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-A-3014H416W-S1-08HL-HR3

Report Type: 6000 Hours Test Report	**Product Type:** LED Package
Reviewed By:	Pote Wang
Report Number:	SZ2220725-33706E-EE-6000
Test Date:	2022-07-29 to 2023-04-05
Report Date:	2023-05-06
Approved by:	Blake Zhang / EE Engineer
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 5/F(B-West) -7/F, the 3rd Phase of Wan Li Industrial Building D, Shihua Road, Futian Free Trade Zone Shenzhen, Guangdong, China. Tel: +86-755-33320018 Fax: +86-755-33320008
Test Facility:	Test facility was located at No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

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1 - General Information

1.1 Description of LED Light Sources#

Sample Size:

50 PCS test samples were in good condition and received on 2022-07-25. The samples were numbered from 1 to 25 and 26 to 50.

Manufacturer:	Hongli Zhihui Group Co.,Ltd. Guangzhou Branch
Part Number:	HL-A-3014H416W-S1-08HL-HR3
Part Type:	LED Package
Drive Level:	DC 30mA
Nominal CCT:	2700K
Power:	0.102W
Average Current Density per LED die:	387.5mA/mm^2
Average Power Density per LED die:	1.318W/mm^2
CRI:	80
Die Spacing:	/

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:

Series Name	Model Name	CRI (typ.)	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)
Test model	HL-A-3014H416W-S1-08HL-HR3	80	30	0.102	2700	1	30	387.5	0.0476	/
Multiple model	HL-A-3014H***W-S1-08**-HR*-***	70-80	30	0.102	2700-6500	1	30	387.5	0.0476	/
	HL-A-3014H***W-S1-08**-HR*(R9)-***	70-80	30	0.102	2700-6500	1	30	387.5	0.0476	/
	HL-A-3014H***W-S1-08**-HR*-***	70-80	30	0.102	2700-6500	1	30	387.5	0.0476	/
	HL-A-3014D***W-S1-08**-HR*-***	70-80	30	0.102	2700-6500	1	30	387.5	0.0476	/

Note:
The model name begins with "HL", such as “HL-A-3014H***W-S1-08**-HR*-***”, " *" is described in detail as follows:
1 - The first “***” is the number from 1 to 999 which stands for the brightness level.
2 - The second “**” is the letter HL or None which stands for the bonding wire style.
3 - The third “*” is the number 1 or 2 or 3 which stands for the CRI style
4 - The fourth “***” is the letter which stands for the customer code.

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 (This standard was not accredited by NVLAP)

- *ENERGY STAR® Requirements for the Use of LM-80 Data (This standard was not accredited by NVLAP)

1.3 Testing Equipment

Device	Manufacture	Model No	Serial No	Calibration date	Calibration due date
0.5m integrating sphere	EVERFINE	AIS-2	G185304TA1381172	2022-11-18	2023-11-17
LED Test Source	EVERFINE	LTS-300	P185616CD1371113	2022-11-18	2023-11-17
High Accuracy Array Spectroradiometer	EVERFINE	HAAS-2000	P600674CM1381123	2022-06-07	2023-06-06
Standard Light Source	EVERFINE	D062	1011093	2021-10-15	2023-10-14
Multilayer aging machine	BACL	B2-270	20015	2022-10-19	2023-10-18
Program-controlled D.C. Stabilized Voltage Supply	Hanshenpuyuan	HSPY-200-01	N/A	2022-10-19	2023-10-18

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. (Shenzhen) 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, 30mA

Part Number:	HL-A-3014H416W-S1-08HL-HR3
Number of Units:	25
Case Temperature:	>53°C
Ambient Temperature:	>50°C
Life Test Drive Current:	30mA
Measurement Current:	30mA

Data Set 2: 85°C, 30mA

Part Number:	HL-A-3014H416W-S1-08HL-HR3
Number of Units:	25
Case Temperature:	>83°C
Ambient Temperature:	>80°C
Life Test Drive Current:	30mA
Measurement Current:	30mA

2 - Summary of Test Result

Data Set:	Sample Size	Failures Observed:	Test Interval	Test Duration	α	β	Reported TM-21 L_{70} Lifetime
1	25	0	1000hrs	6000hrs	1.983E-06	1.004	>36000 hours
2	25	0	1000hrs	6000hrs	2.174E-06	1.004	>36000 hours

