



unicornlite



REPORT

Quality Within Your Reach

Test report of in situ temperature measurement

REPORT NO: UN2310TM011

Client..... : Shenzhen Unicorn Lighting Co.,Ltd
Address..... : 6F, Rong Chuang intelligent Bld. A, Longsheng Road, Shangfen, Minzhi,
Long hua District, Shenzhen, China
Product..... : LED HighBay Light
Model..... : HB060HE3I-PR
Rating..... : 220-240V/AC, 50/60Hz, 60W, 4000K

Test by:	Check by: Harold Liu	Reviewed by: Nicolas Zhang
Signature:	Signature:	Signature:

Test date: Oct 27th, 2023 Check date: Oct 27th, 2023 Reviewed date: Oct 27th, 2023

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1. General

1.1 Product Information

Product description.....:	Outdoor, indoor, LED HighBay
Model Number	HB060HE3I-PR
Rated Inputs... ..:	220-240VAC, 50/60Hz
Rated Power	60W
Declared CCT.....:	4000K
LED Manufacturer.....:	PHILIPS
LED Model.....:	2835
Forward current of the LED chip.....:	100mA Driver
Model.....:	LCI 75/250-500/230 flexC NF h21 EXC3
Date of Test Samples.....:	Oct 27th, 2023
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°C±5°C 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	2023-07-10	2024-07-10
UN-S-211	Temperature Tester	JK-8AU	2023-07-10	2024-07-10
UN-S-211	K thermocouple	JK-8AU-001	2023-07-10	2024-07-10

2. Test Result

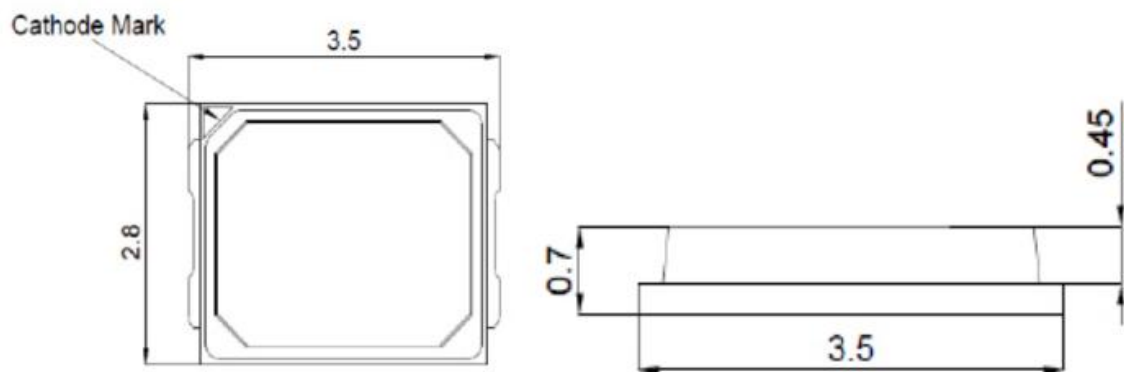
2.1 Electrical data

Criteria Item	Result
Input voltage	230.1V
Input current	0.268A
Total power	60.1W
Power factor	0.967
Current on each LED module	27mA

