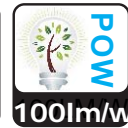


Winwell LED Lighting Limited



■ Dimensions

■ Extremely Long Life - 5 Year Guarantee

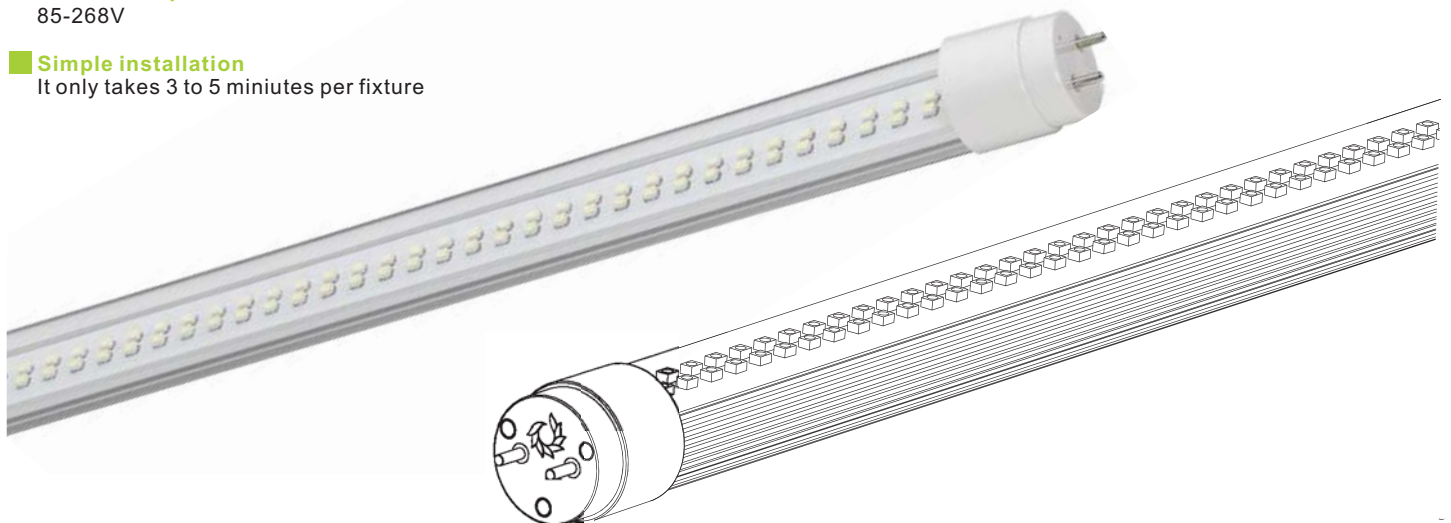
50,000 hours or 5.7 when on 24/7
Up to 16 years in an office enviroment

■ Universal Input Current

85-268V

■ Simple installation

It only takes 3 to 5 minutes per fixture



Winwell LED Lighting Limited

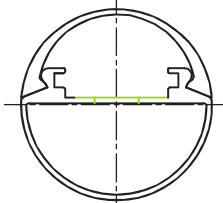
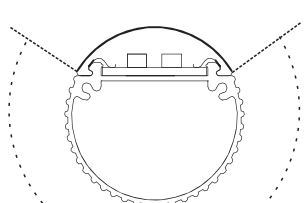
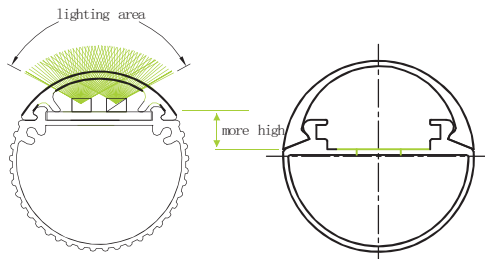

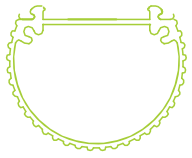
Tel: 0086-755-29309842

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E-mail : info@winwelled.com

Skype : Shining_1019 MSN: shining.qi@hotmail.com

Why Choose Winwell T8

section				
	1/2 round	2/3 round		2/3 round 4th XT8
	Before	After	luminous efficacy	
	length: 43.2649mm	length: 73.4508mm	The T8 has more effective light transmittance over 92%, as led chip is more is closer than lamp shade.	
heat dissipation			Two thirds of the circle, the heat dissipation area is largest in the market. The additional effective heat dissipation area increases 69% and the speed of heat dissipation increases 50% at the same time. In this way, the LED in the lowest consumption and reach the longest life span.	
	Additional effective heat dissipation area $= (73.4508 - 43.2649) / 43.2649$ $= 69.76\%$			

