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-PST-1608H343W-LVR5-SH

Report Type: 6000 Hours Test Report	**Product Type:** LED Package
Reviewed By:	Pote Wang
Report Number:	RSZ210115504-10-6000
Test Date:	2021-01-22 to 2021-10-20
Report Date:	2021-11-02
Approved by:	Blake Zhang / 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

TABLE OF CONTENTS

1 - General Information

1.1 Description of LED Light Sources

Sample Size:

50 PCS test samples were in good condition and received on 2021-01-15. The samples were numbered from 1 to 25 and 26 to 50.

Manufacturer:	Hongli Zhihui Group Co.,Ltd. Guangzhou Branch
Part Number:	HL-PST-1608H343W-LVR5-SH
Part Type:	LED Package
#Drive Level:	DC 10mA
#Nominal CCT:	2700K
#Power:	0.03W
#Average Current Density per LED die:	95.679mA/mm^2
#Average Power Density per LED die:	0.287W/mm^2
#CRI:	/
#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/mm2)	Power Density per PCB (W/mm2)	Die Spacing (mm)
HL-PST-1608H343W-LVR5-SH	10	0.03	2700K	1	10	95.679	0.0234	/
HL-***-1608H***W-****-***	10	0.03	2200-6500K	1	10	95.679	0.0234	/
HL-***-1608H***W-****	10	0.03	2200-6500K	1	10	95.679	0.0234	/
HL-***-1608H***W-****-04-***	10	0.03	2200-6500K	1	10	95.679	0.0234	/
HL-***-1608H***W-****-04	10	0.03	2200-6500K	1	10	95.679	0.0234	/
HL-***-1608H***W-****-***	5	0.015	2200-6500K	1	5	47.84	0.0117	/
HL-***-1608H***W-****	5	0.015	2200-6500K	1	5	47.84	0.0117	/
HL-***-1608H***W-****-04-***	5	0.015	2200-6500K	1	5	47.84	0.0117	/
HL-***-1608H***W-****-04	5	0.015	2200-6500K	1	5	47.84	0.0117	/

Note:
1. The first"***" is a letter PST or PT which stands for the Market demand.
2. The second"***" is a number from 1 to 999 which stands for the brightness level.
3. The third "****" which stands for the Zener chip code or None, no impact on product performances，Zener chip code refers to the electrostatic capacity.
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
- 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	2021-10-20	2022-10-19
Multilayer aging machine	BACL	B2-270	20013	2021-02-24	2022-02-23
Program-controlled D.C. Stabilized Voltage Supply	Hanshenpuyuan	HSPY-60-03	N/A	2021-06-30	2022-06-29

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, 10mA

Part Number:	HL-PST-1608H343W-LVR5-SH
Number of Units:	25
Case Temperature:	>53°C
Ambient Temperature:	>50°C
Life Test Drive Current:	10mA
Measurement Current:	10mA

Data Set 2: 85°C, 10mA

Part Number:	HL-PST-1608H343W-LVR5-SH
Number of Units:	25
Case Temperature:	>83°C
Ambient Temperature:	>80°C
Life Test Drive Current:	10mA
Measurement Current:	10mA

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	2.654E-06	1.004	>36000 hours
2	25	0	1000hrs	6000hrs	3.178E-06	1.004	>36000 hours

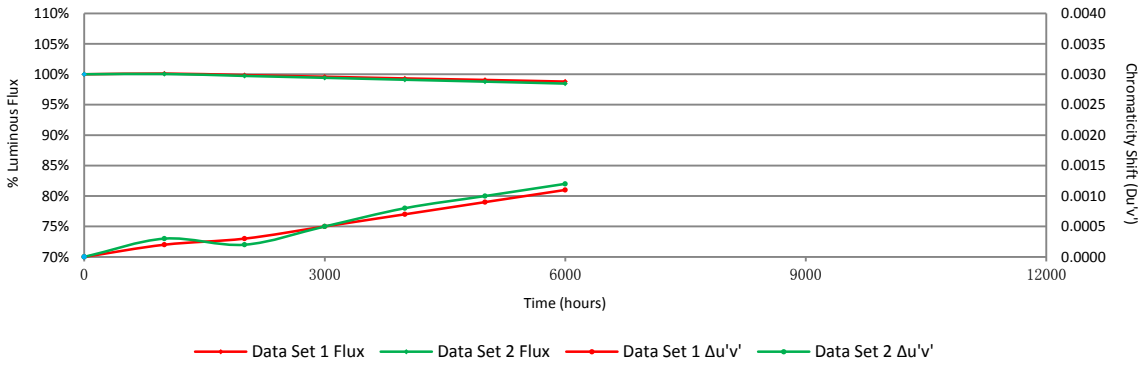
Average Lumen Maintenance (Percentage of Initial Luminous Flux)

