

LM-79-08 Test Report

For

IKIO LED LIGHTING**(Brand Name: IKIO)**8470 Allison Pointe Blvd, Suite 128
Indianapolis, IN 46250**Dual Mode Internal Driver (UL Type A or B)**

Model name(s): IK-T804-0018-XXA&B-J (Frosted)

Representative (Tested) Model:

IK-T804-0018-30A&B-J (Frosted (3000K)

IK-T804-0018-35A&B-J (Frosted (3500K)

IK-T804-0018-40A&B-J (Frosted (4000K)

IK-T804-0018-50A&B-J (Frosted (5000K)

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

Test & Report By:

Jack Luo

Engineer: Jack Luo

Date: Sept.26,2017

Review By:

Tommy Liang

Manager: Tommy Liang

Note: 1.The results contained in this report pertain only to the rested samples.

2.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/QR4909-A/2



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1.1 Product Information:

Organization Name	IKIO LED LIGHTING	
Brand Name	IKIO	
Model Number	IK-T804-0018-XXA&B-J (Frosted)	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Dual Mode Internal Driver (UL Type A or B)	
Rated Voltage / Frequency	100~277 Vac, 50/60 Hz	
Nominal Power	18W	
Rated Initial Lamp Lumen	--	
Declared CCT	3000K,3500K,4000K,5000K	
LED Manufacturer	EVERLIGHT ELECTRONICS CO.,LTD	
LED Model	67-21S Series	
Test Ballast	OSRAM SYLVANIA QTP 2x32T8/UNV ISN-SC	
Sample Number	GZE160031-AY1,AY2(3000K),AY3(3500K),AY4 (4000K),AY5(5000K)	
Lamp Length	1200	mm
Lamp Width	--	mm
Number of Units (modular products)	N/A	s
Photo		
		
		

1.2 Test Specifications:

Date of Receipt	Sept.10,2017
Date of Test	Sept.12,2017
Test item	<ol style="list-style-type: none"> 1. Total Luminous Flux 2. Luminous Distribution Intensity 3. Luminous Efficacy 4. Correlated Color Temperature 5. Color Rendering Index 6. Chromaticity Coordinate 7. Electrical Parameters
Reference Standard	<ol style="list-style-type: none"> 1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products 2. ANSI C78.377-2008 Specifications for the Chromaticity of Solid State Lighting Products 3. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources 4. CIE 15-2004 Technical Report Colorimetry 5. IESNA LM-16-93 Practical Guide to Colorimetry of Light Source 6. IESNA TM-16-05 Technical Memorandum on Light Emitting Diode (LED) Sources and Systems
Reference Work Instruction	QD25

1.3 Test Methods**1) Photometric and Light Distribution Measurement – Goniophotometer Method:**

Photometric parameters were measured using the goniophotometer and software. The ambient temperature shall be maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, 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 or rated 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) Chromaticity Measurement – Sphere-Spectroradiometer Method:

Chromaticity parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral power distribution taken at 5 nm intervals over the range of 380 to 780 nm.

3) Electrical Measurements:

Electrical parameters were measured using power meters incorporated in goniophotometer or sphere-spectroradiometer system. The ambient temperature surrounding the sample was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. The sample was operated at 120 or rated Volts AC, 60Hz. It was stabilized before measurement was made. Voltage, frequency, current, power, power factor and total harmonic distortion were measured by and read from the power meter.

2.1 Electrical, Photometric and Chromaticity Measurements
(Refer to Work Instruction QD25)

Test date	2017-09-12	Test Ambient:	25.2 °C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	IK-T804-0018-30A&B-J (Frosted) (3000K), with ballast OSRAM SYLVANIA QTP 2x32T8/UNV ISN-SC		

Electrical Measurement for Bare-lamp:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE160031 -AY1	120.0	60	0.1593	18.94	0.9906	5.23
	277.0	60	0.0712	18.55	0.9411	7.06
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

