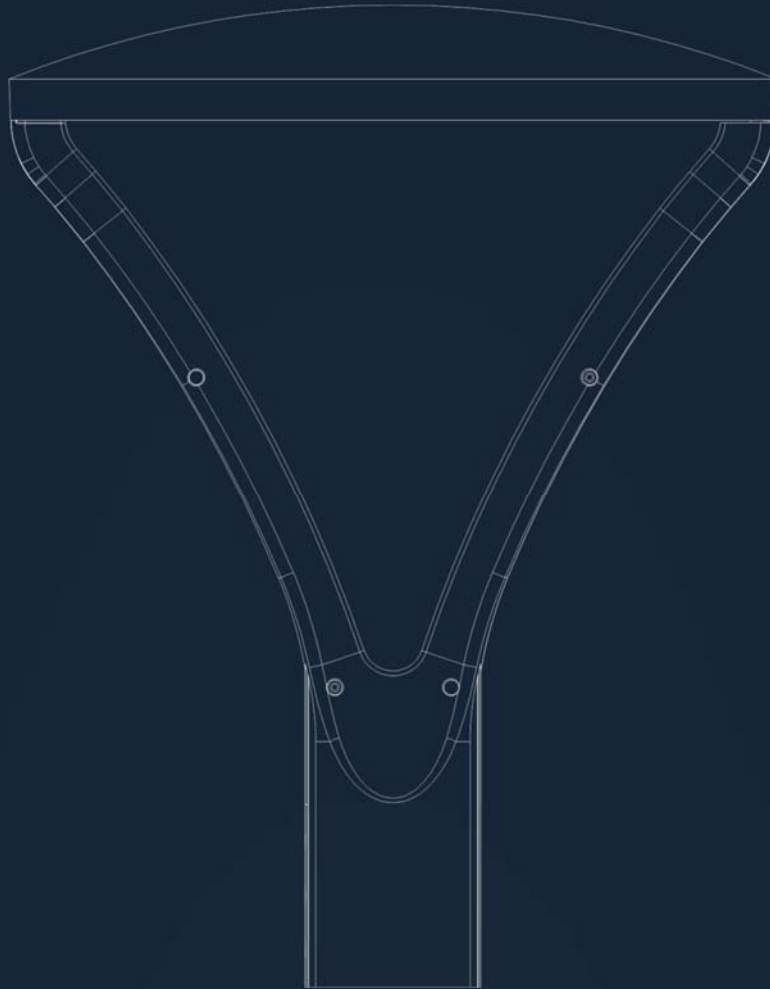




unicornlite



REPORT

Quality Within Your Reach

Test report of in situ temperature measurement

REPORT NO: UN2112TM003

Client..... : Shenzhen Unicorn Lighting Co.,Ltd

Address..... : Floor 5-7, Building B, Huixin Intelligent Industrial Park,Guiyuan Road 23,
guanlan , Longhua ,518109 China

Product..... : Pole Top Light

Model..... : LN090HEGH

Rating..... : 220-240V/AC, 50/60Hz, 90W, 4000K

Test by: Kang yufu	Check by: Harold Liu	Reviewed by: Nicolas Zhang
Signature:	Signature:	Signature:
Test date: December14, 2021	Check date: December14, 2021	Reviewed date: December14, 2021

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1. General

1.1 Product Information

Product description.....:	Outdoor, Pole Top Light
Model Number	LN090HEGH
Rated Inputs... ..:	220-240V/AC, 50/60Hz
Rated Power	90W
Declared CCT.....:	4000K
LED Manufacturer.....:	CREE
LED Model.....:	SMD2835
Forward current of the LED chip.....:	100mA Driver
Driver Model.....:	OT 100/220-240/2A8 P7
Date of Test Samples.....:	December14, 2021
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

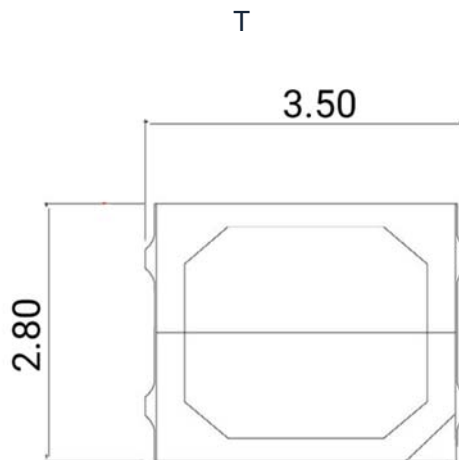
2.1 Electrical data

Criteria Item	Result
Input voltage	225.9V
Input current	0.415A
Total power	90W
Power factor	0.970
Current on each LED module	59.2mA