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	100.12%	99.86%	99.59%	99.32%	99.07%	98.80%
2	100.05%	99.73%	99.42%	99.10%	98.79%	98.47%

Average Chromaticity Shift

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011
2	0.0003	0.0002	0.0005	0.0008	0.0010	0.0012

Average Lumen Maintenance and Chromaticity Shift VS. Time



3 - Test Data

3.1 Data Set 1, 55°C, 10mA (Lumen Maintenance)

No.	Φ(lm)	Lumen Maintenance (%)					
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	4.083	100.12	99.95	99.71	99.56	99.41	99.07
2	4.115	99.54	99.30	99.03	98.71	98.52	98.37
3	4.138	99.76	99.40	99.06	98.74	98.53	98.21
4	4.164	100.12	99.59	99.42	99.18	98.87	98.51
5	4.122	99.73	99.42	99.10	98.81	98.45	98.23
6	4.113	99.68	99.32	99.05	98.81	98.54	98.30
7	4.229	100.07	100.05	99.91	99.67	99.36	99.08
8	4.075	99.95	99.58	99.21	98.87	98.67	98.40
9	3.982	99.20	98.90	98.64	98.27	98.02	97.82
10	3.986	99.37	99.22	99.02	98.87	98.62	98.29
11	4.121	100.58	100.07	99.83	99.49	99.25	99.08
12	4.146	100.48	100.24	99.78	99.61	99.25	98.96
13	4.127	100.85	100.41	100.15	99.98	99.78	99.54
14	4.101	99.88	99.78	99.68	99.39	99.10	98.93
15	4.079	100.49	100.44	100.20	99.90	99.68	99.34
16	4.089	100.27	100.20	99.98	99.78	99.54	99.36
17	4.136	100.07	99.76	99.32	99.08	98.84	98.65
18	4.117	100.27	99.93	99.64	99.47	99.27	99.03
19	4.036	100.32	100.10	99.90	99.53	99.33	99.08
20	4.015	100.90	100.77	100.42	100.15	99.93	99.63
21	4.096	100.20	100.05	99.88	99.49	99.24	99.02
22	4.114	100.15	99.64	99.34	99.00	98.78	98.40
23	4.251	100.47	100.24	99.84	99.55	99.22	98.85
24	4.167	100.19	100.05	99.81	99.50	99.23	98.90
25	4.051	100.44	100.02	99.80	99.61	99.28	98.94
Avg.	4.106	100.12	99.86	99.59	99.32	99.07	98.80
Med.	4.114	100.15	99.95	99.71	99.49	99.23	98.93
st dev	0.063	0.42	0.44	0.44	0.46	0.47	0.46
Min.	3.982	99.20	98.90	98.64	98.27	98.02	97.82
Max.	4.251	100.90	100.77	100.42	100.15	99.93	99.63