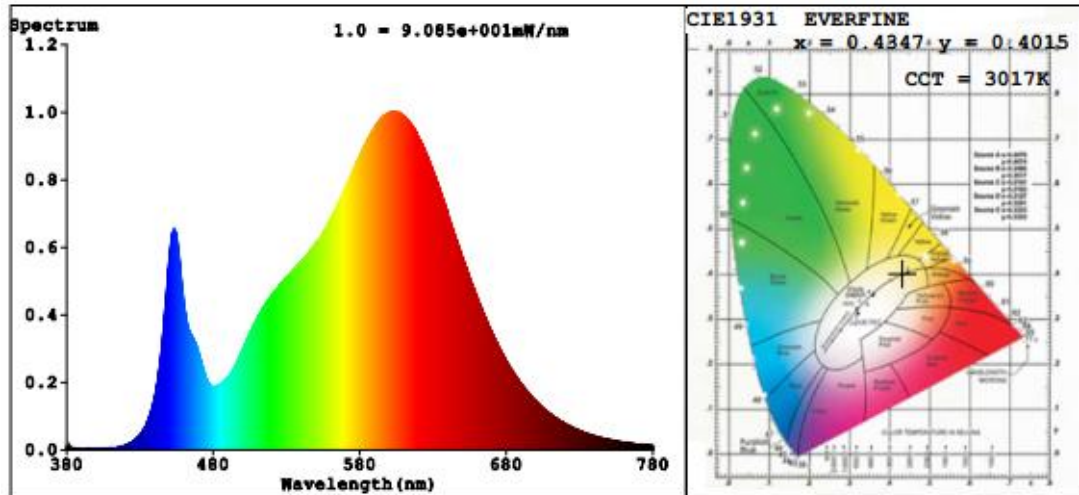
Chromaticity Measurement for Bare-lamp - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	7
Frequency (Hz)	60	R2	91	R10	80
CCT (K)	3017	R3	96	R11	78
Duv	-0.0007	R4	80	R12	68
Chromaticity (x, y)	x=0.4347 y=0.4015	R5	81	R13	84
Chromaticity (u', v')	u'=0.2502 v'=0.5200	R6	89	R14	99
Color Rendering Index (CRI)	82.3	R7	82	R15	74
R9	7	R8	59	--	--

Photometric Measurement for Bare-lamp –Sphere-Spectroradiometer Method:

Parameter	Result		DLC V4.2 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	2502	2472	Bare Lamp: >= 1600(-10%)
Luminous Efficacy (lm/W)	132.10	133.26	Bare lamp: >= 110(-3%)
Most Worst Luminous/Highest Watts	130.52		

Spectral Power Distribution & Chromaticity Diagram



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2.2 Electrical, Photometric and Chromaticity Measurements
(Refer to Work Instruction QD25)

Test date	2017-09-12	Test Ambient:	25.2 °C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	IK-T804-0018-30A&B-J (Frosted) (3000K), Connected to line voltage		

Electrical Measurement for Bare-lamp:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE160031	120.0	60	0.1500	17.80	0.9892	8.01
-AY1	277.0	60	0.0675	17.53	0.9370	11.86
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

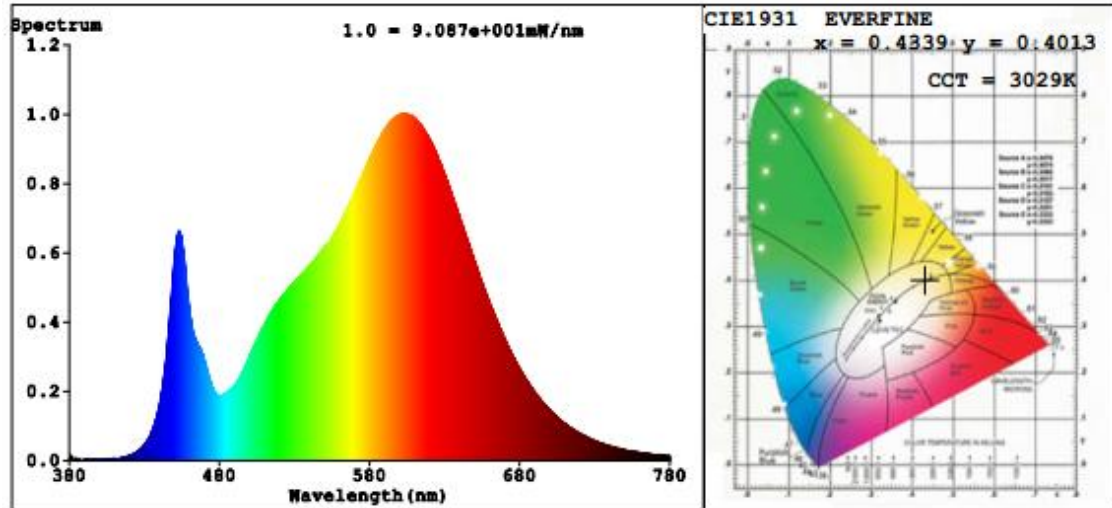
Chromaticity Measurement for Bare-lamp - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	7
Frequency (Hz)	60	R2	91	R10	80
CCT (K)	3029	R3	96	R11	79
Duv	-0.0007	R4	80	R12	68
Chromaticity (x, y)	x=0.4339 y=0.4013	R5	81	R13	84
Chromaticity (u', v')	u'=0.2498 v'=0.5198	R6	89	R14	99
Color Rendering Index (CRI)	82.6	R7	82	R15	74
R9	7	R8	59	--	--

