TEST REPORT

According to ANSI/IES LM-80-15
For

Hongli Zhihui Group Co.,Ltd. Guangzhou Branch

Room 316, Building 2, No.1, Xianke Yi Road, Huadong Town, Huadu District, Guangzhou, China

Model: HL-C3535K9W1EA(Ra1)-FC

Report Type: 6000 Hours Test Report	**Product Type:** LED Package
Reviewed By:	Pote Wang
Report Number:	RSZ201026503-10-6000
Test Date:	2020-11-23 to 2021-08-20
Report Date:	2021-10-11
Approved by:	Bill Xiong / EE Engineer
Prepared By:	Bay Area Compliance Laboratories Corp. (Dongguan) No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China. Tel: +86-0769-86858888 Fax:+86-0769-86858588

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1 - General Information

1.1 Description of LED Light Sources

Sample Size:

60 PCS test samples were in good condition and received on 2020-10-26. The samples were numbered from 1 to 30 and 31 to 60.

Manufacturer:	Hongli Zhihui Group Co.,Ltd. Guangzhou Branch
Part Number:	HL-C3535K9W1EA(Ra1)-FC
Part Type:	LED Package
#Drive Level:	DC 800mA
#Nominal CCT:	2700K
#Power:	2.34 W
#Average Current Density per LED die:	410mA/mm^2
#Average Power Density per LED die:	1.2W/mm^2
#CRI:	70
#Die Spacing:	NA

Sampling Method:

LED samples for IESNA LM-80 testing consist of units built from a minimum of three manufacturing lots with each manufacturing lot built from different wafer lots built on non-consecutive days.
These manufacturing lots are picked to represent a wide parametric distribution.

Family products covered by this report:

According to *ENERGY STAR® Requirements for the Use of LM-80 Data*, the following products can be covered by this report base on the information and declaration provided by manufacturer. The information of these models shows that the covered products meet all section 4 requirements of *ENERGY STAR® Requirements for the Use of LM-80 Data* (September 28, 2017)

This report covers the following models:

Model Name	Total Input Current (mA)	Power (W)	CCT (K)	Number of dies	Driver current per die(mA)	Current Density per Die (mA/mm^2)	Power Density per PCB (W/mm^2)	Die Spacing (mm)
HL-C3535K9W1EA(Ra1)-FC	800	2.34	2700	1	800	410	0.1932	/
HL-C3535K9W1EA(Ra1)-FC	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535K9W1EA(Ra1)-FC-LVR	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535F77W1EA(Ra1)-FC	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535F77W1EA(Ra1)-FC-LVR	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535K9W1GA(Ra1)-FC	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535K9W1GA(Ra1)-FC-LVR	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535F77W1GA(Ra1)-FC	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535F77W1GA(Ra1)-FC-LVR	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535K9W1EA(Ra1)-FC(Ag60)	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535F77W1EA(Ra1)-FC(Ag60)	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535K9W1EA(Ra1)-FC(Au120)-CY	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535F77W1EA(Ra1)-FC(Au120)-CY	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535K9W1GA(Ra1)-FC(Au120)-CY	800	2.34	2700-6500	1	800	410	0.1932	/

Model Name	Total Input Current (mA)	Power (W)	CCT (K)	Number of dies	Driver current per die(mA)	Current Density per Die (mA/mm^2)	Power Density per PCB (W/mm^2)	Die Spacing (mm)
HL-C3535F77W1GA(Ra1)-FC(Au120)-CY	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535K9W3GA(Ra1)-FC	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535F77W3GA(Ra1)-FC	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535K9W5GA(Ra1)-FC	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535F77W5GA(Ra1)-FC	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535K9W3GA(Ra1)-FC-LVR	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535F77W3GA(Ra1)-FC-LVR	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535K9W5GA(Ra1)-FC-LVR	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535F77W5GA(Ra1)-FC-LVR	500	1.4	2700-6500	1	500	383	0.1176	/
HL-C3535K9W1GA(Ra1)-FC-LVR-QX	800	2.34	2700-6500	1	800	410	0.1932	/
HL-C3535F77W5GA(Ra1)-FC-LVR-QX	500	1.4	2700-6500	1	500	383	0.1176	/