3.2 Data Set 1, 55°C, 10mA (Forward Voltage)

No.	Forward Voltage (V)						
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	2.751	2.750	2.749	2.756	2.750	2.750	2.750
2	2.760	2.760	2.760	2.768	2.759	2.757	2.761
3	2.760	2.760	2.758	2.760	2.760	2.762	2.760
4	2.745	2.744	2.743	2.745	2.746	2.743	2.744
5	2.753	2.752	2.752	2.757	2.753	2.751	2.753
6	2.767	2.767	2.768	2.783	2.767	2.767	2.767
7	2.759	2.760	2.758	2.776	2.764	2.758	2.759
8	2.765	2.765	2.763	2.763	2.765	2.765	2.763
9	2.763	2.765	2.764	2.765	2.765	2.766	2.765
10	2.752	2.753	2.753	2.756	2.754	2.761	2.753
11	2.758	2.758	2.758	2.760	2.760	2.758	2.759
12	2.750	2.749	2.749	2.749	2.749	2.748	2.751
13	2.751	2.750	2.750	2.751	2.751	2.755	2.752
14	2.753	2.753	2.753	2.755	2.753	2.754	2.753
15	2.758	2.758	2.757	2.760	2.760	2.760	2.760
16	2.751	2.751	2.751	2.753	2.751	2.756	2.751
17	2.760	2.761	2.761	2.762	2.762	2.764	2.761
18	2.762	2.762	2.763	2.763	2.764	2.762	2.763
19	2.746	2.747	2.746	2.748	2.748	2.749	2.748
20	2.750	2.749	2.750	2.751	2.751	2.751	2.750
21	2.758	2.756	2.756	2.757	2.757	2.757	2.758
22	2.756	2.754	2.755	2.755	2.755	2.756	2.755
23	2.749	2.748	2.748	2.747	2.748	2.749	2.750
24	2.760	2.758	2.757	2.758	2.759	2.758	2.759
25	2.748	2.749	2.748	2.748	2.749	2.750	2.749
Avg.	2.755	2.755	2.755	2.758	2.756	2.756	2.756
Med.	2.756	2.754	2.755	2.757	2.755	2.757	2.755
st dev	0.006	0.006	0.006	0.009	0.006	0.006	0.006
Min.	2.745	2.744	2.743	2.745	2.746	2.743	2.744
Max.	2.767	2.767	2.768	2.783	2.767	2.767	2.767

3.3 Data Set 1, 55°C, 10mA (Chromaticity Shift)

No.	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')					
	0hr(Initial)			1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	0.2600	0.5334	2727	0.0004	0.0003	0.0006	0.0009	0.0010	0.0013
2	0.2595	0.5329	2739	0.0001	0.0002	0.0005	0.0008	0.0011	0.0013
3	0.2600	0.5334	2726	0.0003	0.0001	0.0004	0.0005	0.0008	0.0012
4	0.2592	0.5320	2750	0.0001	0.0001	0.0004	0.0006	0.0009	0.0012
5	0.2607	0.5334	2712	0.0001	0.0006	0.0007	0.0009	0.0011	0.0013
6	0.2611	0.5340	2702	0.0001	0.0003	0.0003	0.0005	0.0006	0.0008
7	0.2591	0.5331	2747	0.0002	0.0001	0.0003	0.0006	0.0008	0.0010
8	0.2598	0.5339	2729	0.0003	0.0005	0.0004	0.0008	0.0009	0.0010
9	0.2604	0.5312	2728	0.0002	0.0005	0.0005	0.0007	0.0009	0.0010
10	0.2598	0.5332	2732	0.0002	0.0001	0.0004	0.0007	0.0009	0.0013
11	0.2612	0.5340	2700	0.0001	0.0003	0.0001	0.0003	0.0005	0.0007
12	0.2602	0.5338	2721	0.0004	0.0003	0.0003	0.0005	0.0006	0.0009
13	0.2600	0.5335	2726	0.0003	0.0004	0.0005	0.0008	0.0010	0.0013
14	0.2602	0.5341	2721	0.0003	0.0006	0.0007	0.0008	0.0009	0.0011
15	0.2594	0.5313	2748	0.0005	0.0006	0.0008	0.0011	0.0013	0.0016
16	0.2595	0.5335	2737	0.0001	0.0001	0.0006	0.0006	0.0009	0.0011
17	0.2602	0.5332	2724	0.0001	0.0003	0.0004	0.0007	0.0009	0.0011
18	0.2598	0.5324	2736	0.0002	0.0000	0.0006	0.0009	0.0012	0.0013
19	0.2593	0.5324	2746	0.0001	0.0002	0.0005	0.0006	0.0009	0.0011
20	0.2604	0.5323	2724	0.0003	0.0004	0.0006	0.0007	0.0008	0.0009
21	0.2603	0.5330	2722	0.0002	0.0002	0.0005	0.0008	0.0010	0.0011
22	0.2597	0.5332	2734	0.0000	0.0003	0.0005	0.0007	0.0009	0.0012
23	0.2607	0.5345	2708	0.0002	0.0002	0.0004	0.0006	0.0009	0.0011
24	0.2602	0.5332	2725	0.0004	0.0003	0.0006	0.0009	0.0012	0.0016
25	0.2591	0.5334	2746	0.0004	0.0002	0.0002	0.0004	0.0005	0.0006
Avg.	0.2600	0.5331	2728	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011
Med.	0.2600	0.5332	2727	0.0002	0.0003	0.0005	0.0007	0.0009	0.0011
st dev	0.0006	0.0008	14	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002
Min.	0.2591	0.5312	2700	0.0000	0.0000	0.0001	0.0003	0.0005	0.0006
Max.	0.2612	0.5345	2750	0.0005	0.0006	0.0008	0.0011	0.0013	0.0016

