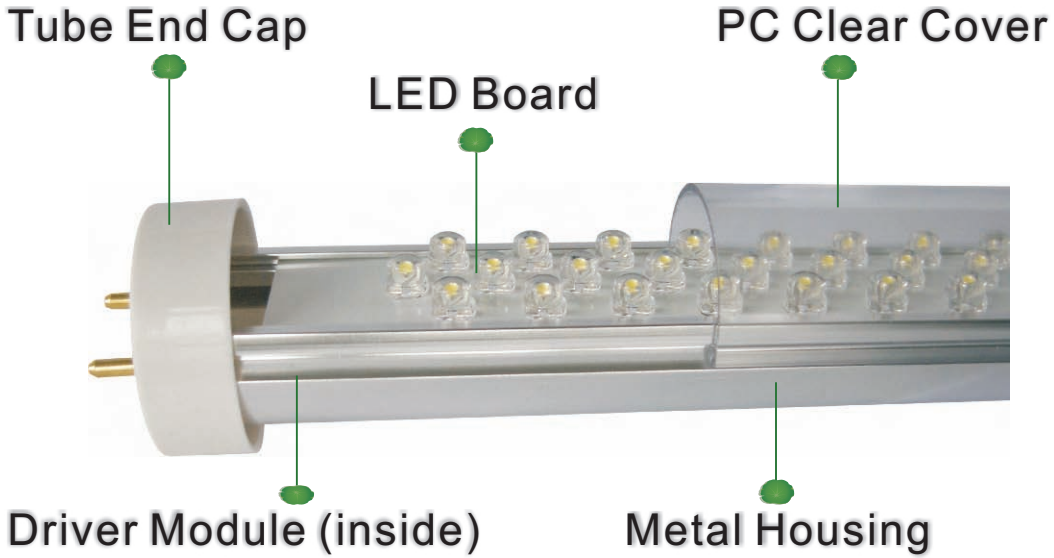
No Ballast noise

No Strobe

No UV

No Radiation

Energy Saving

# Components & Material
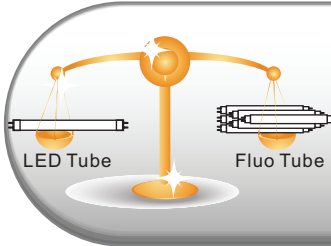
## Basic Parameter Sheet

| Wattage | Working Voltage | Lumens | Central Lux | CRI | Lighting Angle | Replaces |
|---------|-----------------|--------|-------------|-----|----------------|----------|
| 17W | AC 100V-277V AC/DC 12V | 1650LM | 60-120 Lux/3m | >75 | 60, 90-120, 160degree | 32-45 watt T8 Fluorescent |

Tube End Cap

LED Board

PC Clear Cover

Driver Module (inside)

Metal Housing

Tube End Cap

LED Board

PC Frosted Cover

Driver Module (inside)

Metal Housing

# Advantages

LED light brings lots of convenience to our life, Long lifespan, energy saving, no UV, RGB color, dimmable, no radiation,no mercury,and so on.

**Long lifespan.**
LED light last greater than 50,000 hours, which is several times or even several decades of times than the life span of ordinary lighting source.

LED Tube    Fluo Tube

**Energy-saving.**
60% energy saving than traditional light, and no need to maintenance

**High pure, vivid color.**
LED products cover all range of visible spectrum, and the color is very vivid. The traditional way to get the multicolor light is adding the light filter to the incandescent bulb, but it greatly reduce the luminous efficiency.

**No Strobe.**
It can start up no time delay, no environment temperature limited, and it is available for transient start up in millimeter seconds.

**No UV.**
The wave length of LED light belong to Red, Green and Blue, they are from 450nm to 650nm ; The wave length of UV is from 100nm to 400nm.

