



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-1608H233W-HR3

Report Type: 6000 Hours Test Report	Product Type: LED Package
Reviewed By: Pote Wang	<i>Pote Wang</i>
Report Number:	RSZ200401506-10-6000
Test Date:	2020-04-02 to 2020-12-27
Report Date:	2020-12-30
Approved by:	Blake Zhang / EE Engineer
Test Facility:	Test facility was located at No.12, Pulong East 1 st Road, Tangxia Town, Dongguan, Guangdong, China.
Prepared By:	Bay Area Compliance Laboratories Corp. (Dongguan). No.12, Pulong East 1 st Road, Tangxia Town, Dongguan, Guangdong, China. Tel: +86-0769-86858888 Fax:+86-0769-86858588
Accreditation:	The IAS Accreditation Number TL-460.

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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 2020-04-01. The samples were numbered from 1 to 25 and 26 to 50.

#Manufacturer:	Hongli Zhihui Group Co.,Ltd. Guangzhou Branch
#Part Number:	HL-PST-1608H233W-HR3
#Part Type:	LED Package
#Drive Level:	DC 2mA
#Nominal CCT:	2700K
#Power:	0.006W
#Average Current Density per LED die:	46.97 mA/mm ²
#Average Power Density per LED die:	0.141W/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:

Test Model Number	Multiple Models
HL-PST-1608H233W-HR3	HL-***-1608H***W-HR3-***
	HL-***-1608H***W-***

Note:

1. Only different Model name for different market.
2. First "****" is a letter PST or PT which stand for the process type.
3. Second "****" is a number from 1 to 999 which stand for the brightness level.
4. Third "****" is the letter, which stand 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
0.3m integrating sphere	EVERFINE	Diameter 0.3m	1011119	2020-03-08	2021-03-07
Programmable Test Power for LEDs	EVERFINE	LED300E	1008002	2020-03-08	2021-03-07
High accuracy array spectroradiometer	EVERFINE	HAAS-2000	1012016T	2020-03-08	2021-03-07
Standard Light Source	EVERFINE	D062	1011093	2020-10-20	2021-10-19
Precision digital stabilized DC power supply	EVERFINE	WY605-V110	G115987CJ7321114	2020-03-16	2021-03-15
Multilayer aging machine	BACL	B2-270	20023	2020-03-11	2021-03-10
Program-controlled D.C. Stabilized Voltage Supply	Hanshenpuyuan	HSPY-200-01	N/A	2020-07-01	2021-06-30

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 $\pm 3\%$ of the specified value of the manufacturer during maintenance test, and was within $\pm 0.5\%$ 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 $2^{\circ}C$ below the corresponding nominal case temperature. Surrounding air was maintained at a temperature that was greater than or equal to $5^{\circ}C$ 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 $\pm 3\%$ 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 $25^{\circ}C \pm 2^{\circ}C$, 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 driven by DC power supply. The forward current was regulated to within $\pm 0.5\%$ of the nominal value. The test system was calibrated by halogen reference lamp. The ambient temperature during test was set to $25^{\circ}C \pm 2^{\circ}C$, 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 $U=0.8671^{\circ}C$ ($K=2$), 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, 2mA

Part Number: HL-PST-1608H233W-HR3
Number of Units: 25
Case Temperature: >53°C
Ambient Temperature: >50°C
Life Test Drive Current: 2mA
Measurement Current: 2mA

Data Set 2: 85°C, 2mA

Part Number: HL-PST-1608H233W-HR3
Number of Units: 25
Case Temperature: >83°C
Ambient Temperature: >80°C
Life Test Drive Current: 2mA
Measurement Current: 2mA

FINAL

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	2.559E-06	1.005	>36000 hours
2	25	0	1000hrs	6000hrs	2.983E-06	1.005	>36000 hours

