

Tube T8 600 – 2ft 9W(Glass Tube)

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1. Specification:

A. General Data

Model	Tube T8 600 3000K	Tube T8 600 4000K	Tube T8 600 5000K	Tube T8 600 6500K
P/N	DELS- T83400960AE11	DELS- T84400960AE11	DELS- T85400960AE11	DELS- T8C400960AE11
Rated Voltage	230 VAC	230 VAC	230 VAC	230 VAC
Frequency	50 Hz	50 Hz	50 Hz	50 Hz
Rated Wattage	9W	9W	9W	9W
Deviation Tolerance of Wattage	±10 %	±10 %	±10 %	±10 %
Rated Current	0.05A	0.05A	0.05A	0.05A
Maximum Input Current	0.058A	0.058A	0.058A	0.058A
Dimmable	NO	NO	NO	NO
Beam Angle	200°	200°	200°	200°
Stroboscopic effect metric (SVM)	0.4	0.4	0.4	0.4
Flicker metric (PstLM)	1	1	1	1
Energy Efficiency Class(EEC)	E	E	E	E
Peak luminous intensity (cd)	Non-directional			
R9 CRI	1	1	1	1
Survival factor	0.9	0.9	0.9	0.9
Safety requirements	CE	CE	CE	CE
Applicable Environments	IP20	IP20	IP20	IP20
Displacement Factor	0.5	0.5	0.5	0.5
Base	G13	G13	G13	G13
Photobiological Group	RG 0	RG 0	RG 0	RG 0

* Displacement factor tolerance +/- 10%

B. Light Data

Color	Warm white	Neutral White	Daylight	Cool White
Color Temperature (CCT)	3000K	4000K	5000K	6500K
Rated Lumen Output(Total)*	990lm			
Color Rendering Index	≥ 80			
Efficacy(Total)*	110 lm/W			
Color Consistency**	6 Step MacAdam Ellipse (6 SDCM)			

*tolerance +/- 10%

** 3000K center point (0.43387, 0.40319) ; 4000K center point (0.38177, 0.37959) ; 5000K center point (0.34464, 0.35506) ; 6500K center point (0.31230, 0.32825)

C. Lifetime

(Supplied Voltage:AC230V; Ambient Temperature: 25°C)

Lumen Maintenance Factor	70%of the rated lifetime
Rated Lifetime – L_{70B50}	15,000 hrs
Lumen Maintenance factor	94.8%

D. Temperature Operation

Normal operation temperature	-20°C ~ 40°C
Relative Humidity	10%~ 90%

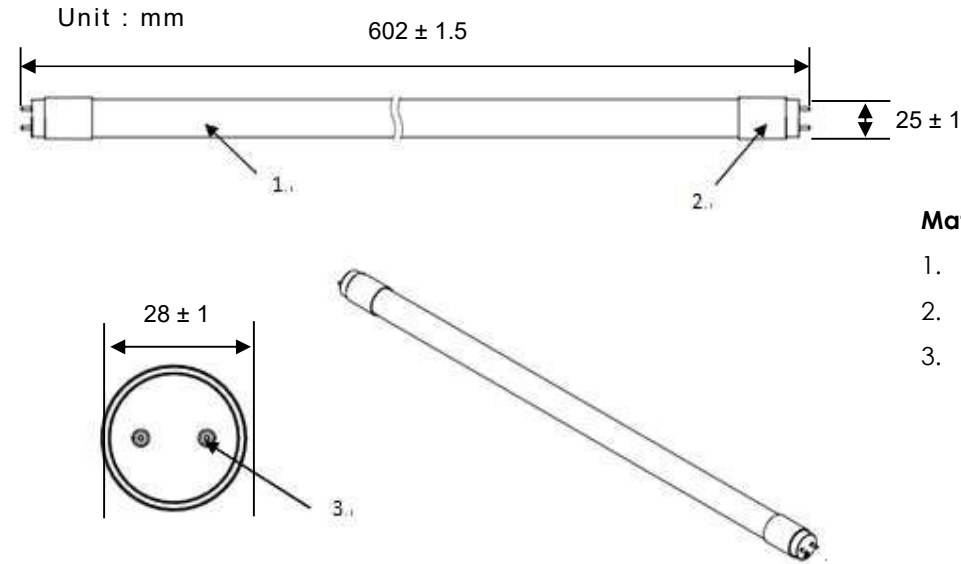
E. Geometric Data

Maximum overall length	602 ± 1.5 mm
Glass cover diameter	25 ± 1 mm
End cap diameter	28 ± 1 mm
Mass	100 ± 10%