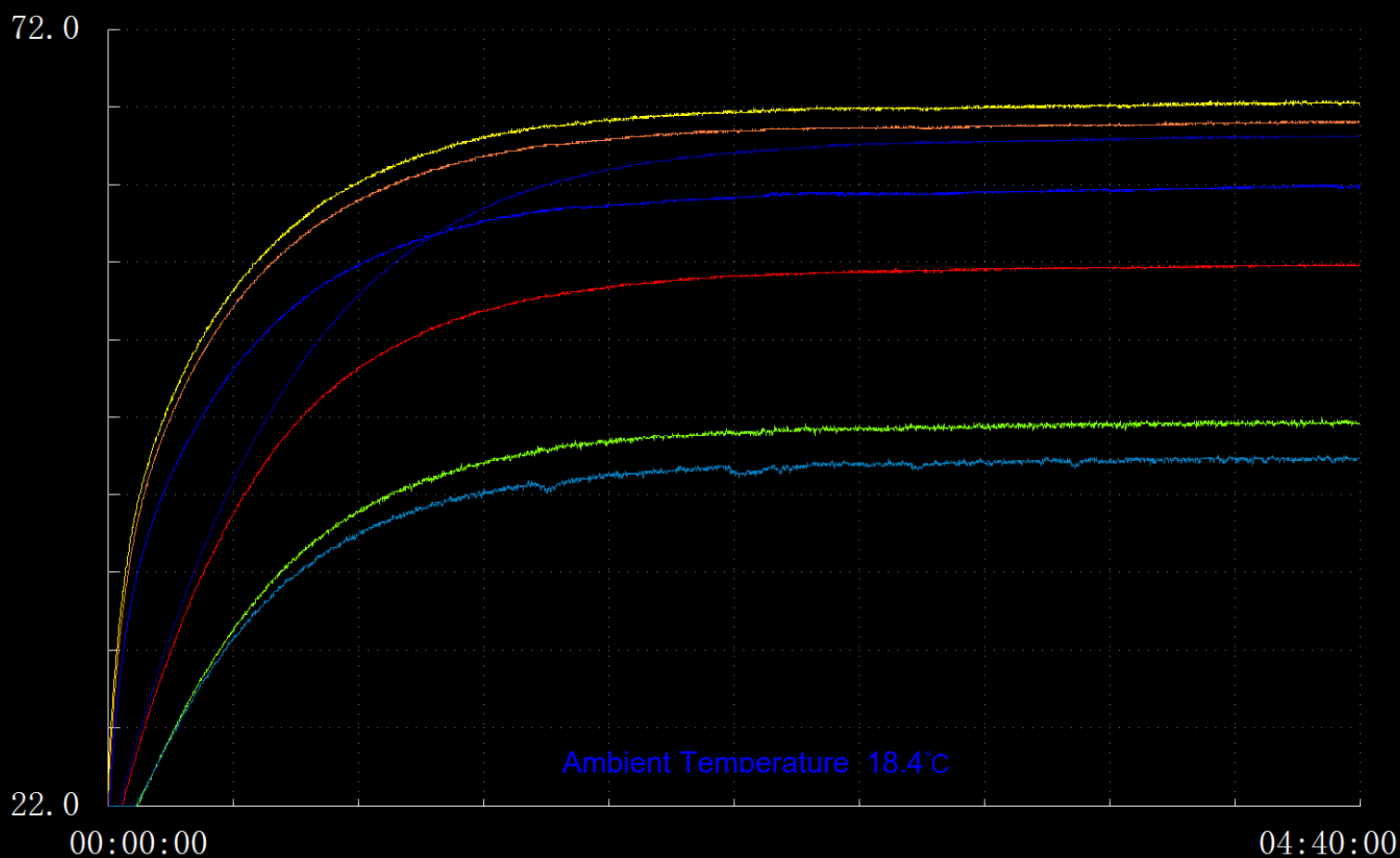
2.2 Temperature data

Criteria Item	Result(°C)	Limit(°C)
Ambient temperature	18.4	—
Measured maximum Temperature @TEM _{LED}	67.1	105
Measured Temperature @TEM _{LED} (Normalized to 25°C)	73.7	105
LED Driver T _c	64.9	90
LED Driver T _c (Normalized to 25°C)	70.9	90

