ISTMT Test Report

for **TechBrite**

Address: 1000 Kieley Place Cincinnati, OH 45217

4' VAPORTITE STRIP - VA SERIES

Model: VA472SS1BC30C0000

Laboratory: Leading Testing Laboratories Texas Branch

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Report No.: UT18080002-07b

Reviewed / Approved by:

Manager: Chaoguang Su
Date: Aug. 21, 2018

SAMPLE PHOTO

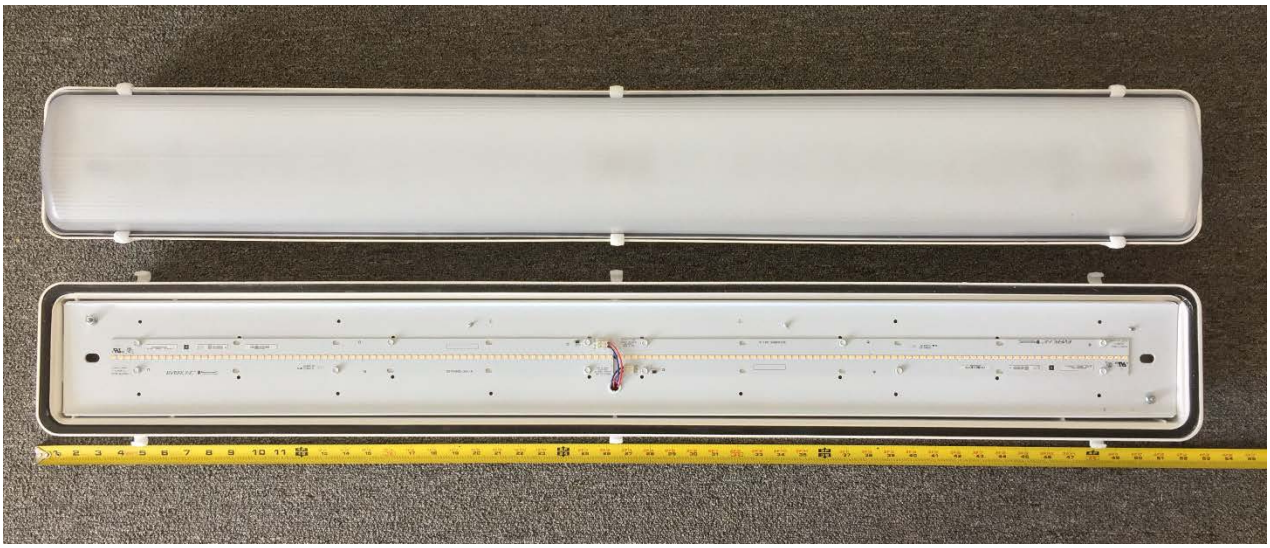

Figure 1. Overview of the sample

Equipment Under Test (EUT)	
Name	: 4' VAPORTITE STRIP - VA SERIES
Model	: VA472SS1BC30C0000
Electrical Ratings	: 120-277V AC, 50/60 Hz
Product	: 120-277V AC, 50/60 Hz, 3000K
Description	Manufacture of LED light source: Samsung Model of LED light source: LM561B (on board M700C8xxD72N2A) Quantity of LED light source: 6Px12Sx2 pcs Manufacture of LED Driver: Universal Lighting Technologies Model of LED Driver: D10CC55UNVTW-C
Manufacturer	: TechBrite
Address	: 1000 Kieley Place Cincinnati, OH 45217

Test specifications:	
Date of Receipt	: Aug. 10, 2018
Date of Test	: Aug. 20, 2018
Test Item	: In-situ maximum temperature
Reference Standard	: ANSI / UL 8750-2011 Light Emitting Diode (LED) Equipment for Use in Lighting Products ANSI / UL 1598-2010 Standard for Safety of Luminaire

TEST SUMMARY

Sample Tested: VA472SS1BC30C0000
LED Source Model: LM561B (on board M700C8xxD72N2A)
Test Ambient Temperature was 24.2 °C
Testing Orientation was light down.
The stabilization time of the sample was 15:35 hours.

