# Table of Contents

## 1.1 Product Information

| | |
|---|---|
| Product description....................................: | Outdoor, led street light |
| Rated Inputs... .........................................: | 100-277V/AC, 50/60Hz |
| Rated Power .............................................: | 100W |
| Declared CCT.............................................: | 5000K |
| LED Manufacturer.....................................: | PHILIPS |
| LED Model................................................: | SMD2835 |
| Forward current of the LED chip..................: | 70.4mA Driver |
| Driver Model.............................................: | XLG-100-H-A |
| Date of Test Samples................................: | March 14, 2022 |
| Quantity of Test Samples..........................: | 1 unit |

## 1.2 Standards or methods

| Standard | Method |
|---|---|
| ANSI/UL 1598: 2008 | In-Situ Temperature Measurement Test is conducted according to the ANS/UL 1598-2008,Sections 19.7,19.10-16.The testing was conducted in a room with ambient temperature of 25℃±5℃The apparatus construction followed those described in UL15898-2008 for normal temperature testing.Thermocouples were placed on the LED package and LED driver in the locations indicated by LM-80 report and driver. The temperature was recorded after the lamp was operating for a minimum of 7.5 hours . |

## 1.3 Equipment list

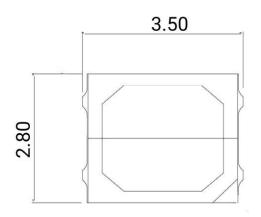| ID | Instrument | Model name | Calibration Date | Calibration Due Date |
|---|---|---|---|---|
| UN-S-213 | Power Meter | PF9800 | 2021-07-14 | 2022-07-14 |
| UN-S-211 | Temperature Tester | JK-8AU | 2021-07-14 | 2022-07-14 |
| UN-S-211 | K thermocouple | JK-8AU-001 | 2021-07-14 | 2022-07-14 |

# 2. Test Result

## 2.1 Electrical data

| Criteria Item | Result |
|---|---|
| Input voltage | 220V |
| Input current | 0.45A |
| Total power | 100W |
| Power factor | 0.982 |
| Current on each LED module | 70.4mA |