No radiation          No Mercury
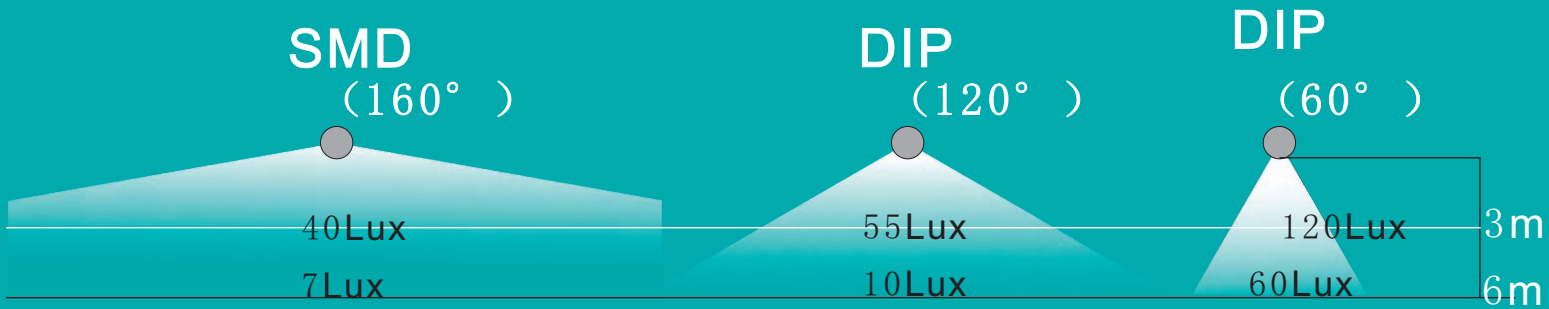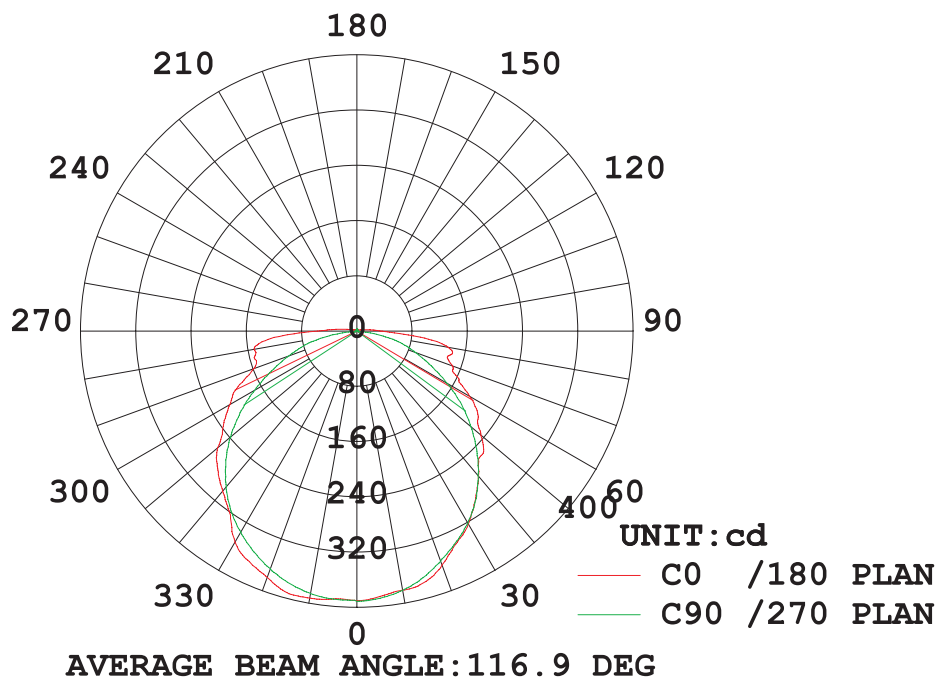
# Light Distribution

LED has high luminous in tensity,high efficient luminous flux output.
The angle of LED can be changed, it brings high directional light output.

| SMD (160°) | DIP (120°) | DIP (60°) | |
|---|---|---|---|
| 40Lux | 55Lux | 120Lux | 3m |
| 7Lux | 10Lux | 60Lux | 6m |

