

报告编号: Report No.	LAB2110565-03
报告版本: Report Version	V1
报告总页数: Total Pages	7

深圳市瑞丰光电子股份有限公司实验中心
SHENZHEN REFOND OPTOELECTRONICS CO., LTD. LAB CENTER

检测报告 Testing Report

样品名称
Product No. RF-A1F30-W1DD-B1

委托单位:
Application 深圳市瑞丰光电子股份有限公司_车用LED事业部_工程部
NPI课

检测项目:
Testing Item 冷热冲击

检测报告

Testing Report

样品品名 Product No.	<u>RF-A1F30-W1DD-B1</u>	样品批次 Batch No.	<u>SC17-210800043</u>
样品外观 Sample Status	<u>外观正常</u>	样品数量 Samples Quantity	<u>10</u>
委托人 Principal	<u>李先辉</u>	联系电话 Tel	<u>15755057052</u>
是否有分包 Subcontract or not	<u>否</u>	样品接收日期 Samples Received Date	<u>2021/10/30</u>

检测依据标准 环境试验 第二部分：试验方法 试验N：温度变化 GB/T 2423.22-2012
 Test Specification:
LED的测量 CIE127：2007

检测结论 [V]通过 []不做判定 []未通过
 Test Conclusion: Pass NA Fail

编制 刘在权 职务 检测员 日期 2022/1/6
 Prepared By Title Date

批准 刘琪 职务 授权签字人 日期 2022/1/6
 Approved By Title Date

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检测报告 Testing Report

1. 检测项目/Test Item: 冷热冲击

2. 样品编号/Sample No. : 1#~10#

3. 检测人/Operator: 刘斌

4. 检测日期/Test Date: 2021/11/1~2021/12/30

5. 环境条件/Lab Climate Conditions: (22~28) °C, (30~70) %RH

6. 检测条件/Test Conditions:

预处理: 125°C除湿24H, 85°C/60%RH吸湿168H, 回流焊3次(参照SMT回流焊说明WI-R00-004文件)-40°C (15min)~125°C (15min), 转换时间10s, 试验时间1000Cycles, 测试电流120mA, 积分球2π 测试, 测试点: 0Cycle, 100Cycles, 300Cycles, 500Cycles, 1000Cycles

7. 判定规则/Acceptance Criterion:

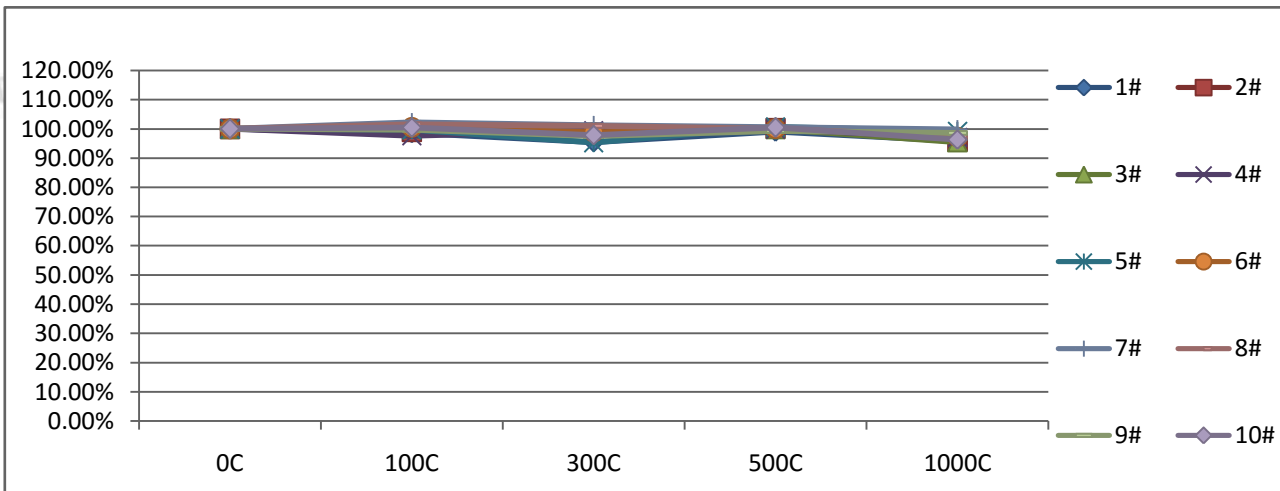
光衰20%以内, 电压±0.2V, X/Y: ±0.02, 无死灯, 接受底部轻微剥离