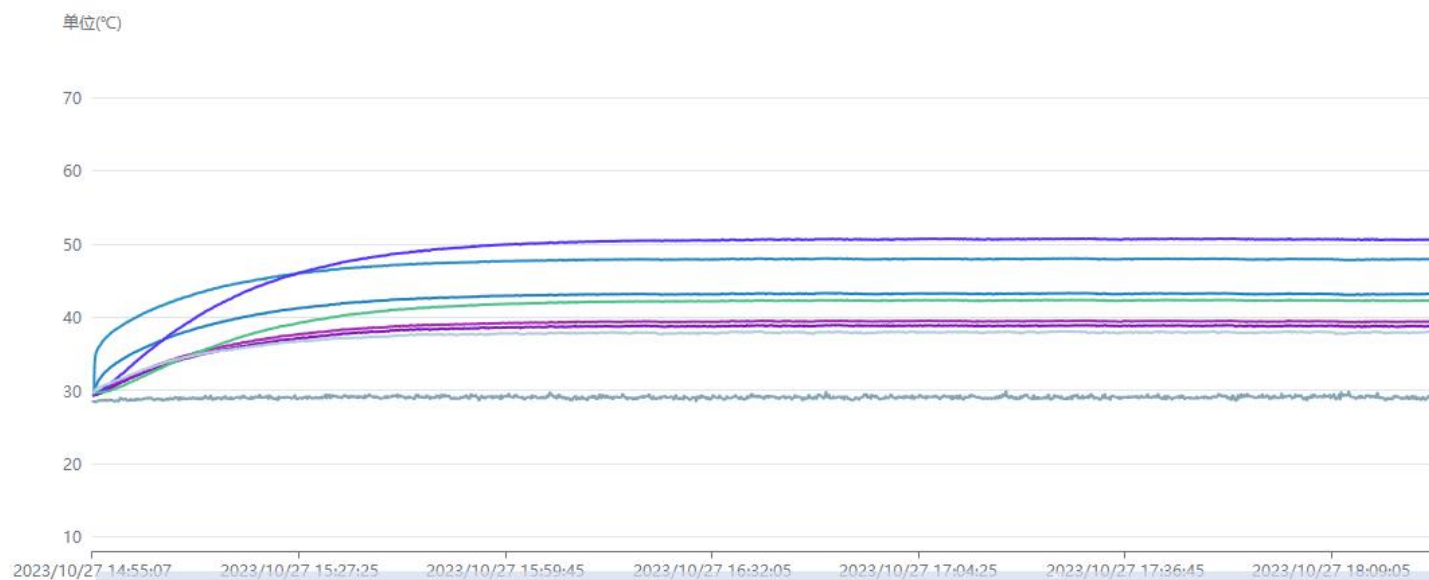
2.2 Temperature data

Criteria Item	Result(°C)	Limit(°C)
Ambient temperature	29.2	—
Measured maximum Temperature @TEM _{LED}	47.9	105
Measured Temperature @TEM _{LED} (Normalized to 25°C)	45.3	105
LED Driver T _c	50.5	90
LED Driver T _c (Normalized to 25°C)	47.8	90