3.4 Data Set 2, 85°C, 10mA (Lumen Maintenance)

No.	Φ(lm)	Lumen Maintenance (%)					
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
26	3.994	100.13	99.97	99.55	99.25	98.85	98.42
27	4.183	100.91	100.57	100.19	99.88	99.67	99.45
28	4.119	100.07	99.49	99.08	98.71	98.37	98.15
29	4.244	99.91	99.29	99.18	98.92	98.59	98.23
30	4.068	100.44	100.17	99.90	99.53	99.29	98.92
31	4.084	100.44	99.98	99.61	99.31	99.07	98.78
32	4.175	99.66	99.59	99.14	98.83	98.54	98.23
33	4.073	100.22	99.85	99.46	99.09	98.77	98.48
34	4.046	100.47	100.44	100.12	99.85	99.56	99.28
35	4.066	99.98	99.56	99.46	99.07	98.79	98.50
36	4.045	100.17	100.05	99.65	99.23	98.94	98.47
37	4.113	99.32	99.08	98.69	98.54	98.23	97.88
38	4.096	100.05	99.68	99.56	99.17	98.95	98.68
39	4.257	99.98	99.58	99.37	99.06	98.75	98.29
40	4.039	100.20	99.95	99.75	99.38	99.16	98.79
41	4.269	99.79	99.32	99.02	98.66	98.36	98.01
42	4.212	100.28	99.79	99.36	99.07	98.74	98.43
43	4.201	99.71	99.57	99.31	99.07	98.76	98.41
44	4.240	100.47	100.02	99.79	99.46	99.22	98.92
45	3.934	100.36	100.13	99.92	99.49	99.14	98.73
46	4.159	99.93	99.64	99.18	98.85	98.51	98.29
47	4.092	100.15	99.71	99.44	99.02	98.70	98.44
48	4.156	99.33	99.09	98.87	98.60	98.24	97.79
49	4.033	99.50	99.06	98.81	98.54	98.17	97.97
50	4.068	99.78	99.61	99.12	98.80	98.35	98.11
Avg.	4.119	100.05	99.73	99.42	99.10	98.79	98.47
Med.	4.096	100.07	99.68	99.44	99.07	98.76	98.43
st dev	0.088	0.38	0.40	0.40	0.37	0.40	0.41
Min.	3.934	99.32	99.06	98.69	98.54	98.17	97.79
Max.	4.269	100.91	100.57	100.19	99.88	99.67	99.45