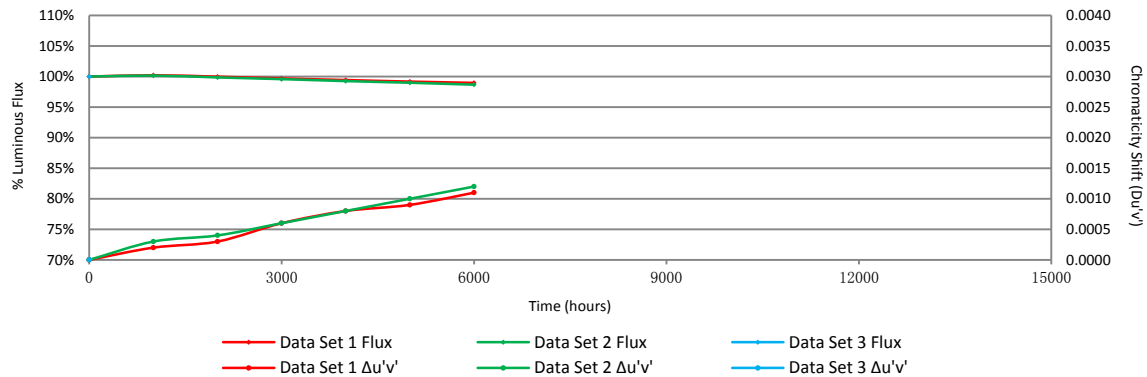
Average Lumen Maintenance (Percentage of Initial Luminous Flux)

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	100.22%	99.98%	99.70%	99.43%	99.18%	98.97%
2	100.16%	99.86%	99.58%	99.26%	98.99%	98.67%

Average Chromaticity Shift

Data Set:	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	0.0002	0.0003	0.0006	0.0008	0.0009	0.0011
2	0.0003	0.0004	0.0006	0.0008	0.0010	0.0012

Average Lumen Maintenance and Chromaticity Shift VS. Time



3 - Test Data

3.1 Data Set 1, 55°C, 2mA (Lumen Maintenance)

No.	Φ(lm)	Lumen Maintenance (%)					
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	0.7287	100.15	99.96	99.86	99.53	99.33	99.12
2	0.6989	100.26	100.09	99.94	99.67	99.44	99.38
3	0.7065	100.30	100.25	99.99	99.76	99.59	99.43
4	0.7147	100.11	99.99	99.61	99.52	99.48	99.40
5	0.7107	100.04	99.79	99.42	99.13	99.06	98.96
6	0.7031	100.36	100.17	99.84	99.69	99.37	99.00
7	0.7066	100.37	100.08	99.83	99.55	99.15	98.85
8	0.7055	99.93	99.77	99.45	99.11	98.77	98.27
9	0.7140	99.89	99.78	99.55	99.33	99.12	98.89
10	0.7221	100.26	99.83	99.40	98.96	98.59	98.48
11	0.7113	100.30	100.18	99.94	99.55	99.23	99.07
12	0.7252	100.37	100.03	99.78	99.53	99.06	98.70
13	0.7167	100.35	99.99	99.82	99.39	99.19	99.04
14	0.7266	100.26	99.88	99.52	99.12	99.09	99.00
15	0.7040	100.06	99.87	99.36	99.09	98.71	98.57
16	0.7052	100.01	99.73	99.43	99.25	99.08	98.95
17	0.7247	100.47	99.88	99.61	99.43	99.35	99.06
18	0.7114	100.37	100.24	100.04	99.85	99.47	99.27
19	0.7256	99.96	99.71	99.39	99.23	99.20	98.97
20	0.7251	100.32	100.12	99.94	99.68	99.20	98.94
21	0.7190	100.11	99.76	99.61	99.22	98.86	98.66
22	0.7090	100.18	99.90	99.70	99.44	99.35	99.06
23	0.7148	100.36	100.20	99.79	99.37	99.31	99.29
24	0.7257	100.29	100.11	99.79	99.78	99.41	99.08
25	0.7184	100.35	100.17	99.76	99.51	99.15	98.84
Avg.	0.7149	100.22	99.98	99.70	99.43	99.18	98.97
Med.	0.7147	100.26	99.99	99.76	99.44	99.20	99.00
st dev	0.0088	0.16	0.17	0.21	0.24	0.25	0.28
Min.	0.6989	99.89	99.71	99.36	98.96	98.59	98.27
Max.	0.7287	100.47	100.25	100.04	99.85	99.59	99.43