8. 检测设备/Test Equipment:

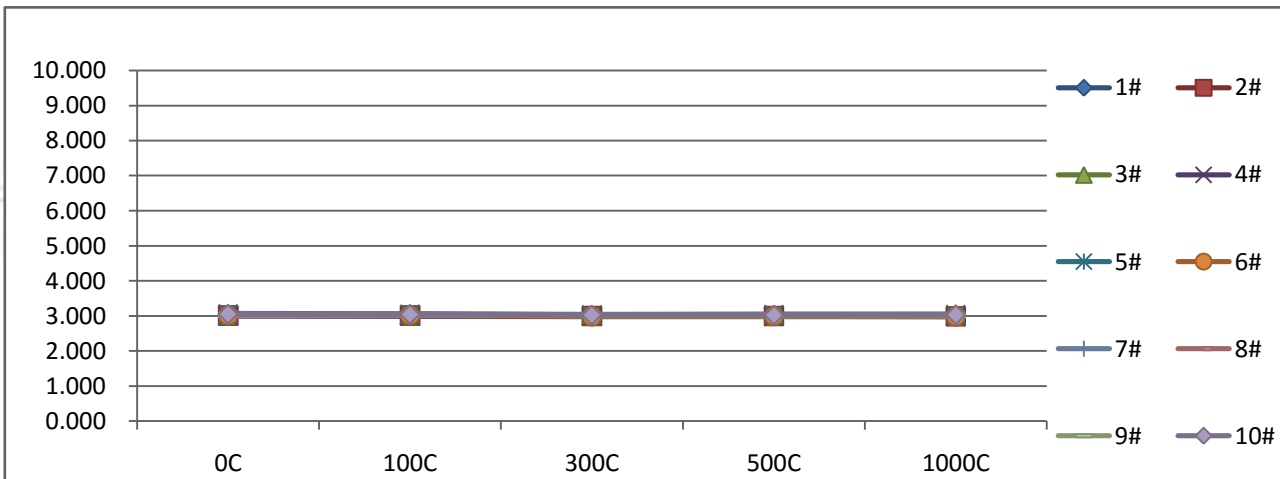
吊蓝式冷热冲击试验箱 (191121007); 恒温恒湿试验箱 (191118003); 电热鼓风干燥箱 (191111003); 回流焊炉 (191121031); 宏纳测试机 (/); 显微镜(191121031).

9. 测试数据/Test data:

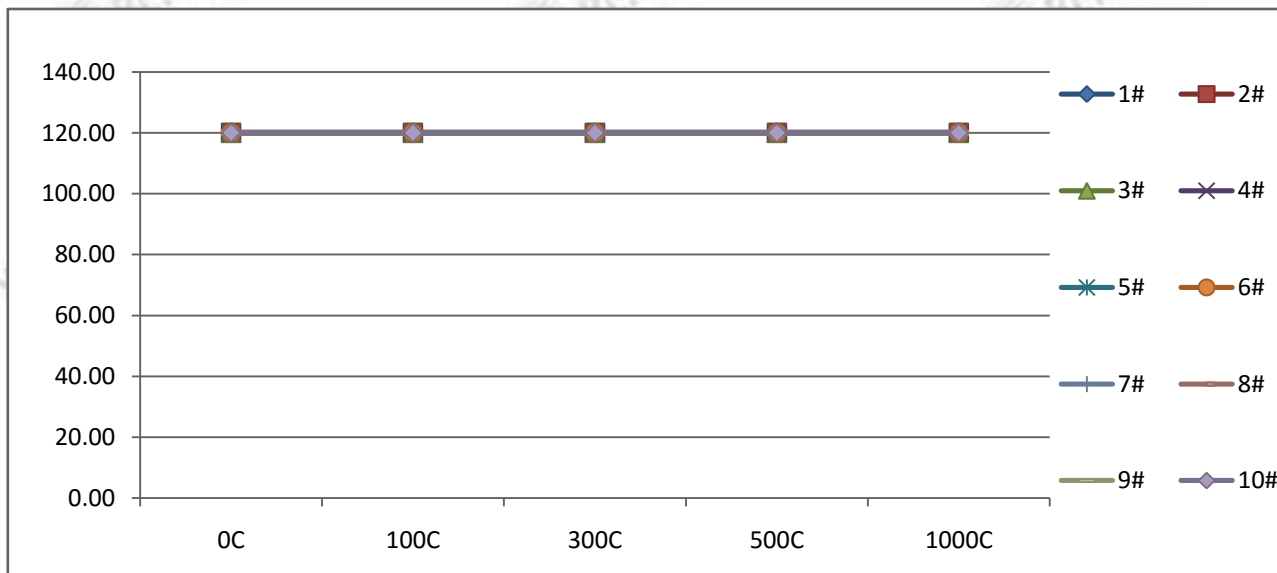
Φ (1m) 试验变化图



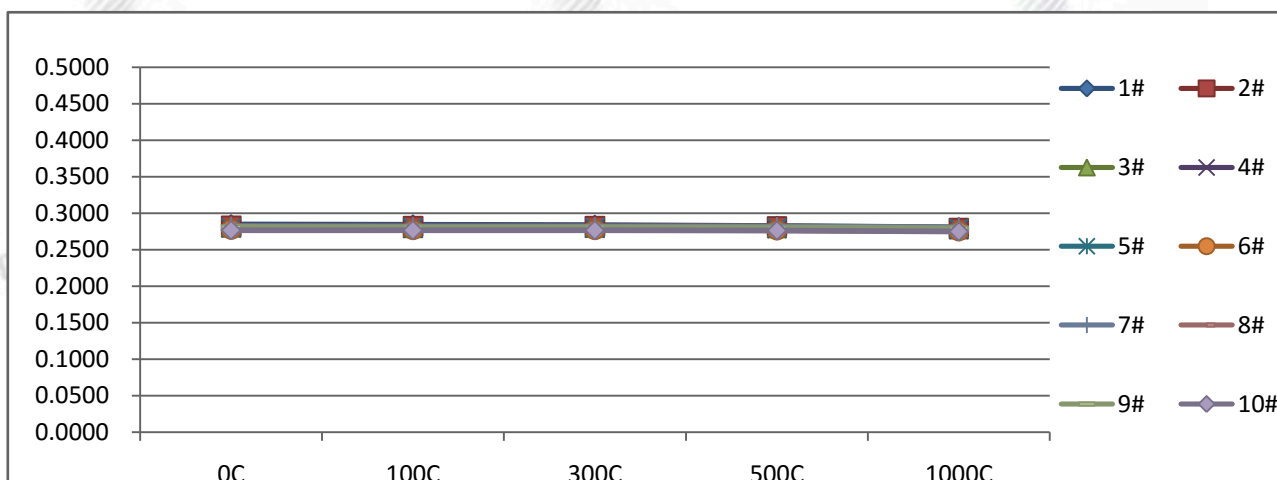
VF (V) 试验变化图



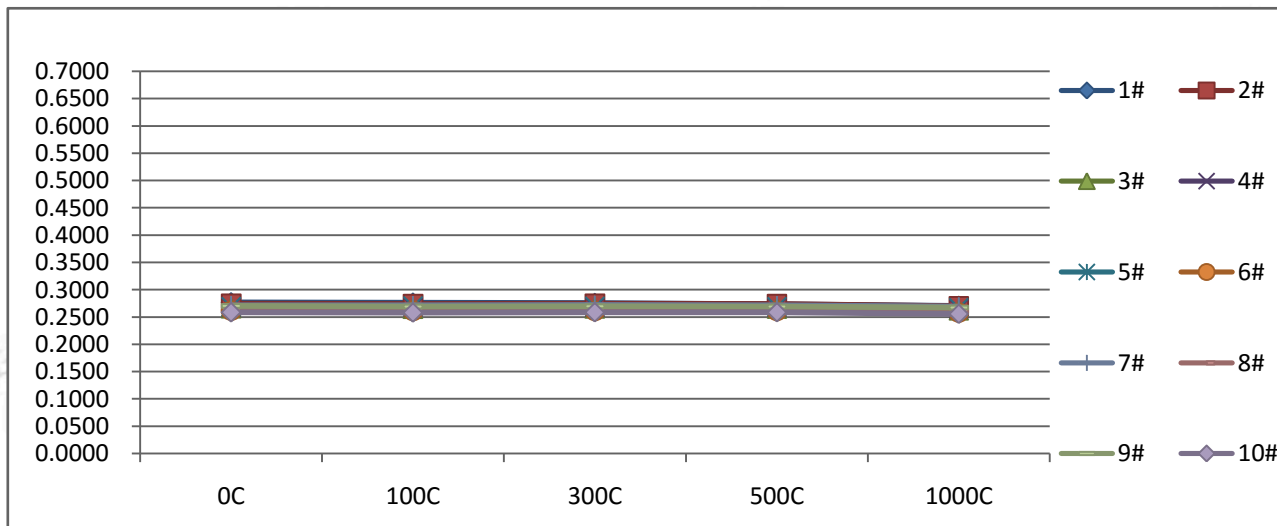
实测电流变化图



x试验变化图



y试验变化图



序号	Φ (1m)					Lumen Maintenance (%)				
	0C	100C	300C	500C	1000C	0C	100C	300C	500C	1000C
1#	45.44	44.79	43.36	45.01	43.57	100.00%	98.57%	95.42%	99.05%	95.88%
2#	44.74	44.27	44.17	44.86	42.80	100.00%	98.95%	98.73%	100.27%	95.66%
3#	43.42	43.48	42.74	43.39	41.44	100.00%	100.14%	98.43%	99.93%	95.44%
4#	41.36	40.37	41.11	41.29	40.17	100.00%	97.61%	99.40%	99.83%	97.12%
5#	45.51	45.36	43.37	45.80	45.14	100.00%	99.67%	95.30%	100.64%	99.19%
6#	43.48	43.72	42.97	43.53	42.25	100.00%	100.55%	98.83%	100.11%	97.17%
7#	42.47	43.43	42.99	42.73	42.41	100.00%	102.26%	101.22%	100.61%	99.86%
8#	41.10	41.73	41.51	41.10	40.08	100.00%	101.53%	101.00%	100.00%	97.52%
9#	43.37	43.23	42.29	43.03	42.76	100.00%	99.68%	97.51%	99.22%	98.59%
10#	42.55	42.75	41.63	42.73	41.00	100.00%	100.47%	97.84%	100.42%	96.36%
Min	41.10	40.37	41.11	41.10	40.08	100.00%	97.61%	95.30%	99.05%	95.44%
Max	45.51	45.36	44.17	45.80	45.14	100.00%	102.26%	101.22%	100.64%	99.86%
Avg	43.34	43.31	42.61	43.35	42.16	100.00%	99.94%	98.37%	100.01%	97.28%
Spec	NA					80%~120%				

序号	VF (V)					ΔVF (V)			
	0C	100C	300C	500C	1000C	100C	300C	500C	1000C
1#	3.026	3.029	3.004	3.011	3.002	0.003	-0.022	-0.015	-0.024
