



SHEN ZHEN XU AN ELECTRONICS CO.,LTD

TEST REPORT

Prepared For:	SHEN ZHEN XU AN ELECTRONICS CO.,LTD Shenzhen City,Bao'an district,Fuyong Street,Huai de community GuiGang Huai De industrial Park FiveThirtieth building,two layer A Zone,A Zone Three
Product Name:	Lamp Bead
Model:	XA-5730WXX-1
Prepared By:	Shenzhen BST Technology Co., Ltd. Building No.23-24, Zhiheng industrial park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China.
Test Date:	Nov. 16, 2016 – Sep. 17, 2017
Date of Report:	Sep. 17, 2017
Report No.:	BST1610604250003SR-2



TEST REPORT	
LUMEN MAINTENANCE TESTING ACCORDING TO THE IESNA LM-80-08 TEST STANDARD	
Testing laboratory	: Shenzhen BST Technology Co., Ltd.
Address	: Building No.23-24, Zhiheng industrial park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China.
Testing location	: Shenzhen BST Technology Co., Ltd.
Applicant	: SHEN ZHEN XU AN ELECTRONICS CO.,LTD
Address	: Shenzhen City,Bao'an district,Fuyong Street,Huai de community GuiGang Huai De industrial Park FiveThirtieth building,two layer A Zone,A Zone Three
Test Procedure	: The IESNA LM-80-2008: Measuring Lumen Maintenance of LED Light Sources.
Non-standard test method	: N.A.
Type of test object	: Lamp Bead
Trademark	: N.A.
Model/type reference	: XA-5730WXX-1
Rating	: 3.0-3.2V $\overline{\text{---}}$, 150mA, 0.5W
Manufacturer	: SHEN ZHEN XU AN ELECTRONICS CO.,LTD
Address	: Shenzhen City,Bao'an district,Fuyong Street,Huai de community GuiGang Huai De industrial Park FiveThirtieth building,two layer A Zone,A Zone Three



Name and address of the testing laboratory:

Shenzhen BST Technology Co., Ltd.
Building No.23-24, Zhiheng industrial park,
Guankouer Road, Nantou, Nanshan District,
Shenzhen, Guangdong, China

Prepared by :

Owen

Engineer

Reviewer :

W.S.

Supervisor

Approved & Authorized Signer :



**Test Results Summary:**

Summary	I	II	III
Condition	Ts=54.8°C T _A =54.7°C R.H.<65% I=150mA	Ts=84.8°C T _A =84.6°C R.H.<65% I=150mA	Ts=104.9°C T _A =104.7°C R.H.<65% I=150mA
Duration(hour)	6000	6000	6000
Interval(hour)	0,1000,2000,3000,4000, 5000, 6000	0,1000,2000,3000,4000, 5000, 6000	0,1000,2000,3000,4000, 5000, 6000
Sample Size	20	20	20
Average Lumen Maintenance at 6000 hour	96.06%	95.17%	94.28%
Average Chromaticity Shift $\Delta u'v'$ at 6000 hour	0.0023	0.0035	0.0040
Failure	0	0	0

Equipments Used for Testing:

Equipment	Model	Equipment No.
DC Power Supply	IT6122	BSTNX001
Power meter	WT210	BSTNX001
Spectroradiometer	SPEC300	BN067
0.3m Integrating Sphere	0.3m	BSTNX002



Test Data:

Operating Condition: 55°C/150mA

No.	Φ(lm)	V _F (V)	Lumen maintenance (%)					
			0h(Initial)	1000h	2000h	3000h	4000h	5000h
1	57.5	3.3	99.89	99.66	98.65	97.66	97.18	96.02
2	57.6	3.2	99.69	99.18	98.25	97.55	97.07	95.79
3	58.2	3.3	100.08	99.38	99.31	97.92	97.59	95.86
4	57.8	3.2	99.98	99.12	98.85	97.44	97.29	96.08
5	58.3	3.2	99.78	99.18	98.73	97.91	96.66	95.74
6	57.6	3.3	99.67	99.21	98.37	98.08	96.99	96.18
7	58.1	3.2	99.95	99.32	98.37	97.82	96.99	96.12
8	58.3	3.3	99.96	99.36	98.81	98.11	97.28	96.45
9	57.8	3.2	99.89	99.19	98.45	97.55	97.21	96.39
10	57.6	3.2	99.92	99.74	98.26	97.92	97.15	96.58
11	58.1	3.3	99.87	99.18	98.85	97.44	97.08	96.11
12	57.8	3.2	100.06	99.28	98.73	97.91	96.66	95.88
13	57.6	3.3	99.89	99.28	98.37	98.04	96.99	95.78
14	57.5	3.2	99.96	99.31	98.11	97.82	96.99	95.85
15	57.8	3.2	99.76	99.37	98.28	98.11	97.33	96.55
16	57.5	3.3	99.92	99.21	98.57	97.12	96.28	95.65
17	58.1	3.2	99.67	99.24	98.68	97.55	96.37	95.78
18	57.4	3.3	99.95	99.42	98.62	97.39	96.25	95.62
19	57.5	3.2	99.87	99.33	98.36	97.62	97.12	96.28
20	57.8	3.2	99.93	99.28	98.28	97.53	97.13	96.41
Average	57.8	3.2	99.88	99.31	98.55	97.72	96.98	96.06
Median	57.8	3.2	99.91	99.28	98.51	97.74	97.08	96.05
St, Dev.	0.3	0.1	0.12	0.16	0.29	0.28	0.36	0.31
Max	58.3	3.3	100.08	99.74	99.31	98.11	97.59	96.58
Min	57.4	3.2	99.67	99.12	98.11	97.12	96.25	95.62



Operating Condition: 85°C/150mA

No.	Φ(lm)	V _F (V)	Lumen maintenance (%)					
			0h(Initial)	1000h	2000h	3000h	4000h	5000h
1	57.3	3.3	99.88	99.12	98.23	97.28	96.85	95.23
2	57.5	3.2	99.69	99.18	98.26	97.33	97.07	95.85
3	58.1	3.3	100.18	99.23	98.63	97.52	97.12	95.21
4	57.6	3.2	99.98	99.12	98.85	97.44	96.33	95.08
5	57.4	3.2	99.82	99.18	98.62	97.39	96.66	95.29
6	57.5	3.3	99.87	99.21	98.37	97.62	96.28	95.23
7	58.1	3.2	99.95	99.18	98.37	97.18	96.29	95.18
8	58.2	3.3	99.96	99.25	98.62	97.39	96.39	95.18
9	57.8	3.2	99.89	99.19	98.45	97.55	97.21	95.08
10	57.7	3.2	99.98	99.33	98.54	97.52	97.15	95.12
11	58.1	3.3	99.89	99.18	98.39	97.44	97.08	95.38
12	57.8	3.2	99.88	99.28	98.73	97.34	97.12	95.69
13	57.5	3.3	99.85	99.25	98.56	97.85	96.85	94.62
14	57.5	3.2	99.96	99.31	98.26	97.82	96.78	95.18
15	57.7	3.2	99.92	99.32	98.28	97.65	96.85	95.17
16	57.5	3.3	99.92	99.21	98.33	97.12	96.28	95.23
17	58.0	3.2	99.85	99.24	98.34	97.33	96.37	94.22
18	57.4	3.3	99.95	99.26	98.35	97.39	96.25	95.17
19	57.6	3.2	99.87	99.33	98.36	97.54	96.28	95.12
20	57.7	3.2	99.93	99.28	98.28	97.53	96.54	95.08
Average	57.7	3.2	99.91	99.23	98.44	97.46	96.69	95.17
Median	57.7	3.2	99.91	99.24	98.37	97.44	96.72	95.18
St. Dev.	0.3	0.1	0.09	0.06	0.18	0.19	0.36	0.33
Max	58.2	3.3	100.18	99.33	98.85	97.85	97.21	95.85
Min	57.3	3.2	99.69	99.12	98.23	97.12	96.25	94.22