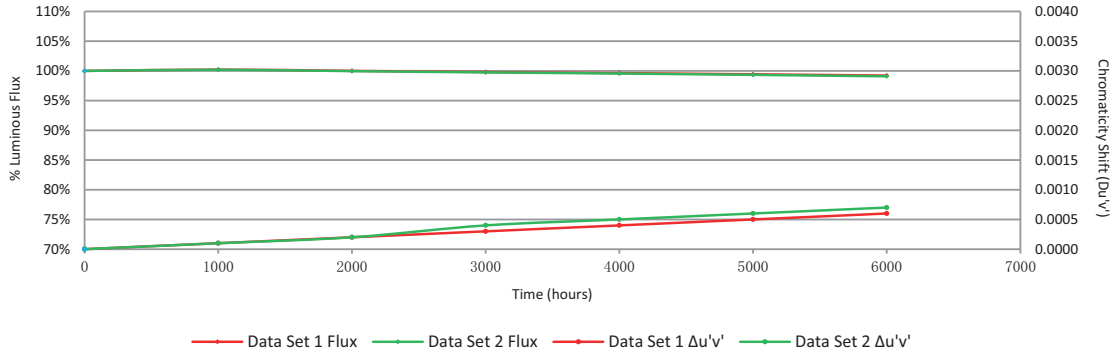
Average Lumen Maintenance (Percentage of Initial Luminous Flux)

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	100.22%	100.01%	99.81%	99.63%	99.43%	99.22%
2	100.19%	99.96%	99.75%	99.56%	99.33%	99.09%

Average Chromaticity Shift

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	0.0001	0.0002	0.0003	0.0004	0.0005	0.0006
2	0.0001	0.0002	0.0004	0.0005	0.0006	0.0007

Average Lumen Maintenance and Chromaticity Shift VS. Time



3 - Test Data

3.1 Data Set 1, 55°C, 30mA (Lumen Maintenance)

No.	Φ(lm)	Lumen Maintenance (%)					
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	11.88	100.25	100.17	100.08	99.92	99.75	99.49
2	11.74	100.26	100.09	99.91	99.83	99.66	99.49
3	11.83	100.25	99.92	99.75	99.66	99.58	99.41
4	11.17	100.27	100.18	99.91	99.73	99.55	99.37
5	11.71	100.26	100.09	99.91	99.66	99.32	99.15
6	11.66	100.26	100.09	99.91	99.74	99.57	99.31
7	11.80	100.17	99.92	99.75	99.58	99.41	99.24
8	11.24	100.27	100.09	99.91	99.73	99.47	99.29
9	11.89	100.08	99.83	99.58	99.33	99.07	98.82
10	11.63	100.26	100.09	99.91	99.66	99.40	99.23
11	11.77	100.25	99.92	99.66	99.58	99.41	99.24
12	11.68	100.09	99.83	99.57	99.40	99.06	98.89
13	11.56	100.17	99.91	99.74	99.57	99.39	99.22
14	11.60	100.09	99.91	99.66	99.48	99.31	99.14
15	11.92	100.17	99.92	99.75	99.58	99.33	99.16
16	11.58	100.09	99.83	99.65	99.48	99.31	99.05
17	11.98	100.17	99.92	99.67	99.42	99.17	98.91
18	11.55	100.35	100.09	99.91	99.74	99.57	99.39
19	11.89	100.25	99.92	99.75	99.58	99.33	99.07
20	11.80	100.25	100.08	99.83	99.66	99.49	99.24
21	12.07	100.25	100.08	99.75	99.67	99.50	99.25
22	11.62	100.26	100.17	99.91	99.57	99.40	99.23
23	11.73	100.17	100.09	99.91	99.74	99.57	99.40
24	11.31	100.27	100.09	99.91	99.73	99.56	99.38
25	11.43	100.26	100.09	99.91	99.65	99.48	99.21
Avg.	11.68	100.22	100.01	99.81	99.63	99.43	99.22
Med.	11.71	100.25	100.08	99.83	99.66	99.41	99.24
st dev	0.22	0.07	0.11	0.13	0.14	0.17	0.18
Min.	11.17	100.08	99.83	99.57	99.33	99.06	98.82
Max.	12.07	100.35	100.18	100.08	99.92	99.75	99.49