TOTAL FLUX: 1587.5lm



UNIT:cd
——— C0 /180 PLAN
——— C90 /270 PLAN

AVERAGE BEAM ANGLE:116.9 DEG

# The Reference of Replacement

LED tube

Std Fluo tube

17W

45W

50,000 H

20,000 H
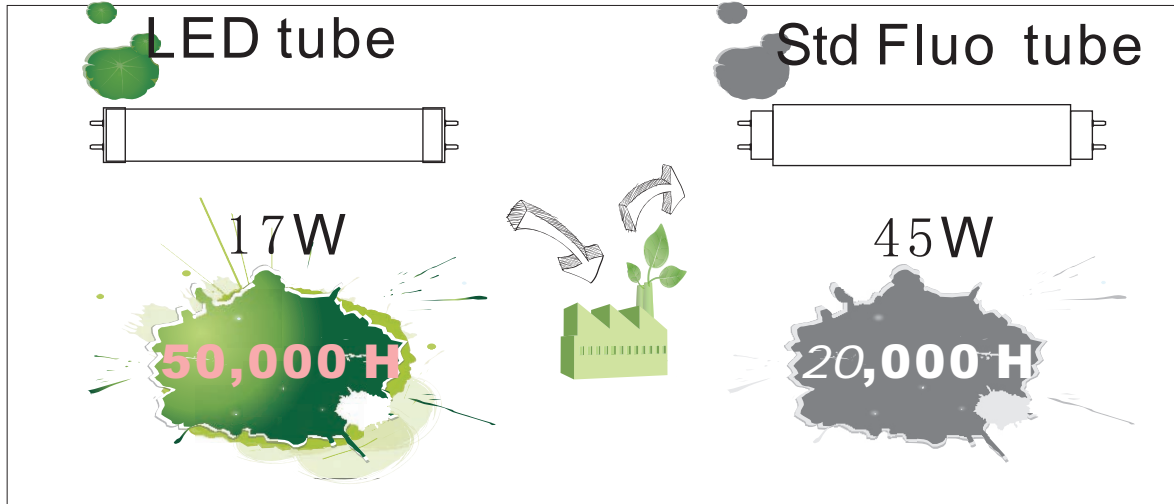
T8 LED tubes saves 60% energy compared with incandescent bulb.

It also saves 40% energy compared with traditional fluorescent tubes.

## Energy

100%

66.5%

40%

0%

T8 LED    Fluorescent tube    Incandescent bulb
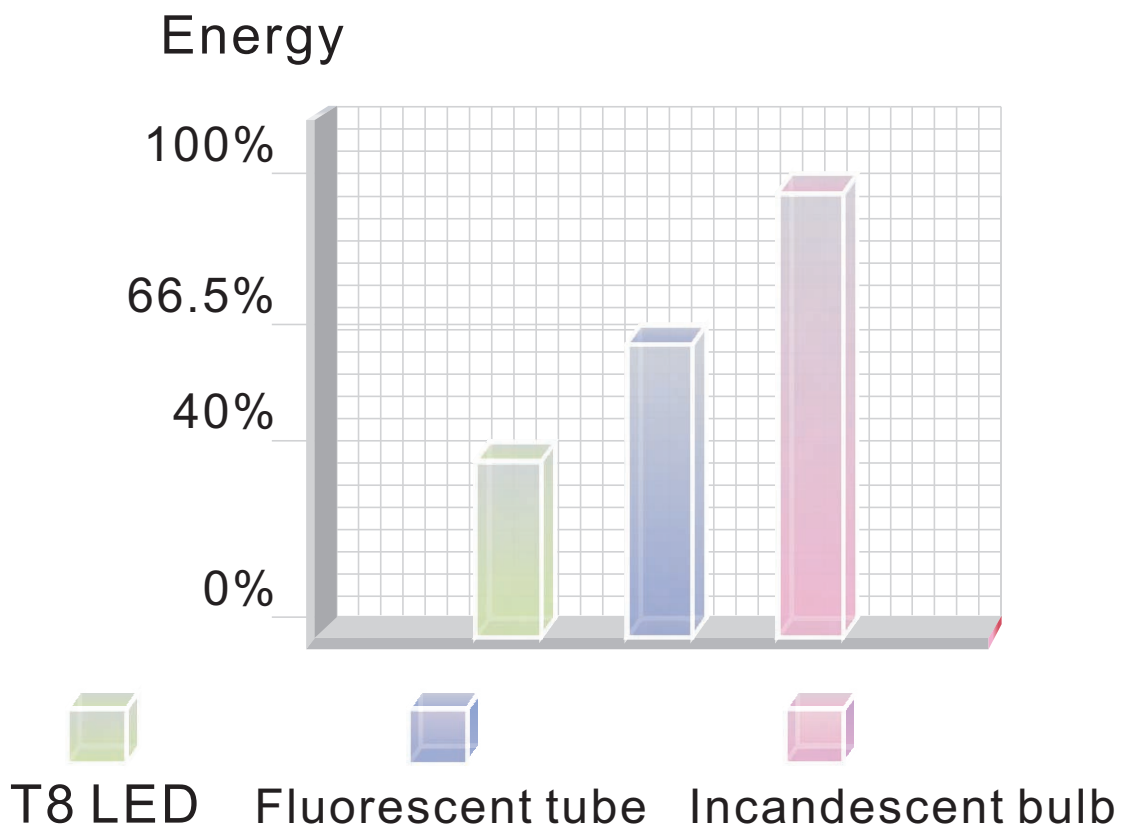
# Electrical Components