Packing



Hight Voltage Testing >3.75KV



Rubycon
Capacitance

The best design
best materials
Rubycon capacitance



PE(power effective)
90%
PF(power factor)
98%



Best Power Saving

Large-size chip
reach 146lm/w



10X23mil
Large-Size Chip

Epistar
Large-size chips
longer life



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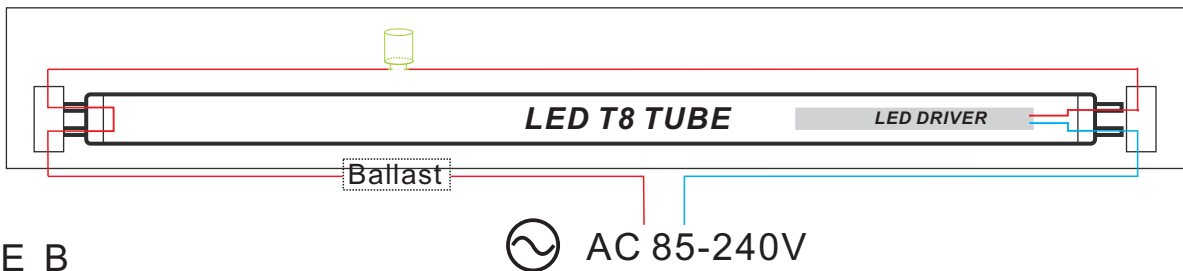
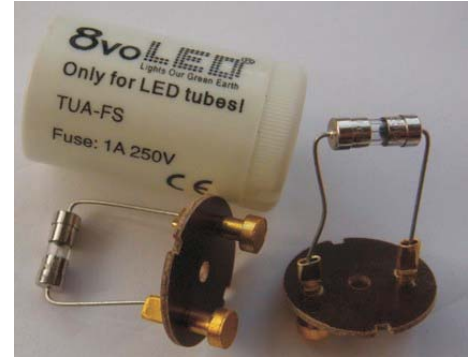
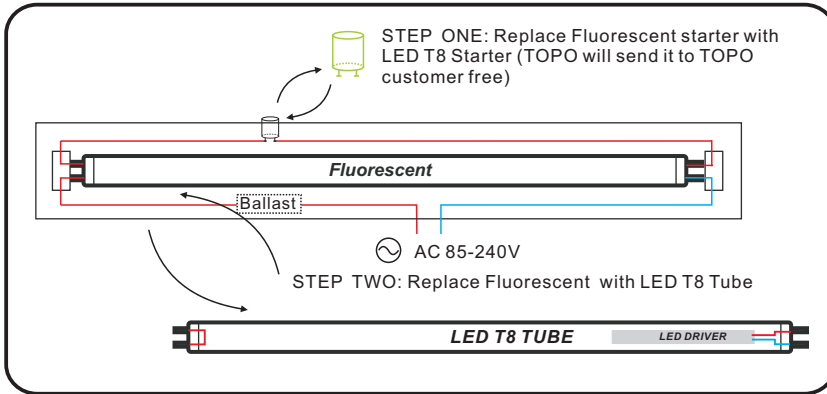
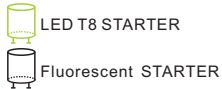
E-mail : info@winwellled.com

Skype : Shining_1019 MSN: shining.qj@hotmail.com

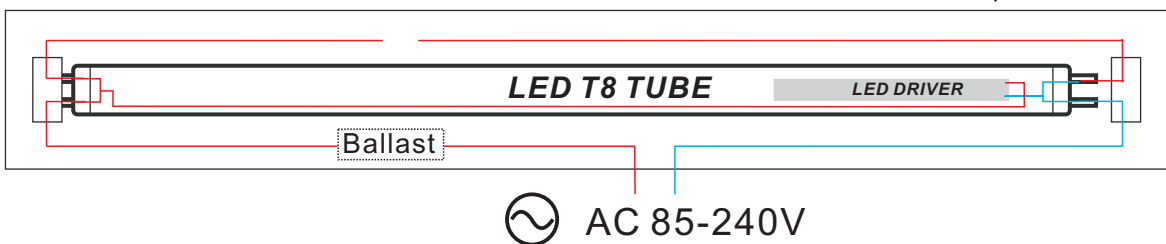
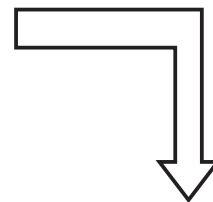
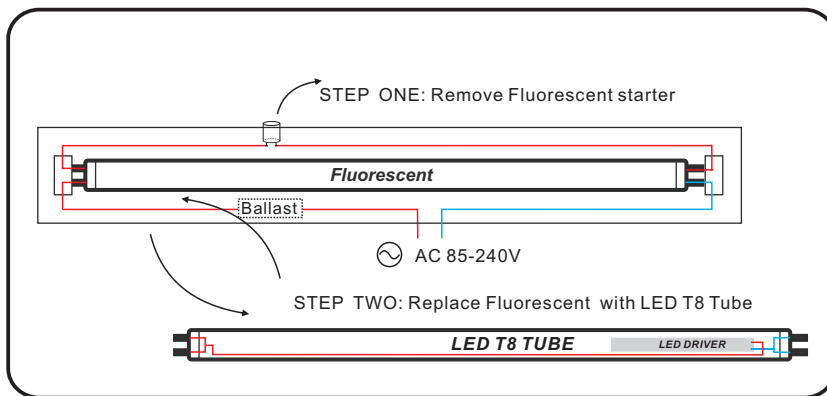
LED T8 TUBE INTERNAL STRUCTURE AND THE INSTALLATION

