

Test report

TEST REPORT

Product Name: Fixed LED Lighting Fixture (Wall Washer Light)

Product Model: LLS-LPA-W35-L3-DIM / LLS-WZB-W40-L6-RDM

Testing category: Entrusted Testing

Client: TPK OPTOELECTRONIC TECH CO., LTD

Tester: Li Weibiao

Auditor: Wu Zhenbiao

Report time: August 2, 2024

TPK OPTOELECTRONIC TECH CO., LTD

Inspection Report Notice			
Test type	High and low temperature shock test	inspector	Li Weibiao
Sample Name	1) Linear LED Strip Light LLS-LPA-W35-L3-DIM2) Linear LED Strip Light LLS-WZB-W40-L6-RDM		
Client/Entrusting Party	TPK OPTOELECTRONIC TECH CO., LTD	Testing unit	TPK OPTOELECTRONIC TECH CO., LTD
Address of the Entrusting Unit	No. 10, Dacheng Road, Dongfeng Town, Zhongshan City, Building 1-2	Address of the testing unit	No. 10, Dacheng Road, Dongfeng Town, Zhongshan City, Building 1-2
Sample code	1) 8.02.041.0001 8.02.038.00232)	Sample quantity	LLS-LPA-W35-L3-DIM LLS- 2 PCS WZB-W40-L6-RDM 1PCS
Inspection date	From 10:00 on July 24, 2024 to 22:00 on July 25, 2024		
Testing background: The line lights LLS-LPA-W35-L3-DIM and LLS-WZB-W40-L6-RDM under extreme high or low temperatures The thermal performance is unknown. Therefore, to test the extreme temperature adaptability of the lamps, a high and low temperature shock test is conducted to verify their reliability and stability.			
Testing purpose: Evaluation of the performance of the linear light LLS-LPA-W35-L3-DIM and the linear light LLS-WZB-W35-L6-RDM under different temperature conditions. The heat dissipation performance and overall performance are verified to ensure that they meet the product design specifications, while also ensuring their safety and stability in practical applications.			
Testing equipment: Supmea thermometer (SUP-R9616)....., ... 1 temperature and humidity test chamber 1 unit1 NAPUI variable AC power supply (PA9520) 1 unit		Specification Model: 1) Linear Light, -LPA-W35 Series, V1.0; L300xW42xH35mm (including bracket size), spray-painted white, frosted cover; 24P, 1W, WW (3500K), CRI≥90, R9≥50, Blue Scene, 3030, 100-277V, 0-10V dimming; IP20, compatible with Huaxing connector power supply; maximum power 8, seamless splicing, estimated luminous efficacy: 80LM/W W; 2) Linear light, W40 waterproof version, V1.0; L620 x W40 x H57mm, oxidized sand silver, Tianqi / light gray + transparent PC cover, bottom bracket; 12 P, 4W, RGBWW (2860 - 3240K), Tianxin, 4in1; 20 x 40°, 1 Model: 00-277V, Maximum power: 15W, DMX512/RDM, IP66, Customizable connector by LITROX for easy connection, Exposed connector wire length enables seamless connection between fixtures.	
Testing items: Test Items: The line lights LLS-LPA-W35-L3-DIM and LS-WZB-W40-L6-RDM were placed in a high and low temperature test chamber. The temperature was set at -20°C for 6 hours and then at 45°C for 6 hours, with this cycle repeated 3 times.		L	
Detection and determination: 1) Observe whether the appearance of the lamp has any abnormalities due to thermal expansion and contraction or other reasons; 2) Test the electrical parameters of the lamp such as power and check for stroboscopic effects. If any of the above phenomena or other abnormal conditions occur, the test is judged as failed; otherwise, it is passed.			
Detection conclusion: The line lights LLS-LPA-W35-L3-DIM and LLS-WZB-W40-L6-RDM were operated at full load under a cold and hot shock of -20°C to 45°C for 36 hours. Their appearances and basic functions remained normal.		Chief Inspector: Li Weibiao Signature: Date: August 2, 2024 Reviewed by: Wu Zhenbiao Signature: Date: August 2, 2024	

Testing steps:

Wear appropriate personal protective equipment (such as anti-static wristbands), prepare and install the testing instruments, and check whether the power and functions of the lamps are abnormal due to incorrect installation. After confirming that there are no errors, operate the lamps at the maximum power under 120V voltage in a high and low temperature test chamber. The test chamber is set at -20°C for 6 hours and then 45°C for 6 hours, with a total of 3 cycles. After the test is completed, recheck whether the power and functions of the lamps are abnormal.