2.3 TMP in LM-80 Report

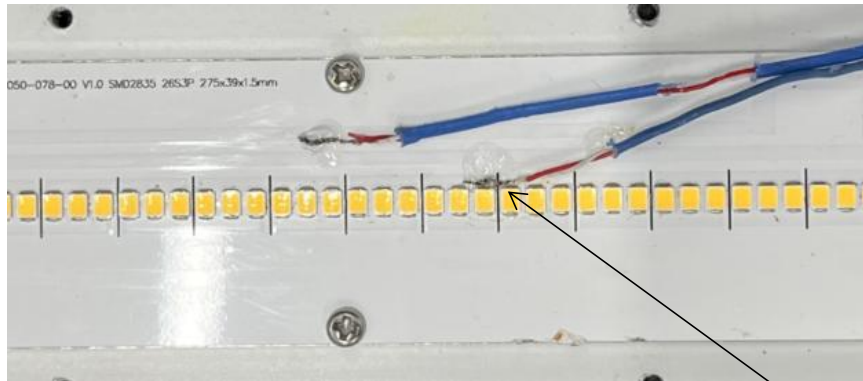


3. Temperature rise graph

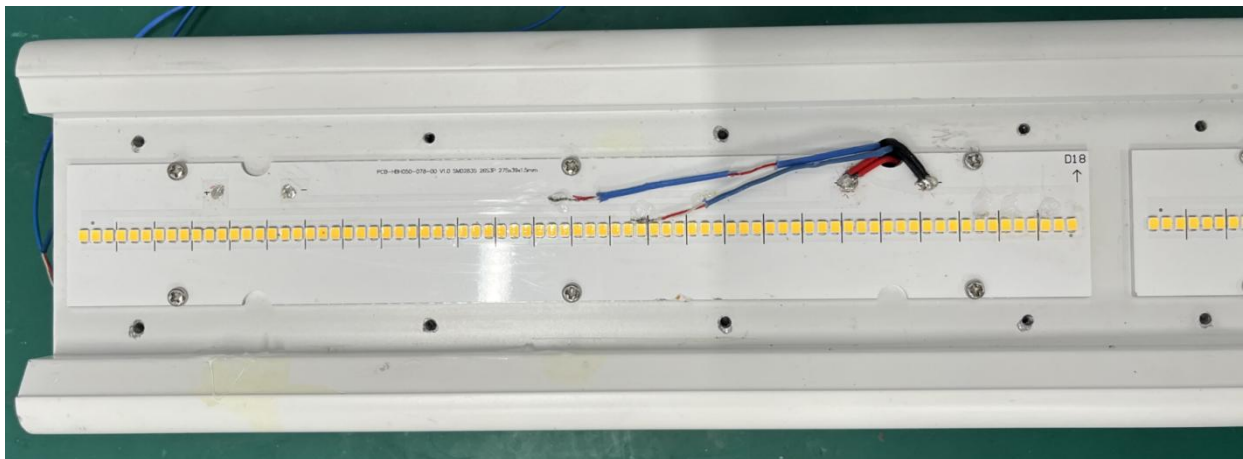


CH 1 LED Ts	47.9°C	CH 5 Driver Tc	50.5°C
CH 2 PCB Ts	43.1°C	CH 6 Driver Ta	42.3°C
CH 3 Heatsink Internal	39.5°C	CH 7 Lens	37.6°C
CH 4 Heatsink External	38.8°C	CH 8 Ambient Temperature	29.2°C

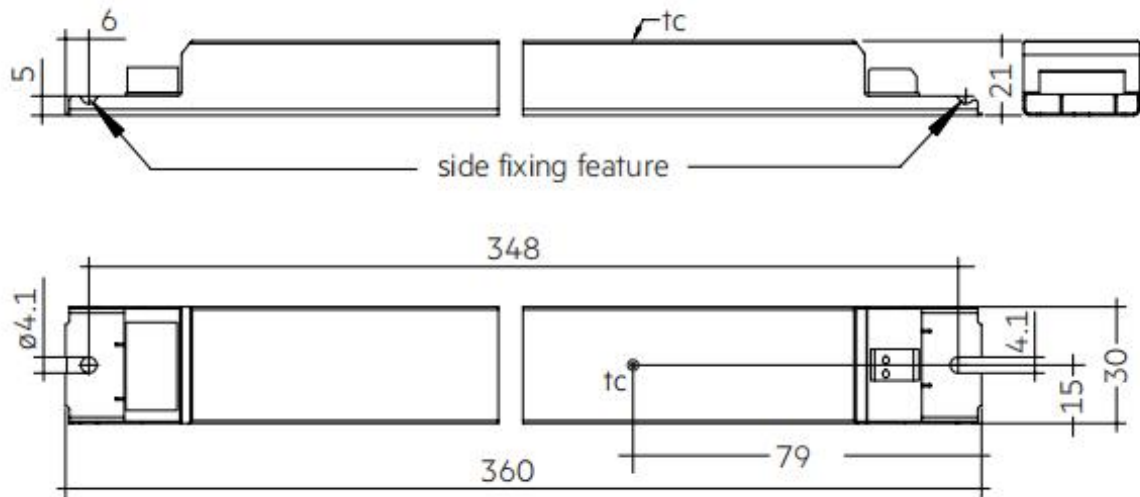
4. Thermocouple contact photo



TEMLED



5. Thermocouple contact on the Driver photo



6. Photo of sample