- * Before installing, check the product model. TYPE A or TYPE B. According to the following instructions for installation.
- * Magnetic ballast, we can keep, if it is the electronic ballast must be removed, and connected the wires.
- * We still recommend to remove the ballast, the ballast will consume power and reduce the PF value.

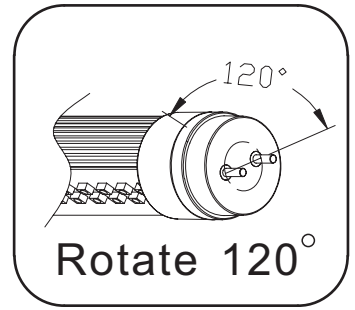
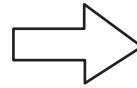
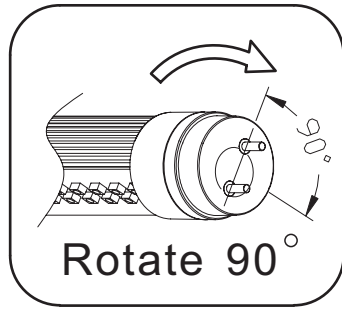
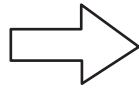
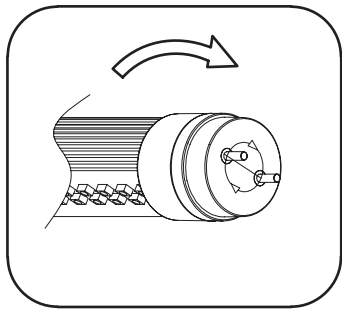
TYPE A



TYPE B



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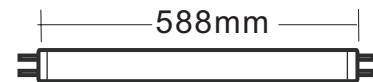
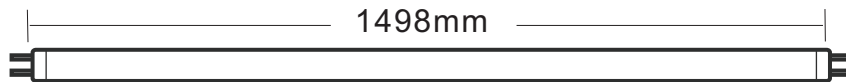
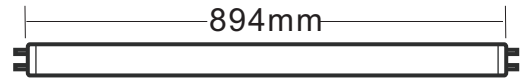
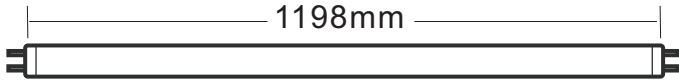
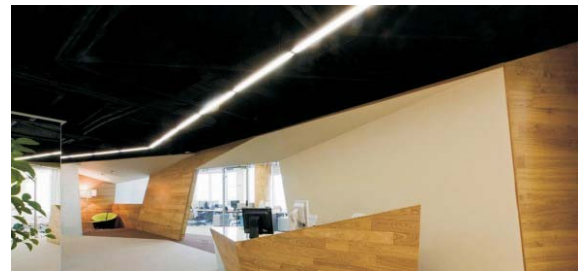
E-mail : info@winwelled.com

Skype : Shining_1019 MSN: shining.qi@hotmail.com

Address : Xinyongfeng Industrial Park,Sanzhuli Village,LongHua Town,Baoan District,Shenzhen,China.



