



# ISTMT Test Report

## Relevant Standards

☒UL1598-2008

## Prepared For

**RAB Lighting Inc.**

Room 6A33, No.1388, Wuzhong road, Shanghai, China

Xiao Xiang, 15921313292, Gary.Xiao@rabweb.com

## Prepared By

**Deliver Co., Ltd.**

Block 11, 78 Keling Road, SSTP, Suzhou, China

0512-66801950, kevin.jia@szdeliver.com

## Project Number

**DLF2408121**

## Report Number

**DLF2408121-1b**

## Test Date

**2024/9/20**

## Issue Date

**2024/9/20**

## Prepared By

*Wangzun Zhu*

Wangzun Zhu

## Approved By

*Kevin Jia*

Kevin Jia

The results contained in this report pertain only to the tested sample.

This report shall not be reproduced, except in full, without written approval of Deliver Co., Ltd.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP.

## 1.0 Test Summary

Outdoor - Architectural Flood and Spot Luminaires				
Requirement Category	Test Method	Requirements	Test value	Results (Fail/Pass)
L70 Lumen maintenance (hours)	IES LM-80-2015 IES TM-21-2011	50000	>50000	P
L90 Lumen maintenance (hours)	IES LM-80-2015 IES TM-21-2011	36000	>36000	P
In-Situ Temperature Measurement Test for LED (°C)	UL1598-2008/ UL1993-2012	105	87.6	P
In-Situ Temperature Measurement Test for Driver (°C)	UL1598-2008/ UL1993-2012	N/A	70.8	N/A

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	In-Situ Temperature Measurement Test	2024/9/20	L2X @ 3000K	N/A	A1

### Remark(If any)

- 1、 This report shall not be used by the client to claim product endorsement by NVLAP, NIST or any agency of the US government.
- 2、 The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.

## 3.0 Production Description

### Photos of Luminaire Characteristics



## 4.0 In-Situ Temperature Measurement Test

Model No.	L2X @ 3000K	Sample ID.	A1
-----------	-------------	------------	----

### Test Method

In-Situ Temperature Measurement Test is conducted according to UL 1598, Section 14.  
The samples were tested and properly mounted under ceiling.  
The testing was conducted in a room with ambient temperature of 25°C±5°C. The apparatus construction followed those described in UL 1598 for normal temperature testing. Thermocouples were placed on the LED package in the locations indicated by LM-80 report. The temperature was recorded after the lamp was operating for a minimum of 7.5 hours, or the lamp was running for a minimum of 3 hours and three successive readings taken at 15 min intervals are within 1 °C of one another and are not rising.

