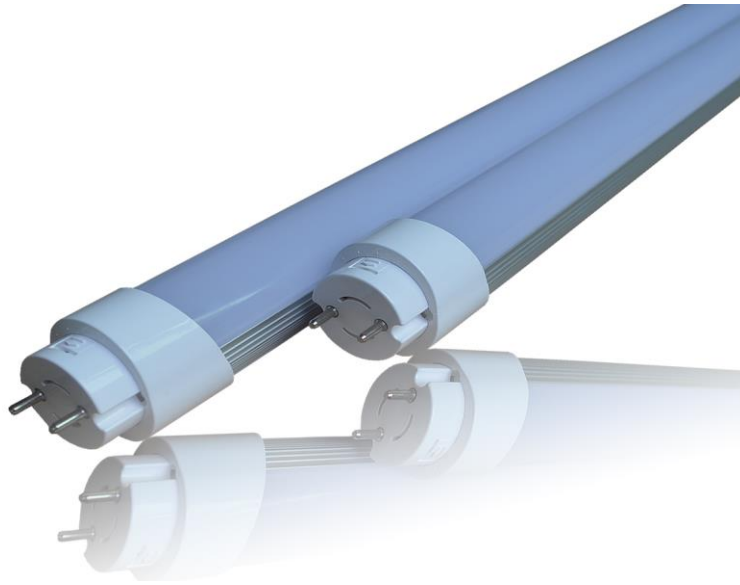


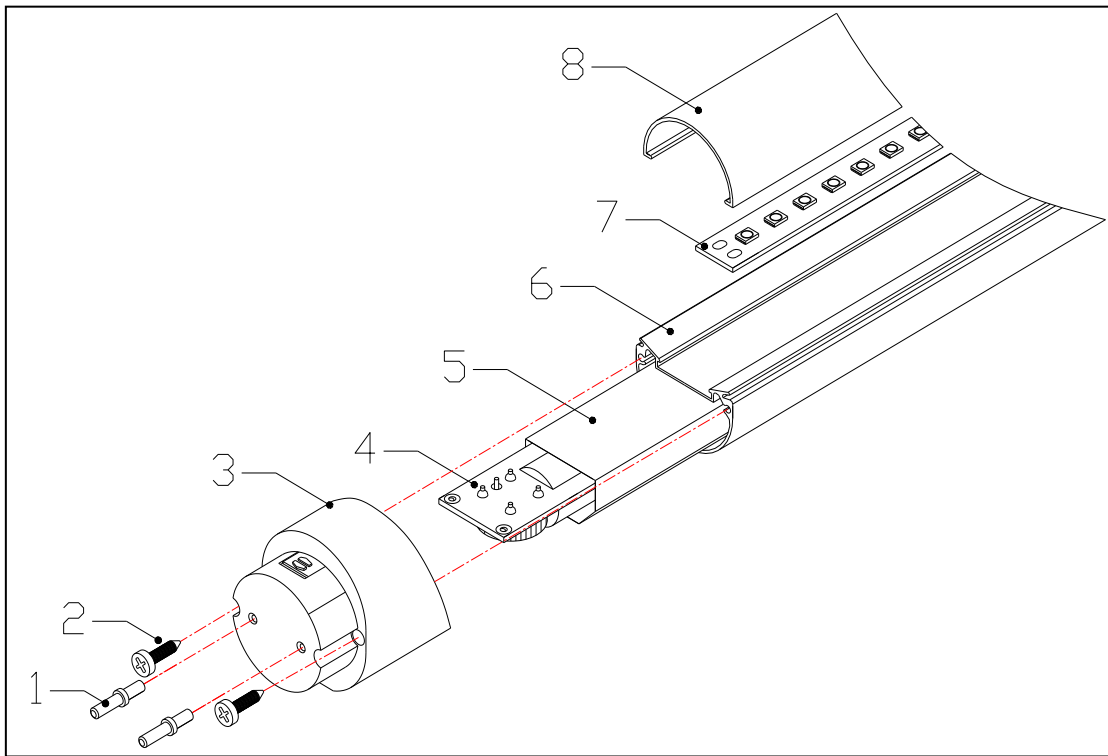
1、 Picture of product



2、 Features

- ❖ Energy-efficient: Under the same glowing effect, LED tube light conserve 60%-90% energy than the traditional energy-saving lamp, efficiently reducing the electricity expenditure.
- ❖ Long lifespan: LED tube adopts light emitting semiconductor chip, without filament. It is not effected by vibration, with more than 50000 hours lifespan.(the ordinary energy-saving lamp only has 8000 hours lifespan)
- ❖ Harmless light ray: no ultraviolet ray and infrared ray, so no producing radiation.(there is ultraviolet ray and infrared ray in high voltage sodium lamp)
- ❖ Environmental protection: no harmful elements, such as mercury, xenon etc. Be easily recycled and no electromagnetic interference. (there is harmful element in high voltage sodium lamp. the electronic ballast produces electromagnetic interference)
- ❖ Eyesight protection: LED light employ DC driver with no flicker(ordinary lamp is AC driver with flicker)
