

# In Situ Temperature Measurement Test Report

For

## Beyond LED Technology

(Brand Name: Beyond)

1939 Parker Court, Stone Mountain, GA 30087

## Fuel Pump Canopy Luminaries

Model name(s): AST-CP02B-180WSBMA3-WH57

Remark: “a” can be any two letters to represent lamp colors; “b” can be any digits for

CCT. Representative (Tested) Model: AST-CP02B-180WDBMA3-a40

Model Different: N/A

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# 1 General

## 1.1 Product Information

Brand Name	Beyond LED Technology
Model Number	AST-CP02B-180WSBMA3-WH57
Luminaire Type	Fuel Pump Canopy Luminaires
Nominal Power	180W
Rated Initial Lamp Lumen	--
Declared CCT	4000K,4500K,5000K,5700K
LED Manufacturer	Lumileds Holding B.V.
LED Model	L128-XX80RA35002U1
LED Driver Manufacturer	Shenzhen Daermay Electronics Technology Co.,Ltd.
LED Driver Model	MP-200T130
Sample Receipt Date	2022-03-28
Sample Number	BLC2203031E-A1(4000K)
<b>Photo</b>	
	

## 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	Calibration Date
BL-009B	Power Meter	2021-10-09
BL003	Hybrid Recorder	2021-10-28

# 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  $25^{\circ}\text{C}$  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  $1^{\circ}\text{C}$  of another and are not rising.

## 2.3 Thermocouples

Type J thermocouple was used for temperature measurement. The thermocouple was 0.05mm<sup>2</sup>(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

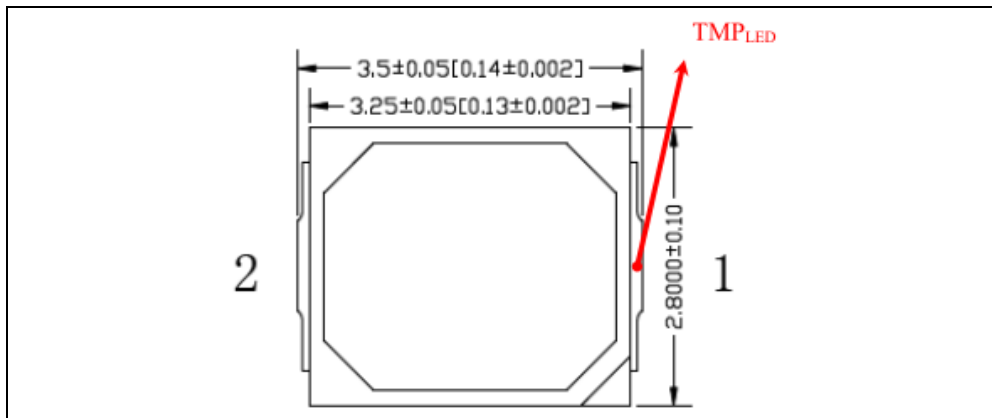
Test date	2022-04-15	Test Ambient	25.1 °C
Sample No.		LED Package Model	
BLC2203031E-A1		L128-XX80RA35002U1	
LED driver of Each Lamp	Output voltage V	Measured LED working current (Max.) mA	
1	99.7	58.8	