Compared with traditional fluorescent tube, LED tube is lighting in single side. If the base of the T8 is tilted, the light angle will be deviated. Rotated T8 gives your T8 a good performance in every angle. T8---Make the Change



Very Energy Efficient

Up to 70% more energy efficient than T8 & T12 fluorescents

Features

Color in KeLvin: 2700K - 7500K
Size: T8
Length: 1"-8" in length

Safer than Fluorescent

Solid state - no glass
No vacuum or pressurized vessel
Impact and shock resistant
Cool to the touch

Recyclable

No toxic mercury
No fluorescent disposal danger or costs

Model Number	60CM High Bright T8 Descriptions							
	Color/CCT	SHELL Type	CRI	Luminous Flux (lm)	LED Q'ty	Dimension (length)	Input Voltage	Power (w)
WW-T8-600-9W	Daylight White 5700-6000K	Clear Shell	75	950	48pcs 2835SMD	588mm	AC 100V 240V	10±1
WW-T8-600-9W	Warm White 3900-4300K	Clear Shell	78	900				
WW-T8-600-9W	Daylight White 5700-6000K	Frost Shell	75	850				
WW-T8-600-9W	Warm White 3900-4300K	Frost Shell	78	800				

Model Number	90CM High Bright T8 Descriptions							
	Color/CCT	SHELL Type	CRI	Luminous Flux (lm)	LED Q'ty	Dimension (length)	Input Voltage	Power (w)
WW-T8-900-14W	Daylight White 5700-6000K	Clear Shell	75	1450	216pcs 3528 SMD	894mm	AC 100V 240V	15±1
WW-T8-900-14W	Warm White 3900-4300K	Clear Shell	78	1400				
WW-T8-900-14W	Daylight White 5700-6000K	Frost shell	75	1350				
WW-T8-900-14W	Warm White 3900-4300K	Frost shell	78	1300				

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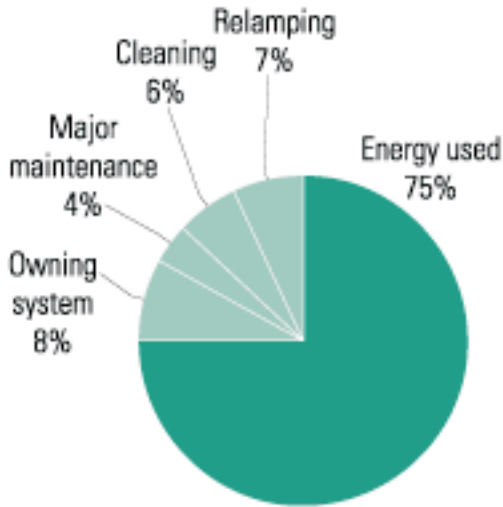
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Address : Xinyongfeng Industrial Park,Sanzhuli Village,LongHua Town,Baoan District,Shenzhen,China.

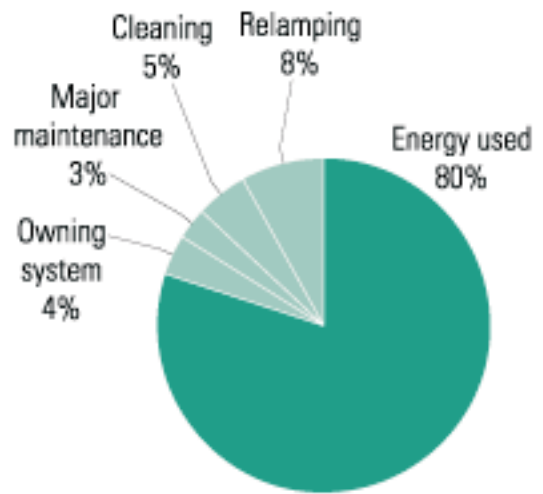
Model Number	120CM High Bright 240PCS 3528SMD T8 Descriptions							
	Color/CCT	SHELL Type	CRI	Luminous Flux (lm)	LED Q'ty	Dimension (length)	Input Voltage	Power (w)
WW-T8-120-18W	Daylight White 5700-6000K	Clear Shell	75	1900	96pcs 3528 SMD	1198mm	AC 100V 240V	17±1
WW-T8-120-18W	Warm White 3900-4300K	Clear Shell	78	1850				
WW-T8-120-18W	Daylight White 5700-6000K	Frost Shell	75	1800				
WW-T8-120-18W	Warm White 3900-4300K	Frost Shell	78	1750				

Model Number	150CM High Bright T8 Descriptions							
	Color/CCT	SHELL Type	CRI	Luminous Flux (lm)	LED Q'ty	Dimension (length)	Input Voltage	Power (w)
WW-T8-150-23W	Daylight White 5700-6000K	Clear Shell	75	2300	336pcs 3528 SMD	1498mm	AC 100V 240V	24±1
WW-T8-150-23W	Warm White 3900-4300K	Clear Shell	78	2250				
WW-T8-150-23W	Daylight White 5700-6000K	Frost Shell	75	2200				
WW-T8-150-23W	Warm White 3900-4300K	Frost Shell	78	2150				

A.High-performance T8 Fluorescent Lamp/Ballast Systems
Annualized cost = \$28.03 per two-lamp luminaire per year.