1.2 Standards and Reference Documentations

- ANSI/IES LM-80-15: IES Approved Method for Measuring Lumen Maintenance of LED Light Sources.
- CIE 127:2007: Measurement of LEDs
- ENERGY STAR® Requirements for the Use of LM-80 Data (This standard was not accredited by IAS)

1.3 Testing Equipment

Device	Manufacture	Model No	Serial No	Calibration date	Calibration due date
High Accuracy Array Spectroradiometer	EVERFINE	HAAS 2000	P600674CM5391140	2020-10-22	2021-10-21
0.5M Integrating Sphere	EVERFINE	0.5m	NA	2020-10-22	2021-10-21
LED Test Source	EVERFINE	LTS-300	P185616CJ1391143	2020-10-21	2021-10-20
Standard Light Source	EVERFINE	D062	1011093	2020-10-20	2021-10-19
High Accuracy Array Spectroradiometer	EVERFINE	HAAS 2000	P600674CM5391140	2020-10-22	2021-10-21
Multilayer aging machine	BACL	B2-270	20022	2021-02-24	2022-02-23
Digital CC&CV DC Power Supply	EVERFINE	WY5015	11090009	2021-02-24	2022-02-23

1.4 Drive Level

Samples are driven with a constant direct current (DC) during maintenance test, photometric and electrical measurement. The current value was regulated to within ±3% of the specified value of the manufacturer during maintenance test, and was within ±0.5% during photometric and electrical measurement test.

1.5 Ambient Conditions for Maintenance Test

For lumen maintenance test, samples within one data set, were installed on cooling boards in thermal chambers with minimal ambient airflow. The case temperature and ambient temperature was monitored by thermocouples which one was soldered to the coldest DUTs' case (TMP_{LED}) location, while the other is mounted at a distance of 5 mm above the TMP location.

During life testing, TMP_{LED} of the coldest LEDs were maintained at a temperature that was greater than or equal to 2°C below the corresponding nominal case temperature. Surrounding air was maintained at a temperature that was greater than or equal to 5°C below the corresponding nominal case temperature. Thermocouples were shielded from direct DUT optical radiation and comply with ASTM E230 Table 1 "Special Limits".

Samples were connected to DC power supply in series circuits with a constant current. The forward current was regulated to within ±3% of the specified value of the manufacturer.

The relative humidity within chamber was kept less than 65% during test.

For photometry measurement, the ambient temperature during test was set to 25°C ± 2°C, RH <65%.

1.6 Photometric Measurement Method and Uncertainty

Integrating sphere and spectroradiometer is used to measure luminous flux and chromaticity coordinate u'v'. 2π measurement was used and sample was drived by DC power supply. The forward current was regulated to within ±0.5% of the nominal value. The test system was calibrated by halogen reference lamp. The ambient temperature during test was set to 25°C ± 2°C, RH <65%. The temperature measurement point was located in the sphere and the temperature was detected by a temperature probe.

The uncertainty of the light output measurements is U=1.59% (K=2), at the 95% confidence level. The uncertainty of the correlated color temperature measurements is U=21K (K=2), at the 95% confidence level.

The uncertainty of the temperature is U=0.8671°C (K=2), at the 95% confidence level.

1.7 Statement of Traceability

Bay Area Compliance Laboratories Corp. (Dongguan) attested that all calibration has been performed using suitable standards traceable to National Primary Standards and International System of Units (SI).

1.8 Sample Set

Data Set 1: 55°C, 800mA

Part Number:	HL-C3535K9W1EA(Ra1)-FC
Number of Units:	30
Case Temperature:	>53°C
Ambient Temperature:	>50°C
Life Test Drive Current:	800mA
Measurement Current:	800mA

Data Set 2: 105°C, 800mA

Part Number:	HL-C3535K9W1EA(Ra1)-FC
Number of Units:	30
Case Temperature:	>103°C
Ambient Temperature:	>100°C
Life Test Drive Current:	800mA
Measurement Current:	800mA