Equipment and sample pictures:



Figure 1 Thermocouple wire and thermometer



Figure 2 Device installation method



Figure 3 High and low temperature test chamber



Figure 4 Temperature Settings



Figure 5 AC transformer

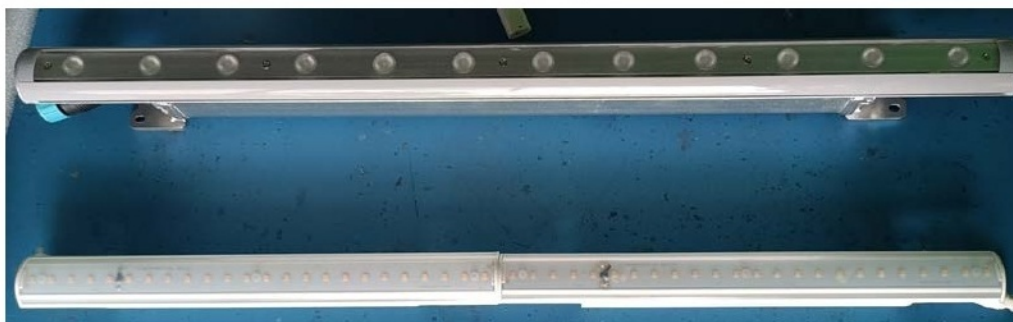
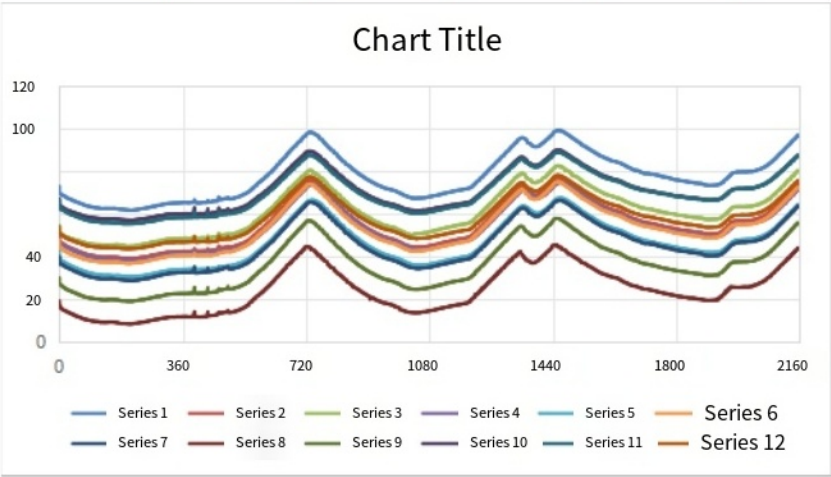


Figure 6 Line light LS-LPA-W35-L3-DIM (top) and line light LS-WZB-W40-L6-RDM (bottom, two in series)

Note: At the same time of this test, there are other lamps except line lamps LS-LPA-W35-L3-DIM and line lamps LS-WZB-W40-L6-RDM in the high and low temperature test chamber, so the 88W power displayed by the AC transformer is the result of the total consumption of these lamps, and the detailed power is shown in the test data.

Test data:

Test Spot		Test time: 2024/7/24 10:00 ~ 2024/7/25 22:00					
		Input voltage: 120V (Series 1 = CH1 and so on)					
		First cycle		Second cycle		Third cycle	
		0~720min		721min~1440min		1441min~2160	
		Minimum value	Maximum	Minimum	Maximum	Minimum	Maximum
lamp	CH8	Outside air					
body		8.5	44.5	13.8	45.2	19.5	45.8



Ls-lpa-w35-l3-dim before test: 14.9W



Ls-lpa-w35-l3-dim After test: 14.9W



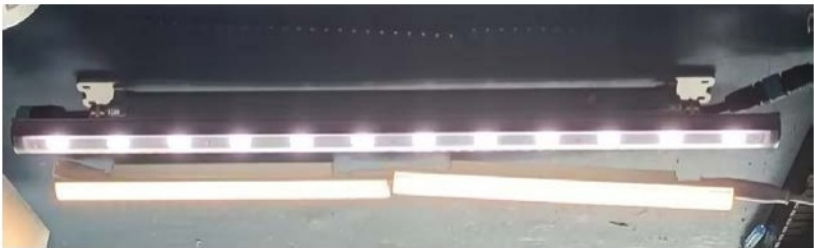
Ls-wzb-w40-l6-rdm before test: 15.2W



After LS-WZB-W40-L6-RDM test: 15.2W



After the test is completed, the function and appearance of the lamp are normal:



Data analysis:

Based on the comprehensive analysis of the above test data, the line lights LLS-LPA-W35-L3-DIM and LLS-WZB-W40-L6-RDM maintained normal appearance and basic functions after being subjected to a cold and heat shock test in a temperature chamber ranging from -20°C to 45°C for 36 hours of full-load operation. This test is only responsible for the samples.