2.3 TMP in LM-80 Report

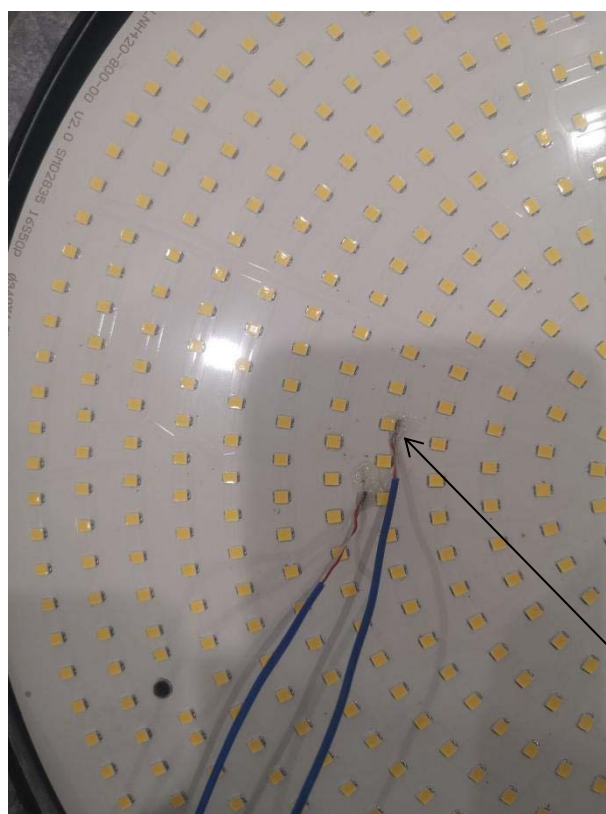


3. Temperature rise graph



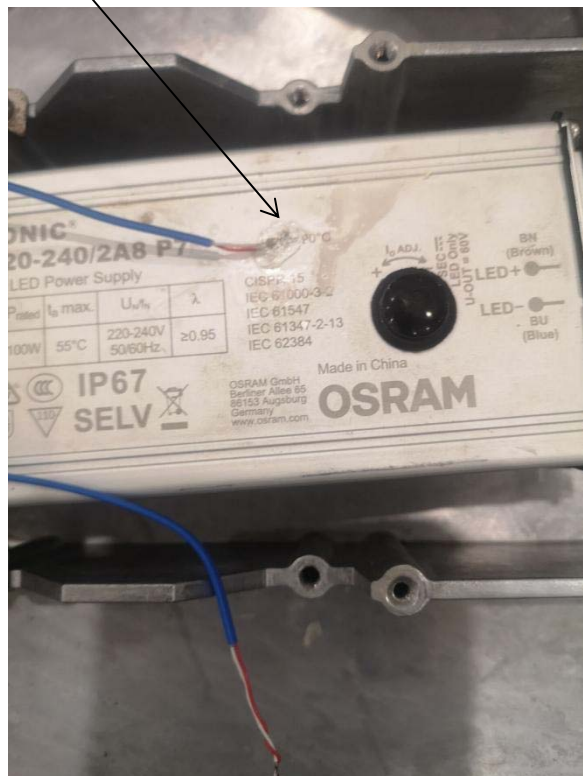
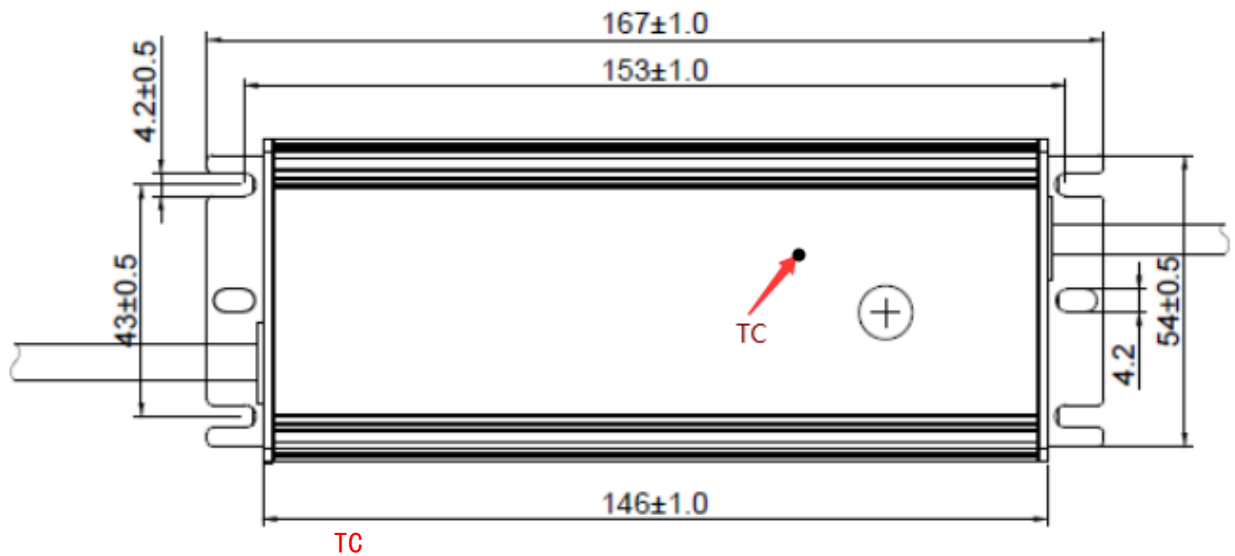
CH 1 LED Ts	67.1°C	CH 5 Heatsink External	49.8°C
CH 2 PCB Ts	65.1°C	CH 6 Driver Tc	64.9°C
CH 3 Heatsink Internal	61.7°C	CH 7 Driver Ta	56.6°C
CH 4 Heatsink External	46.4°C	Ambient Temperature	18.4°C

4. Thermocouple contact photo



TEMLED

5. Thermocouple contact on the Driver photo



6. Photo of sample