Operating Condition: 105°C/150mA

No.	Φ(lm)	V _F (V)	Lumen maintenance (%)					
			0h(Initial)	1000h	2000h	3000h	4000h	5000h
1	57.6	3.3	99.89	99.08	98.56	97.33	95.88	94.52
2	57.7	3.2	99.77	99.18	98.64	97.28	96.29	94.59
3	58.0	3.3	99.69	99.34	98.33	97.51	96.34	94.18
4	57.6	3.2	99.88	98.96	98.25	97.34	96.33	94.38
5	57.5	3.2	99.85	99.52	97.98	97.28	95.85	94.28
6	57.4	3.3	99.87	99.21	98.12	97.66	95.58	93.85
7	58.2	3.2	99.92	99.25	98.33	97.55	95.39	94.15
8	58.1	3.3	99.96	99.25	98.08	97.74	95.28	94.18
9	57.8	3.2	99.91	99.36	98.26	97.58	96.28	94.52
10	57.7	3.2	99.92	99.33	98.39	97.52	96.33	94.08
11	58.1	3.3	99.89	99.34	98.18	97.33	96.85	94.57
12	57.7	3.2	100.08	99.37	98.54	97.28	96.84	94.51
13	57.5	3.3	99.85	99.18	98.66	97.66	96.85	94.18
14	57.4	3.2	99.96	99.09	98.71	97.69	96.71	94.12
15	57.7	3.2	99.77	99.09	98.75	97.81	96.85	94.25
16	57.5	3.3	100.05	99.21	98.84	97.89	96.74	94.28
17	58.0	3.2	99.92	99.18	98.29	97.66	96.52	94.18
18	57.4	3.3	99.95	99.21	98.39	97.54	96.18	94.28
19	57.5	3.2	99.88	99.18	97.88	97.15	96.28	94.26
20	57.7	3.2	99.93	99.28	98.42	97.34	96.45	94.18
Average	57.7	3.2	99.90	99.23	98.38	97.51	96.29	94.28
Median	57.7	3.2	99.90	99.21	98.36	97.53	96.33	94.26
St, Dev.	0.3	0.1	0.09	0.13	0.26	0.21	0.48	0.19
Max	58.2	3.3	100.08	99.52	98.84	97.89	96.85	94.59
Min	57.4	3.2	99.69	98.96	97.88	97.15	95.28	93.85

**Operating Condition: 55°C/150mA**

No.	CCT(K)	Chromaticity Shift $\Delta u'v'$					
	0h(Initial)	1000h	2000h	3000h	4000h	5000h	6000h
1	3063	0.0012	0.0013	0.0015	0.0017	0.0020	0.0023
2	3066	0.0011	0.0013	0.0015	0.0018	0.0021	0.0023
3	3041	0.0011	0.0014	0.0016	0.0018	0.0019	0.0023
4	3093	0.0009	0.0012	0.0015	0.0017	0.0019	0.0023
5	3080	0.0012	0.0014	0.0016	0.0018	0.0019	0.0023
6	3134	0.0012	0.0013	0.0014	0.0015	0.0017	0.0024
7	3144	0.0009	0.0013	0.0015	0.0017	0.0019	0.0023
8	3053	0.0011	0.0014	0.0015	0.0016	0.0018	0.0023
9	3065	0.0011	0.0013	0.0015	0.0017	0.0018	0.0025
10	3052	0.0011	0.0013	0.0014	0.0015	0.0017	0.0023
11	3133	0.0012	0.0013	0.0015	0.0017	0.0018	0.0023
12	3078	0.0011	0.0012	0.0014	0.0015	0.0017	0.0023
13	3106	0.0009	0.0011	0.0013	0.0014	0.0017	0.0024
14	3086	0.0011	0.0012	0.0013	0.0015	0.0016	0.0022
15	3119	0.0011	0.0013	0.0015	0.0015	0.0018	0.0022
16	3143	0.0011	0.0013	0.0015	0.0016	0.0017	0.0023
17	3132	0.0011	0.0013	0.0016	0.0017	0.0018	0.0022
18	3057	0.0009	0.0011	0.0013	0.0015	0.0017	0.0022
19	3050	0.0011	0.0013	0.0014	0.0015	0.0017	0.0023
20	3068	0.0009	0.0011	0.0014	0.0015	0.0017	0.0025
Average	3088	0.0011	0.0013	0.0015	0.0016	0.0018	0.0023
Median	3079	0.0011	0.0013	0.0015	0.0016	0.0018	0.0023
St, Dev.	35	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Max	3144	0.0012	0.0014	0.0016	0.0018	0.0021	0.0025
Min	3041	0.0009	0.0011	0.0013	0.0014	0.0016	0.0022

