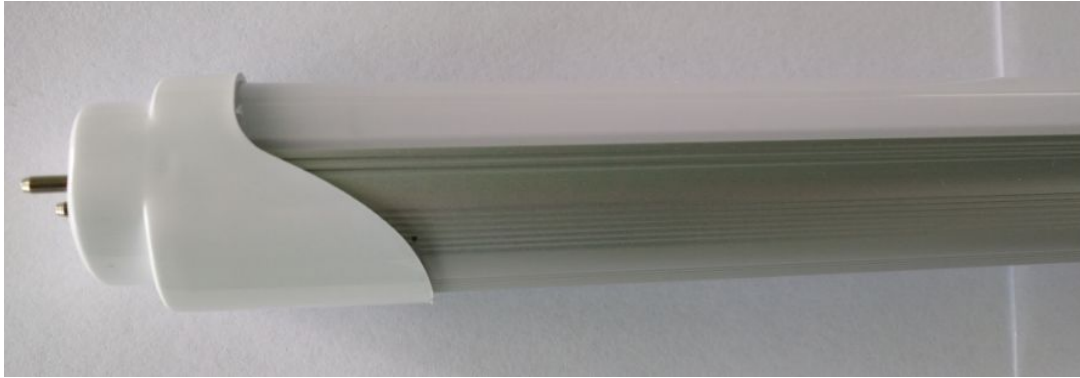




SPECIFICATION FOR APPROVAL



Customer : _____
Products Name : LED T8 Tube
Our Model : LUM-T8H21-9W
Customer model : _____

Approved by : _____

ECR history

version	issue date	Description of amendment/additional
A		

1. Specification

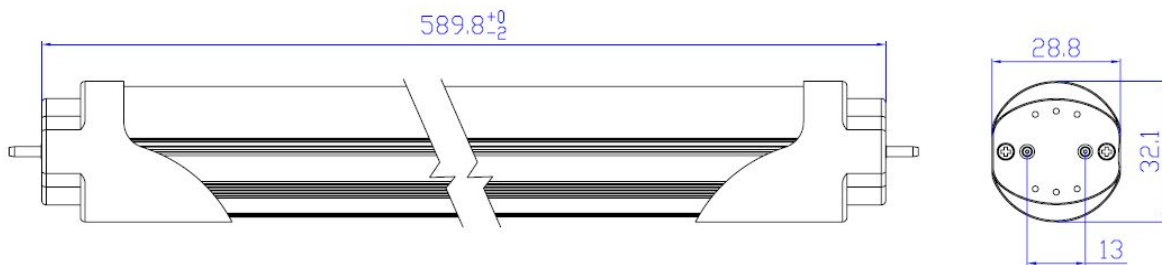
1-1. Environment

	Spec.			
	unit	Typical	min	max
Storage temp.	(degC)	25	-20	60
Operating temp.	(degC)	25	-20	40
Storage humidity	(%RH)	65%	10%	90%
Operating humidity	(%RH)	65%	10%	90%

1-2. Geometry Property

Dimension & Drawing of products

	Spec.			
	unit	Typical	min	max
Diameter	(mm)	28.8*32.1	28.3*31.6	29.3*32.6
Cut-Out	(mm)			
MOL	(mm)	589	588	590
Weight	(g)	90	85	95
Base		G13		



1-3. Electrical Performance

	spec			
	unit	Typical	min	max
Consumption Power	(w)	9	8.10	9.90
Input Voltage	(v)	230	220	240
Input Current	(mA)			
Power Factor		0.9		
Frequency	(Hz)	50/60		
Starting time * for EU	(sec)	0.5		
THD	%			

1-4. LED Chip/Package information LED

LED Vender	SHINEON/DACOL
model no.	2835
Number of LED per board	54

1-5. Photometric Performance

	unit	Spec.		Typical	
Color Temp.	(k)	2600	3400		
luminous flux (90deg cone) * for EU directional lamp	(lm)				
total Luminus flux	(lm)	680	350		
CBCP	(cd)				
CRI(Ra)	700				
Beam Angle	(deg)		120		
Efficiency	(lm/w)	76	39		
Dimming			NO		

Tolerance ± 6%

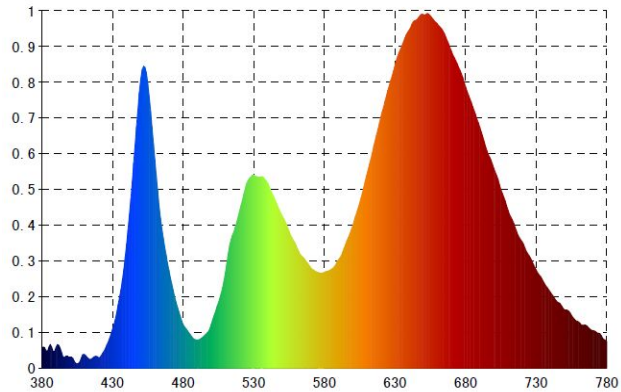
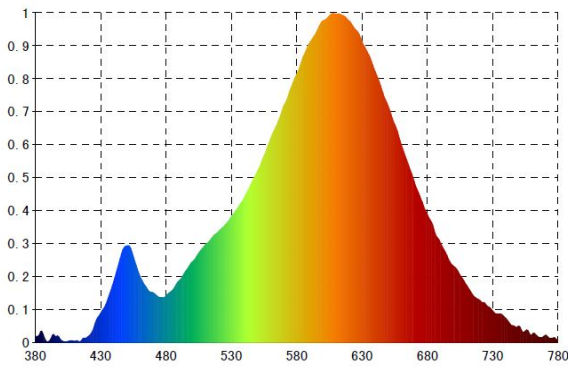
1-6. Lifespan

Lifetime(L70) at 25deg	(hours)	40000	@25°C
Switching Cycle	(times)	20000	30s on / 60s off

1-7. Light Distribution data / LED's Spectrum wave form

2600K (bread)

3400K (pork)



1-8. work in special fixture

enclosed (sealed) fixtures	(OK or N/A)	N/A
thermal-insulation fixtures	(OK or N/A)	N/A

1-9. compatibility for switch with indicator (Firefly switch)

compatible	(OK or N/A)	OK
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(330kΩ) for ~120V, (750kΩ) for ~230V, Pana_FireFlySW x 2-parallel, work properly ~ for JPN. * N/A- lamp w/transformer

2. Regulation Certification

On the way.

3.Pallatizing (drawing)

	Length (mm)	Width (mm)	Height (mm)	Weight (g)
giftbox				
Outer carton				
Unit weight with lamp				
Carton weight with full lamps inside				

For example) Package configuration

TBD

(attach Photo here)