3.2 Data Set 1, 55°C, 30mA (Forward Voltage)

No.	Forward Voltage (V)						
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	2.889	2.888	2.888	2.888	2.888	2.888	2.889
2	2.873	2.872	2.873	2.873	2.872	2.873	2.877
3	2.881	2.882	2.883	2.883	2.880	2.881	2.886
4	2.870	2.887	2.887	2.891	2.886	2.888	2.889
5	2.879	2.881	2.882	2.883	2.880	2.883	2.882
6	2.878	2.877	2.877	2.881	2.877	2.878	2.878
7	2.884	2.882	2.883	2.885	2.883	2.886	2.885
8	2.877	2.877	2.879	2.881	2.880	2.879	2.881
9	2.886	2.888	2.888	2.891	2.886	2.888	2.889
10	2.876	2.879	2.882	2.883	2.880	2.880	2.880
11	2.879	2.880	2.883	2.883	2.884	2.883	2.882
12	2.883	2.885	2.886	2.887	2.888	2.887	2.888
13	2.878	2.879	2.881	2.882	2.882	2.881	2.880
14	2.883	2.885	2.888	2.887	2.884	2.885	2.885
15	2.877	2.877	2.878	2.879	2.879	2.878	2.879
16	2.870	2.872	2.874	2.874	2.874	2.873	2.873
17	2.879	2.880	2.880	2.885	2.882	2.882	2.881
18	2.879	2.880	2.880	2.884	2.881	2.882	2.881
19	2.885	2.887	2.888	2.890	2.890	2.888	2.888
20	2.885	2.885	2.887	2.889	2.888	2.886	2.887
21	2.888	2.888	2.891	2.889	2.895	2.892	2.890
22	2.879	2.881	2.879	2.883	2.886	2.884	2.885
23	2.886	2.884	2.887	2.886	2.889	2.889	2.892
24	2.884	2.886	2.888	2.886	2.888	2.889	2.899
25	2.866	2.866	2.867	2.867	2.877	2.871	2.875
Avg.	2.880	2.881	2.882	2.884	2.883	2.883	2.884
Med.	2.879	2.881	2.883	2.884	2.883	2.883	2.885
st dev	0.006	0.006	0.006	0.006	0.005	0.005	0.006
Min.	2.866	2.866	2.867	2.867	2.872	2.871	2.873
Max.	2.889	2.888	2.891	2.891	2.895	2.892	2.899

3.3 Data Set 1, 55°C, 30mA (Chromaticity Shift)

No.	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')					
	0hr(Initial)			1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	0.2550	0.5286	2859	0.0001	0.0002	0.0001	0.0004	0.0006	0.0007
2	0.2552	0.5267	2861	0.0001	0.0002	0.0004	0.0007	0.0008	0.0009
3	0.2608	0.5297	2725	0.0001	0.0002	0.0004	0.0004	0.0005	0.0007
4	0.2623	0.5257	2710	0.0002	0.0003	0.0002	0.0003	0.0004	0.0006
5	0.2594	0.5328	2741	0.0001	0.0002	0.0005	0.0005	0.0005	0.0006
6	0.2567	0.5249	2836	0.0001	0.0002	0.0003	0.0003	0.0005	0.0006
7	0.2591	0.5267	2774	0.0001	0.0002	0.0002	0.0003	0.0004	0.0005
8	0.2570	0.5296	2806	0.0001	0.0002	0.0002	0.0003	0.0004	0.0005
9	0.2550	0.5291	2853	0.0001	0.0002	0.0001	0.0002	0.0004	0.0005
10	0.2587	0.5323	2760	0.0001	0.0002	0.0001	0.0001	0.0003	0.0004
11	0.2561	0.5283	2832	0.0001	0.0002	0.0001	0.0003	0.0005	0.0006
12	0.2594	0.5281	2762	0.0001	0.0002	0.0001	0.0003	0.0005	0.0006
13	0.2588	0.5261	2783	0.0001	0.0002	0.0003	0.0003	0.0004	0.0006
14	0.2552	0.5297	2846	0.0001	0.0002	0.0004	0.0004	0.0005	0.0006
15	0.2588	0.5283	2775	0.0001	0.0002	0.0004	0.0003	0.0004	0.0005
16	0.2549	0.5292	2856	0.0002	0.0003	0.0002	0.0002	0.0004	0.0004
17	0.2592	0.5324	2748	0.0001	0.0002	0.0003	0.0003	0.0004	0.0004
18	0.2599	0.5328	2732	0.0001	0.0002	0.0002	0.0002	0.0004	0.0005
19	0.2592	0.5274	2770	0.0001	0.0002	0.0004	0.0004	0.0005	0.0005
20	0.2552	0.5296	2846	0.0002	0.0003	0.0002	0.0002	0.0003	0.0004
21	0.2560	0.5288	2833	0.0001	0.0002	0.0003	0.0004	0.0003	0.0004
22	0.2572	0.5273	2814	0.0001	0.0002	0.0002	0.0004	0.0004	0.0006
23	0.2574	0.5268	2812	0.0001	0.0002	0.0004	0.0007	0.0006	0.0009
24	0.2563	0.5271	2835	0.0001	0.0002	0.0003	0.0006	0.0006	0.0007
25	0.2610	0.5321	2712	0.0001	0.0002	0.0004	0.0005	0.0005	0.0006
Avg.	0.2578	0.5288	2795	0.0001	0.0002	0.0003	0.0004	0.0005	0.0006
Med.	0.2574	0.5286	2806	0.0001	0.0002	0.0003	0.0003	0.0004	0.0006
st dev	0.0022	0.0023	50	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001
Min.	0.2549	0.5249	2710	0.0001	0.0002	0.0001	0.0001	0.0003	0.0004
Max.	0.2623	0.5328	2861	0.0002	0.0003	0.0005	0.0007	0.0008	0.0009