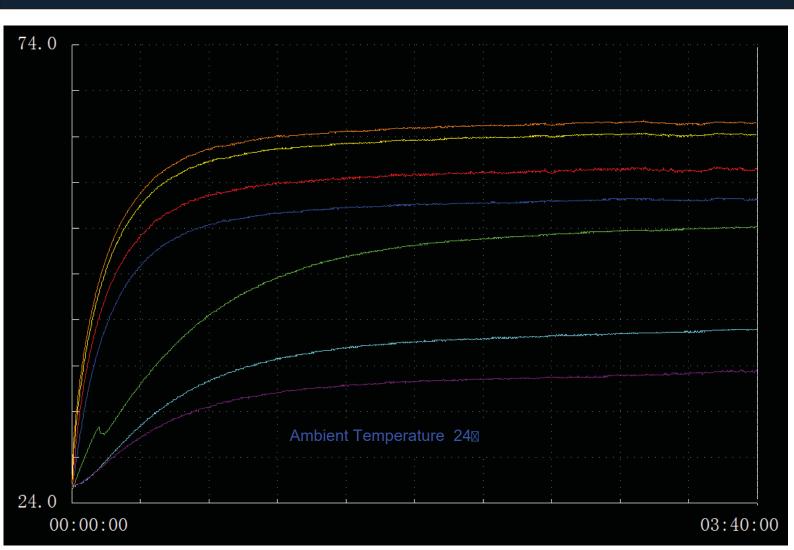## 2.2 Temperature data

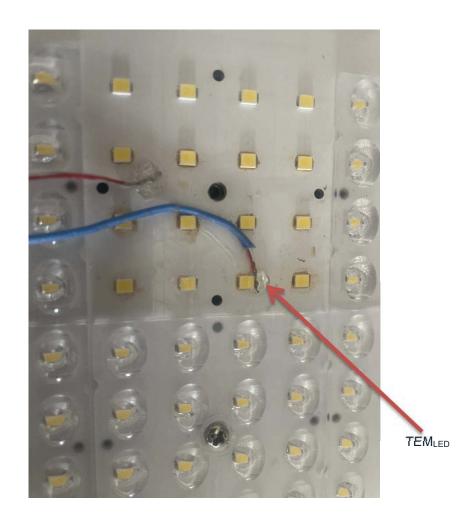| Criteria Item | Result(℃) | Limit(℃) |
|---|---|---|
| Ambient temperature | 24 | — |
| Measured maximum Temperature @TEM$_{LED}$ | 65.6 | 105 |
| Measured Temperature @TEM$_{LED}$ (Normalized to 25℃) | 66.6 | 105 |
| LED Driver Tc | 53.8 | 90 |
| LED Driver Tc (Normalized to 25℃) | 54.8 | 90 |

## 2.3 TMP in LM-80 Report
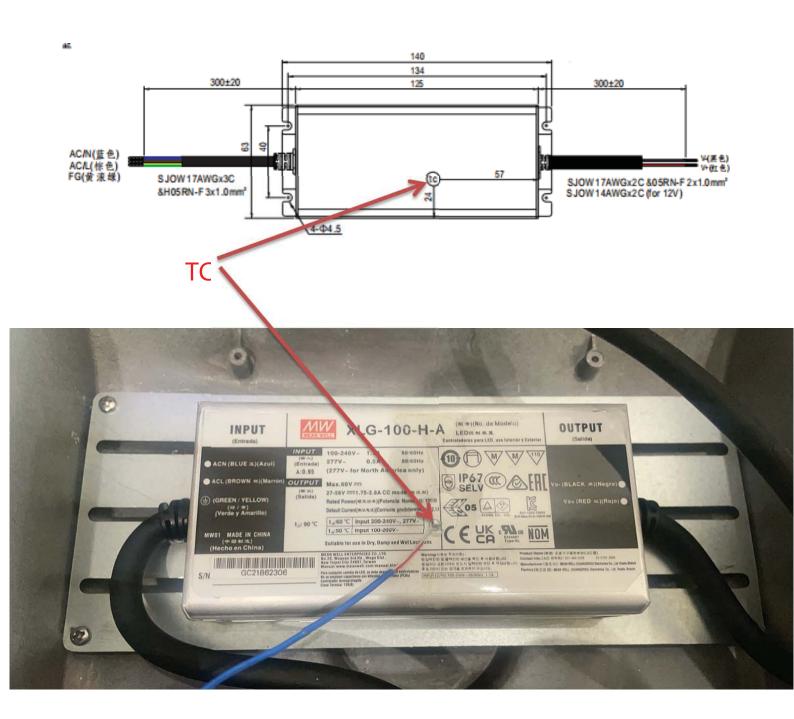
# 3. Temperature rise graph



Ambient Temperature  24℃

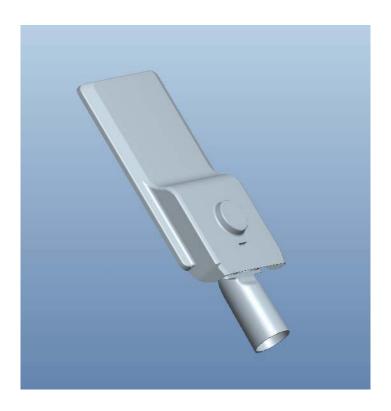| | CH 1  LED Ts | 65.6℃ | | CH 5   Driver Tc | 53.8℃ |
|---|---|---|---|---|---|
| | CH 2   PCB Ts | 64.3℃ | | CH 6   Driver Ta | 42.6℃ |
| | CH 3   Heatsink Internal | 57.2℃ | | CH 7   Driver Heatsink | 38℃ |
| | CH 4   Heatsink External | 60.3℃ | | Ambient Temperature | 24℃ |

$TEM_{LED}$

# 5. Thermocouple contact on the Driver photo

# 6. Photo of sample