



Report No.: GZE160118-E

NVLAP LAB CODE 201011-0

LM-79-08 Test Report

For

L-TECH CORPORTION (Brand Name: L-TECH CORP)

SHAOGANGTOU DISTRICT.QIAOTOU TOWN.DONGGUAN
CITY.GUANGDONG PROVINCE,CHINA

LED DOWNLIGHT

Model name(s): CLED6A/P/R-48 WITH TCLD648HZ(CLKT648)

Representative (Tested) Model: CLED6A/P/R-48 WITH TCLD648HZ(CLKT648)(3000K)
CLED6A/P/R-48 WITH TCLD648HZ(CLKT648)(4000K)

Model Difference: All construction and rating are the same, except CCT

Test & Report By:

Johnson Sun

Engineer: Johnson Sun

Date: Jan.13,2016

Review By:

Tommy Liang

Manager: Tommy Liang

Note: This report does not imply product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Laboratory: Standard-Tech Co. Ltd Testing Center
NVLAP CODE: 201011-0

Report Format Number STD/QR4910-A/1

Address: Standard-Tech Building, No.6 Guanhong Road,Guangzhou Science City, Guangzhou 510663, China

Tel: 8620-3229 0320 Fax: 8620-32290422 <http://www.standard-tech.com>

U.S. Department of Energy

Lighting Facts™ Uniform LM-79 Reporting Template
Laboratory Information:

Name of Test Laboratory	Standard-Tech Co. Ltd
Date of Test Report	Jan.13, 2016
Test Report No.	GZE160118-E
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	L-TECH CORPORTION	
Brand Name	L-TECH CORP	
Model Number	CLED6A/P/R-48 WITH TCLD648HZ(CLKT648)(3000K)	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	LED DOWNLIGHT	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

Integrating Sphere
Goniophotometer
Electrical Measurements:
Output
Output

Input Wattage	--	49.12	W
Input Current	--	0.4131	A
Input Voltage (ac)	--	120.0	V
Power Factor	--	0.9909	
Off-State Power	--	0	W

Photometric Characteristics

Total Initial Lumen Output	--	3670.6	lm
Initial Lumen Efficacy	--	74.73	lm/w
Correlated color temperature / CCT	3024	--	K
Color rendering index / CRI	85.1	--	
R9 Value	22	--	
Duv	0.0012	--	
Luminous Intensity Distribution			
Center beam candlepower (if applicable)	-----	2289	cd
Beam angle (if applicable)		76.6	°
Zonal lumens in the 0°-60° zone		91.8	%
Zonal lumens in the 60°-90° zone		8.2	%
Zonal lumens in the 90°-120° zone		0	%
Zonal lumens in the 120°-180° zone		0	%

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Laboratory Information:

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Test Report No.	GZE160118-E
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	L-TECH CORPORTION	
Brand Name	L-TECH CORP	
Model Number	CLED6A/P/R-48 WITH TCLD648HZ(CLKT648)(4000K)	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	LED DOWNLIGHT	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

Integrating Sphere
Goniophotometer
Electrical Measurements:
Output
Output

Input Wattage	49.47	--	W
Input Current	0.4154	--	A
Input Voltage (ac)	120.0	--	V
Power Factor	0.9923	--	
Off-State Power	0	--	W

Photometric Characteristics

Total Initial Lumen Output	3771	--	lm
Initial Lumen Efficacy	76.23	--	lm/w
Correlated color temperature / CCT	4053	--	K
Color rendering index / CRI	83.4	--	
R9 Value	15	--	
Duv	0.0012	--	
Luminous Intensity Distribution			
Center beam candlepower (if applicable)			cd
Beam angle (if applicable)			°
Zonal lumens in the 0°-60° zone	-----	-----	%
Zonal lumens in the 60°-90° zone			%
Zonal lumens in the 90°-120° zone			%
Zonal lumens in the 120°-180° zone			%

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Test Specifications:	
Date of Receipt	Jan.11,2016
Date of Test	Jan.12,2016
Test item	: Total Luminous Flux, Luminous Distribution Intensity, Luminous Efficacy, Correlated Color Temperature, Color Rendering Index, Chromaticity Coordinate, Electrical parameters
Reference Standard	IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources CIE 15-2004 Technical Report Colorimetry IESNA LM-16-93 Practical Guide to Colorimetry of Light Source IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems UL1993 4 th Edition, Self-Ballasted Lamps and Lamp Adapters ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) – Version 2.0
Reference Work Instruction	QD25
Remark	Below test and data are not covered by NVLAP accreditation: - Operating Frequency

Test Methods

1. Photometric and Electrical measurements – Light Distribution Method:

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at $25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample. The sample was operated at 120 Volts AC, 60Hz. It was stabilized before measurement was made. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1 ° vertical intervals and 22.5 ° horizontal intervals.

2. Photometric and Electrical Measurements – Integrating Sphere Method:

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$. The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. The sample was operated at 120 Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at least 5 nm intervals over the range of 380 to 780 nm.