3.5 Data Set 2, 85°C, 10mA (Forward Voltage)

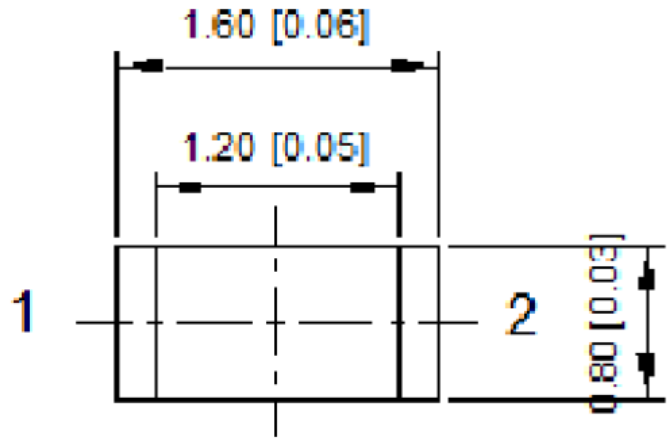
No.	Forward Voltage (V)						
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
26	2.757	2.756	2.756	2.756	2.756	2.757	2.757
27	2.768	2.766	2.767	2.767	2.767	2.767	2.768
28	2.753	2.752	2.752	2.754	2.754	2.753	2.753
29	2.761	2.760	2.760	2.761	2.761	2.760	2.763
30	2.743	2.742	2.743	2.743	2.744	2.742	2.743
31	2.756	2.755	2.756	2.760	2.756	2.755	2.756
32	2.763	2.761	2.761	2.763	2.762	2.762	2.762
33	2.769	2.766	2.766	2.768	2.768	2.768	2.768
34	2.763	2.762	2.762	2.764	2.763	2.763	2.763
35	2.757	2.755	2.757	2.758	2.757	2.756	2.756
36	2.767	2.763	2.765	2.765	2.767	2.765	2.767
37	2.755	2.751	2.753	2.754	2.755	2.754	2.753
38	2.746	2.744	2.744	2.745	2.745	2.745	2.745
39	2.762	2.760	2.760	2.762	2.764	2.763	2.762
40	2.750	2.748	2.748	2.751	2.753	2.752	2.749
41	2.750	2.747	2.749	2.749	2.752	2.755	2.750
42	2.753	2.751	2.752	2.756	2.760	2.753	2.754
43	2.754	2.751	2.752	2.755	2.761	2.753	2.753
44	2.749	2.748	2.748	2.750	2.754	2.749	2.749
45	2.743	2.742	2.743	2.746	2.748	2.753	2.746
46	2.748	2.745	2.746	2.749	2.749	2.748	2.747
47	2.745	2.743	2.743	2.746	2.746	2.746	2.744
48	2.751	2.751	2.750	2.755	2.753	2.756	2.753
49	2.756	2.755	2.754	2.757	2.757	2.760	2.757
50	2.754	2.752	2.754	2.756	2.757	2.757	2.754
Avg.	2.755	2.753	2.754	2.756	2.756	2.756	2.755
Med.	2.754	2.752	2.753	2.756	2.756	2.755	2.754
st dev	0.008	0.007	0.007	0.007	0.007	0.007	0.007
Min.	2.743	2.742	2.743	2.743	2.744	2.742	2.743
Max.	2.769	2.766	2.767	2.768	2.768	2.768	2.768