3.4 Data Set 2, 85°C, 30mA (Lumen Maintenance)

No.	Φ(lm)	Lumen Maintenance (%)					
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
26	11.76	100.26	99.91	99.74	99.49	99.15	98.98
27	11.66	100.17	99.91	99.66	99.40	99.23	98.97
28	11.42	100.35	100.09	99.91	99.74	99.56	99.21
29	11.67	100.09	99.91	99.83	99.74	99.40	99.23
30	11.69	100.34	100.17	99.83	99.66	99.49	99.23
31	11.35	100.35	100.09	99.82	99.65	99.38	99.12
32	11.47	100.17	99.83	99.65	99.48	99.22	99.04
33	11.49	100.26	100.09	99.83	99.56	99.30	99.04
34	11.82	100.25	99.92	99.58	99.41	99.15	98.90
35	11.36	100.18	99.82	99.56	99.38	99.21	99.03
36	11.88	100.17	99.83	99.58	99.41	99.24	99.07
37	11.57	100.26	99.91	99.65	99.39	99.22	99.05
38	11.61	100.09	99.83	99.66	99.40	99.22	98.97
39	11.86	100.34	100.17	99.92	99.66	99.41	99.16
40	11.51	100.26	100.09	99.74	99.57	99.30	99.13
41	11.66	100.34	100.09	99.83	99.66	99.40	99.14
42	11.42	99.82	99.74	99.65	99.56	99.47	99.12
43	12.16	100.25	100.16	99.92	99.59	99.34	99.10
44	11.62	100.09	99.91	99.83	99.66	99.40	99.14
45	11.60	100.26	100.17	99.91	99.66	99.40	99.05
46	11.84	99.92	99.83	99.75	99.66	99.41	99.16
47	11.60	100.26	99.91	99.74	99.57	99.31	99.05
48	11.52	99.83	99.65	99.57	99.48	99.31	99.05
49	11.73	100.34	100.09	99.83	99.66	99.40	99.15
50	11.68	100.17	99.91	99.74	99.57	99.32	99.06
Avg.	11.64	100.19	99.96	99.75	99.56	99.33	99.09
Med.	11.62	100.25	99.91	99.74	99.57	99.32	99.07
st dev	0.19	0.15	0.15	0.12	0.11	0.11	0.08
Min.	11.35	99.82	99.65	99.56	99.38	99.15	98.90
Max.	12.16	100.35	100.17	99.92	99.74	99.56	99.23

