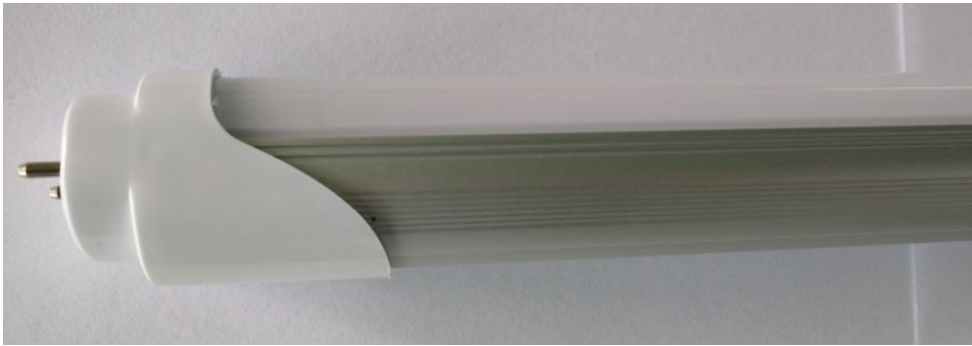




## SPECIFICATION FOR APPROVAL



Customer : \_\_\_\_\_  
Products Name : LED T8 Tube  
Our Model : LUM-T8H21-21W  
Customer model : \_\_\_\_\_

Approved by :

|  |
|--|
|  |
|--|

### ECR history

| version | issue date | Description of amendment/additional |
|---------|------------|-------------------------------------|
| A       |            |                                     |
|         |            |                                     |

## 1. Specification

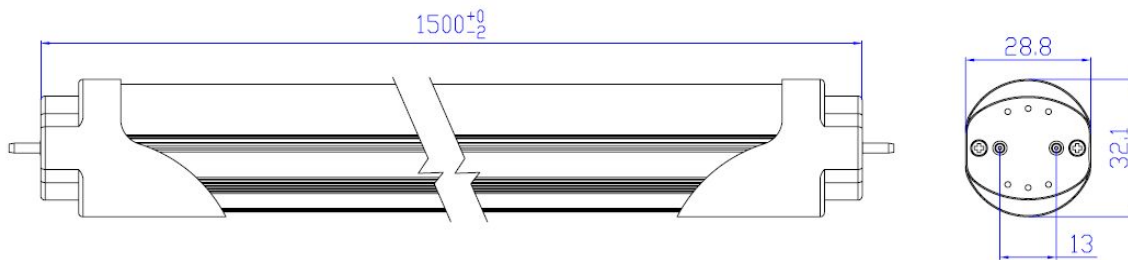
### 1-1. Environment

|                    | unit   | Typical | Spec. |     |
|--------------------|--------|---------|-------|-----|
|                    |        |         | 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

|          | unit | Typical   | Spec.     |           |
|----------|------|-----------|-----------|-----------|
|          |      |           | min       | max       |
| Diameter | (mm) | 28.8*32.1 | 28.3*31.6 | 29.3*32.6 |
| Cut-Out  | (mm) |           |           |           |
| MOL      | (mm) | 1499      | 1498      | 1500      |
| Weight   | (g)  | 320       | 288       | 352       |
| Base     |      |           | G13       |           |



### 1-3. Electrical Performance

|                        | unit  | Typical | spec  |      |
|------------------------|-------|---------|-------|------|
|                        |       |         | min   | max  |
| Consumption Power      | (w)   | 21      | 18.9  | 23.1 |
| 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 boad | 132           |

1-5. Photometric Performance

|   | unit   | Spec. |      | Typical |  |  |
|---|--------|-------|------|---------|--|--|
|   |        | 2600  | 3400 |         |  |  |
| Color Temp.   | (k)    | 2600  | 3400 |         |  |  |
| luminous flux (90deg cone) - for EU directional lam | (lm)   |       |      |         |  |  |
| total Luminus flux                                  | (lm)   | 1600  | 950  |         |  |  |
| CBCP  | (cd)   |       |      |         |  |  |
| CRI(Ra)   | 700    |       |      |         |  |  |
| Beam Angle  | (deg)  |       | 120  |         |  |  |
| Efficiency  | (lm/w) | 76    | 45   |         |  |  |
| Dimming   |        |       | NO   |         |  |  |
| Tolerance ± 6%                                      |        |       |      |         |  |  |

1-6. Lifespan

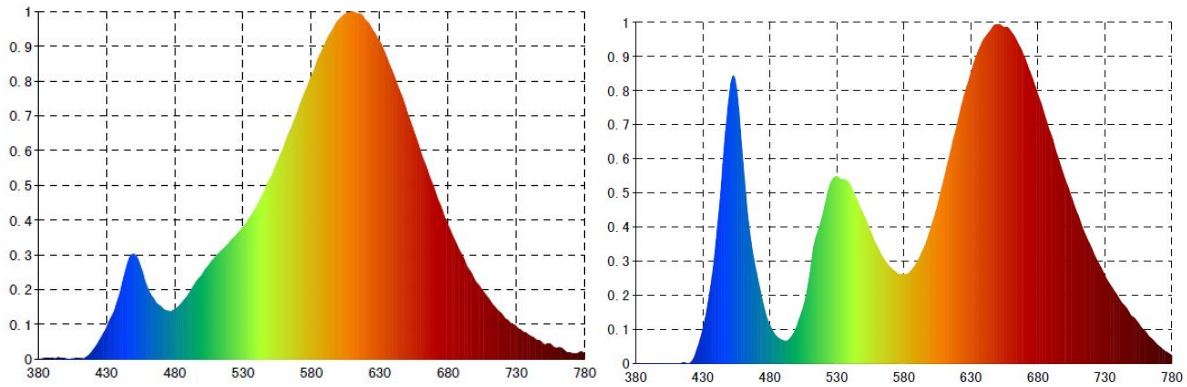
|                        |         |       |                  |
|------------------------|---------|-------|------------------|
| Lifetime(L70) at 25deg | (hours) | 40000 | @25℃             |
| Switching Cycle        | (times) | 20000 | 30s on / 60s off |

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

2600K (bread)

3400K (pork)

相对光谱



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 |
|------------|-------------|----|

(330kΩ) for ~120V, (750kΩ) for ~230V, Pana\_FireFlySW x 2-parallel, work properly ~ for JPN. \* N/A- lamp wtransformer

2. Regulation Certification

On the way.

3.Pallatizing (drawing)

|                                      | Length<br>(mm) | Width<br>(mm) | Height<br>(mm) | Weight<br>(g) |
|--------------------------------------|----------------|---------------|----------------|---------------|
| giftbox                              |                |               |                |               |
| Outer carton                         |                |               |                |               |
| Unit weight with lamp                |                |               |                |               |
| Carton weight with full lamps inside |                |               |                |               |

For example ) Package configuration

TBD

(attach Photo here)