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1. Product Information:

Brand Name	L-TECH CORP
Model Number	GZE160118-E
Luminaire Type	LED DOWNLIGHT
Rated Voltage / Frequency	120Vac, 60 Hz
Nominal Power	50W
Rated Initial Lamp Lumen	--
Declared CCT	3000K,4000K
LED Manufacturer	Seoul Semiconductor Co.,Ltd
LED Model	STWxC2SB
Sample Receipt Date	Jan.11,2015
Sample Number	GZE160118-E1,E2,E3(3000K),E4(4000K)

Photo



2.1 Electrical, Photometric and Chromaticity Measurements (Refer to Work Instruction QD25)	IES LM-79 2008
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Test date	2016-01-12	Test Ambient:	25.0 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	CLED6A/P/R-48 WITH TCLD648HZ(CLKT648)(3000K)		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
GZE160118-E1	120.0	60	0.4131	49.12	0.9909
GZE160118-E2	120.0	60	0.4145	49.26	0.9903
GZE160118-E3	120.0	60	0.4133	49.18	0.9915
Average			0.4136	49.19	0.9909

Sphere-Spectroradiometer Method:

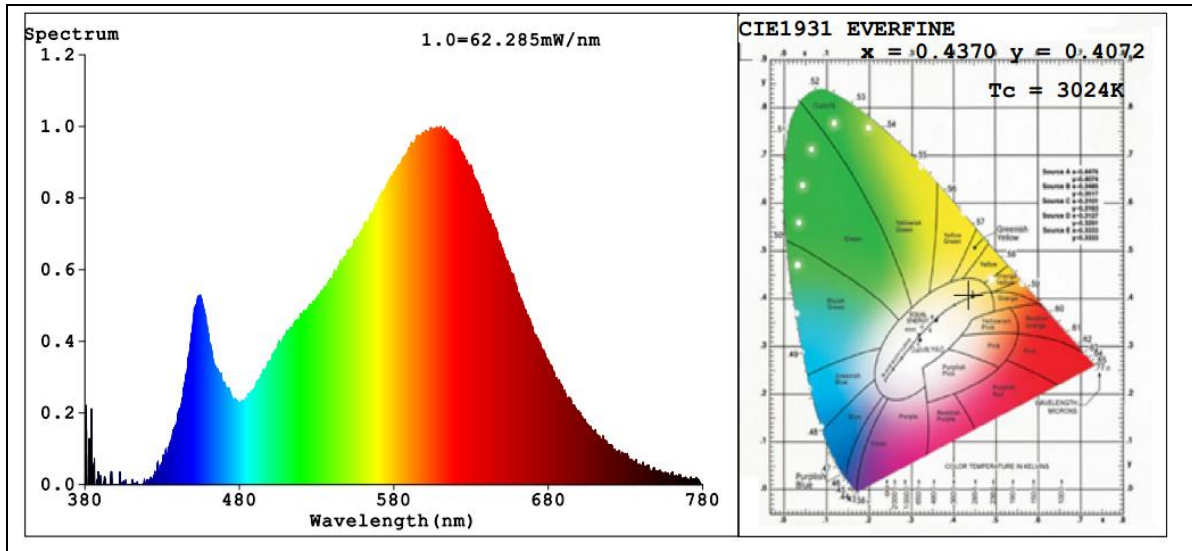
Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	85.1
R9	22
CCT (K)	3024
Chromaticity (x, y)	x=0.4370 y=0.4072
Chromaticity (u', v')	u'=0.2493 v'=0.5226
Duv	0.0012

Special Color Rendering Indices			
R1	84	R9	22
R2	93	R10	82
R3	97	R11	82
R4	83	R12	72
R5	84	R13	86
R6	91	R14	99
R7	86	R15	77
R8	65	--	--

Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	3670.6
Luminous Efficacy (lm/W)	74.73
Beam Angle °	76.6
Center Beam Candle Power (cd)	2289

Spectral Power Distribution and Chromaticity Diagram



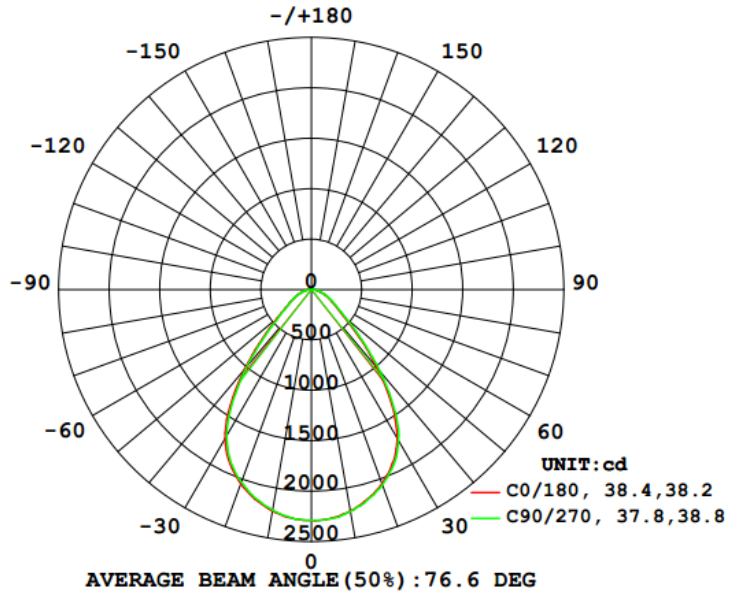
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Zonal Lumen Tabulation



Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1,693.1	46.1%
0-40	2,552.3	69.5%
0-60	3,367.5	91.8%
60-90	302.4	8.2%
70-100	122.4	3.3%
90-120	0.0	0%
0-90	3,669.8	100%
90-180	0.2	0%
0-180	3,670.0	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	215.6	5.9%	90-100	0.0	0%
10-20	605.4	16.5%	100-110	0.0	0%
20-30	872.0	23.8%	110-120	0.0	0%
30-40	859.2	23.4%	120-130	0.0	0%
40-50	532.5	14.5%	130-140	0.0	0%
50-60	282.7	7.7%	140-150	0.0	0%
60-70	180.0	4.9%	150-160	0.0	0%
70-80	97.7	2.7%	160-170	0.0	0%
80-90	24.7	0.7%	170-180	0.0	0%