- ❖ High lighting efficiency: with small heat, and 80% of the electric energy translated into visible light.(80% of the electric energy of ordinary incandescent lamp translated into heat energy, and only 20% translated into luminous energy)
- ❖ High safety factor: LED lighting need smaller voltage and electric current, producing smaller heat. So that there is no potential safety hazard, being suitable to mine field and other dangerous places.
- ❖ Anti-mosquito: LED lighting producing no ultraviolet ray, so that it is good for remaining indoor clear because it doesn't attract mosquito like traditional fluorescent lamp.
- ❖ Convenience: traditional fluorescent lamp has to be replaced because of its short lifespan. LED lighting could save the cost associated with replacement or repairmen.(12 hours one day for 11 years)

3、 Product Structure

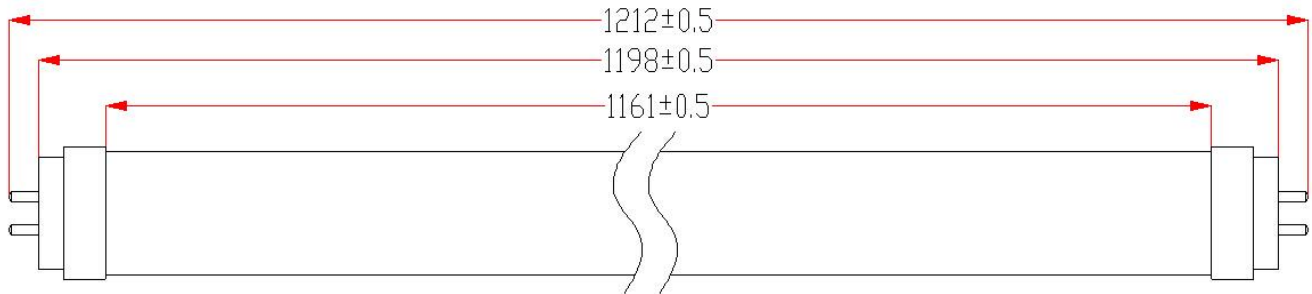


NO.	Part name	Material
1	Fluorescent lamp copper needle	Brass, surface nickel-plated
2	screw	stainless steel (M2*10)
3	end cap	PC
4	LED Power	FR-4
5	insulation covering	PC
6	aluminum gutters	6063# aluminum alloy, with anodized surface
7	PCB board	1.2MM FR-4 Fiberglass board