3.2 Data Set 1, 55°C, 2mA (Forward Voltage)

No.	Forward Voltage (V)						
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
1	2.645	2.649	2.639	2.637	2.650	2.645	2.640
2	2.652	2.634	2.635	2.635	2.635	2.645	2.676
3	2.654	2.632	2.655	2.639	2.659	2.652	2.639
4	2.646	2.628	2.638	2.625	2.633	2.656	2.638
5	2.647	2.644	2.643	2.639	2.646	2.644	2.646
6	2.672	2.648	2.644	2.651	2.656	2.644	2.656
7	2.654	2.643	2.645	2.643	2.659	2.651	2.647
8	2.664	2.642	2.645	2.641	2.667	2.656	2.655
9	2.652	2.653	2.645	2.645	2.645	2.650	2.664
10	2.673	2.665	2.639	2.638	2.646	2.658	2.654
11	2.664	2.639	2.637	2.661	2.645	2.662	2.671
12	2.663	2.652	2.657	2.658	2.644	2.634	2.646
13	2.653	2.637	2.650	2.643	2.648	2.659	2.644
14	2.649	2.638	2.639	2.632	2.651	2.643	2.662
15	2.664	2.635	2.636	2.671	2.639	2.656	2.648
16	2.682	2.646	2.648	2.660	2.659	2.656	2.662
17	2.670	2.641	2.652	2.649	2.645	2.654	2.679
18	2.657	2.640	2.641	2.647	2.649	2.653	2.641
19	2.660	2.634	2.643	2.639	2.647	2.646	2.639
20	2.645	2.636	2.640	2.646	2.648	2.646	2.645
21	2.648	2.642	2.641	2.636	2.645	2.651	2.649
22	2.661	2.647	2.667	2.655	2.658	2.656	2.662
23	2.649	2.638	2.640	2.642	2.648	2.654	2.665
24	2.652	2.637	2.642	2.646	2.648	2.647	2.661
25	2.648	2.648	2.656	2.657	2.654	2.656	2.681
Avg.	2.657	2.642	2.645	2.645	2.649	2.651	2.655
Med.	2.654	2.641	2.643	2.643	2.648	2.652	2.654
st dev	0.010	0.008	0.008	0.010	0.008	0.006	0.013
Min.	2.645	2.628	2.635	2.625	2.633	2.634	2.638
Max.	2.682	2.665	2.667	2.671	2.667	2.662	2.681

3.3 Data Set 1, 55°C, 2mA (Chromaticity Shift)

No.	u'	v'	CCT(K)	Chromaticity Shift ($\Delta u'v'$)					
				1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
				0hr(Initial)					
1	0.2630	0.5321	2671	0.0001	0.0002	0.0004	0.0005	0.0008	0.0010
2	0.2697	0.5337	2538	0.0003	0.0004	0.0007	0.0007	0.0008	0.0011
3	0.2651	0.5311	2634	0.0002	0.0004	0.0005	0.0007	0.0008	0.0008
4	0.2626	0.5314	2682	0.0002	0.0003	0.0005	0.0008	0.0010	0.0012
5	0.2642	0.5313	2651	0.0001	0.0002	0.0005	0.0007	0.0008	0.0010
6	0.2627	0.5309	2681	0.0001	0.0002	0.0005	0.0007	0.0010	0.0010
7	0.2644	0.5310	2648	0.0003	0.0005	0.0007	0.0008	0.0009	0.0011
8	0.2650	0.5318	2632	0.0001	0.0002	0.0003	0.0003	0.0004	0.0008
9	0.2674	0.5326	2585	0.0001	0.0004	0.0006	0.0009	0.0010	0.0013
10	0.2635	0.5330	2659	0.0000	0.0004	0.0006	0.0008	0.0011	0.0013
11	0.2633	0.5312	2668	0.0000	0.0003	0.0006	0.0007	0.0009	0.0009
12	0.2634	0.5311	2668	0.0002	0.0005	0.0007	0.0009	0.0012	0.0013
13	0.2636	0.5319	2660	0.0002	0.0004	0.0005	0.0008	0.0011	0.0012
14	0.2635	0.5324	2660	0.0002	0.0002	0.0004	0.0006	0.0008	0.0010
15	0.2654	0.5331	2620	0.0000	0.0003	0.0006	0.0008	0.0009	0.0011
16	0.2639	0.5329	2650	0.0002	0.0005	0.0007	0.0008	0.0008	0.0011
17	0.2637	0.5322	2657	0.0001	0.0004	0.0005	0.0009	0.0010	0.0013
18	0.2636	0.5317	2660	0.0001	0.0004	0.0004	0.0008	0.0008	0.0010
19	0.2627	0.5320	2678	0.0003	0.0005	0.0007	0.0008	0.0011	0.0012
20	0.2654	0.5316	2625	0.0002	0.0005	0.0009	0.0010	0.0013	0.0016
21	0.2635	0.5323	2661	0.0002	0.0005	0.0008	0.0010	0.0012	0.0012
22	0.2662	0.5341	2601	0.0001	0.0002	0.0005	0.0011	0.0012	0.0013
23	0.2637	0.5312	2660	0.0001	0.0001	0.0005	0.0010	0.0012	0.0015
24	0.2640	0.5313	2654	0.0001	0.0001	0.0002	0.0004	0.0004	0.0006
25	0.2642	0.5330	2644	0.0001	0.0002	0.0004	0.0006	0.0005	0.0006
Avg.	0.2643	0.5320	2646	0.0002	0.0003	0.0006	0.0008	0.0009	0.0011
Med.	0.2637	0.5319	2657	0.0001	0.0004	0.0005	0.0008	0.0009	0.0011
st dev	0.0016	0.0009	33	0.0001	0.0001	0.0002	0.0002	0.0002	0.0002
Min.	0.2626	0.5309	2538	0.0000	0.0001	0.0002	0.0003	0.0004	0.0006
Max.	0.2697	0.5341	2682	0.0003	0.0005	0.0009	0.0011	0.0013	0.0016

