



In Situ Temperature Measurement Test Report

For

XIAMEN LUMINNAT LIGHTING CO.,LTD

(Brand Name: N/A)

NO.608 LINGDOU WEST ROAD, SIMING DISTRICT,XIAMEN,CHINA

2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces

Model name(s): GPBP-D1-A24-40-8XX-L21-B10D

Remark: The "XX" in the model name represents CCT, can be 35=3500K; 40=4000K;
50=5000K.

Representative (Tested) Model:
GPBP-D1-A24-40-835-L21-B10D

Model Different: All construction and rating are the same, except CCT

Test & Report By:

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Date: Aug. 31, 2021

Review By:

Ryan Liang

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Table of Contents

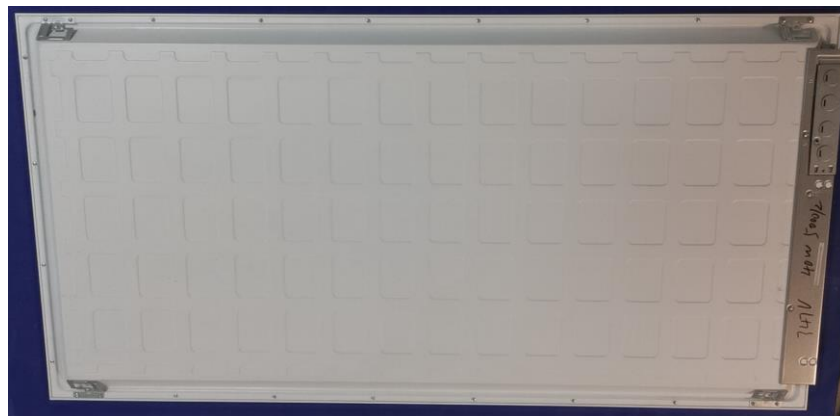
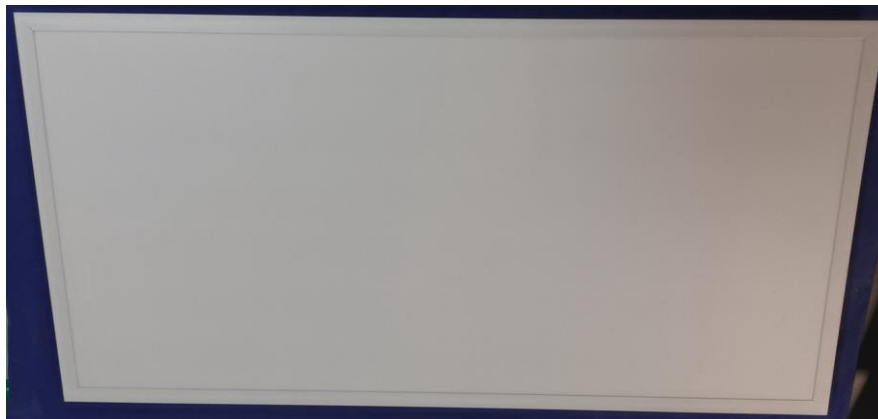
1 General	3
1.1 Product Information	3
1.2 Standards or methods	4
1.3 Equipment list	4
2 Test conducted and method	4
2.1 Ambient Condition	4
2.2 Temperature Stabilization	4
2.3 Thermocouples	4
2.4 Thermocouples contact	5
3 Test Results	6
3.1 Test Data:	6
3.2 Test Photo:	6

1 General

1.1 Product Information

Organization Name	XIAMEN LUMINNAT LIGHTING CO.,LTD
Model Number	GPBP-D1-A24-40-8XX-L21-B10D
Luminaire Type	2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces
Nominal Power	40W
Rated Initial Lamp Lumen	--
Declared CCT	3500K,4000K, 5000K
LED Manufacturer	Samsung Electronics Co., LTD.
LED Model	SPMWHR229AD5SGRURB
LED Driver Manufacturer	Xiamen Guangpu Electronics Co., Ltd
LED Driver Model	GPDP-040W1000C-347
Sample Receipt Date	2021-08-25
Sample Number	RHL21082506-901 (3500K)