3.5 Data Set 2, 85°C, 30mA (Forward Voltage)

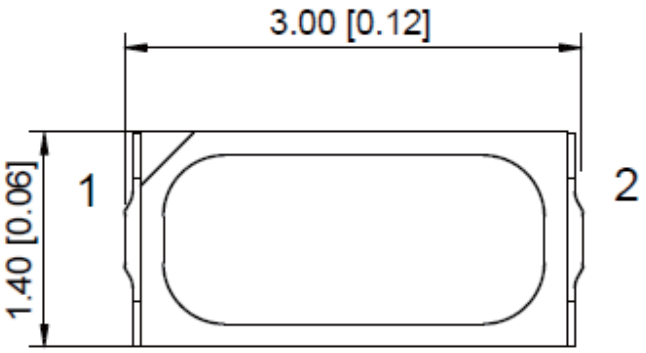
No.	Forward Voltage (V)						
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
26	2.893	2.895	2.897	2.899	2.900	2.896	2.898
27	2.881	2.884	2.883	2.888	2.889	2.887	2.886
28	2.890	2.890	2.896	2.895	2.895	2.893	2.893
29	2.893	2.896	2.898	2.898	2.900	2.899	2.899
30	2.882	2.885	2.884	2.886	2.885	2.889	2.886
31	2.874	2.876	2.877	2.880	2.878	2.880	2.878
32	2.874	2.878	2.879	2.879	2.879	2.879	2.877
33	2.891	2.897	2.897	2.893	2.895	2.896	2.897
34	2.883	2.888	2.887	2.887	2.889	2.888	2.887
35	2.885	2.888	2.887	2.890	2.890	2.889	2.890
36	2.886	2.890	2.891	2.889	2.891	2.890	2.888
37	2.875	2.880	2.880	2.882	2.881	2.879	2.881
38	2.877	2.882	2.882	2.883	2.881	2.880	2.883
39	2.879	2.883	2.886	2.884	2.884	2.883	2.885
40	2.883	2.886	2.887	2.887	2.890	2.887	2.887
41	2.873	2.878	2.878	2.877	2.882	2.878	2.879
42	2.878	2.883	2.883	2.882	2.887	2.884	2.886
43	2.893	2.892	2.890	2.891	2.895	2.895	2.893
44	2.889	2.889	2.888	2.889	2.890	2.888	2.888
45	2.874	2.876	2.877	2.875	2.876	2.877	2.877
46	2.883	2.884	2.883	2.883	2.884	2.883	2.884
47	2.884	2.885	2.887	2.885	2.886	2.887	2.887
48	2.887	2.886	2.885	2.889	2.887	2.889	2.887
49	2.893	2.893	2.890	2.895	2.892	2.892	2.895
50	2.888	2.889	2.890	2.888	2.889	2.889	2.889
Avg.	2.884	2.886	2.886	2.887	2.888	2.887	2.887
Med.	2.883	2.886	2.887	2.887	2.889	2.888	2.887
st dev	0.007	0.006	0.006	0.006	0.006	0.006	0.006
Min.	2.873	2.876	2.877	2.875	2.876	2.877	2.877
Max.	2.893	2.897	2.898	2.899	2.900	2.899	2.899