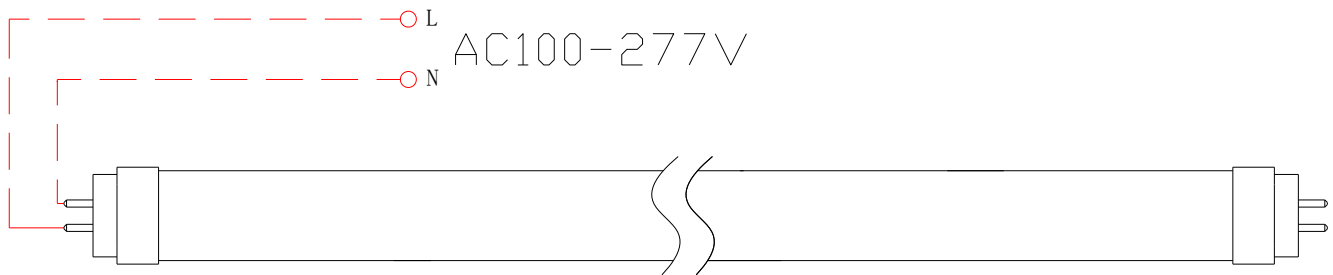
4、 Technical data

Product type	WS-UL22WT8-12
Consumed power	22W ±0.5
Input voltage	AC100V-277V, 50/64Hz
PF	≥0.93
Efficiency	≥ 90%
LED type	2835
lm/1 LED	26-28lm
LED quantity	110pcs
Lumen	2500lm ±100
Luminous efficiency	110 lm/w ±10
CCT	2700-3200K, 4000-4500K, 6000-6500K
CRI	Ra≥80
Beam angle	160°
lampshade	clear cover、 milky cover
Lamp base	G13
End cap	Rotatable socket
Rotatable cap with lock	yes
lifespan	≥ 50,000 hours
Guaranty	5 years maintenance
Working temperature	-35 ~ 55°C
storage temperature	-40 ~ 80°C
IP	IP44
Certificates	UL,cUL,FCC,DLC

5、Dimensions



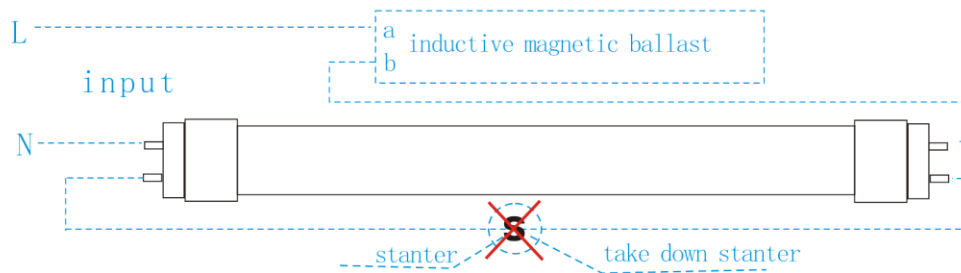
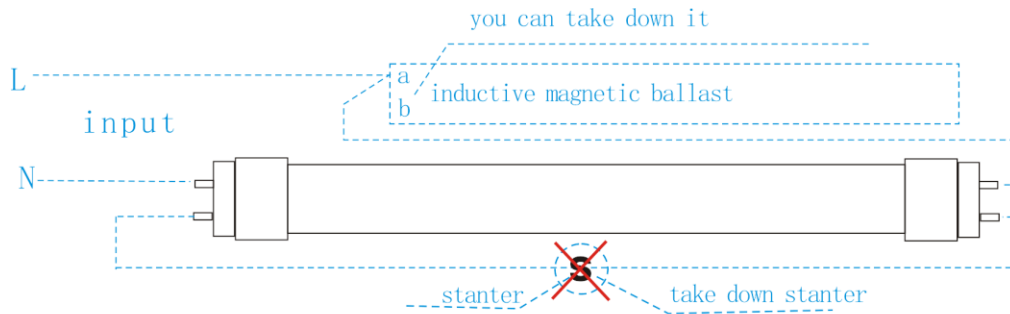
6、Assembly Technology Drawing



7、 Wiring instruction

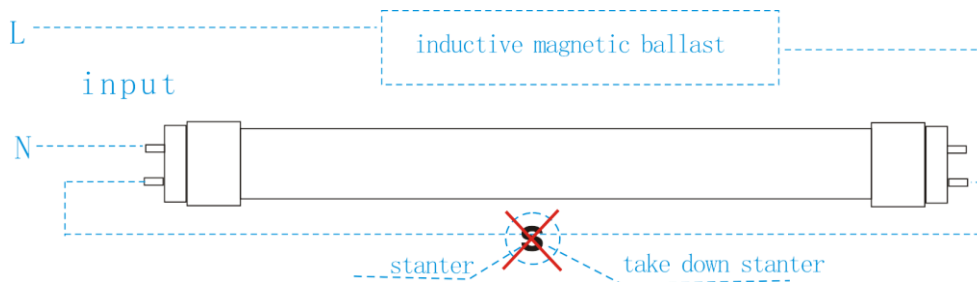
7.1 The Graphic Illustration for the Exchange of Inductive Ballast LED Tube