2 - Summary of Test Result

Data Set:	Sample Size	Failures Observed:	Test Interval	Test Duration	α	β	Reported TM-21 L_{70} Lifetime
1	30	0	1000hrs	6000hrs	2.847E-06	1.005	>36000 hours
2	30	0	1000hrs	6000hrs	3.200E-06	1.004	>36000 hours

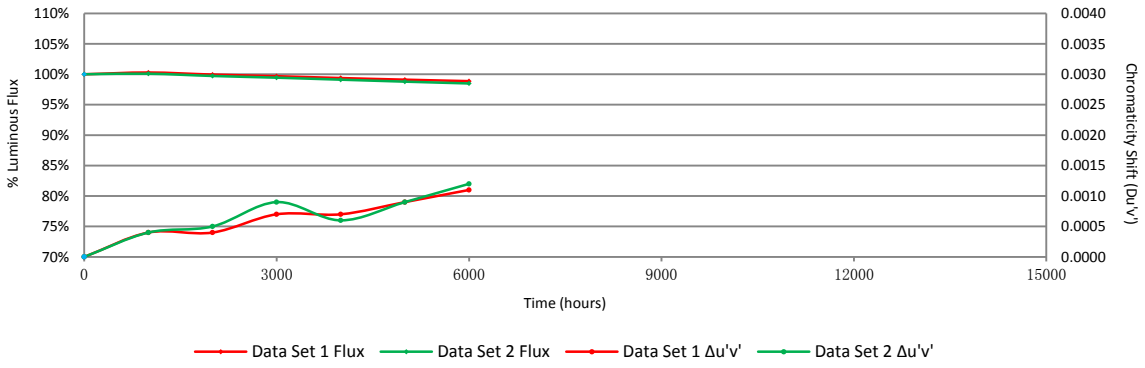
Average Lumen Maintenance (Percentage of Initial Luminous Flux)

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	100.29%	99.95%	99.68%	99.38%	99.11%	98.87%
2	100.09%	99.72%	99.44%	99.11%	98.79%	98.49%

Average Chromaticity Shift

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	0.0004	0.0004	0.0007	0.0007	0.0009	0.0011
2	0.0004	0.0005	0.0009	0.0006	0.0009	0.0012

Average Lumen Maintenance and Chromaticity Shift VS. Time



3 - Test Data

3.1 Data Set 1, 55°C, 800mA (Lumen Maintenance)

No.	Φ(lm)	Lumen Maintenance (%)					
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	338.80	100.32	99.94	99.76	99.32	99.17	99.03
2	333.70	100.30	100.18	99.88	99.58	99.22	99.01
3	335.80	100.21	99.97	99.64	99.43	99.08	98.90
4	336.80	100.24	99.94	99.61	99.41	99.20	98.90
5	335.60	100.39	100.09	99.70	99.34	99.20	99.02
6	335.30	100.39	100.15	99.76	99.61	99.25	99.05
7	338.00	100.65	100.38	99.88	99.70	99.56	99.26
8	334.90	100.36	100.00	99.64	99.40	99.04	98.84
9	336.50	100.45	100.09	99.70	99.41	99.20	98.90
10	335.00	100.33	100.03	99.91	99.49	99.19	98.75
11	336.90	100.42	100.27	100.09	99.82	99.53	99.23
12	337.10	100.39	100.15	100.00	99.85	99.58	99.35
13	335.10	100.18	100.03	99.82	99.67	99.34	99.07
14	327.40	100.37	99.88	99.85	99.39	99.14	98.93
15	326.70	100.37	100.15	99.88	99.63	99.45	99.27
16	331.80	100.30	99.94	99.91	99.34	99.13	98.88
17	336.70	100.27	99.82	99.73	99.20	98.96	98.84
18	337.80	100.33	99.85	99.67	99.41	99.14	98.76
19	342.80	100.18	99.91	99.39	99.12	98.83	98.72
20	333.00	100.09	99.88	99.43	99.13	98.95	98.68
21	335.50	100.36	99.88	99.79	99.28	98.96	98.75
22	337.00	100.21	99.73	99.58	99.29	98.96	98.75
23	336.90	100.27	99.85	99.38	99.20	98.96	98.78
24	339.00	100.24	99.79	99.35	99.09	98.73	98.58
25	338.20	100.03	99.67	99.32	98.99	98.67	98.37
26	337.10	100.33	100.12	99.44	99.26	98.99	98.75
27	335.20	100.30	99.85	99.52	99.31	99.05	98.78
28	337.40	100.27	99.73	99.61	99.29	99.02	98.67
29	338.80	100.18	99.73	99.53	99.35	99.03	98.76
30	333.70	100.06	99.55	99.46	98.98	98.68	98.50
Avg.	335.82	100.29	99.95	99.68	99.38	99.11	98.87
Med.	336.60	100.30	99.94	99.69	99.35	99.10	98.84
st dev	3.18	0.12	0.19	0.21	0.22	0.23	0.23
Min.	326.70	100.03	99.55	99.32	98.98	98.67	98.37
Max.	342.80	100.65	100.38	100.09	99.85	99.58	99.35

