



SPECIFICATION FOR APPROVAL



Customer : _____
Products Name : LED T8 Tube
Our Model : LUM-T8H21-18W
Customer model : _____

Approved by :

ECR history

version	issue date	Description of amendment/additional
A		

1. Specification

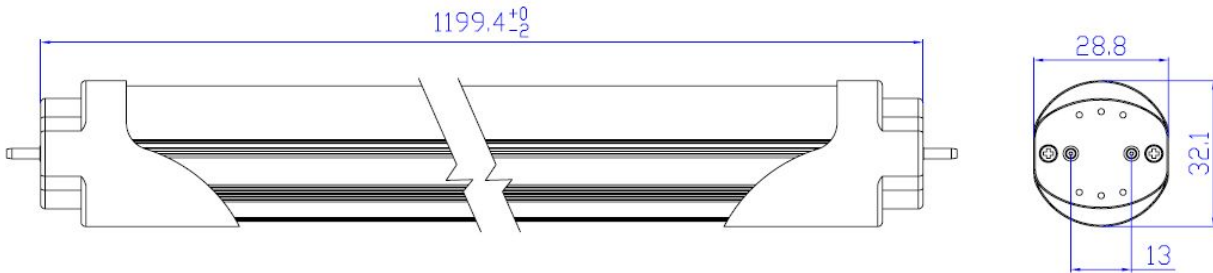
1-1. Environment

	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)	1198	1197	1199
Weight	(g)	200	180	220
Base			G13	



1-3. Electrical Performance

	spec			
	unit	Typical	min	max
Consumption Power	(w)	18	16.2	19.8
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	108

1-5. Photometric Performance

	unit	Spec.		
		Typical		
Color Temp.	(k)	2600	3400	
luminous flux (90deg cone) * for EU directional lam	(lm)			
total Luminus flux	(lm)	1300	850	
CBCP	(cd)			
CRI(Ra)	700			
Beam Angle	(deg)		120	
Efficiency	(lm/w)	72	47	
Dimming			NO	

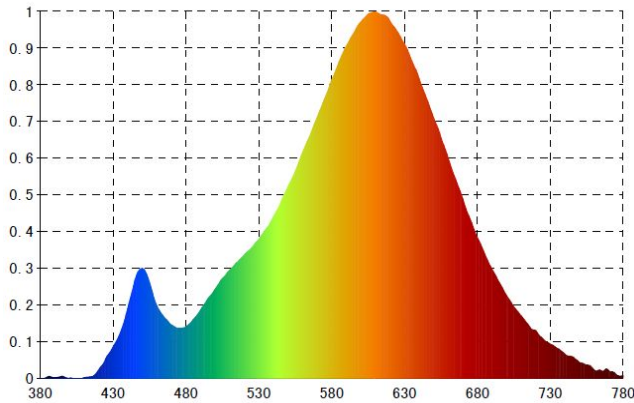
Tolerance ± 6%

1-6. Lifespan

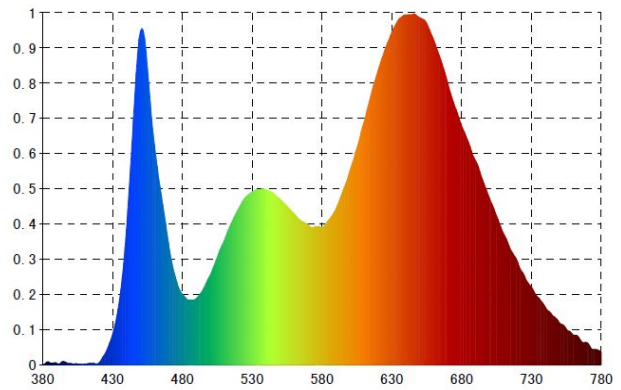
Lifetime(L70) at 25deg	(hours)	40000	@25°C
Switching Cycle	(times)	20000	30s on / 60s off

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)