3.6 Data Set 2, 85°C, 30mA (Chromaticity Shift)

No.	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')					
	0hr(Initial)			1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
26	0.2560	0.5308	2823	0.0001	0.0002	0.0002	0.0004	0.0004	0.0007
27	0.2563	0.5274	2832	0.0001	0.0002	0.0003	0.0006	0.0007	0.0009
28	0.2605	0.5320	2723	0.0001	0.0002	0.0004	0.0005	0.0006	0.0008
29	0.2589	0.5273	2776	0.0001	0.0002	0.0004	0.0006	0.0008	0.0010
30	0.2551	0.5271	2861	0.0001	0.0002	0.0003	0.0005	0.0006	0.0008
31	0.2620	0.5303	2699	0.0001	0.0002	0.0003	0.0005	0.0003	0.0004
32	0.2582	0.5267	2794	0.0001	0.0002	0.0003	0.0005	0.0006	0.0008
33	0.2584	0.5261	2793	0.0001	0.0002	0.0003	0.0006	0.0006	0.0009
34	0.2631	0.5312	2673	0.0001	0.0002	0.0004	0.0006	0.0006	0.0008
35	0.2618	0.5298	2705	0.0001	0.0002	0.0003	0.0005	0.0004	0.0006
36	0.2547	0.5306	2853	0.0001	0.0002	0.0003	0.0004	0.0006	0.0007
37	0.2561	0.5260	2844	0.0001	0.0002	0.0004	0.0005	0.0007	0.0007
38	0.2596	0.5302	2749	0.0001	0.0002	0.0006	0.0004	0.0006	0.0007
39	0.2556	0.5305	2833	0.0002	0.0003	0.0002	0.0004	0.0006	0.0006
40	0.2567	0.5269	2826	0.0001	0.0002	0.0004	0.0004	0.0006	0.0006
41	0.2566	0.5268	2830	0.0001	0.0002	0.0004	0.0005	0.0007	0.0008
42	0.2582	0.5311	2774	0.0001	0.0002	0.0004	0.0005	0.0007	0.0008
43	0.2550	0.5307	2845	0.0001	0.0002	0.0003	0.0005	0.0005	0.0006
44	0.2596	0.5327	2739	0.0001	0.0002	0.0003	0.0005	0.0006	0.0006
45	0.2585	0.5272	2786	0.0001	0.0002	0.0003	0.0005	0.0006	0.0006
46	0.2582	0.5286	2784	0.0001	0.0002	0.0005	0.0006	0.0007	0.0007
47	0.2623	0.5308	2690	0.0001	0.0002	0.0004	0.0005	0.0006	0.0006
48	0.2603	0.5284	2741	0.0001	0.0002	0.0005	0.0006	0.0007	0.0008
49	0.2582	0.5261	2797	0.0001	0.0002	0.0004	0.0004	0.0008	0.0008
50	0.2599	0.5328	2732	0.0001	0.0002	0.0004	0.0005	0.0006	0.0004
Avg.	0.2584	0.5291	2780	0.0001	0.0002	0.0004	0.0005	0.0006	0.0007
Med.	0.2582	0.5298	2786	0.0001	0.0002	0.0004	0.0005	0.0006	0.0007
st dev	0.0024	0.0022	56	0.0000	0.0000	0.0001	0.0001	0.0001	0.0001
Min.	0.2547	0.5260	2673	0.0001	0.0002	0.0002	0.0004	0.0003	0.0004
Max.	0.2631	0.5328	2861	0.0002	0.0003	0.0006	0.0006	0.0008	0.0010

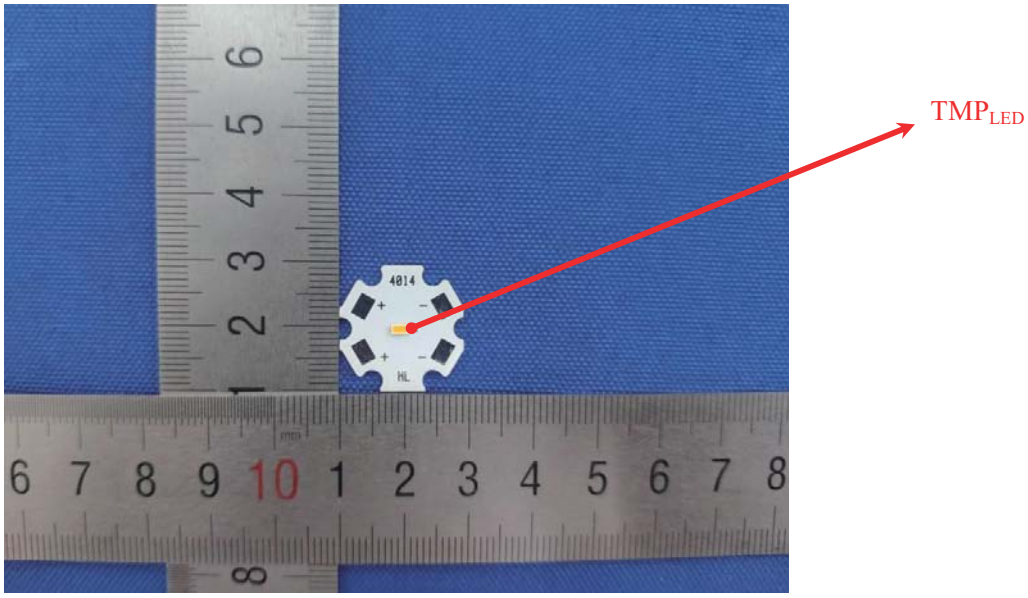
4 - DUT Photo

4.1 Mechanical Dimensions



All dimensions are in millimeter

4.2 DUT Photo



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**********END OF REPORT**********