3.2 Data Set 1, 55°C, 800mA (Forward Voltage)

No.	Forward Voltage (V)						
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	2.910	2.927	2.928	2.921	2.911	2.924	2.928
2	2.920	2.939	2.939	2.936	2.958	2.961	2.957
3	2.907	2.923	2.922	2.921	2.917	2.929	2.932
4	2.908	2.923	2.923	2.917	2.916	2.947	2.930
5	2.925	2.931	2.932	2.934	2.935	2.948	2.937
6	2.922	2.935	2.940	2.931	2.943	2.922	2.921
7	2.924	2.939	2.938	2.944	2.930	2.931	2.940
8	2.925	2.936	2.935	2.927	2.935	2.952	2.936
9	2.919	2.939	2.936	2.942	2.947	2.937	2.936
10	2.920	2.936	2.933	2.934	2.934	2.952	2.958
11	2.926	2.941	2.939	2.935	2.943	2.945	2.941
12	2.917	2.933	2.934	2.931	2.931	2.957	2.952
13	2.903	2.925	2.923	2.928	2.927	2.926	2.926
14	2.916	2.932	2.933	2.925	2.934	2.947	2.952
15	2.906	2.920	2.919	2.913	2.927	2.908	2.926
16	2.914	2.931	2.928	2.923	2.933	2.937	2.939
17	2.919	2.934	2.933	2.923	2.947	2.948	2.937
18	2.915	2.930	2.930	2.920	2.926	2.917	2.927
19	2.929	2.945	2.943	2.934	2.936	2.941	2.945
20	2.904	2.916	2.915	2.908	2.917	2.921	2.930
21	2.926	2.941	2.939	2.928	2.928	2.924	2.928
22	2.919	2.933	2.932	2.922	2.916	2.931	2.928
23	2.919	2.933	2.933	2.925	2.920	2.943	2.931
24	2.929	2.946	2.944	2.946	2.936	2.926	2.926
25	2.929	2.947	2.944	2.947	2.939	2.946	2.941
26	2.919	2.932	2.931	2.927	2.919	2.915	2.921
27	2.917	2.933	2.934	2.923	2.919	2.937	2.920
28	2.917	2.934	2.934	2.923	2.919	2.929	2.909
29	2.902	2.918	2.915	2.906	2.916	2.925	2.929
30	2.906	2.921	2.922	2.913	2.917	2.926	2.924
Avg.	2.917	2.932	2.932	2.927	2.929	2.935	2.934
Med.	2.919	2.933	2.933	2.926	2.929	2.934	2.931
st dev	0.008	0.008	0.008	0.010	0.012	0.013	0.011
Min.	2.902	2.916	2.915	2.906	2.911	2.908	2.909
Max.	2.929	2.947	2.944	2.947	2.958	2.961	2.958