- (1) Switch off the power before installation
- (2) Take down the starter
- (3) Replace the traditional lamp with LED tube



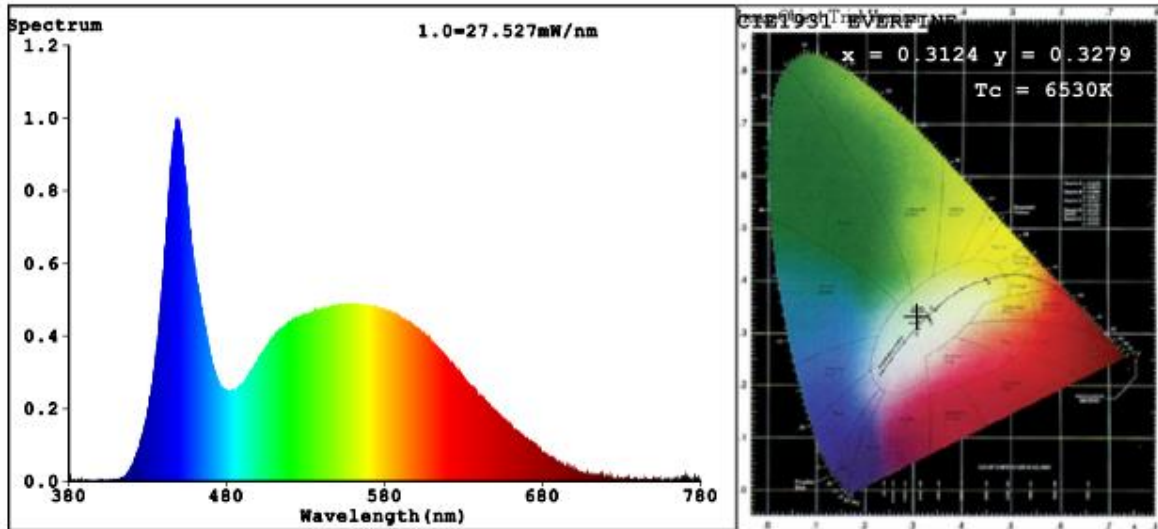
7.2 The best energy-saving case

- (1) Switch off the power before installation
- (2) Take down the starter
- (3) Connected A and B of the inductive ballast, A and B form a short circuit, connecting to a terminal. Or take down the ballast.



8、 Test Report

Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3124$ $y=0.3279$ / $u'=-0.1980$ $v'=-0.4677$
 Tc=6530K Dominant WL:Ld =488.4nm Purity=7.5%
 Red Ratio:R=14.6% Peak WL:Lp=448.1nm HWL:Lhd=24.8nm
 Render Index:Ra=82.8
 R1 =81 R2 =86 R3 =89 R4 =83 R5 =82 R6 =81 R7 =88
 R8 =71 R9 =8 R10=67 R11=82 R12=60 R13=82 R14=94 R15=77

Photo Parameters:

Flux = 2548.6 lm Eff. : 112.62 lm/W Fe = 8.265 W

Electrical parameters:

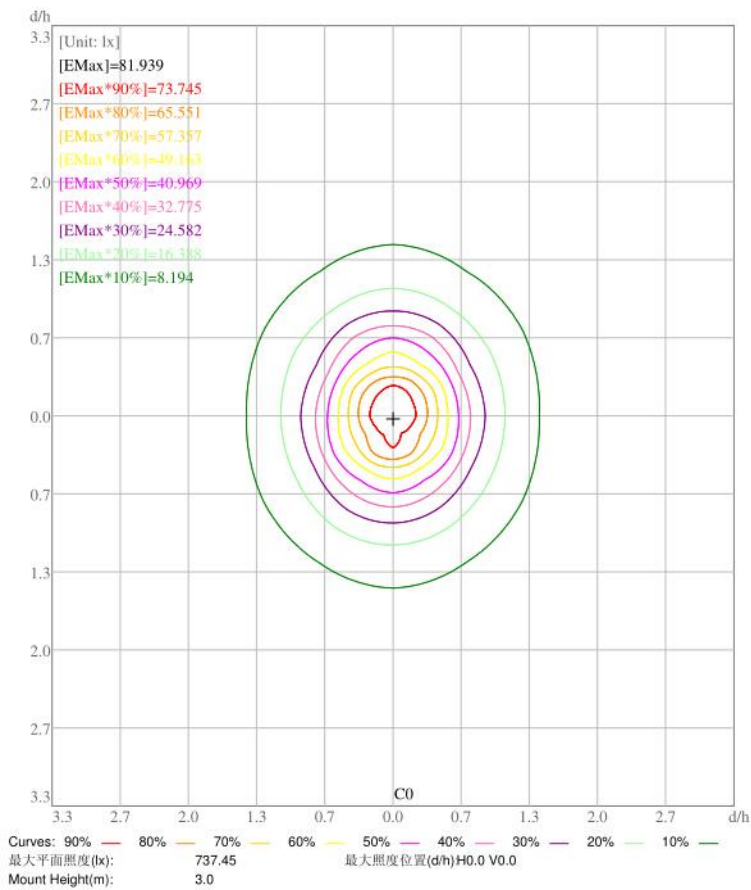
V = 223.3 V I = 0.10134 A P = 22.63 W PF = 0.9337

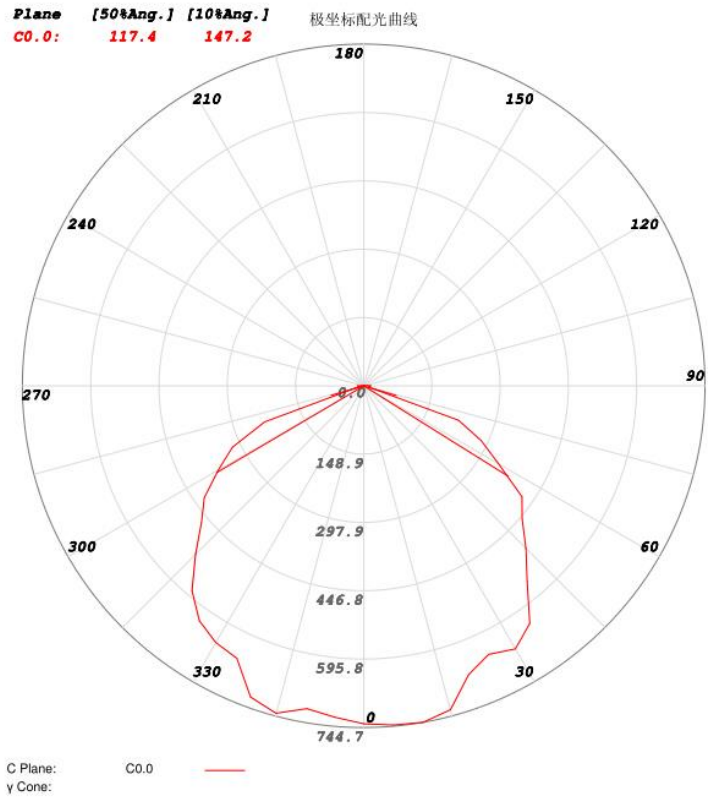
LEVEL:OUT WHITE:ANSI_6500K

Status: Integral T = 337 ms Ip = 49211 (75%)