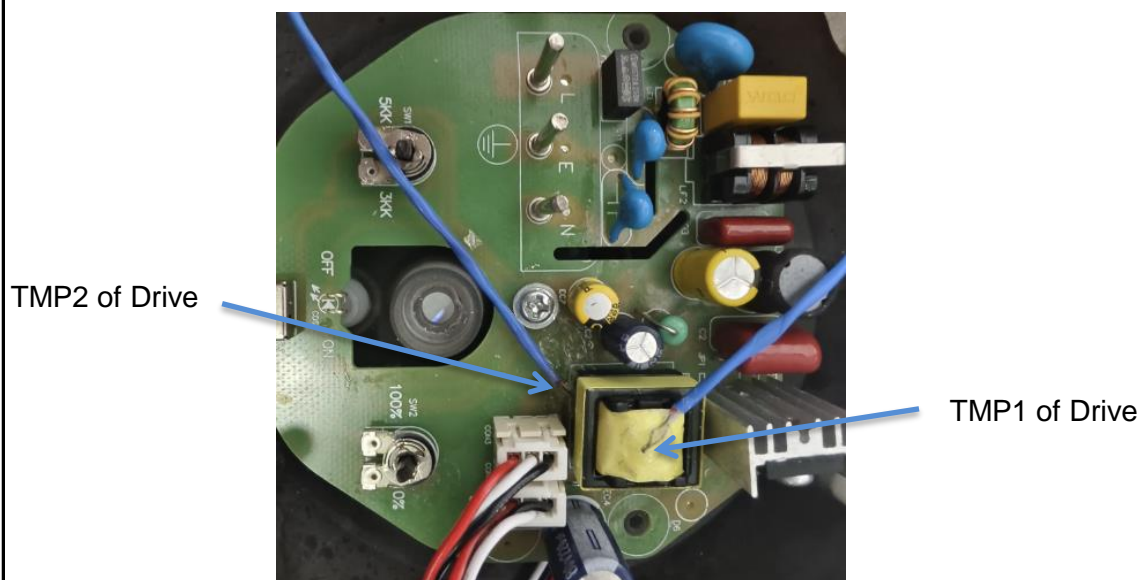
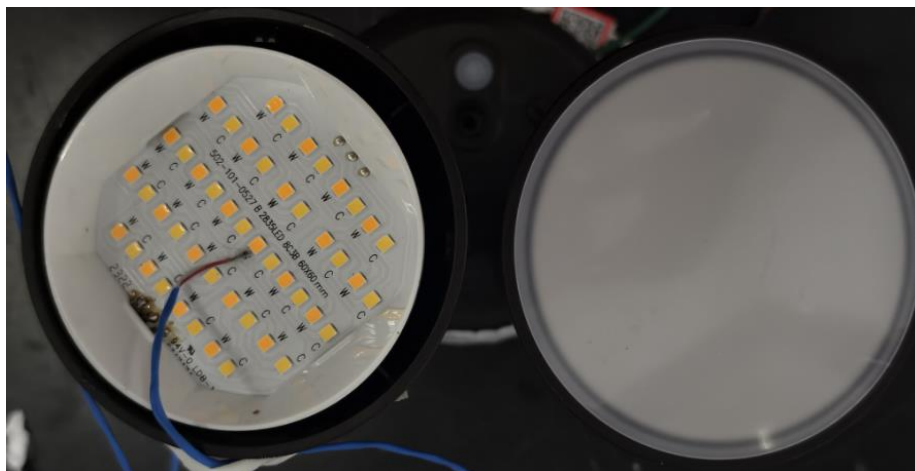
### In-Situ Temperature Measurement Test Conditions in 120V

Temperature (°C)	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Orientation
25.0	120.03	60	0.168	19.7	0.979	Base Up
Thermocouple Location	Manufacturer Declared Current (mA)	Temperature for Lighting source (°C)		LED Model Number	LM-80 Limit Current (mA)	LM-80 Limit Temp.(°C)
TMP1 of LEDs	150	87.6		HL-AS-2835DW-2C-S1-08L-PCT-HR3	150	105
Thermocouple Location	Limit Temp (°C)	Temperature for Drive (°C)		Drive Model Number		
TMP1 of Drive	N/A	70.8		YF-N48C400mA		
TMP2 of Drive	N/A	56.8		YF-N48C400mA		
Ambient temperature	N/A	25.0				

Life time expectation at 50,000 hours of operation with Driver Case Temperature (T<sub>c</sub>) at maximum of N/A °C not to be exceed as indicated in the Driver specification sheet

## 4.0 In-Situ Temperature Measurement Test

Test Photos



## 5.0 Equipment Information

Test Equipment			
Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
DLF107	Integrating Sphere System	2023/12/24	2024/12/23
DLF108	Auxiliary Lamp	2023/12/24	2024/12/23
DLF122	Measurement Standard Lamp Standard Lamp Type: 220 V, 0.4720 A, Tungsten, Omni-derectional	2023/12/24	2024/12/23
DLF116	AC Power Source	2023/12/16	2024/12/15
DLF516	Power Meter	2023/12/16	2024/12/15
DLF112	Temperature Recorder	2023/12/28	2024/12/27
DLF114	Temperature & Humidity Datalogger	2023/12/28	2024/12/27
DLF101	Goniophotometer	2023/12/24	2024/12/23
DLF511	AC Power Source	2023/12/16	2024/12/15
DLF512	AC Power Source	2023/12/16	2024/12/15
DLF513	AC Power Source	2023/12/16	2024/12/15
DLF507	DC Power Source	2023/12/16	2024/12/15
DLF111	Temperature & Humidity Datalogger	2023/12/28	2024/12/27
DLF119	Power Meter	2023/12/16	2024/12/15
DLF031	Temperature data logger	2024/6/20	2025/6/19
DLF073	Power Analyzer	2024/6/20	2025/6/19
DLF003	Temperature & Humidity Datalogger	2024/6/20	2025/6/19

\*\*\*\*\* End of Test Report\*\*\*\*\*