3.3 Data Set 1, 55°C, 800mA (Chromaticity Shift)

No.	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')					
	0hr(Initial)			1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	0.2569	0.5219	54	0.0003	0.0003	0.0011	0.0011	0.0013	0.0013
2	0.2590	0.5271	60	0.0004	0.0005	0.0007	0.0007	0.0008	0.0011
3	0.2604	0.5281	62	0.0006	0.0006	0.0006	0.0006	0.0008	0.0009
4	0.2565	0.5225	2853	0.0004	0.0004	0.0006	0.0006	0.0009	0.0010
5	0.2592	0.5265	2773	0.0003	0.0004	0.0009	0.0009	0.0010	0.0012
6	0.2586	0.5264	2787	0.0004	0.0005	0.0006	0.0006	0.0007	0.0009
7	0.2580	0.5284	2790	0.0004	0.0005	0.0007	0.0007	0.0009	0.0010
8	0.2594	0.5253	2774	0.0004	0.0005	0.0006	0.0006	0.0008	0.0009
9	0.2572	0.5223	2838	0.0003	0.0004	0.0008	0.0008	0.0010	0.0010
10	0.2591	0.5282	2768	0.0004	0.0004	0.0008	0.0008	0.0010	0.0011
11	0.2601	0.5295	2741	0.0004	0.0005	0.0006	0.0006	0.0008	0.0011
12	0.2588	0.5266	2781	0.0005	0.0005	0.0006	0.0006	0.0009	0.0011
13	0.2601	0.5259	2756	0.0003	0.0004	0.0008	0.0008	0.0009	0.0011
14	0.2567	0.5234	2843	0.0004	0.0005	0.0005	0.0005	0.0008	0.0010
15	0.2596	0.5275	2761	0.0004	0.0004	0.0006	0.0006	0.0008	0.0010
16	0.2624	0.5304	2689	0.0004	0.0004	0.0007	0.0007	0.0009	0.0011
17	0.2589	0.5253	2786	0.0004	0.0005	0.0008	0.0008	0.0011	0.0013
18	0.2593	0.5288	2760	0.0004	0.0004	0.0008	0.0008	0.0011	0.0011
19	0.2593	0.5279	2764	0.0004	0.0004	0.0007	0.0007	0.0010	0.0012
20	0.2577	0.5234	2821	0.0004	0.0004	0.0008	0.0008	0.0009	0.0011
21	0.2595	0.5248	2774	0.0004	0.0003	0.0007	0.0007	0.0010	0.0012
22	0.2572	0.5225	2837	0.0004	0.0006	0.0005	0.0005	0.0008	0.0008
23	0.2601	0.5276	2748	0.0003	0.0004	0.0006	0.0006	0.0009	0.0011
24	0.2600	0.5307	2739	0.0003	0.0004	0.0006	0.0006	0.0008	0.0013
25	0.2595	0.5268	2766	0.0004	0.0004	0.0005	0.0005	0.0008	0.0012
26	0.2601	0.5279	2749	0.0003	0.0004	0.0006	0.0006	0.0008	0.0011
27	0.2599	0.5245	2768	0.0004	0.0004	0.0009	0.0009	0.0011	0.0012
28	0.2575	0.5237	2823	0.0005	0.0005	0.0006	0.0006	0.0008	0.0011
29	0.2588	0.5272	2778	0.0004	0.0005	0.0006	0.0006	0.0009	0.0011
30	0.2606	0.5269	2742	0.0004	0.0004	0.0009	0.0009	0.0012	0.0013
Avg.	0.2590	0.5263	2506	0.0004	0.0004	0.0007	0.0007	0.0009	0.0011
Med.	0.2593	0.5267	2768	0.0004	0.0004	0.0007	0.0007	0.0009	0.0011
st dev	0.0013	0.0024	831	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Min.	0.2565	0.5219	54	0.0003	0.0003	0.0005	0.0005	0.0007	0.0008
Max.	0.2624	0.5307	2853	0.0006	0.0006	0.0011	0.0011	0.0013	0.0013