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2.2 Electrical, Photometric and Chromaticity Measurements <i>(Refer to Work Instruction QD25)</i>	IES LM-79 2008
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Test date	2016-01-12	Test Ambient:	25.0 °C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	CLED6A/P/R-48 WITH TCLD648HZ(CLKT648)(4000K)		

Electrical Measurement:

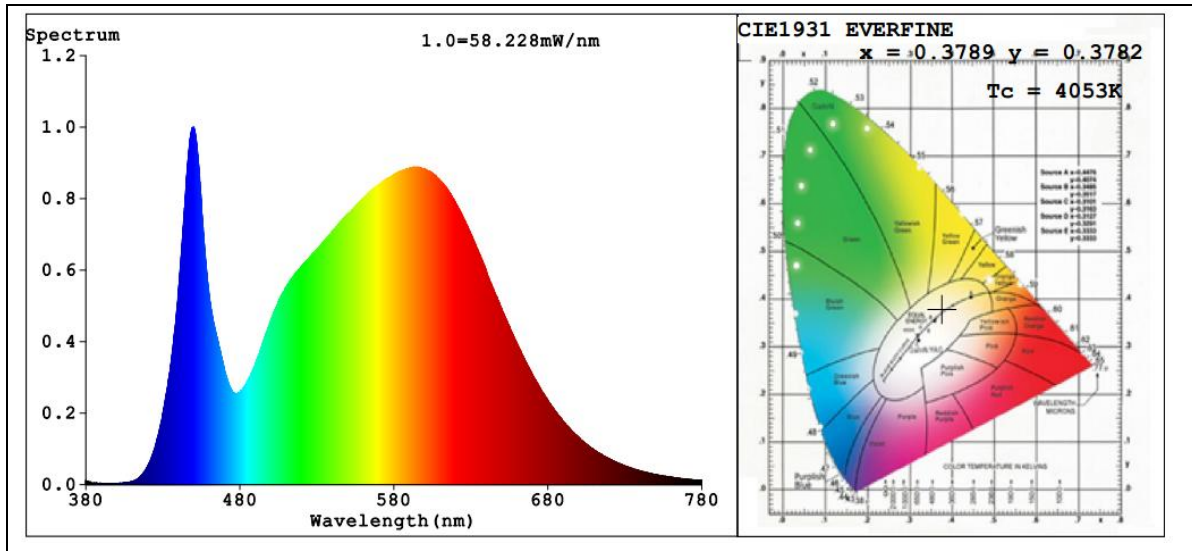
Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
GZE160118-E4	120.0	60	0.4154	49.47	0.9923

Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	83.4
R9	15
CCT (K)	4053
Chromaticity (x, y)	x=0.3789 y=0.3782
Chromaticity (u', v')	u'=0.2235 v'=0.5020
Duv	0.0012
Total Luminous (lm)	3771
Luminous Efficacy (lm/W)	76.23

Special Color Rendering Indices			
R1	82	R9	15
R2	88	R10	72
R3	94	R11	82
R4	83	R12	63
R5	82	R13	83
R6	84	R14	96
R7	88	R15	76
R8	68	--	--

Spectral Power Distribution and Chromaticity Diagram



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2.2 Color Spatial Uniformity	IES LM-79 2008 ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.0
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Test Data (Model CLED6A/P/R-48 WITH TCLD648HZ(CLKT648)(3000K)):

Test date	2016-01-12	Test Ambient	25.1°C
Sample No.		Maximum $\Delta u'v'$	
GZE160118-E1		0.0042	

Gamma\C	CIE u'	CIE v'	$du'v'$	CIE u'	CIE v'	$du'v'$
-62	0.2453	0.52	0.004	0.2451	0.5199	0.0042
-61	0.2453	0.52	0.0039	0.2453	0.52	0.004
-60	0.2454	0.5201	0.0038	0.2453	0.52	0.0039
-59	0.2455	0.5202	0.0037	0.2454	0.5201	0.0038
-58	0.2457	0.5203	0.0035	0.2455	0.5202	0.0037
-57	0.2457	0.5204	0.0034	0.2457	0.5204	0.0035
-56	0.2459	0.5205	0.0032	0.2458	0.5204	0.0034
-55	0.246	0.5206	0.0031	0.2459	0.5205	0.0032
-54	0.2463	0.5207	0.0028	0.2461	0.5207	0.003
-53	0.2464	0.5208	0.0027	0.2462	0.5207	0.0029
-52	0.2464	0.5207	0.0027	0.2462	0.5207	0.0029
-51	0.2463	0.5207	0.0028	0.2463	0.5206	0.0028