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

No.	Φ(lm)	Lumen Maintenance (%)					
	Ohr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
26	0.7366	100.29	99.85	99.57	99.35	99.00	98.86
27	0.7266	100.03	99.61	99.20	98.75	98.50	98.11
28	0.7193	100.04	99.67	99.40	99.24	98.85	98.42
29	0.7336	100.38	99.92	99.62	99.55	99.25	99.03
30	0.7089	100.31	99.97	99.73	99.32	99.21	98.82
31	0.6918	100.22	99.94	99.62	99.51	99.07	98.84
32	0.7135	100.10	99.90	99.61	99.27	98.88	98.40
33	0.7081	100.23	100.13	99.89	99.48	99.18	99.12
34	0.7024	100.19	100.11	99.81	99.39	99.15	98.88
35	0.7176	100.20	99.78	99.53	99.30	99.07	98.79
36	0.7144	100.36	100.10	99.61	99.51	99.22	99.06
37	0.7288	100.12	100.10	99.97	99.75	99.57	99.09
38	0.6900	99.91	99.58	99.28	98.90	98.57	98.42
39	0.7326	99.85	99.48	99.17	98.84	98.62	98.29
40	0.7012	100.31	99.79	99.70	99.59	99.36	99.13
41	0.7136	100.31	99.85	99.44	98.89	98.75	98.30
42	0.7181	100.08	99.78	99.44	99.19	98.96	98.54
43	0.7051	100.04	99.67	99.28	98.91	98.48	98.09
44	0.7134	100.32	100.08	99.58	99.43	99.17	98.93
45	0.6930	100.25	99.86	99.71	99.49	99.09	98.57
46	0.7085	100.08	99.96	99.70	99.38	99.21	98.90
47	0.7043	100.03	99.66	99.52	98.96	98.47	98.00
48	0.7164	99.87	99.61	99.55	99.12	98.81	98.58
49	0.7265	100.15	100.03	99.94	99.48	99.41	99.20
50	0.7333	100.29	100.14	99.60	98.96	98.85	98.47
Avg.	0.7143	100.16	99.86	99.58	99.26	98.99	98.67
Med.	0.7136	100.19	99.86	99.60	99.32	99.07	98.79
st dev	0.0134	0.15	0.20	0.21	0.27	0.30	0.36
Min.	0.6900	99.85	99.48	99.17	98.75	98.47	98.00
Max.	0.7366	100.38	100.14	99.97	99.75	99.57	99.20