3.4 Data Set 2, 105°C, 800mA (Lumen Maintenance)

No.	Φ(lm)	Lumen Maintenance (%)					
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
31	338.30	100.12	99.70	99.53	99.05	98.67	98.40
32	333.10	100.21	99.88	99.73	99.19	98.89	98.65
33	334.10	99.97	99.67	99.37	99.04	98.65	98.32
34	336.10	100.15	99.73	99.43	99.11	98.72	98.45
35	337.40	100.09	99.73	99.41	99.26	98.96	98.58
36	333.30	100.15	99.76	99.37	99.10	98.83	98.59
37	335.80	100.03	99.94	99.76	99.37	99.05	98.75
38	335.70	100.09	99.79	99.70	99.31	99.05	98.78
39	334.00	100.12	99.70	99.61	99.19	98.86	98.65
40	336.70	99.97	99.61	99.20	98.87	98.57	98.34
41	334.20	100.12	99.34	99.19	98.86	98.50	98.11
42	335.50	100.12	99.52	99.25	98.96	98.63	98.39
43	337.20	100.06	99.70	99.38	99.17	98.96	98.72
44	340.10	99.91	99.71	99.38	99.15	98.85	98.53
45	339.90	100.09	99.74	99.56	99.12	98.79	98.59
46	334.60	100.15	99.76	99.52	99.31	99.04	98.66
47	336.70	100.18	99.82	99.55	99.23	98.96	98.60
48	339.00	100.32	99.85	99.56	99.32	99.09	98.64
49	338.90	100.24	99.97	99.44	99.06	98.67	98.29
50	336.60	100.03	99.70	99.05	98.75	98.46	98.10
51	335.00	100.18	99.85	99.76	99.19	98.93	98.63
52	336.90	100.06	99.76	99.61	99.20	98.75	98.46
53	334.00	100.27	99.70	99.52	99.10	98.71	98.44
54	332.90	100.06	99.67	99.43	99.16	98.86	98.56
55	337.90	100.03	99.70	99.44	99.14	98.76	98.37
56	332.80	100.03	99.76	99.43	99.16	98.95	98.65
57	335.10	99.97	99.70	99.40	98.99	98.63	98.27
58	337.40	99.97	99.70	99.41	99.08	98.87	98.61
59	336.20	99.88	99.55	99.20	98.87	98.51	98.22
60	337.50	100.06	99.50	99.05	98.87	98.49	98.37
Avg.	336.10	100.09	99.72	99.44	99.11	98.79	98.49
Med.	336.15	100.09	99.71	99.43	99.13	98.81	98.54
st dev	2.05	0.10	0.13	0.19	0.15	0.18	0.18
Min.	332.80	99.88	99.34	99.05	98.75	98.46	98.10
Max.	340.10	100.32	99.97	99.76	99.37	99.09	98.78