#### 3.1 Test Data:

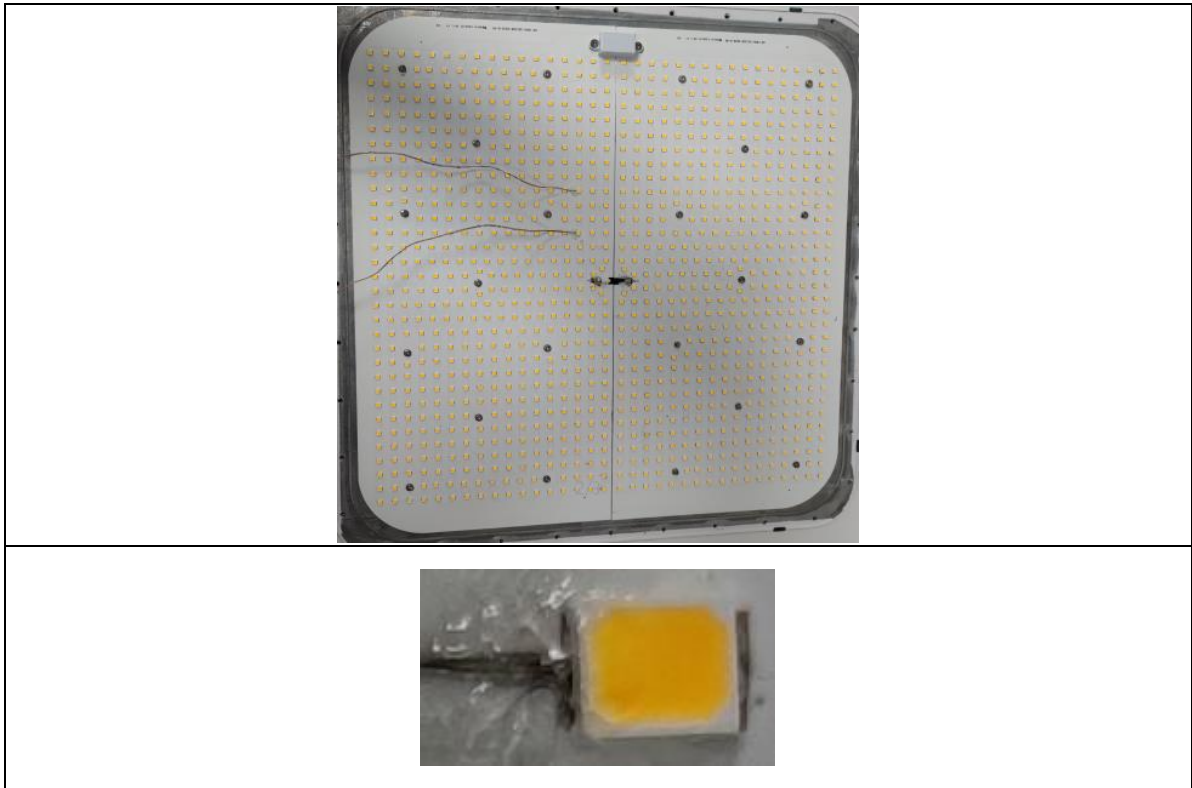
Input Vol.	120.0V	Input Current	1.508A	Input Wattage	180.23W	Temperature stabilization time:	500 min	
No.	Temperature (°C)		No.	Temperature (°C)		No.	Temperature (°C)	
	Measured	Corrected at 25°C		Measured	Corrected at 25°C		Measured	Corrected at 25°C
1	56.2	56.1	2	54.9	54.8	--	--	--
The highest in-situ measured temperature LED is 56.1°C								

#### 3.2 Test Photo:

Ts Position:



Thermocouple Location on Temperature Measurement Point (TMP):

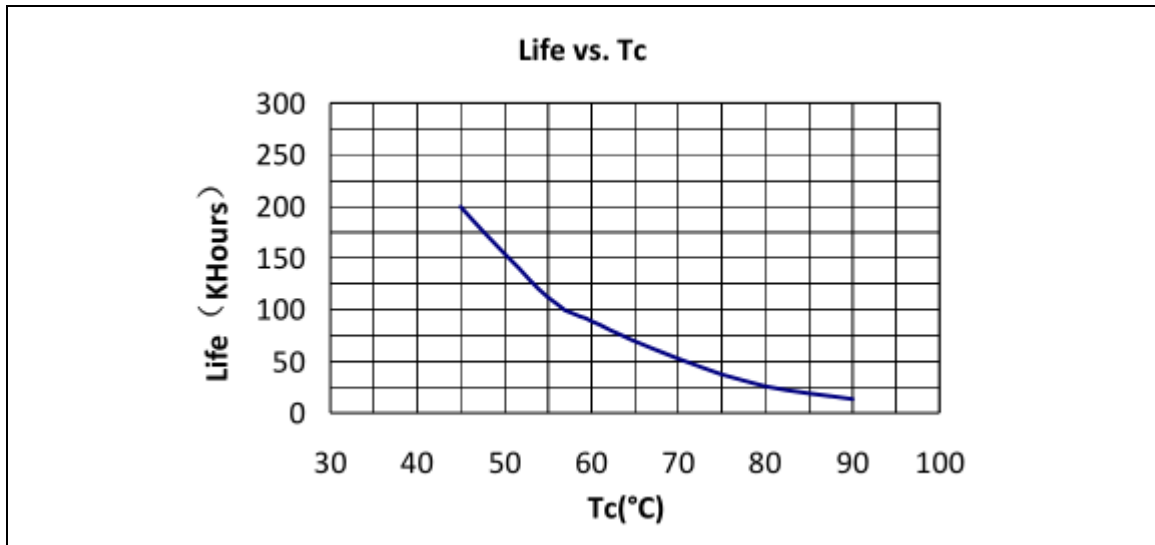


### Results

Time (t) at which to estimate lumen maintenance (hours):	36,000
Lumen maintenance at time (t) (%):	92.88%
Reported L90 (hours):	51,000







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