2#	3.012	3.013	2.996	2.996	2.988	0.001	-0.016	-0.016	-0.024
3#	3.032	3.031	3.014	3.015	3.011	-0.001	-0.018	-0.017	-0.021
4#	3.007	2.999	2.991	2.991	2.989	-0.008	-0.016	-0.016	-0.018
5#	3.057	3.048	3.036	3.039	3.038	-0.009	-0.021	-0.018	-0.019
6#	3.014	3.015	2.993	2.998	2.995	0.001	-0.021	-0.016	-0.019
7#	3.027	3.032	3.015	3.013	3.013	0.005	-0.012	-0.014	-0.014
8#	3.022	3.031	3.014	3.007	3.013	0.009	-0.008	-0.015	-0.009
9#	3.028	3.035	3.019	3.011	3.016	0.007	-0.009	-0.017	-0.012
10#	3.054	3.044	3.028	3.028	3.029	-0.010	-0.026	-0.026	-0.025
Min	3.007	2.999	2.991	2.991	2.988	-0.010	-0.026	-0.026	-0.025
Max	3.057	3.048	3.036	3.039	3.038	0.009	-0.008	-0.014	-0.009
Avg	3.028	3.028	3.011	3.011	3.009	0.000	-0.017	-0.017	-0.019
Spec	NA					-0.2~0.2			

序号	IF (mA)				
	0C	100C	300C	500C	1000C
1#	120.00	120.00	120.00	120.00	120.00
2#	120.00	120.00	120.00	120.00	120.00
3#	120.00	120.00	120.00	120.00	120.00
4#	120.00	120.00	120.00	120.00	120.00
5#	120.00	120.00	120.00	120.00	120.00
6#	120.00	120.00	120.00	120.00	120.00
7#	120.00	120.00	120.00	120.00	120.00
8#	120.00	120.00	120.00	120.00	120.00
9#	120.00	120.00	120.00	120.00	120.00
10#	120.00	120.00	120.00	120.00	120.00
Min	120.00	120.00	120.00	120.00	120.00
Max	120.00	120.00	120.00	120.00	120.00
Avg	120.00	120.00	120.00	120.00	120.00
Spec	NA				