3.5 Data Set 2, 105°C, 800mA (Forward Voltage)

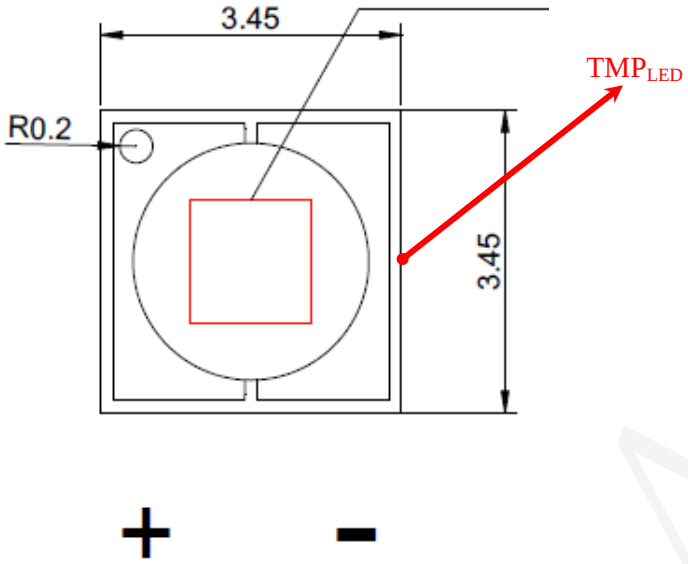
No.	Forward Voltage (V)						
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
31	2.926	2.942	2.940	2.931	2.938	2.933	2.947
32	2.922	2.935	2.933	2.925	2.936	2.930	2.944
33	2.914	2.930	2.928	2.921	2.932	2.930	2.930
34	2.929	2.942	2.941	2.931	2.947	2.924	2.945
35	2.925	2.944	2.943	2.930	2.943	2.941	2.942
36	2.922	2.936	2.935	2.923	2.935	2.933	2.926
37	2.903	2.920	2.919	2.910	2.921	2.937	2.930
38	2.913	2.928	2.928	2.922	2.921	2.912	2.923
39	2.928	2.922	2.921	2.915	2.924	2.934	2.925
40	2.919	2.933	2.934	2.932	2.944	2.944	2.925
41	2.917	2.932	2.932	2.925	2.943	2.934	2.947
42	2.924	2.936	2.935	2.928	2.925	2.935	2.938
43	2.915	2.932	2.933	2.927	2.920	2.933	2.934
44	2.928	2.947	2.949	2.935	2.939	2.925	2.940
45	2.929	2.946	2.943	2.936	2.928	2.943	2.958
46	2.903	2.934	2.916	2.912	2.916	2.917	2.926
47	2.922	2.940	2.939	2.929	2.928	2.948	2.954
48	2.924	2.942	2.940	2.935	2.937	2.957	2.956
49	2.924	2.942	2.943	2.935	2.949	2.946	2.952
50	2.914	2.932	2.931	2.924	2.929	2.959	2.946
51	2.913	2.932	2.930	2.922	2.912	2.925	2.946
52	2.915	2.933	2.932	2.925	2.918	2.940	2.932
53	2.909	2.920	2.919	2.912	2.924	2.927	2.947
54	2.906	2.923	2.926	2.918	2.925	2.920	2.938
55	2.917	2.934	2.935	2.930	2.935	2.943	2.964
56	2.902	2.917	2.916	2.911	2.914	2.923	2.960
57	2.905	2.920	2.919	2.914	2.930	2.930	2.931
58	2.904	2.920	2.919	2.915	2.923	2.935	2.969
59	2.913	2.931	2.928	2.922	2.921	2.934	2.964
60	2.915	2.935	2.933	2.926	2.936	2.960	2.957
Avg.	2.917	2.933	2.931	2.924	2.930	2.935	2.943
Med.	2.916	2.933	2.933	2.925	2.929	2.934	2.945
st dev	0.008	0.008	0.009	0.008	0.010	0.012	0.013
Min.	2.902	2.917	2.916	2.910	2.912	2.912	2.923
Max.	2.929	2.947	2.949	2.936	2.949	2.960	2.969