Photometric Measurement for Bare-lamp –Sphere-Spectroradiometer Method:

Parameter	Result		DLC V4.2 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	2376	2338	Bare Lamp: >= 1600(-10%)
Luminous Efficacy (lm/W)	133.48	133.37	Bare lamp: >= 110(-3%)
Most Worst Luminous/Highest Watts	131.35		

Spectral Power Distribution & Chromaticity Diagram



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Summary

Sample No.	Test Method	Voltage (Vac)	Frequency (Hz)	Lumen Output(lm)	Lumen Efficacy(lm/w)	Power (W)
GZE160031-AY1	With Ballast	120.0	60	2502	18.94	132.10
GZE160031-AY1	Connected to line voltage	120.0	60	2376	17.80	133.48

The measured lumen efficacy of test condition “with ballast” was less than test condition “Connect to line voltage”. So the following test will be “with ballast”.

2.3 Electrical, Photometric and Chromaticity Measurements*(Refer to Work Instruction QD25)*

Test date	2017-09-12	Test Ambient:	25.2 °C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	IK-T804-0018-30A&B-J (Frosted) (3000K), with ballast OSRAM SYLVANIA QTP 2x32T8/UNV ISN-SC		

Electrical Measurement for 2-lamp in Lithonia 2PM3N 12 cell 2x4 parabolic:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE160031	120.0	60	0.3155	37.55	0.9918	5.53
-AY1,AY2	277.0	60	0.1417	37.02	0.9430	7.29
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

Chromaticity Measurement for 2-lamp in Lithonia 2PM3N 12 cell 2x4 parabolic - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	5
Frequency (Hz)	60	R2	91	R10	79
CCT (K)	3001	R3	96	R11	78
Duv	-0.0011	R4	79	R12	68
Chromaticity (x, y)	x=0.4353 y=0.4007	R5	81	R13	83
Chromaticity (u', v')	u'=0.2509 v'=0.5198	R6	89	R14	99
Color Rendering Index (CRI)	81.9	R7	82	R15	73
R9	5	R8	58	--	--

Photometric Measurement 2-lamp in Lithonia 2PM3N 12 cell 2x4 parabolic – Goniophotometer Method:

Cone Photometer Method:			
Parameter	Result		DLC V4.2 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	4309.4	4289.7	In luminaire (3 lamps): >= 3000(-10%)
Luminous Efficacy (lm/W)	114.76	115.88	In luminaire: >= 100(-3%)
Most Worst Luminous/Highest Watts	114.24		
Zonal lumens in the 0-60° zone (%)	88.8	--	>= 75(-3)
SC: 0-180° (if applicable)	1.34	--	1.0-2.0(±0.1)
SC: 90-270° (if applicable)	1.19	--	1.0-2.0(±0.1)
Beam Angle (°)	108.4	--	--
Center Beam Candle Power (cd)	1662	--	--