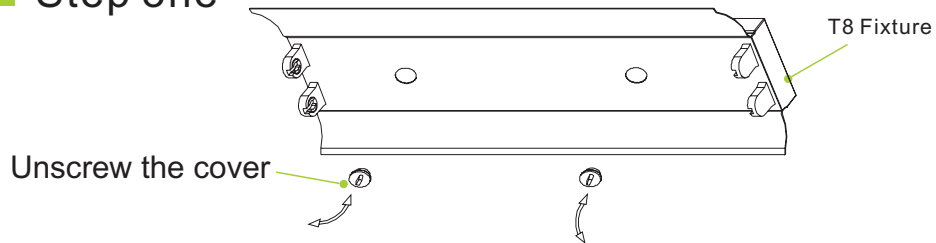
B.Standard T8 Fluorescent Lamp/Ballast Systems
Annualized cost = \$30.43 per two-lamp luminaire per year.



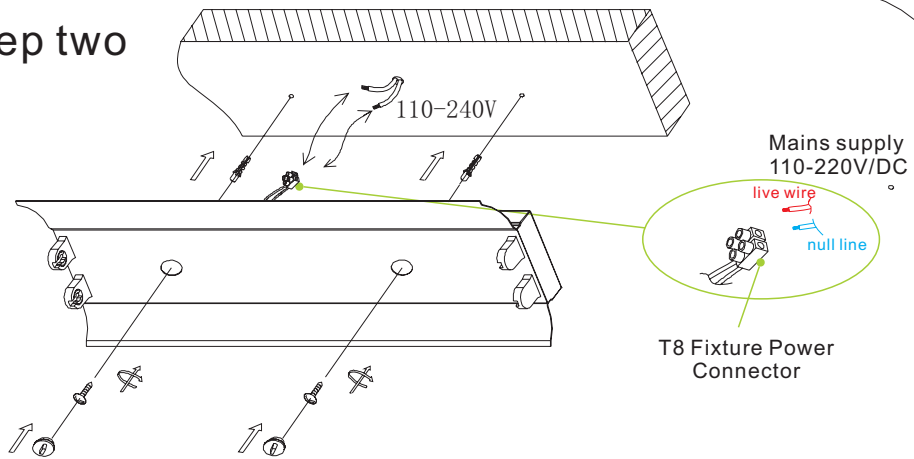
Note: We assume 3,000 hours of annual operation, motion-sensor controls, a discount rate of 8 percent, electricity at \$0.10 per kilowatt-hour, major maintenance -- such as a ballast replacement -- once every 30 years, cleaning every 3 years, and relamping every 8 years(A) or every 6 years(B). These calculations are for a 20-year life in a 100 percent cooling-load environment such as Miami or Phoenix.