F. Environmental relevant materials

Mercury (Hg)	Comply with RoHS Directive 2011/65/EU
Lead (Pb)	
Cadmium(Cd)	
Hexavalent Chromium(Cr6+)	
Polybrominated Biphenyls(PBBs)	
Polybrominated Diphenyl Ethers(PBDEs)	
Bis (2-ethylhexyl) phthalate(DEHP)	
Butyl benzyl phthalate(BBP)	
Dibutyl phthalate(DBP)	
Diisobutylphthalate(DIBP)	

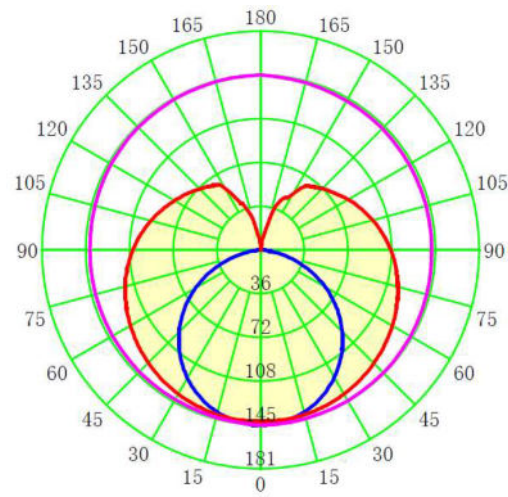
2. Outline Drawing



Material Information

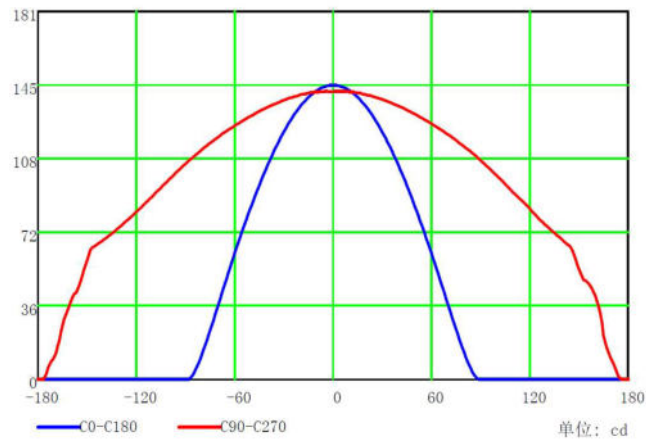
- 1. Cover : Glass
- 2. End cap : Plastic
- 3. Pin : Metal