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

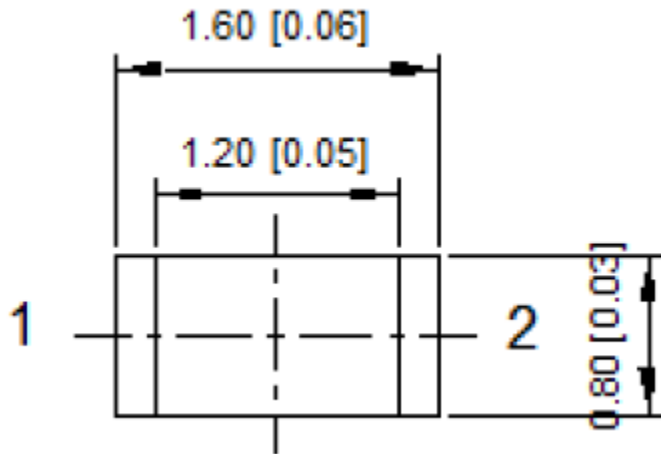
No.	Forward Voltage (V)						
	0hr(Initial)	1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
26	2.647	2.632	2.634	2.654	2.651	2.647	2.658
27	2.645	2.632	2.659	2.634	2.641	2.670	2.649
28	2.656	2.648	2.646	2.672	2.643	2.658	2.658
29	2.641	2.639	2.641	2.645	2.642	2.652	2.649
30	2.649	2.640	2.639	2.638	2.639	2.644	2.651
31	2.641	2.636	2.643	2.641	2.658	2.646	2.643
32	2.636	2.637	2.638	2.637	2.638	2.644	2.650
33	2.665	2.639	2.640	2.643	2.646	2.652	2.643
34	2.696	2.651	2.655	2.660	2.657	2.653	2.658
35	2.642	2.635	2.637	2.647	2.648	2.642	2.645
36	2.694	2.658	2.655	2.657	2.653	2.653	2.658
37	2.662	2.639	2.635	2.638	2.647	2.645	2.648
38	2.666	2.645	2.647	2.659	2.655	2.646	2.645
39	2.650	2.639	2.633	2.644	2.647	2.645	2.670
40	2.677	2.657	2.657	2.665	2.665	2.667	2.668
41	2.655	2.636	2.640	2.642	2.655	2.640	2.653
42	2.651	2.643	2.640	2.644	2.657	2.649	2.645
43	2.665	2.656	2.656	2.655	2.661	2.657	2.658
44	2.654	2.644	2.644	2.649	2.640	2.652	2.651
45	2.640	2.632	2.631	2.634	2.642	2.645	2.641
46	2.669	2.645	2.651	2.653	2.669	2.657	2.649
47	2.647	2.641	2.640	2.653	2.652	2.663	2.639
48	2.643	2.642	2.640	2.638	2.639	2.645	2.645
49	2.645	2.639	2.633	2.635	2.657	2.639	2.634
50	2.644	2.645	2.638	2.633	2.637	2.643	2.641
Avg.	2.655	2.642	2.643	2.647	2.650	2.650	2.650
Med.	2.650	2.640	2.640	2.644	2.648	2.647	2.649
st dev	0.016	0.007	0.008	0.011	0.009	0.008	0.009
Min.	2.636	2.632	2.631	2.633	2.637	2.639	2.634
Max.	2.696	2.658	2.659	2.672	2.669	2.670	2.670