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-50	0.2465	0.5207	0.0026	0.2463	0.5206	0.0028
-49	0.2465	0.5206	0.0026	0.2464	0.5205	0.0028
-48	0.2465	0.5205	0.0026	0.2464	0.5204	0.0028
-47	0.2467	0.5205	0.0025	0.2466	0.5204	0.0027
-46	0.2468	0.5204	0.0025	0.2466	0.5204	0.0026
-45	0.2472	0.5206	0.002	0.2469	0.5204	0.0023
-44	0.2473	0.5206	0.0019	0.2471	0.5204	0.0021
-43	0.2475	0.5207	0.0017	0.2474	0.5206	0.0018
-42	0.248	0.5209	0.0012	0.2476	0.5206	0.0016
-41	0.2482	0.5209	0.0009	0.248	0.5208	0.0012
-40	0.2484	0.521	0.0007	0.2482	0.5209	0.001
-39	0.2487	0.5212	0.0004	0.2483	0.5209	0.0008
-38	0.2488	0.5212	0.0003	0.2487	0.5211	0.0004
-37	0.2493	0.5214	0.0003	0.2489	0.5212	0.0002
-36	0.2494	0.5215	0.0004	0.2492	0.5214	0.0002
-35	0.2496	0.5216	0.0006	0.2493	0.5214	0.0003
-34	0.2497	0.5217	0.0007	0.2495	0.5215	0.0005
-33	0.2498	0.5217	0.0009	0.2495	0.5216	0.0005
-32	0.2502	0.5219	0.0012	0.2498	0.5217	0.0008
-31	0.2502	0.5219	0.0013	0.2499	0.5217	0.0009

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-30	0.2503	0.522	0.0014	0.2499	0.5218	0.001
-29	0.2503	0.522	0.0014	0.2499	0.5218	0.001
-28	0.2502	0.522	0.0013	0.2499	0.5218	0.001
-27	0.2502	0.522	0.0013	0.2501	0.5219	0.0012
-26	0.2502	0.522	0.0013	0.2501	0.5219	0.0012
-25	0.2501	0.5219	0.0012	0.2501	0.5219	0.0012
-24	0.2501	0.522	0.0012	0.25	0.5219	0.0011
-23	0.25	0.5219	0.0011	0.25	0.5219	0.0011
-22	0.25	0.5219	0.0011	0.25	0.5219	0.0011
-21	0.2502	0.522	0.0013	0.25	0.5219	0.0011
-20	0.2501	0.522	0.0013	0.2499	0.5218	0.001
-19	0.2501	0.5219	0.0012	0.2499	0.5218	0.001
-18	0.2501	0.522	0.0012	0.2499	0.5219	0.001
-17	0.2501	0.522	0.0012	0.2499	0.5218	0.001
-16	0.2501	0.5219	0.0012	0.2499	0.5219	0.001
-15	0.2501	0.5219	0.0012	0.2499	0.5218	0.001
-14	0.2501	0.522	0.0012	0.2499	0.5219	0.001
-13	0.2501	0.5219	0.0012	0.2499	0.5218	0.001
-12	0.2501	0.5219	0.0012	0.2499	0.5218	0.001
-11	0.2501	0.5219	0.0012	0.2499	0.5218	0.001

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-10	0.2502	0.522	0.0013	0.2499	0.5218	0.001
-9	0.2502	0.522	0.0013	0.2499	0.5219	0.001
-8	0.2502	0.522	0.0013	0.2499	0.5218	0.001
-7	0.2502	0.522	0.0013	0.2499	0.5219	0.001
-6	0.2501	0.5219	0.0013	0.2499	0.5218	0.0009
-5	0.2501	0.5219	0.0012	0.2499	0.5218	0.001
-4	0.2502	0.522	0.0013	0.2499	0.5218	0.001
-3	0.2501	0.522	0.0012	0.2499	0.5218	0.001
-2	0.2501	0.5219	0.0013	0.2499	0.5218	0.0009
-1	0.2501	0.522	0.0012	0.2498	0.5218	0.0009
0	0.2501	0.5219	0.0012	0.2501	0.5219	0.0012
1	0.2501	0.5219	0.0012	0.2499	0.5218	0.001
2	0.2501	0.5219	0.0012	0.2498	0.5218	0.0009
3	0.2501	0.5219	0.0012	0.2499	0.5218	0.0009
4	0.25	0.5219	0.0011	0.2498	0.5218	0.0009
5	0.2501	0.5219	0.0012	0.2498	0.5218	0.0009
6	0.25	0.5219	0.0011	0.2498	0.5218	0.0009
7	0.25	0.5218	0.0011	0.2499	0.5218	0.001
8	0.2501	0.5219	0.0011	0.2498	0.5218	0.0009
9	0.25	0.5219	0.0011	0.2499	0.5218	0.0009

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10	0.25	0.5219	0.0011	0.2498	0.5218	0.0009
11	0.25	0.5219	0.0011	0.2499	0.5218	0.0009
12	0.25	0.5219	0.0011	0.2499	0.5218	0.0009
13	0.25	0.5218	0.0011	0.2498	0.5218	0.0009
14	0.25	0.5218	0.0011	0.2498	0.5218	0.0009
15	0.25	0.5218	0.001	0.2498	0.5218	0.0009
16	0.2499	0.5218	0.001	0.2498	0.5217	0.0008
17	0.25	0.5218	0.001	0.2498	0.5218	0.0009
18	0.25	0.5218	0.001	0.2498	0.5217	0.0008
19	0.2499	0.5218	0.001	0.2496	0.5217	0.0006
20	0.25	0.5218	0.001	0.2496	0.5217	0.0006
21	0.2499	0.5218	0.001	0.2496	0.5217	0.0007
22	0.2499	0.5217	0.001	0.2497	0.5217	0.0007
23	0.25	0.5218	0.001	0.2496	0.5217	0.0007
24	0.2499	0.5218	0.001	0.2496	0.5217	0.0007
25	0.25	0.5218	0.0011	0.2497	0.5217	0.0007
26	0.2497	0.5217	0.0008	0.2497	0.5217	0.0008
27	0.2498	0.5217	0.0008	0.2497	0.5217	0.0008
28	0.2498	0.5217	0.0009	0.2497	0.5217	0.0008
29	0.2499	0.5217	0.0009	0.2498	0.5217	0.0008