3. Light Distribution Curve



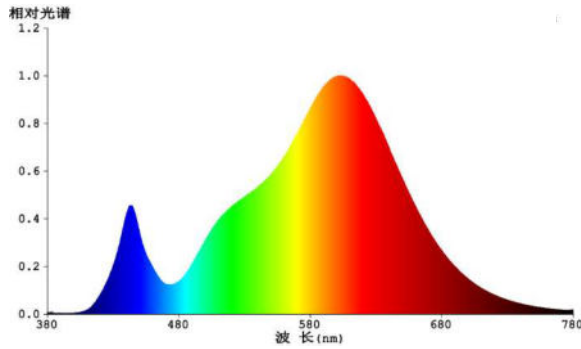
平均光束角(50%) : 192.2° 单位: cd

— C0-C180 — C90-C270 — G0

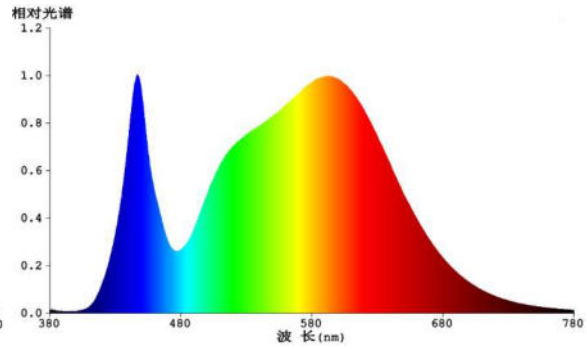


4. Spectrum Distribution

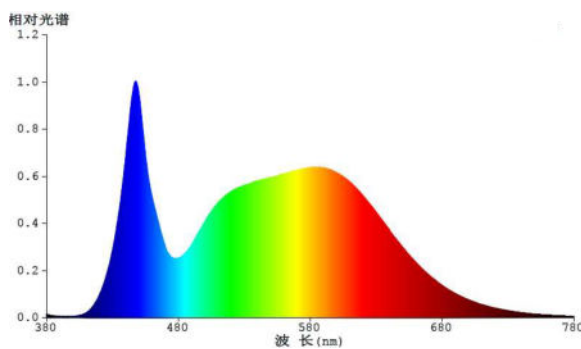
● 3000K Color Temperature



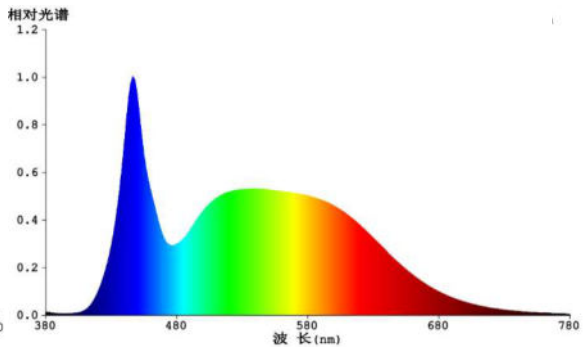
● 4000K Color Temperature



● 5000K Color Temperature

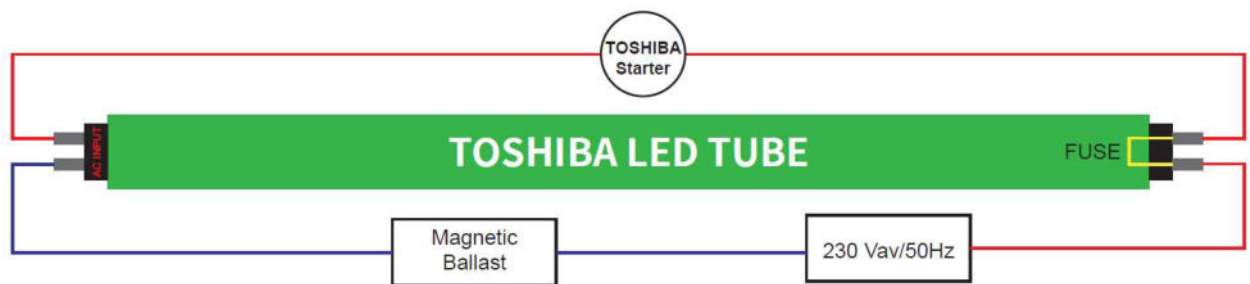


● 6500K Color Temperature



5. Installation Options

- Retrofitting in a CCG luminaire
 - (1) Make sure that the supply voltage is disconnected
 - (2) Remove the conventional lamp
 - (3) Remove the starter and power factor correction capacitor
 - (4) Install TOSHIBA own starter.
 - (5) Rewire the luminaire as shown in the circuit diagram below
 - (6) Insert LED tube into lamp holders and turn on the supply voltage to check the light distribution



NOTE :

- It can't be guaranteed LED tube can match up all kinds of electromagnetic ballasts.

6. Warnings

- Before replacing, turn off power and let lamp cool to avoid electrical shock or burn.
- The LED tube must not be damaged or operated in a damaged condition.
- If having flickering issue on LED tube when installing with the electromagnetic ballast, please change suitable electromagnetic ballasts.

7. Cautions

- Not intended for use with emergency light fixtures or exit lights.
- When operating with CCG (Electromagnetic Ballast), if the conventional starter is not removed, the LED tube will start blinking. Switch off immediately, the LED tube can be damaged.

8. Notes

- All characteristics are estimated at room temperature (25°C), free air burning, base up burning position and at rated voltage. In view of the complex manufacturing process for light above for the technical LED parameters are merely statistical values that do not necessarily correspond to the actual technic individual products may vary from the typical values.
- The LED tube emits light only with a limited angle, not like a fluorescent tube with 360 degree output.
- Due to the characteristic light distribution of the LED tube, the current luminaire light characteristic will likely change.

9. Logistic information

Model	Tube T8 600 3000K	Tube T8 600 4000K	Tube T8 600 5000K	Tube T8 600 6500K
Pieces per pack	1	1	1	1
EAN code on pack	4711112387908	4711112387915	4711112387922	4711112387939
Size of pack	645x30x30 mm			
Weight per pack (G.W)	0.125 kg ± 10%			
Packs per inner box	N/A	N/A	N/A	N/A
EAN code on inner box	N/A	N/A	N/A	N/A
ITF code on inner box	N/A	N/A	N/A	N/A
Size of inner box	N/A	N/A	N/A	N/A
Weight per inner box(G.W)	N/A	N/A	N/A	N/A
Packs per outer box	25			
EAN code on outer box	N/A	N/A	N/A	N/A
ITF code on outer box	14711112387905	14711112387912	14711112387929	14711112387936
Size of outer box	640*170*170 mm			
Weight per outer box(G.W)	3.6 kg ± 10%			