9、Optical Characteristics

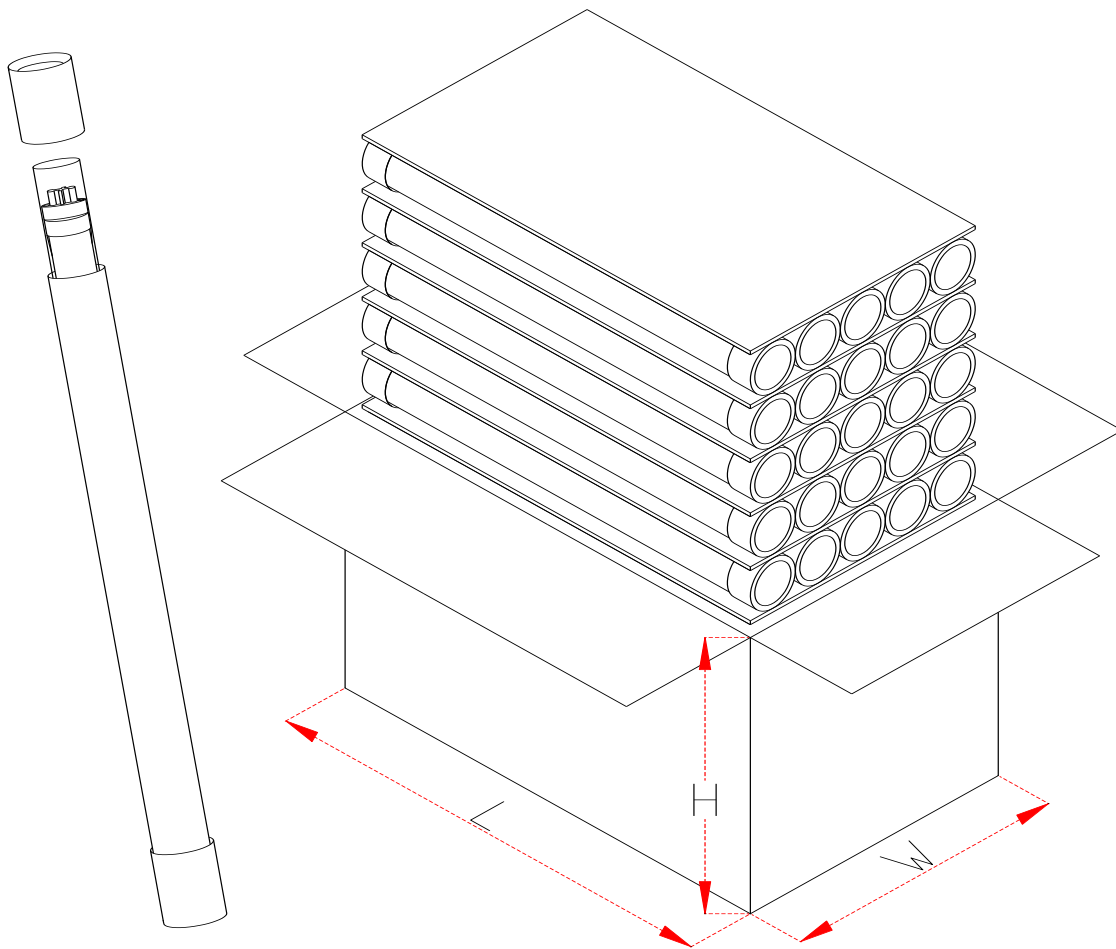
平面等照度曲线





10、Package

Type	Pcs/carton	NG/carton	Carton size
WS-UL22WT8-12	25pcs	14.8kg	1250×230×220mm



11、 Attentions

1. The working voltage is AC100-277V. Pls ensure the voltage when connected the power supply. The light would be destroyed permanently if connected with higher voltage.
2. After connecting with the power supply, no contact between the relative metal and the light base to prevent electric shock.
3. After unwrapping the package or before using it, pls check whether it is destroyed due to transportation. If there is any damage, pls stop using it to inform supplier. The product only could be used under intact conditions.
4. To ensure the product could be used normally, pls strictly follow the introduction and attention. The supplier shall not be responsible due to any of the damage caused by illegal operation.
5. Pls don't connect the LED tube and power supply in the high temperature condition. The lifespan would be shorted when it is employed under the higher temperature. It is recommended that the product should be used in room temperature.
6. Before installing, pls ensure the environment is suitable and it is recommended that it should be installed on stable place in case of vibration.
7. Due to the temperature of the lamp's surface could reach to 50°C, it is recommended that there is no devices which is sensitive to heat. To ensure the suitable working temperature, pls keep it from heat resources and be used in moderate environment.