HOW TO INSTALL T8 WITH FIXTURE

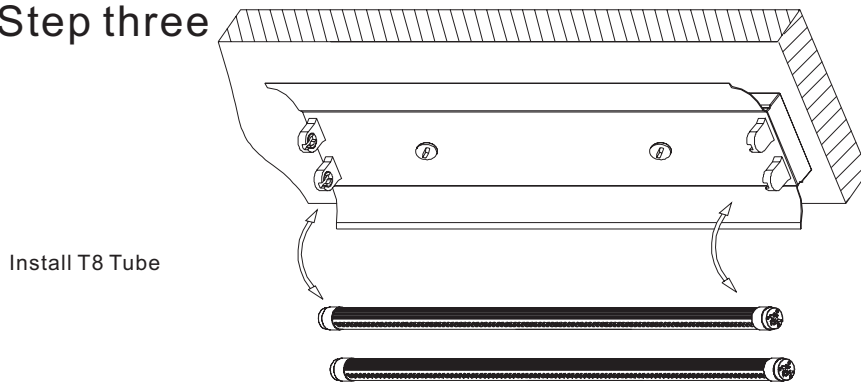
■ Step one



■ Step two

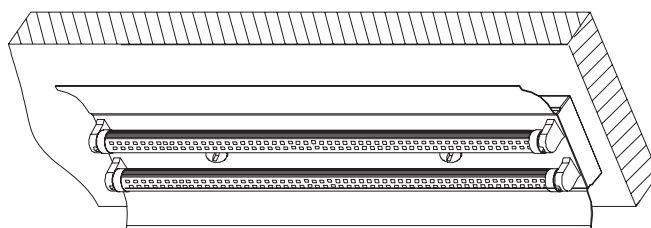


■ Step three

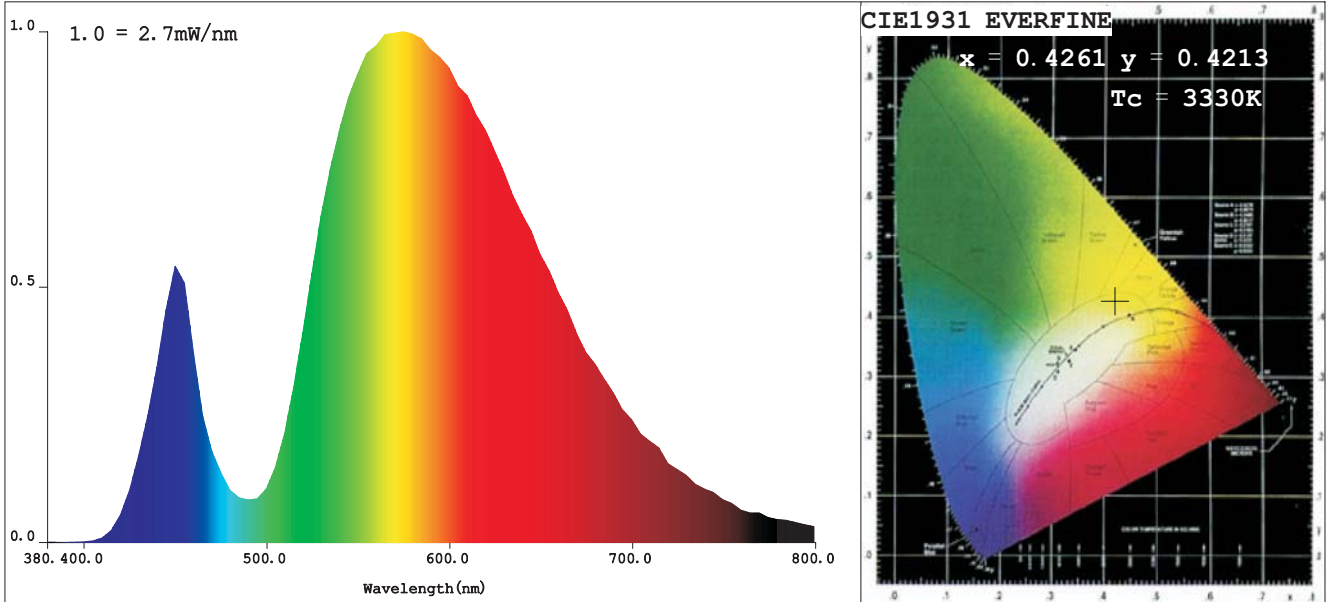


■ End

OK



Light Source Test Report



CIE Color Parameters:

Chromaticity Coordinate: $x=0.4285$ $y=0.4067$ / $u=0.2439$ $v=0.3476$ ($duv=2.48e-0.03$)

CCT: $T_c = 3330k$ Prcp WaveL: $\lambda = 582.4nm$ Purity=50.8%

Peak WaveL: $p=578nm$ Half Width: $p=135.8nm$ Ratio: $R=19.5\%$ $G=79.6\%$ $B=1.1\%$

Average Wave: $\lambda 587nm$

Rendering Index: $R_a=78.8$

R1 =76	R2 =85	R3 =90	R4 =78	R5 =71	R6 =70	R7 =94	R8 =65
R9 =-26	R10=32	R11=48	R12=17	R13=60	R14=87	R15=58	

Photo Parameters:

Flux: =1924(lm) Luminous Efficacy:100.6(lm/W) Luminous Power: $P=3.572(W)$

Electrical Parameters:

$U=220.5V$ $I=0.089A$ $P=19.11W$ $PF=0.97$

Instrument Status:

Scan Range:380.0nm-800.0nm
REF = 16908

Interval:5.0nm

$I_p = 22465(G=5, D=64)$

TMP(PMT) = 32.5degrees centigrade Test Mode: Fast Test

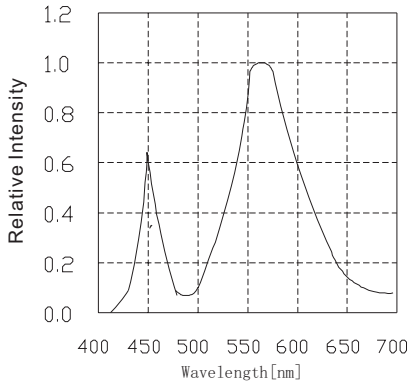
Product Type:XT8-120C-WW2
Instrument:PMS-60 System
Temperature:20.0deg
Test Operator:

Manufacturer:
Test Department:
Humidity:65.0%
Test Date:

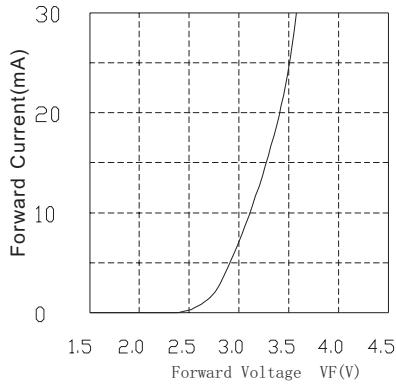
Typical optical characteristics curves

Spectral Distribution

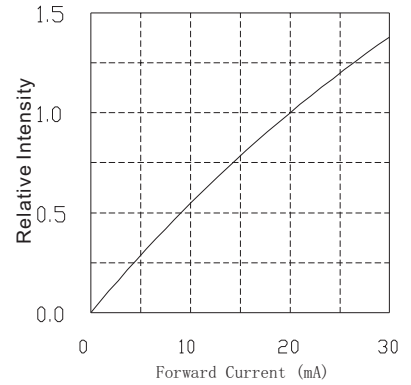
Relative Intensity vs. Wavelength (Ta=25°C)



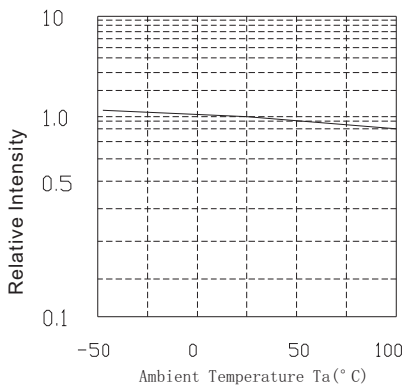
Forward Current vs. Forward Voltage (Ta=25°C)



Relative Intensity vs. Forward Current (Ta=25°C)

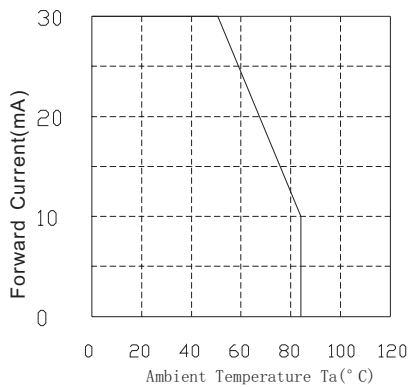


Relative Intensity vs. Ambient Temperature



Derating

Ambient Temperature vs. Maximum Forward Current



Forward Current vs. Chromaticity (Ta=25°C)

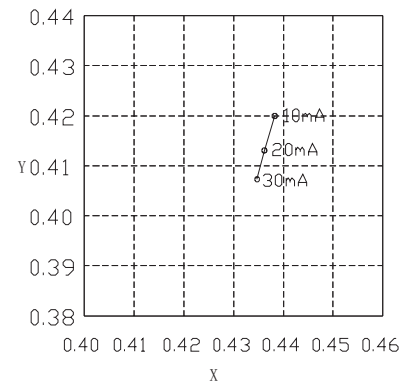
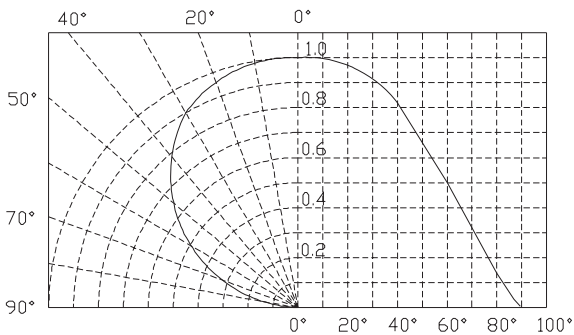
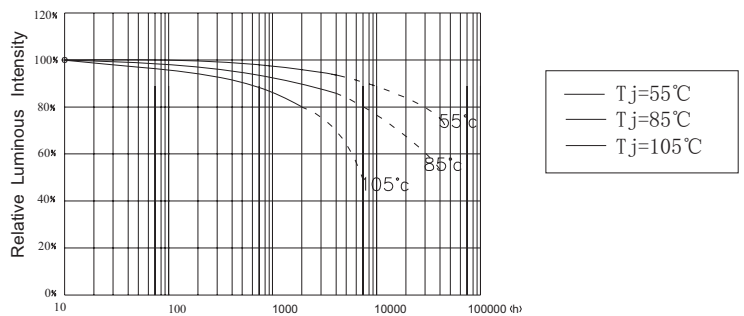