Photo





1.2 Standards or methods

The following standards are partly or totally used or referenced for test:

No.	Name
ANSI/UL 1598:2008	Luminaires

1.3 Equipment list

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
YXJC015A	Power Meter	2021-07-03	2022-07-02
YXJC012A	Temperature Tester	2021-07-03	2022-07-02

2 Test conducted and method

2.1 Ambient Condition

Test was conducted in an ambient temperature of $25 \pm 5^\circ\text{C}$. Ambient temperature variations above or below 25°C was subtracted from or added to temperatures recorded at points on the luminaire.

The ambient temperature was measured by a thermocouple which was immersed in 15ml of mineral oil in a glass container.

2.2 Temperature Stabilization

Temperatures were measured after they have stabilized when the test has been running for a minimum of 7.5 hours, or the test has been running for a minimum of 3 hours and three successive reading taken at 15 minutes intervals are with 1°C of another and are not rising.

2.3 Thermocouples

Type J thermocouple was used for temperature measurement. The thermocouple was 0.05mm²(30AWG), and complied with the requirements specified in ASTM MNL 12 and limits of error specified in NIST ITS 90 and



ISA MC96.1.

2.4 Thermocouples contact

Thermocouples were in contact with the TMP LED location described in LM-80 test report. In order to gain the maximum temperature, if appropriate, more than one thermocouple were contact in these locations. For details information, please refer to clause 3.3 for the photo of thermocouple contact.

3 Test Results

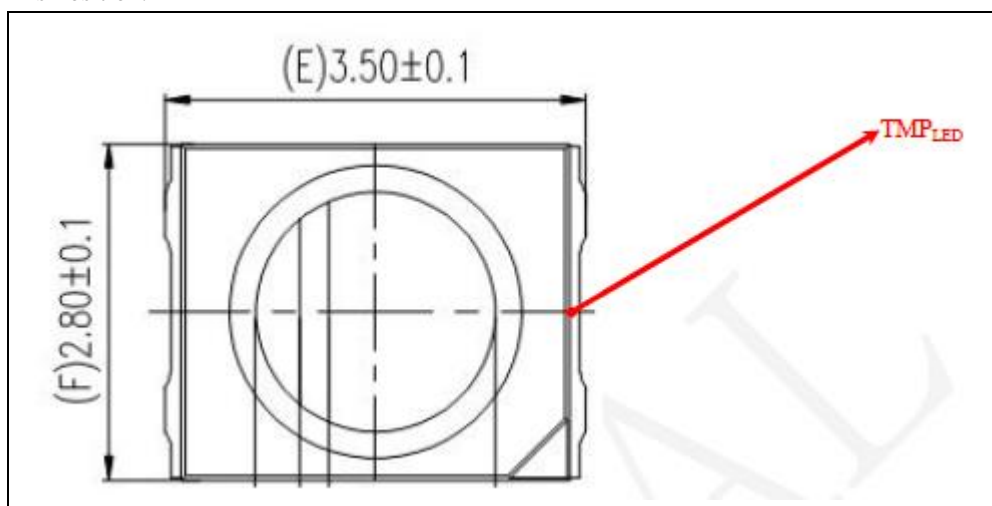
Test date	2021-08-28	Test Ambient	25.1°C
Sample No.		LED Package Model	
RHL21082506-901		SPMWHR229AD5SGRURB	
LED driver of Each Lamp	Output voltage V	Measured LED working current (Max.) mA	
1	33.80	41.29	