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30	0.2499	0.5217	0.0009	0.2498	0.5217	0.0008
31	0.2499	0.5217	0.0009	0.2498	0.5217	0.0008
32	0.2498	0.5216	0.0008	0.2497	0.5216	0.0008
33	0.2495	0.5215	0.0005	0.2494	0.5214	0.0004
34	0.2495	0.5215	0.0005	0.2493	0.5214	0.0003
35	0.2493	0.5214	0.0003	0.2492	0.5214	0.0002
36	0.2491	0.5212	0.0002	0.249	0.5212	0.0002
37	0.2489	0.5211	0.0003	0.2488	0.5211	0.0003
38	0.2488	0.5211	0.0004	0.2487	0.5211	0.0005
39	0.2484	0.5209	0.0008	0.2485	0.521	0.0007
40	0.2483	0.5208	0.0009	0.248	0.5208	0.0012
41	0.2481	0.5208	0.0011	0.2479	0.5207	0.0013
42	0.2477	0.5206	0.0015	0.2477	0.5206	0.0015
43	0.2476	0.5205	0.0017	0.2476	0.5206	0.0017
44	0.2472	0.5204	0.002	0.2471	0.5204	0.0021
45	0.2471	0.5204	0.0022	0.247	0.5204	0.0022
46	0.2468	0.5203	0.0025	0.2469	0.5204	0.0024
47	0.2467	0.5204	0.0025	0.2465	0.5203	0.0028
48	0.2465	0.5204	0.0027	0.2464	0.5203	0.0028
49	0.2465	0.5205	0.0027	0.2463	0.5203	0.0029

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50	0.2464	0.5205	0.0028	0.2463	0.5204	0.0029
51	0.2464	0.5207	0.0027	0.2463	0.5206	0.0029
52	0.2463	0.5207	0.0028	0.2461	0.5205	0.003
53	0.2463	0.5207	0.0027	0.2461	0.5207	0.003
54	0.2464	0.5208	0.0027	0.2461	0.5207	0.003
55	0.2462	0.5207	0.0029	0.2462	0.5207	0.0029
56	0.2461	0.5207	0.003	0.2458	0.5206	0.0033
57	0.246	0.5206	0.0031	0.2458	0.5205	0.0034
58	0.2457	0.5204	0.0034	0.2456	0.5204	0.0036
59	0.2457	0.5203	0.0035	0.2455	0.5203	0.0037
60	0.2456	0.5203	0.0036	0.2453	0.5202	0.0039
61	0.2455	0.5202	0.0037	0.2452	0.5201	0.004
62	0.2453	0.52	0.004	0.2451	0.52	0.0042

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<p>3. Electrical and Photometric Measurements, with dimming</p>	<p>IES LM-79 2008 ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.0</p>
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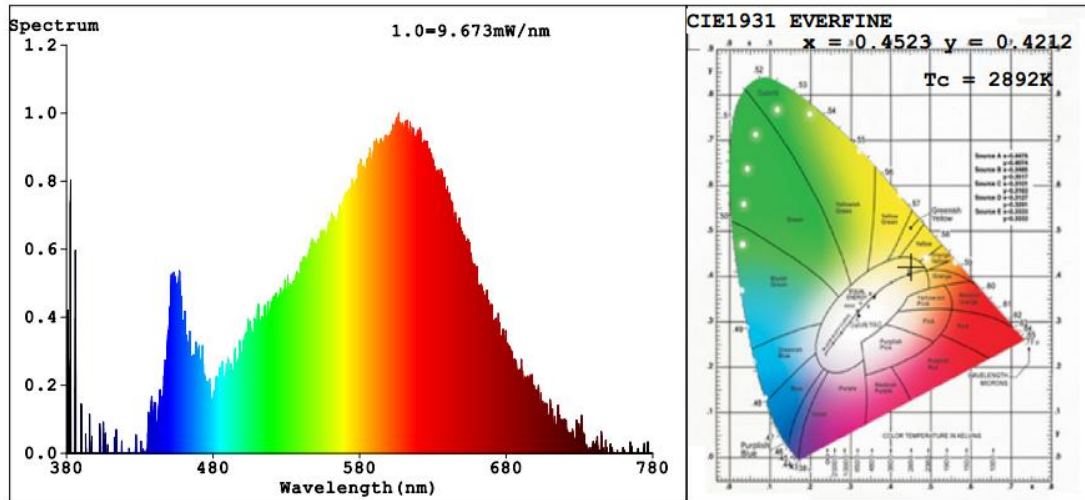
Test date	2016-01-12	Test Ambient:	25.1°C		
Dimmer Model		LEVITON MFG CO INC (E31373), Cat. No. 6681			
Sample No.	Input	Luminous flux (lm)	CCT (K)	CRI	P.F.
GZE160118-E1	120.0 V / 60 Hz	533.5	2892	84.3	0.2885
GZE160118-E2	120.0 V / 60 Hz	594.2	2880	83.4	0.3030
GZE160118-E3	120.0 V / 60 Hz	647.5	2887	83.8	0.3179
Average		591.7	2886	83.8	0.3031