Figure 2. View of In-situ Point – Ts for light source

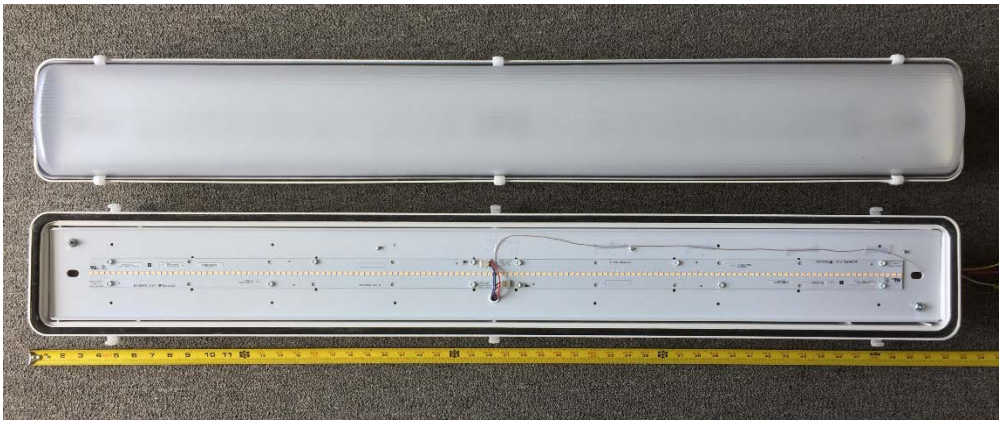

Figure 3. View of In-situ Point – Ts for light source from overall view

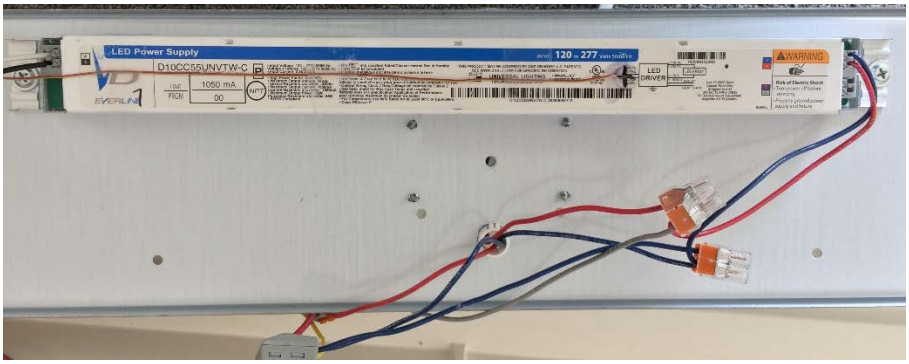

Figure 4. View of In-situ Point – Tc1 for LED driver of light source

TEST RESULTS

Input Voltage (V)	Input Power (W)	Tested LED source current (mA)	Measured Driver Tc Maximum Temperature (Corrected to Ta=25ºC)	Measured LED Ts Maximum Temperature (Corrected to Ta=25ºC)
120.03	43.550	87.500	54.0	55.4
Input Voltage (V)	Input Power (W)	Tested LED source current (mA)	Measured Driver Tc Maximum Temperature (Corrected to Ta=25ºC)	Measured LED Ts Maximum Temperature (Corrected to Ta=25ºC)
276.99	43.610	87.667		

Table 1. In-situ temperature measurement results

EQUIPMENT LIST

Test Equipment	Model	Equipment No.	Calibration Date	Calibration Due date
Digital Power Meter	WT310	UT-TE-001-13	6/13/2018	6/13/2019
AC Power Supply	IT7321	UT-TE-002-08	NA	NA
Temperature and humidity recorder	Traceable 4800	UT-TE-003-05	2/24/2017	2/24/2019
Temperature Meter	TES-1310	UT-TE-003-01	6/13/2018	6/13/2019
Temperature Meter	TES-1310	UT-TE-003-02	6/13/2018	6/14/2019
Multimeter	Fluck-175	UT-TE-005-02	6/14/2017	6/14/2019

Table 2. Test Equipment List

TEST METHODS

The luminaire was installed to simulate intended usage, in accordance with the manufacturer's instructions.

Temperature were measured after they stabilized, when the test was run for a minimum of 7 hrs.

The tests were conducted in an ambient temperature of 25±5 ^{0}C. Ambient temperature variation above or below 25^{0}C were respectively subtracted from or added to temperatures recorded at points on the luminaire. Temperatures were measured using thermocouples.

The thermocouples had conductors no larger than No. 24 AWG (0.21mm^2) and no smaller than No. 30 AWG (0.05mm^2). Thermocouples complied with the requirements specified in ASTM MNL 12 and thermocouples as listed in the table of the limits of error specified in NIST ITS 90, or ISA MC96.1.

The luminaire was installed in the test box in the configuration that resulted in the highest operating temperatures, considering different trim and maximum lamp wattage combinations, lamp holder adjustment heights, and the like.

The test box was constructed of 12mm thick plywood as described below:
The test box was rectangular and had four sides and a bottom. The four sides of the test box for a ceiling-mounted luminaire were a minimum distance of 8.5 inch (215mm) from the nearest part of the lamp housing or heat-producing parts. The top edge of the sides of the test box were a minimum of 8.5 inch (215mm) above the highest point of any permanently attached part of the lamp housing. Thermal insulation of the loose-fill type was poured into the test box through the open top, until level with the top, without applying any compacting procedure.

The thermal insulation was conditioned to the density specified by the insulation manufacture to obtain a required rated thermal resistance of RSI 0.56 to 0.678 (R3.2 to R3.85).

All spaces around the luminaire and between it and the sides of the box were filled with the thermal insulation.

*** End of Report ***