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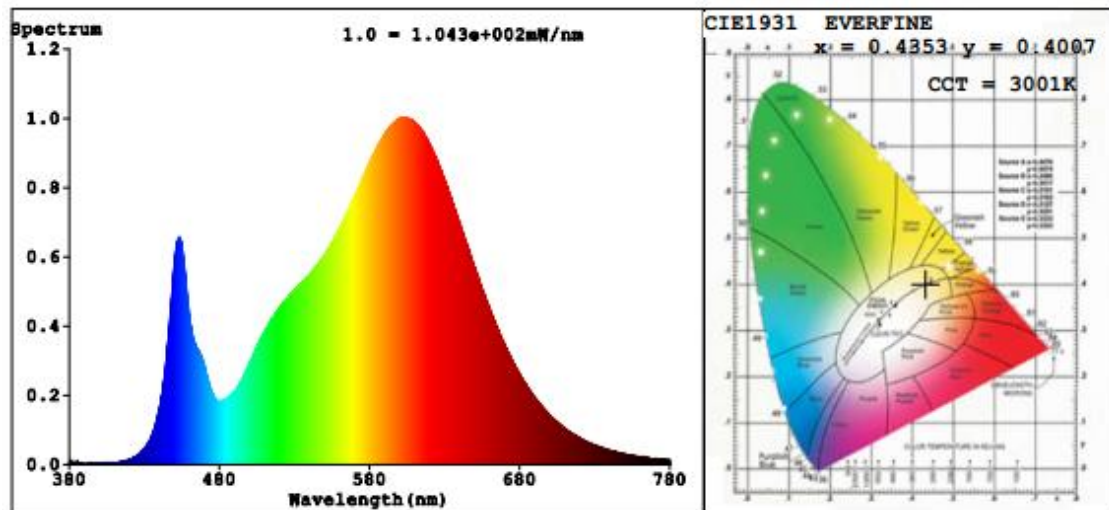
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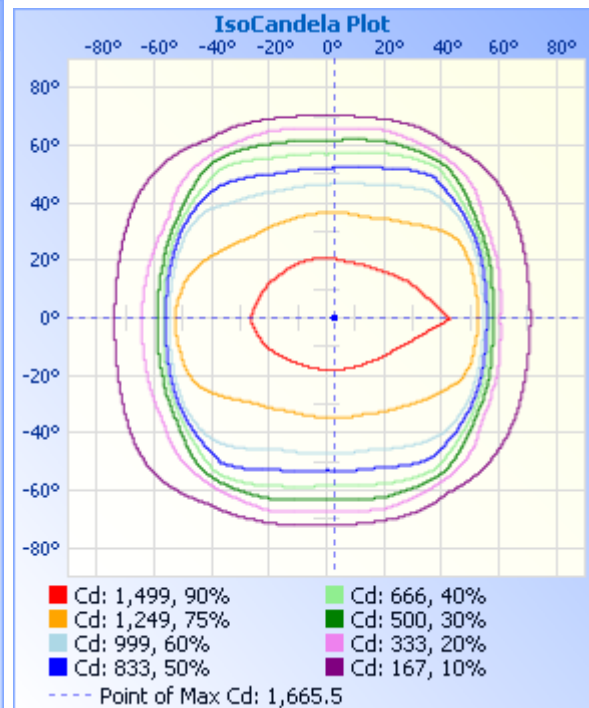
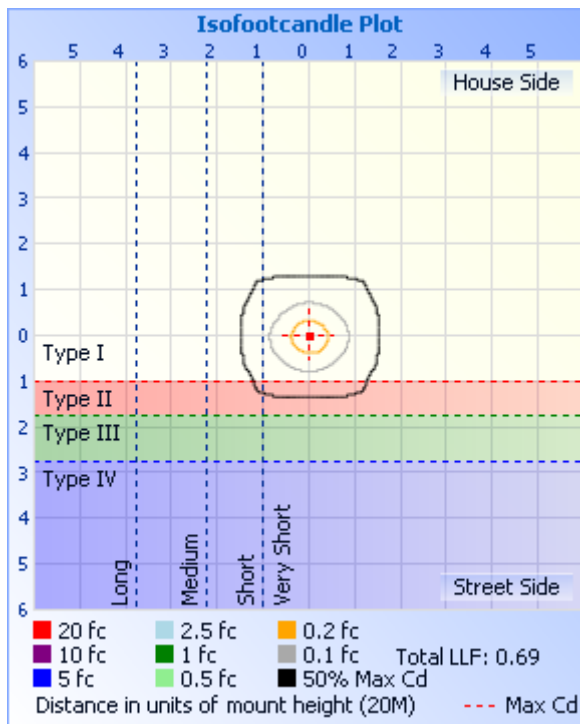
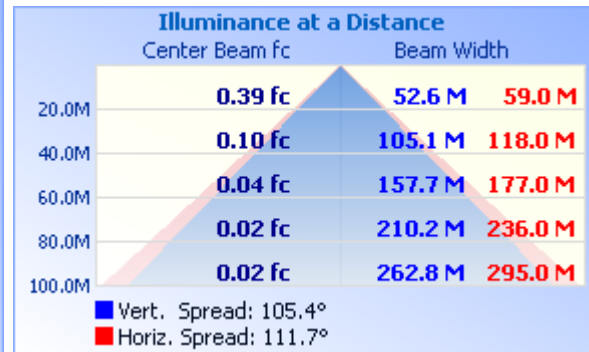
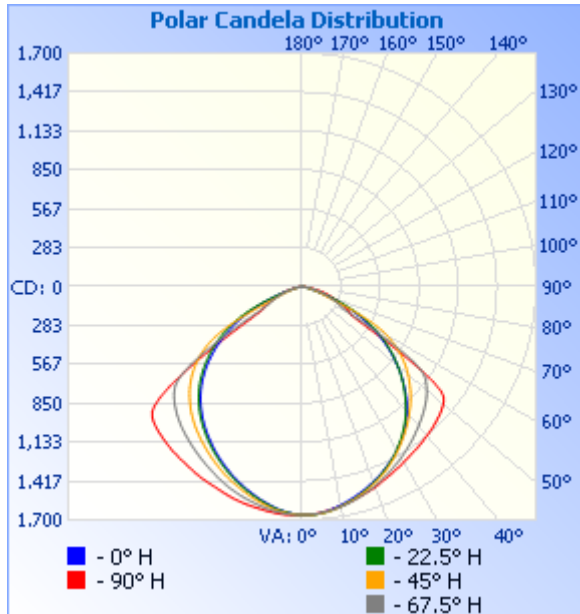
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Spectral Power Distribution & Chromaticity Diagram