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Color Parameters:

Chromaticity Coordinate: $x=0.4523$ $y=0.4212$ / $u'=0.2530$ $v'=0.5302$

$T_c=2892K$ ($Duv=0.0047$) Dominant WL: $L_d = 581.8nm$ Purity=62.2%

Peak WL: $L_p=606.7nm$ HWL: $L_{hd}=126.9nm$

Render Index: $R_a=84.3$ CRI=78.5

R1 =83 R2 =92 R3 =98 R4 =81 R5 =82 R6 =90 R7 =85

R8 =64 R9 =20 R10=81 R11=80 R12=61 R13=85 R14=99 R15=76

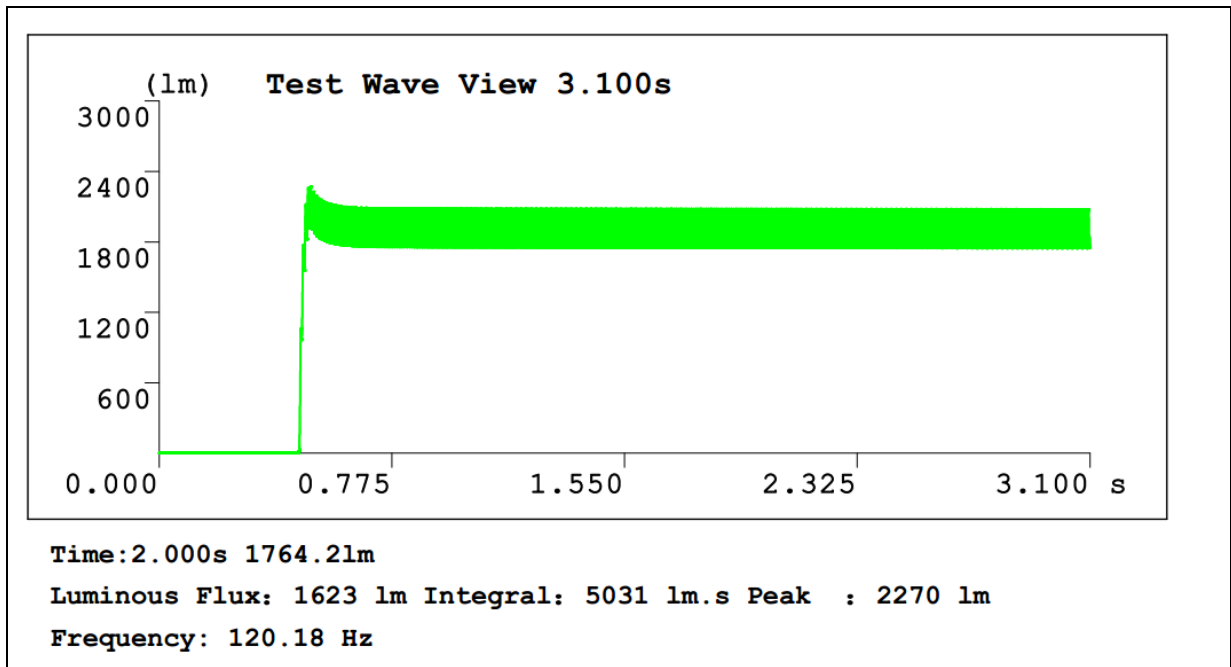
The luminaires [can] ~~lean not~~ provide less than 20% of total light output with continuous dimmer.

Dimmer	Peak Noise Reading (dBA)	Test Condition	Distance between the microphone and the UUT
LEVITON MFG CO INC (E31373), Cat. No. 6681	20.3	Dimmer adjusted to lowest light output	< 1 m

<p>4 Operating Frequency</p>	<p>ENERGY STAR® Program Requirements</p> <p>Product Specification for Luminaires (Light Fixtures) - Version 2.0</p>
<p>Noted: This test and data are not covered by NVLAP accreditation</p>	

Test date	2016-01-12	Test Ambient:	25.1°C
Sample No.		Operating Frequency (Hz)	
GZE160118-E1		120.18	
GZE160118-E2		120.12	
GZE160118-E3		120.10	
Average		120.13	

