

TEST REPORT

Product Name: Fixed LED (spot light)

Product Model: SP-F310A-36P-DMX

Test Category: High and low temperature testing

Customer: TPK OPTOELECTRONIC TECH CO., LTD

Tested by: Huang Wenliang

Checked by: Chen Hairui

report time: Nov 7 2025

广东泰然实业有限公司
TPK OPTOELECTRONIC TECH CO., LTD

Inspection report

Test items	High and low temperature testing
Test object	SP-F310A-36P-DMX
Detection Purposes	Whether SP-F310A-36P-DMX samples can light up normally after high and low temperature tests
Test time	Start 2025-11-4 End: 2025-11-7

Testing instruments: controlled constant temperature and humidity chamber, connecting wires, power supply

Test method and procedure:

- 1 Light up the SP-F310A-36P-DMX sample aged for 2 hours to confirm that the luminaires are functioning properly
- 2 Place the SP-F310A-36P-DMX in a constant temperature and humidity chamber with parameters set at -20 ° C to 70 ° C, with one cycle every 4 hours for a total of 6 cycles (24 hours).
- 3 Test whether the lamps can be lit normally after the experiment is completed

Test results: SP-F310A-36P-DMX was lit continuously at ambient temperature -20 ° C to 70 ° C, with 2 hours of high temperature and 2 hours of low temperature as one cycle; For a total of 6 cycles of 24 hours, no dead lamp or other uncontrollable conditions occurred in the lamp. The conclusion of this experiment is only responsible for the sample.

Standard requirements: GB/T 33721-2017

GB/T 33721-2017

Table 4 Temperature shock test

Environment		parameters Low temperature °C	High temperature °C	Exposure time h	Cycles time
Indoor	IP20	-20	70	1	15
	IP20 and above	-20	70	2	15
Outdoors		-40	70	2	20

For luminaires that are not suitable for temperatures up to 70 ° C (if the luminaire is made of materials with a heat distortion temperature lower than 70 ° C), set according to their claimed maximum tolerance temperature

Set the high temperature.

The choice of exposure time is related to the heat capacity of the luminaire. The method for determining the product exposure time can be seen in Appendix A. If the manufacturer can provide relevant information to prove that the product has A specific exposure time, the exposure time claimed by the manufacturer may be used.

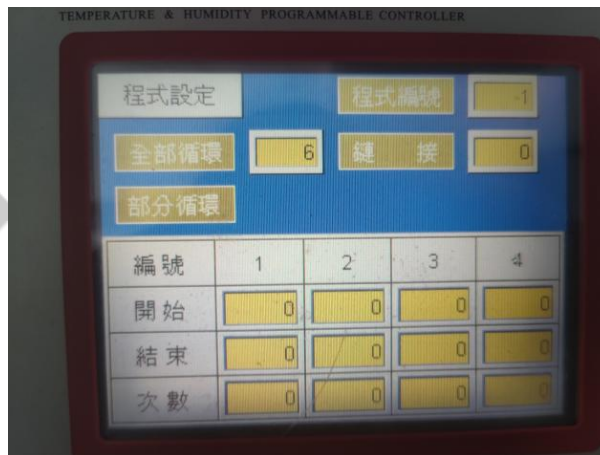
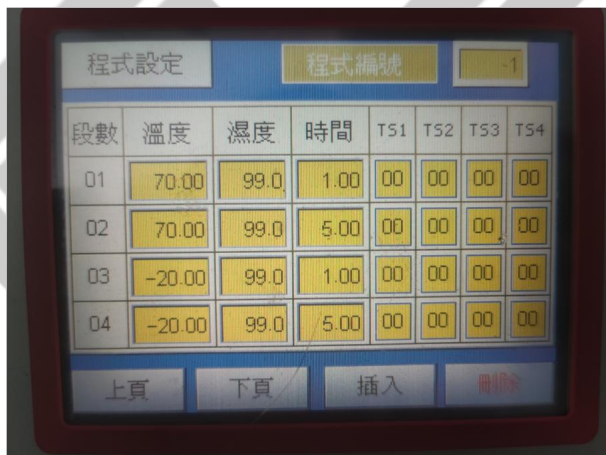
After the test, the label of the sample should be free of cracking, curling or peeling, the sample should be free of obvious damage, and the change in luminous flux measured in accordance with GB/T 9468-2008 relative to the initial luminous flux should not exceed 10%.

Test data

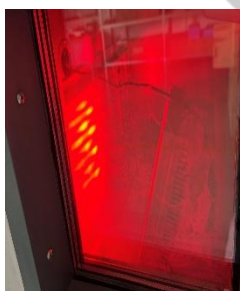
1. Before the test: Light up the lamp and let it age for 2 hours to confirm that the lamp is functioning properly



2 Light up the lamp and place it in temperature environments of -20°C to 70°C for 2 hours each, 4 hours as one cycle, for a total of 6 cycles (24 hours).



3 Confirm at intervals during the test that no signal loss, uncontrollability or non-illumination is found



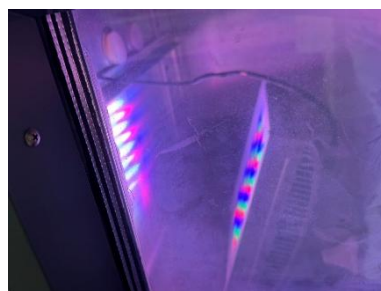
(6H)



(12H)



(18H)



(24H)

4. After testing: Connect the luminaires and confirm that they are functioning properly (monochrome R-G-B-all lit)