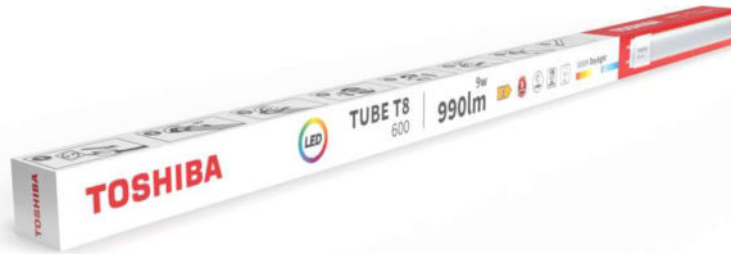
Tube T8 600 3000K



Tube T8 600 4000K



Tube T8 600 5000K

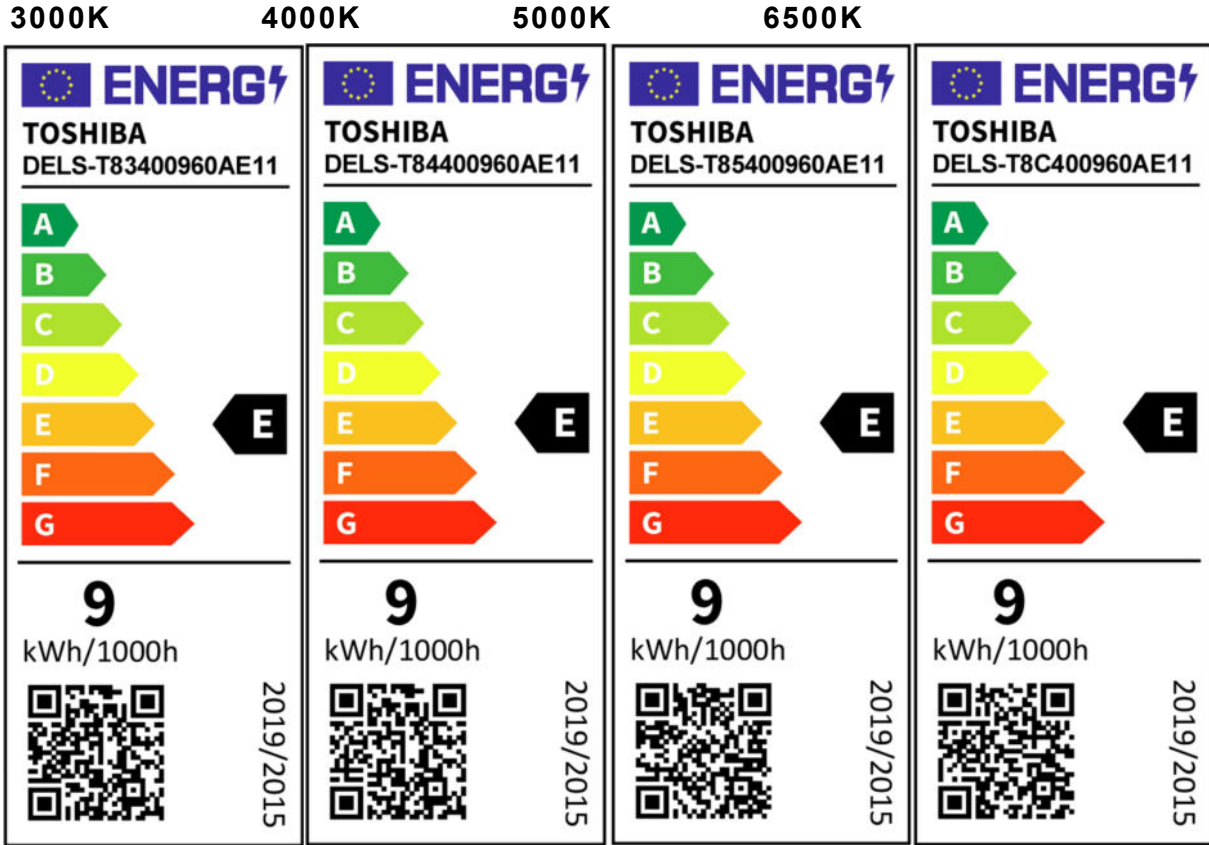


Packing Photograph

Tube T8 600 6500K



10. ERP Label



11. Conformity

2014/35/EU; Low Voltage Directive	EN 62776 : 2015 、 EN 62471 : 2008 、 EN62493 : 2015
2014/30/EU; EMC Directive	EN 55015: 2019+A11 、 EN 61000-3-2:2019 、 EN 61000-3-3: 2013+A1 EN 61547:2009
2009/125/EC; ErP Directive	(EU) 2019/2015 、 (EU) 2019/2020 、 (EU) 2021/340 、 (EU) 2021/341
2011/65/EU+(EU)2015/863; RoHS Directive	EN 50581: 2012

12. Applicable countries

Albania ,Austria , Belgium , Bulgaria , Croatia , Cyprus , Czech , Denmark , Estonia , Finland , France , Georgia
Germany ,Greece , Iceland , Ireland , Italy , Luxembourg , Malta , Morocco , Netherland , Norway , Portugal
Romania ,Serbia , Spain , Sweden , Switzerland , Tunisia ,U.K

Note : The requirement of each country will be reflected to the product specifications, when the products will be shipped to such country.

13. Manufacturer

EPILEDS TECHNOLOGIES, INC.