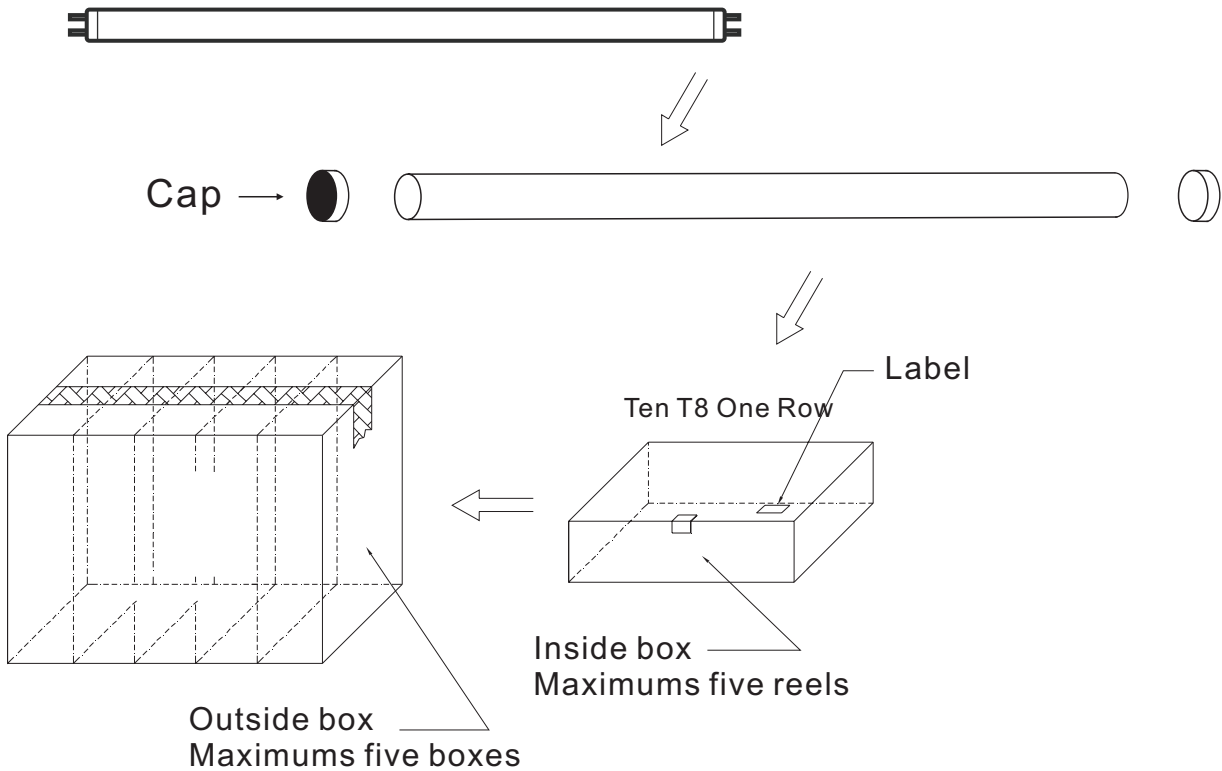
Diagram characteristics of radiation



Affect of Tj on Luminous Maintenance
 (If=40mA)
 (Dot line: Expected Life)



■ PACKING INFORMATION



■ STORAGE CONDITIONS

■ Before opening the package:

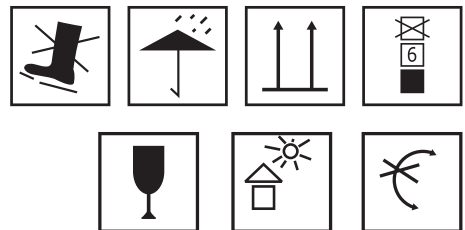
The LEDs should be kept at 30 °C or less and 70%RH or less. The LEDs should be used within a year. When storing the LEDs, moisture proof packaging with absorbent material (silica gel) is recommended.

■ After opening the package:

The LEDs should be kept at 30 °C or less and 50%RH or less. If unused LEDs remain, they should be stored in moisture proof packages, such as sealed containers with packages of moisture absorbent material (silica gel). It is also recommended to return the LEDs to the original moisture proof bag and to reseal the moisture proof bag again.

■ SAFETY INFORMATION

- The T8 and its components can not be mechanically pressed.
- Correct electrical polarity needs to be observed.
- Ensure the power is adapt to operate the total load.
- Installation must not damage the conducting paths on the circuit board.
- Parallel connection is highly required as safe electrical operation mode.
- Pay attention to ESD precautions during assembling.
- Assembly of LED modules includes power supplier must be appropriately.
- When installing on metallic or other surface, an electrical isolation point between strip and the installing surface is recommended.
- Only qualified person allowed to operate installations.



Damaged by corrosion will not be materials defect claim. It is the user's responsibility to provide a suitable protection against moisture, condensation and other harmful elements.