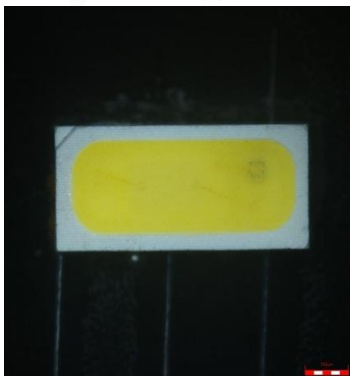
序号	x					Δx			
	0C	100C	300C	500C	1000C	100C	300C	500C	1000C
1#	0.2846	0.2841	0.2836	0.2825	0.2809	-0.0005	-0.0010	#####	-0.0037
2#	0.2827	0.2823	0.2825	0.2821	0.2800	-0.0004	-0.0002	#####	-0.0027
3#	0.2805	0.2800	0.2801	0.2797	0.2782	-0.0005	-0.0004	#####	-0.0023
4#	0.2798	0.2795	0.2794	0.2789	0.2779	-0.0003	-0.0004	#####	-0.0019
5#	0.2804	0.2808	0.2805	0.2801	0.2793	0.0004	0.0001	#####	-0.0011
6#	0.2776	0.2773	0.2772	0.2769	0.2756	-0.0003	-0.0004	#####	-0.0020
7#	0.2825	0.2821	0.2822	0.2819	0.2809	-0.0004	-0.0003	#####	-0.0016
8#	0.2795	0.2792	0.2792	0.2790	0.2780	-0.0003	-0.0003	#####	-0.0015
9#	0.2812	0.2808	0.2809	0.2803	0.2792	-0.0004	-0.0003	#####	-0.0020
10#	0.2769	0.2767	0.2769	0.2765	0.2751	-0.0002	0.0000	#####	-0.0018
Min	0.2769	0.2767	0.2769	0.2765	0.2751	-0.0005	-0.0010	#####	-0.0037
Max	0.2846	0.2841	0.2836	0.2825	0.2809	0.0004	0.0001	#####	-0.0011
Avg	0.2806	0.2803	0.2803	0.2798	0.2785	-0.0003	-0.0003	#####	-0.0021
Spec	NA					-0.02~0.02			

序号	y					Δy			
	0C	100C	300C	500C	1000C	100C	300C	500C	1000C
1#	0.2770	0.2762	0.2757	0.2736	0.2705	-0.0008	-0.0013	#####	-0.0065
2#	0.2746	0.2740	0.2745	0.2737	0.2697	-0.0006	-0.0001	#####	-0.0049
3#	0.2661	0.2652	0.2657	0.2654	0.2624	-0.0009	-0.0004	#####	-0.0037
4#	0.2682	0.2680	0.2677	0.2676	0.2652	-0.0002	-0.0005	#####	-0.0030
5#	0.2695	0.2704	0.2697	0.2695	0.2676	0.0009	0.0002	0.0000	-0.0019
6#	0.2616	0.2613	0.2611	0.2611	0.2582	-0.0003	-0.0005	#####	-0.0034
7#	0.2716	0.2716	0.2720	0.2714	0.2695	0.0000	0.0004	#####	-0.0021
8#	0.2642	0.2639	0.2642	0.2642	0.2622	-0.0003	0.0000	0.0000	-0.0020
9#	0.2702	0.2695	0.2700	0.2695	0.2672	-0.0007	-0.0002	#####	-0.0030
10#	0.2584	0.2583	0.2588	0.2586	0.2558	-0.0001	0.0004	0.0002	-0.0026
Min	0.2584	0.2583	0.2588	0.2586	0.2558	-0.0009	-0.0013	#####	-0.0065
Max	0.2770	0.2762	0.2757	0.2737	0.2705	0.0009	0.0004	0.0002	-0.0019
Avg	0.2681	0.2678	0.2679	0.2675	0.2648	-0.0003	-0.0002	#####	-0.0033
Spec	NA					-0.02~0.02			

10. 试验结果/Test Result:

全部样品各项参数均在判定标准范围内。

外观描述: 全部样品外观正常。



11. 试验结论/Test conclusion: 合格

12. 备注/Remark: N/A

.....报告结束/END.....