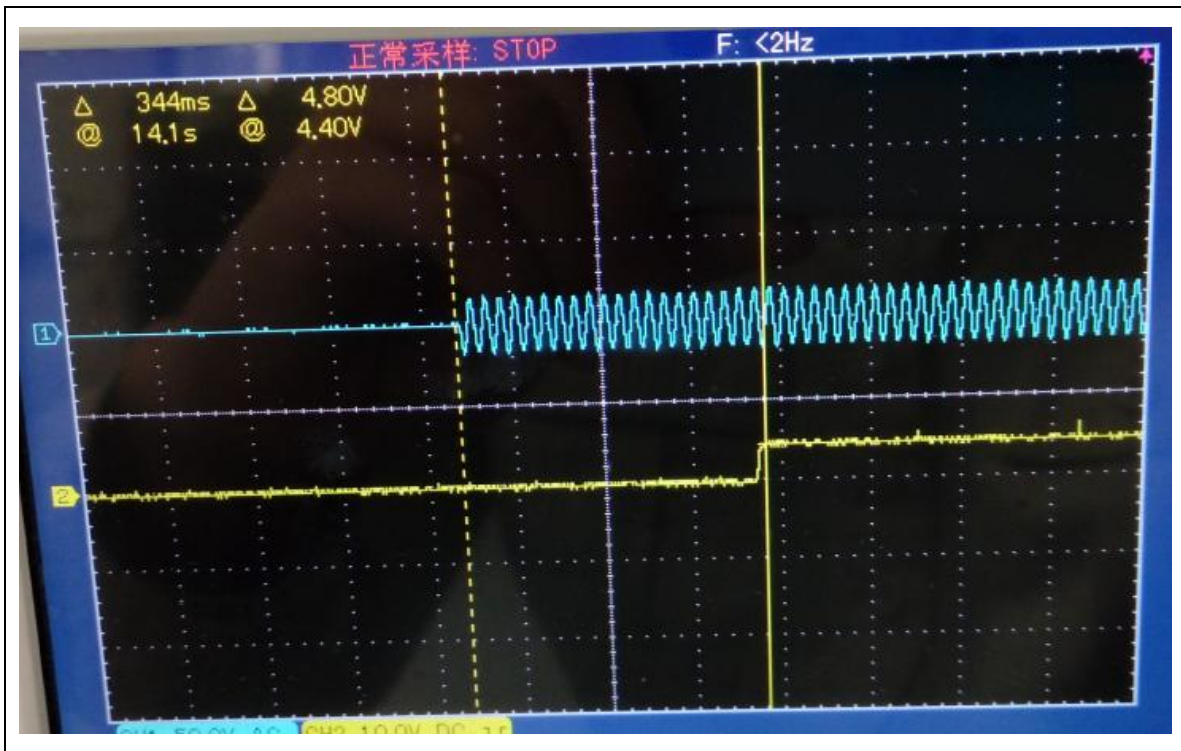
Graph:



5 Starting Time <i>(Refer to Work Instruction QD28)</i>	ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.0
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Test date	2016-01-12	Test Ambient:	25.1°C
Sample No.	Start Time (ms)		
GZE160118-E1	344		
GZE160118-E2	300		
GZE160118-E3	329		
Average	324		

Graph (Start Time):



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Report No.: GZE160118-E

Laboratory: Standard-Tech Co. Ltd Testing Center
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6. Transient Protection Test <i>(Refer to Work Instruction QD34)</i>	ANSI/IEEE C62.41 ENERGY STAR® Program Requirements for Luminaires – Version 2.0
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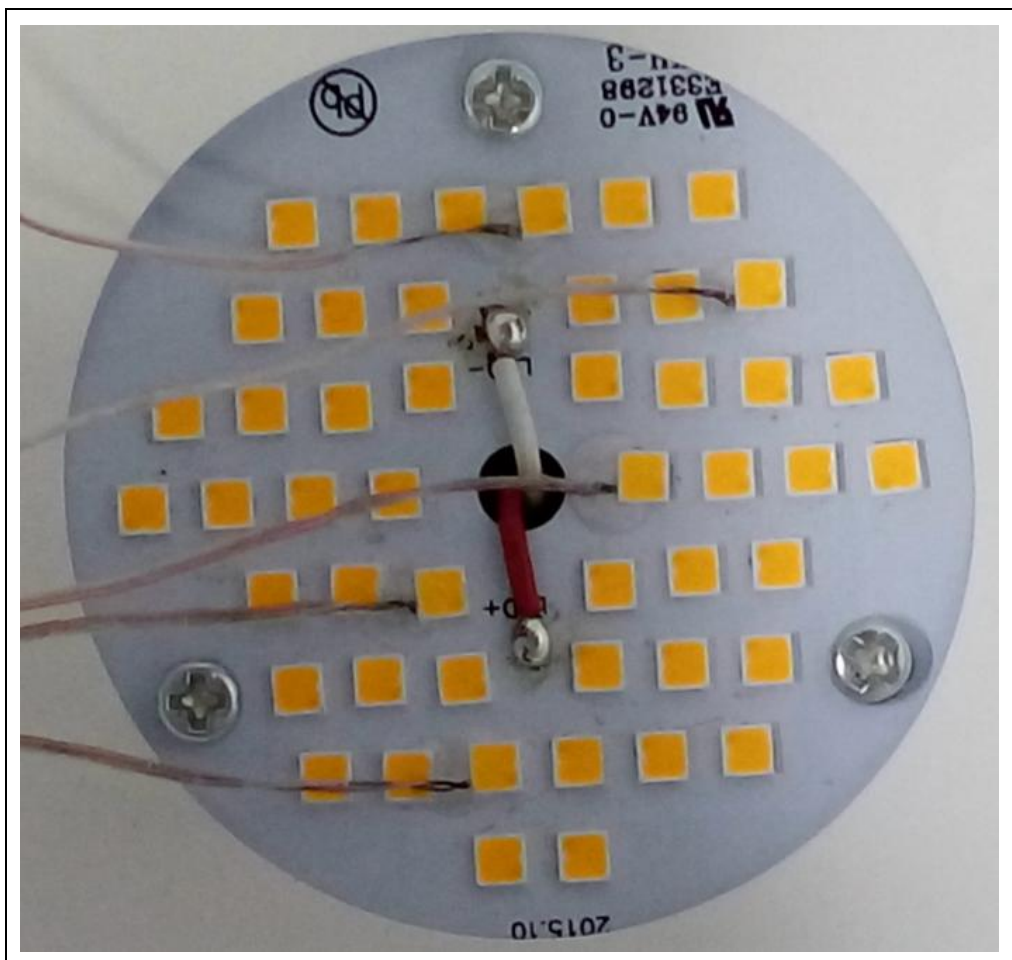
Test voltage: 120V,60Hz