3.1 Test Data:

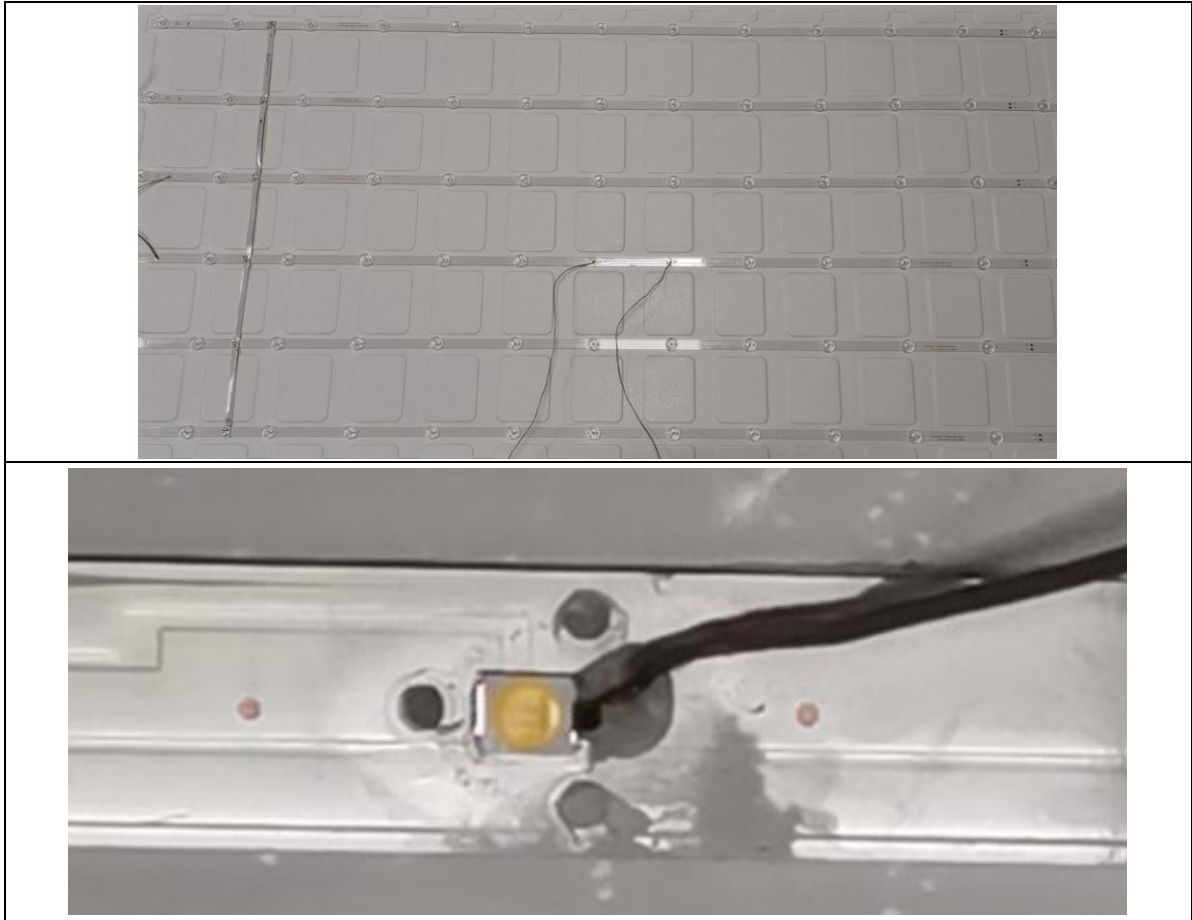
Input Vol.	120.0V	Input Current	0.318A	Input Wattage	38.07W	Temperature stabilization time:	500 min	
No.	Temperature (°C)		No.	Temperature (°C)		No.	Temperature (°C)	
	Measured	Corrected at 25°C		Measured	Corrected at 25°C		Measured	Corrected at 25°C
1	52.8	52.7	2	52.7	52.6	--	--	--
The highest in-situ measured temperature LED is 52.7°C								

3.2 Test Photo:

Ts Position:



Thermocouple Location on Temperature Measurement Point (TMP):



Results

Time (t) at which to estimate lumen maintenance (hours):	50.000
Lumen maintenance at time (t) (%):	90,35%
Reported L70 (hours):	>60000

***** END OF THE TEST REPORT*****