

TEST REPORT

Product Name: Fixed LED (spot light)

Product Model: SP-DKP-F170-16P-RDM

Test Category: salt spray corrosion test

Customer: TPK OPTOELECTRONIC TECH CO., LTD

Tested by: Huang Wenliang

Checked by: Chen Hairui

report time: JUL 27, 2025

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

Inspection report

Test items	SP-DKP-F170-16P-RDM salt spray corrosion test
Test Object	SP-DKP-F170-16P-RDM
Detection Purposes	To verify the corrosion resistance of SP-DKP-F170-16P-RDM
Test time	Start: 2025-7-24 End: 2025-7-27
Testing instruments	Drying oven, salt spray test chamber

Test method and procedure:

- 1. Wash SP-DKP-F170-16P-RDM with alcohol first, prepare salt spray corrosion test solution: 50G sodium chloride 1 liter distilled water, and determine PH and specific gravity of the test solution
- 2. 2025.7.24 Start putting the samples into the salt spray test chamber for the salt spray corrosion test
- 3. 2025.7.27 The salt spray corrosion test is completed
- 4. After the test, remove the sample from the salt spray chamber, rinse the surface with tap water to remove the salt deposits, and then immediately place it in a drying oven at 70 ° C for 30 minutes to dry

Test data

Salt spray test record sheet

Test Date July 24, 2025 Test Number: 20250727		
Test duration: 2025.7.24 to 2025.7.27: Salt spray corrosion test for a total of 72 hours		
1. Quality of sodium chloride		Sodium chloride content greater than 98.8%
2. Quality of distilled water		Boil tap water and then filter it
3. Spray collector:		1.43 ml / 71 cm/h
	3.1 Spray Volume	1.43 ml/h
	3.2 Collect the specific gravity or concentration of the solution at room temperature	1.04
	3.3 PH	7.7-8.0
4. Compressed air pressure		1.0±0.01 Kg/f/cm
5. Relative humidity in the laboratory		More than 95%

6. Laboratory temperature	50 + / - 1 °C
6. Pressure tank temperature	65 + / - 1 °C
8. Salt tank temperature	50 + / - 1 °C
9. Others	
Judgment:	1. Judge based on the provisions of GB 5944-86
	2. By other means:

Before the test: Confirm that the appearance of the product is intact (no corrosive marks on the lamp body)



During the test, place the product in the salt spray test chamber and set the parameters to start the test (72 hours).



After the test: Rinse the product with clean water and dry it in a drying oven. Check if there are any corrosive marks on the surface of the lamp body





(No signs of corrosion were found on the product)

Test results:

According to Clause 5.6 of the national standard GB 5944-86 "Evaluation of Corrosion Test Results of Metal Coatings on Light Industrial Products", the corrosion resistance grade of SP-DKP-F170-16P-RDM is grade 10;

表 2

锈 点 数	耐 腐 蚀 等 级
0	10
> 0 ~ 1	9
> 1 ~ 2	8
> 2 ~ 4	7
> 4 ~ 8	6
> 8 ~ 16	5
> 16 ~ 32	4
> 32 ~ 64	3
> 64 ~ 128	2
> 128 ~ 256	1
> 256	0

Final test conclusion:

Based on the analysis of the above test data, the corrosion resistance test of the SP-DKP-F170-16P-RDM product is qualified.