Test date	2016-01-16	Test Ambient	25.1°C
Sample No.		Transient Protection Test - Seven Strikes	
GZE160118-E1		Pass	
GZE160118-E2		Pass	
GZE160118-E3		Pass	

7.1 In-Situ Temperature Measurement Test (ISTMT)	UL1993-2012, 4th Edition
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Test date	2016-01-12	Test Ambient	25.1°C
Input Vol./Frequency	120 V / 60 Hz	Output Current of Driver(mA)	146
Sample No.	LED Package Model	Maximum Measured LED Ts Point Temperature (°C)	Maximum LED Ts Point Temperature Limited (°C)
GZE160118-E1	STWxC2SB	66.5	105

In-Situ Picture - Ts:



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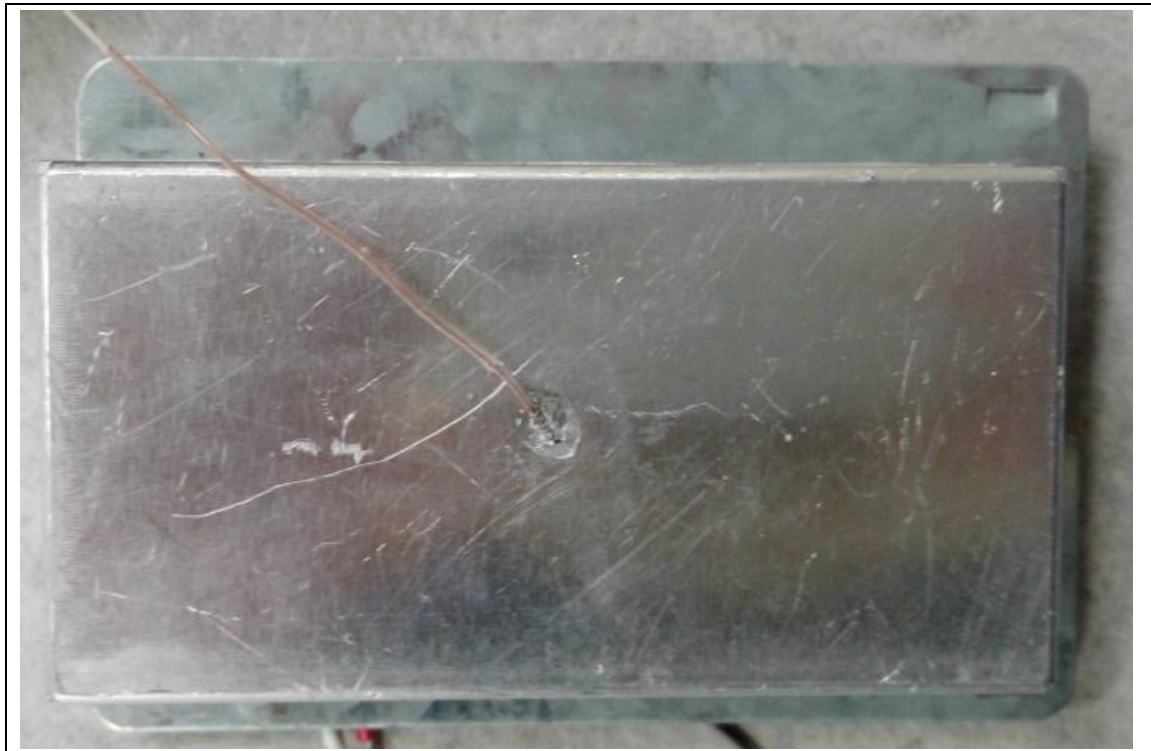
Address: Standard-Tech Building, No.6 Guanhong Road, Guangzhou Science City, Guangzhou 510663, China

Tel: 8620-3229 0320 Fax: 8620-32290422 <http://www.standard-tech.com>

7.2 Maximum Measured Ballast or Driver Case Temperature	UL1598-2008, 3 rd Edition UL1993-2012, 4 th Edition
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Test date	2016-01-12	Test Ambient	25.1°C
Sample No.	Maximum Measured Driver Case Temperature (°C)	Maximum Driver Case Temperature Limited (°C)	
GZE160118-E1	71.4	105	

In-Situ Picture - Ts:



8. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-336	2 meter Integrating Sphere	2015-07-01	2016-06-30
ST-R-331	Spectral analysis system HAAS-2000	2015-07-01	2016-06-30
EE-09	Goniophotometer system	2015-07-01	2016-06-30
D908S	Standard Lamp	2015-07-01	2016-06-30
D204	Standard Lamp	2015-07-01	2016-06-30
PF2010	Power Meter for Integrating Sphere	2015-07-01	2016-06-30
PF210	Power Meter for Goniophotometer	2015-07-01	2016-06-30
EE-015	Flux Meter	2015-07-01	2016-06-30
ST-R-277	Oscillograph	2015-07-01	2016-06-30
ST-R-EM01	Surge Generator	2015-07-01	2016-06-30
ST-R-EM02	EMC Coupler/Decoupler Module	2015-07-01	2016-06-30
Uncertainty Photometric Measurement (Sphere):1.74% Chromaticity Measurement(Sphere):14.3K Photometric Measurement(Goniophotometer):1.62%			

******* END OF DATASHEET PACKAGE *******