3.6 Data Set 2, 85°C, 10mA (Chromaticity Shift)

No.	u'	v'	CCT(K)	Chromaticity Shift (Δu'v')					
	0hr(Initial)			1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
26	0.2594	0.5316	2746	0.0003	0.0001	0.0004	0.0006	0.0008	0.0009
27	0.2598	0.5323	2736	0.0002	0.0002	0.0004	0.0005	0.0008	0.0010
28	0.2598	0.5340	2728	0.0003	0.0004	0.0005	0.0008	0.0009	0.0012
29	0.2604	0.5330	2720	0.0001	0.0000	0.0003	0.0005	0.0007	0.0008
30	0.2616	0.5343	2692	0.0002	0.0002	0.0003	0.0008	0.0010	0.0013
31	0.2601	0.5335	2725	0.0002	0.0001	0.0001	0.0004	0.0006	0.0010
32	0.2605	0.5340	2715	0.0002	0.0001	0.0004	0.0006	0.0008	0.0010
33	0.2612	0.5340	2700	0.0004	0.0004	0.0005	0.0007	0.0009	0.0010
34	0.2608	0.5321	2715	0.0002	0.0001	0.0005	0.0009	0.0010	0.0013
35	0.2595	0.5339	2736	0.0002	0.0001	0.0003	0.0005	0.0008	0.0011
36	0.2602	0.5324	2728	0.0004	0.0002	0.0004	0.0006	0.0010	0.0014
37	0.2607	0.5343	2710	0.0002	0.0004	0.0004	0.0007	0.0009	0.0010
38	0.2601	0.5337	2724	0.0004	0.0004	0.0006	0.0009	0.0012	0.0013
39	0.2598	0.5328	2733	0.0003	0.0001	0.0002	0.0007	0.0008	0.0009
40	0.2594	0.5336	2739	0.0004	0.0003	0.0005	0.0009	0.0012	0.0016
41	0.2607	0.5338	2711	0.0003	0.0002	0.0006	0.0010	0.0014	0.0017
42	0.2596	0.5332	2736	0.0003	0.0003	0.0003	0.0007	0.0011	0.0013
43	0.2601	0.5339	2722	0.0003	0.0001	0.0004	0.0008	0.0010	0.0013
44	0.2597	0.5337	2732	0.0003	0.0004	0.0006	0.0008	0.0010	0.0012
45	0.2631	0.5349	2659	0.0003	0.0003	0.0007	0.0010	0.0012	0.0015
46	0.2595	0.5327	2740	0.0002	0.0002	0.0007	0.0009	0.0011	0.0012
47	0.2595	0.5322	2741	0.0002	0.0003	0.0004	0.0005	0.0008	0.0009
48	0.2595	0.5328	2741	0.0001	0.0002	0.0006	0.0009	0.0013	0.0014
49	0.2603	0.5342	2718	0.0003	0.0004	0.0006	0.0007	0.0011	0.0014
50	0.2598	0.5329	2734	0.0002	0.0001	0.0007	0.0012	0.0016	0.0019
Avg.	0.2602	0.5334	2723	0.0003	0.0002	0.0005	0.0008	0.0010	0.0012
Med.	0.2601	0.5336	2728	0.0003	0.0002	0.0004	0.0007	0.0010	0.0012
st dev	0.0008	0.0008	19	0.0001	0.0001	0.0002	0.0002	0.0002	0.0003
Min.	0.2594	0.5316	2659	0.0001	0.0000	0.0001	0.0004	0.0006	0.0008
Max.	0.2631	0.5349	2746	0.0004	0.0004	0.0007	0.0012	0.0016	0.0019

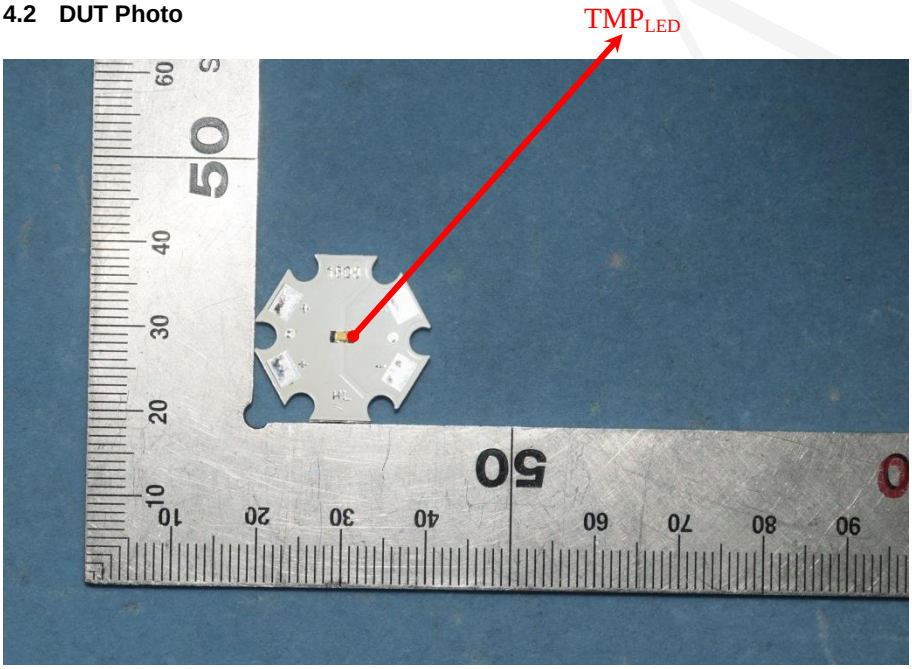
4 - DUT Photo

4.1 Mechanical Dimensions



All dimensions are in millimeter

4.2 DUT Photo



Directions

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.
2. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.
3. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
4. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.
5. This report cannot be reproduced except in full, without prior written approval of the Company.
6. This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.

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