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

No.	u'	v'	CCT(K)	Chromaticity Shift ($\Delta u'v'$)					
	0hr(Initial)			1000hrs	2000hrs	3000hrs	4000hrs	5000hrs	6000hrs
26	0.2627	0.5310	2682	0.0001	0.0002	0.0002	0.0003	0.0006	0.0007
27	0.2633	0.5317	2667	0.0001	0.0003	0.0005	0.0007	0.0009	0.0010
28	0.2641	0.5325	2648	0.0000	0.0001	0.0003	0.0005	0.0008	0.0011
29	0.2629	0.5312	2677	0.0003	0.0005	0.0005	0.0008	0.0010	0.0011
30	0.2642	0.5309	2653	0.0002	0.0004	0.0006	0.0007	0.0007	0.0008
31	0.2665	0.5320	2602	0.0004	0.0006	0.0009	0.0011	0.0012	0.0013
32	0.2637	0.5319	2659	0.0004	0.0005	0.0005	0.0009	0.0010	0.0010
33	0.2652	0.5311	2632	0.0002	0.0004	0.0006	0.0008	0.0010	0.0013
34	0.2634	0.5326	2662	0.0004	0.0004	0.0005	0.0008	0.0009	0.0011
35	0.2648	0.5321	2636	0.0002	0.0002	0.0003	0.0006	0.0008	0.0009
36	0.2626	0.5308	2684	0.0002	0.0002	0.0005	0.0006	0.0008	0.0010
37	0.2640	0.5322	2650	0.0004	0.0007	0.0007	0.0007	0.0010	0.0011
38	0.2655	0.5336	2617	0.0002	0.0004	0.0004	0.0007	0.0010	0.0014
39	0.2633	0.5317	2668	0.0002	0.0003	0.0006	0.0008	0.0011	0.0012
40	0.2648	0.5337	2630	0.0004	0.0008	0.0009	0.0011	0.0011	0.0012
41	0.2650	0.5326	2630	0.0002	0.0003	0.0004	0.0004	0.0006	0.0010
42	0.2633	0.5317	2667	0.0002	0.0004	0.0007	0.0009	0.0011	0.0014
43	0.2668	0.5341	2591	0.0004	0.0004	0.0005	0.0006	0.0009	0.0011
44	0.2646	0.5321	2639	0.0002	0.0004	0.0008	0.0011	0.0012	0.0014
45	0.2646	0.5324	2639	0.0001	0.0003	0.0007	0.0009	0.0009	0.0011
46	0.2645	0.5324	2640	0.0003	0.0007	0.0008	0.0013	0.0014	0.0017
47	0.2669	0.5313	2598	0.0003	0.0005	0.0007	0.0011	0.0013	0.0016
48	0.2636	0.5318	2661	0.0002	0.0005	0.0007	0.0011	0.0016	0.0016
49	0.2637	0.5321	2658	0.0002	0.0003	0.0005	0.0007	0.0010	0.0012
50	0.2650	0.5316	2634	0.0004	0.0004	0.0004	0.0006	0.0008	0.0012
Avg.	0.2644	0.5320	2645	0.0003	0.0004	0.0006	0.0008	0.0010	0.0012
Med.	0.2642	0.5320	2648	0.0002	0.0004	0.0005	0.0008	0.0010	0.0011
st dev	0.0012	0.0008	25	0.0001	0.0002	0.0002	0.0002	0.0002	0.0002
Min.	0.2626	0.5308	2591	0.0000	0.0001	0.0002	0.0003	0.0006	0.0007
Max.	0.2669	0.5341	2684	0.0004	0.0008	0.0009	0.0013	0.0016	0.0017

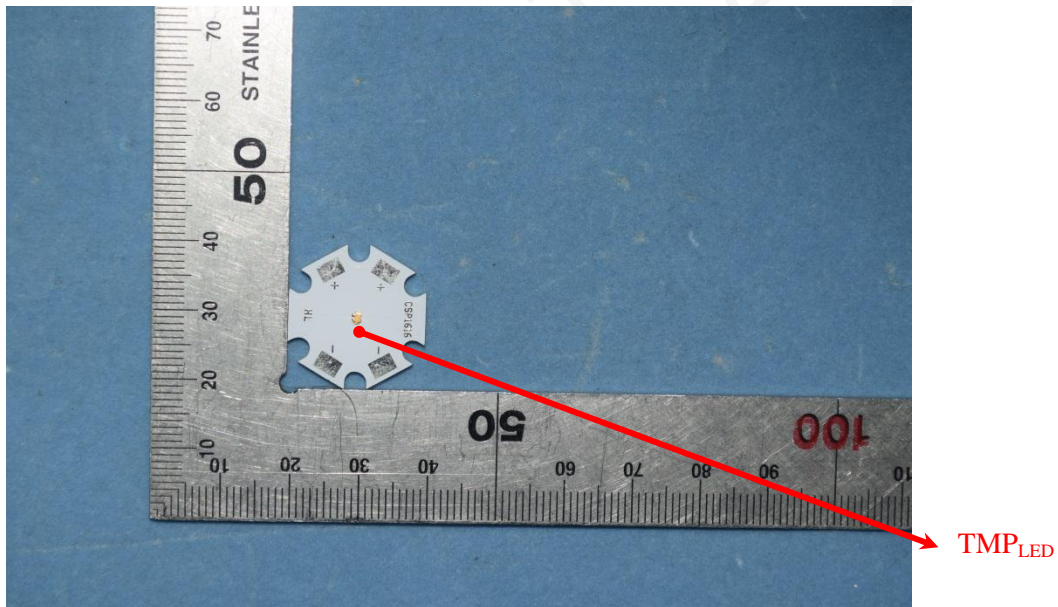
4 - DUT Photo

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