**Operating Condition: 85°C/150mA**

No.	CCT(K)	Chromaticity Shift $\Delta u'v'$					
	0h(Initial)	1000h	2000h	3000h	4000h	5000h	6000h
1	3096	0.0014	0.0016	0.0024	0.0027	0.0030	0.0033
2	3107	0.0015	0.0017	0.0023	0.0026	0.0029	0.0034
3	3053	0.0015	0.0019	0.0022	0.0025	0.0028	0.0036
4	3057	0.0015	0.0021	0.0023	0.0026	0.0029	0.0035
5	3102	0.0014	0.0018	0.0021	0.0025	0.0029	0.0036
6	3063	0.0015	0.0018	0.0023	0.0025	0.0028	0.0035
7	3085	0.0015	0.0018	0.0023	0.0026	0.0029	0.0036
8	3133	0.0015	0.0019	0.0024	0.0027	0.0031	0.0036
9	3086	0.0014	0.0017	0.0022	0.0025	0.0031	0.0036
10	3085	0.0015	0.0021	0.0025	0.0028	0.0032	0.0037
11	3061	0.0014	0.0019	0.0024	0.0026	0.0028	0.0036
12	3067	0.0016	0.0021	0.0023	0.0025	0.0027	0.0037
13	3122	0.0016	0.0022	0.0024	0.0026	0.0029	0.0034
14	3063	0.0015	0.0018	0.0023	0.0028	0.0031	0.0035
15	3087	0.0016	0.0019	0.0024	0.0026	0.0028	0.0033
16	3145	0.0014	0.0018	0.0023	0.0025	0.0027	0.0036
17	3056	0.0015	0.0019	0.0023	0.0028	0.0031	0.0035
18	3085	0.0014	0.0021	0.0024	0.0027	0.0029	0.0035
19	3064	0.0016	0.0021	0.0024	0.0026	0.0031	0.0036
20	3122	0.0016	0.0019	0.0024	0.0028	0.0032	0.0035
Average	3087	0.0016	0.0021	0.0025	0.0027	0.0031	0.0035
Median	3085	0.0015	0.0019	0.0023	0.0026	0.0030	0.0036
St. Dev.	28	0.0015	0.0019	0.0023	0.0026	0.0029	0.0001
Max	3145	0.0001	0.0002	0.0001	0.0001	0.0002	0.0037
Min	3053	0.0016	0.0022	0.0025	0.0028	0.0032	0.0033



Operating Condition: 105°C/150mA

No.	CCT(K)	Chromaticity Shift $\Delta u'v'$					
	0h(Initial)	1000h	2000h	3000h	4000h	5000h	6000h
1	3063	0.0016	0.0019	0.0023	0.0028	0.0033	0.0038
2	3082	0.0017	0.0021	0.0024	0.0031	0.0036	0.0039
3	3136	0.0016	0.0021	0.0023	0.0028	0.0033	0.0041
4	3095	0.0017	0.0021	0.0025	0.0031	0.0033	0.0041
5	3088	0.0017	0.0021	0.0025	0.0028	0.0033	0.0041
6	3042	0.0018	0.0022	0.0024	0.0028	0.0035	0.0041
7	3064	0.0017	0.0021	0.0025	0.0029	0.0034	0.0039
8	3118	0.0016	0.0021	0.0025	0.0029	0.0034	0.0041
9	3065	0.0018	0.0021	0.0024	0.0029	0.0035	0.0042
10	3041	0.0016	0.0019	0.0025	0.0028	0.0033	0.0041
11	3136	0.0017	0.0021	0.0023	0.0029	0.0034	0.0039
12	3063	0.0016	0.0019	0.0023	0.0028	0.0035	0.0039
13	3082	0.0016	0.0019	0.0024	0.0029	0.0034	0.0041
14	3109	0.0017	0.0021	0.0025	0.0029	0.0035	0.0038
15	3063	0.0016	0.0019	0.0024	0.0029	0.0035	0.0041
16	3082	0.0016	0.0019	0.0025	0.0032	0.0036	0.0039
17	3136	0.0017	0.0019	0.0024	0.0031	0.0035	0.0038
18	3097	0.0018	0.0021	0.0023	0.0031	0.0035	0.0039
19	3088	0.0017	0.0022	0.0025	0.0029	0.0034	0.0039
20	3121	0.0018	0.0019	0.0024	0.0028	0.0036	0.0038
Average	3089	0.0017	0.0020	0.0024	0.0029	0.0034	0.0040
Median	3085	0.0017	0.0021	0.0024	0.0029	0.0035	0.0039
St. Dev.	30	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Max	3136	0.0018	0.0022	0.0025	0.0032	0.0036	0.0042
Min	3041	0.0016	0.0019	0.0023	0.0028	0.0033	0.0038



Photo 1 General Appearance of the EUT