AiSHi

DIODES
INCORPORATED

ST

POWER
INTEGRATIONS

FAIRCHILD
SEMICONDUCTOR

Aluminum electrolytic capacitor
—— The component with the highest risk of lifespan



$T_o$
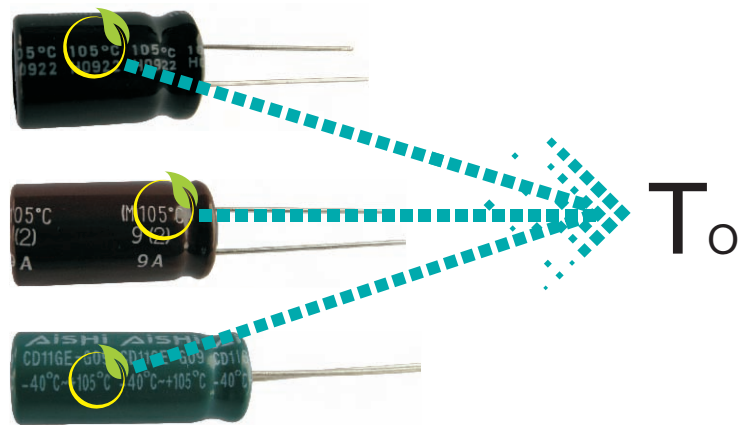
$$L_x = L_o \times 2^{\frac{T_o - T_x}{10}} \cdot K_1 + K_2$$

| | |
|---|---|
| $L_x$ | Life span (hour) |
| $L_o$ | Rated life span in High temperature (H) |
| $T_o$ | Rated High temperature ($^{\circ}C$) |
| $T_x$ | Component temperature ($^{\circ}C$) |
| $K_1$ | Normal equal 1 |
| $K_2$ | Normal equal 0 |

$$L_x = 8000\,H \times 2^{\frac{105^{\circ}C - 80^{\circ}C}{10}}$$

$$\approx 46000\,H$$

# Installation & Package

LED Tube Lighting

AC100~277V

POWER1          POWER2

Bracket

7.4X4.8cm

**⚠ WARNING**

1.Risk of Electric Shock-Use In Dry Locations Only.
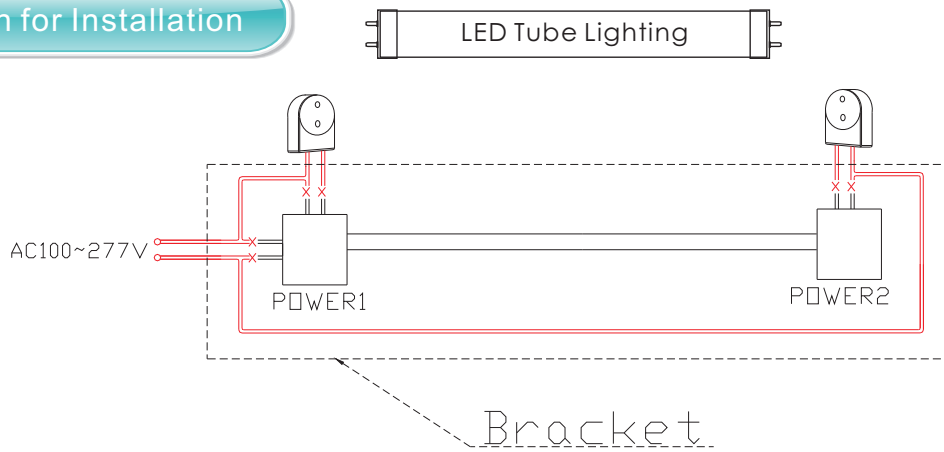Not for use with dimmers.Not for use in totally
enclosed recessed fixture.
2.The installation or replacement of this product
can only be made by the manufacturer,his service
agent,electrician or similar qualified person.
3.Disconnect power before installing or removing
operation.Remove traditional fluorescent light
ballast,the detail see bellowing drawing.