3.6 Data Set 2, 105°C, 800mA (Chromaticity Shift)

No.	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')					
	0hr(Initial)			1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
31	0.2594	0.5285	2760	0.0004	0.0005	0.0009	0.0006	0.0010	0.0012
32	0.2594	0.5235	2782	0.0004	0.0005	0.0009	0.0006	0.0010	0.0011
33	0.2604	0.5252	2754	0.0004	0.0005	0.0009	0.0006	0.0009	0.0012
34	0.2596	0.5284	2756	0.0004	0.0006	0.0008	0.0005	0.0007	0.0010
35	0.2598	0.5286	2751	0.0004	0.0006	0.0007	0.0005	0.0007	0.0011
36	0.2597	0.5269	2761	0.0004	0.0005	0.0008	0.0006	0.0008	0.0012
37	0.2595	0.5268	2767	0.0003	0.0005	0.0011	0.0006	0.0009	0.0014
38	0.2580	0.5229	2816	0.0003	0.0004	0.0010	0.0009	0.0011	0.0014
39	0.2612	0.5259	2732	0.0004	0.0005	0.0008	0.0007	0.0009	0.0011
40	0.2587	0.5272	2782	0.0003	0.0005	0.0010	0.0006	0.0009	0.0012
41	0.2606	0.5278	2738	0.0004	0.0006	0.0009	0.0006	0.0008	0.0011
42	0.2606	0.5288	2734	0.0004	0.0005	0.0008	0.0004	0.0006	0.0010
43	0.2609	0.5293	2726	0.0005	0.0006	0.0009	0.0004	0.0008	0.0010
44	0.2593	0.5265	2772	0.0003	0.0004	0.0010	0.0006	0.0010	0.0012
45	0.2578	0.5266	2803	0.0004	0.0005	0.0008	0.0006	0.0009	0.0010
46	0.2591	0.5260	2777	0.0004	0.0005	0.0008	0.0007	0.0009	0.0012
47	0.2606	0.5284	2736	0.0004	0.0005	0.0007	0.0006	0.0010	0.0013
48	0.2595	0.5284	2760	0.0004	0.0005	0.0008	0.0006	0.0008	0.0010
49	0.2597	0.5276	2757	0.0004	0.0006	0.0008	0.0008	0.0010	0.0013
50	0.2602	0.5249	2758	0.0004	0.0005	0.0008	0.0006	0.0009	0.0012
51	0.2590	0.5238	2790	0.0004	0.0005	0.0009	0.0006	0.0008	0.0011
52	0.2581	0.5272	2795	0.0004	0.0005	0.0009	0.0006	0.0009	0.0013
53	0.2593	0.5256	2776	0.0003	0.0004	0.0010	0.0008	0.0009	0.0011
54	0.2593	0.5278	2766	0.0004	0.0005	0.0007	0.0006	0.0009	0.0010
55	0.2585	0.5278	2783	0.0004	0.0005	0.0008	0.0006	0.0009	0.0012
56	0.2590	0.5260	2780	0.0004	0.0006	0.0008	0.0006	0.0009	0.0011
57	0.2595	0.5267	2766	0.0004	0.0005	0.0008	0.0006	0.0010	0.0012
58	0.2585	0.5228	2807	0.0003	0.0005	0.0012	0.0008	0.0011	0.0014
59	0.2604	0.5258	2750	0.0005	0.0005	0.0008	0.0005	0.0007	0.0010
60	0.2584	0.5253	2797	0.0005	0.0006	0.0010	0.0008	0.0009	0.0012
Avg.	0.2595	0.5266	2768	0.0004	0.0005	0.0009	0.0006	0.0009	0.0012
Med.	0.2595	0.5268	2766	0.0004	0.0005	0.0008	0.0006	0.0009	0.0012
st dev	0.0009	0.0018	23	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Min.	0.2578	0.5228	2726	0.0003	0.0004	0.0007	0.0004	0.0006	0.0010
Max.	0.2612	0.5293	2816	0.0005	0.0006	0.0012	0.0009	0.0011	0.0014

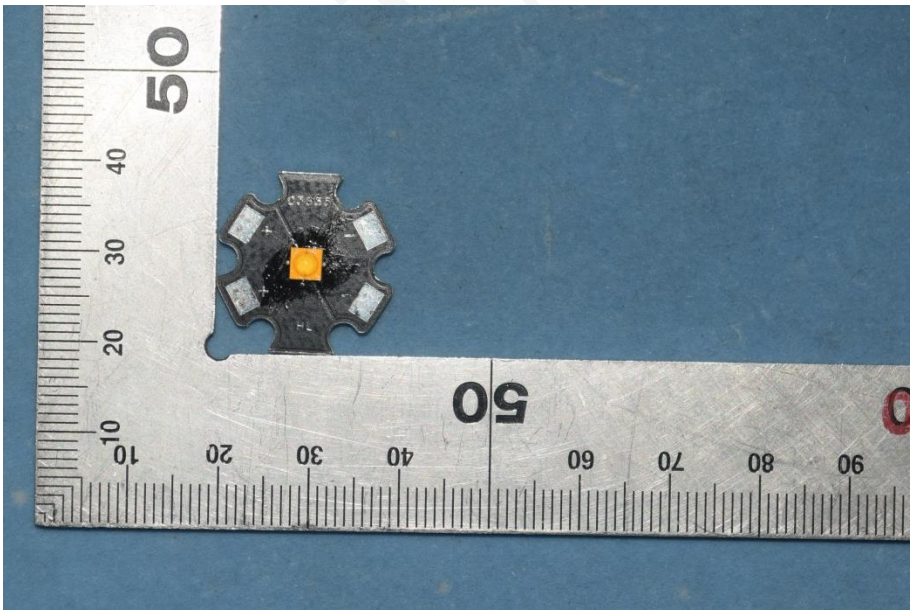
4 - DUT Photo

4.1 Mechanical Dimensions



All dimensions are in millimeter

4.2 DUT Photo



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1. The information marked “superscript #” is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.
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**********END OF REPORT**********