LED Tube Lighting

AC120V          Remove the sharter

Short
Conn ceti ng the
indu ctin g
ball ast

1.Ba llas t with Star ter

AC120V

LED Tube Lighting

2.Th e Conn ecti ng Prin cipl e

Warning Label for Application

Package

# Certifications & Test

ISO9001:2000

OHSAS 28001-2001

cETLus
LISTED
Intertek
3187436

CETL for 4ft
LED tube light
(UL 1993 standard)

We are one of the first
companies to obtain
certification CETL.

HSPM QC 080000

CE FC RoHS GSV

ISO14001:2004

## Spectrum Chart



File Test Display Help

| | | | | |
|---|---|---|---|---|
| x=0.3207 y=0.3400 | Rendering index | R1=77 | R6 =81 | R11=68 |
| u=0.1992 v=0.3168 | | R2=89 | R7 =85 | R12=52 |
| CCT:6040K (duv=4.86e-003) | Ra=79.4 | R3=92 | R8 =63 | R13=81 |
| Prcp WaveL:498.5nm | | R4=73 | R9 =-6 | R14=96 |
| Purity: 3.9% | | R5=76 | R10=70 | R15=72 |

Peak WaveL:460nm    Ratio: R=13.3% G=80.9% B=5.9%

Average Wave:545nm    U=230.9V I=0.0731A P=15.41W PF=0.913

Lumi. Pow.:5.432W    Flux: 1713.31m Efficacy: 111.18lm/W

Instrument State
Scan Range:380nm-800nm
Scan Interval:5nm
Ip=3455
REF=5258
%=-0.155%
Environment TMP:22.6deg
TMP(PMT):23.4deg
flux lamp:A3000K

Relative Spectrum:0.001
Wavelength(nm):397.0

1.0 = 48.8mW/nm

x = 0.3207 y = 0.3400
Tc = 6040K

EVERFINE    Ready    NUM

# Manufacture & Test Instrument

Temperature and Humidly Survive

Optics Spectrometer

Component UL Testing

Package Survive Testing

SMT

# Applications


Office


Workshop


School


Home


Hotel


Shopping Center


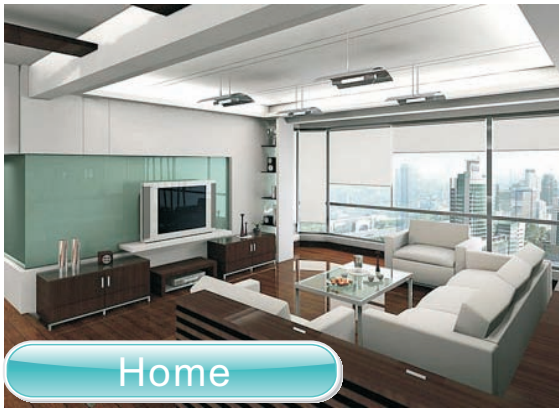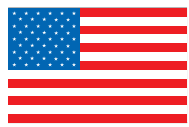Supermarket

# Nations in Sales

By now, our products have been in all of the world, and they are very popular.
Some of main countries are:

| | | | |
|---|---|---|---|
| USA | | UK | |
| Canada | | Russia | |
| Chile | | Singapore | |
| Brazil | | Germany | |
| Argentina | | Austria | |
| Mexico | | Netherlands | |
| Australia | | Egypt | |
| France | | | |