Zonal Lumen Tabulation

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	1,279.1	29.7%
0-40	2,119.7	49.2%
0-60	3,824.7	88.8%
60-90	482.5	11.2%
70-100	122.9	2.9%
90-120	0.4	0%
0-90	4,307.2	100%
90-180	1.4	0%
0-180	4,308.6	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	156.6	3.6%	90-100	0.0	0%
10-20	444.8	10.3%	100-110	0.1	0%
20-30	677.7	15.7%	110-120	0.3	0%
30-40	840.6	19.5%	120-130	0.2	0%
40-50	918.9	21.3%	130-140	0.2	0%
50-60	786.1	18.2%	140-150	0.2	0%
60-70	359.7	8.3%	150-160	0.2	0%
70-80	106.9	2.5%	160-170	0.1	0%
80-90	15.9	0.4%	170-180	0.0	0%

Photometric Data



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Table--1

UNIT: cd

C (DEG) y (DEG)	0	23	45	68	90	113	135	158	180	203	225	248	270	293	315	338	
0	1662	1662	1662	1662	1662	1662	1662	1662	1662	1662	1662	1662	1662	1662	1662	1662	
5	1664	1662	1658	1655	1653	1656	1657	1653	1650	1646	1645	1641	1639	1641	1648	1655	
10	1650	1646	1630	1619	1615	1624	1626	1628	1622	1616	1605	1595	1590	1597	1610	1630	
15	1634	1620	1588	1569	1567	1577	1582	1591	1589	1578	1552	1536	1532	1541	1560	1596	
20	1610	1588	1539	1511	1512	1519	1527	1546	1553	1533	1492	1469	1467	1478	1506	1555	
25	1585	1548	1485	1445	1448	1453	1462	1493	1513	1485	1428	1397	1395	1408	1446	1506	
30	1562	1507	1424	1372	1376	1374	1384	1439	1477	1437	1360	1317	1318	1332	1380	1456	
35	1536	1463	1360	1293	1290	1282	1301	1381	1444	1391	1293	1236	1236	1252	1313	1404	
40	1513	1417	1292	1202	1184	1173	1211	1319	1414	1346	1224	1151	1144	1163	1241	1352	
45	1483	1367	1211	1095	1056	1048	1115	1257	1382	1295	1154	1059	1037	1060	1157	1293	
50	1424	1300	1112	970	910	912	1007	1184	1338	1238	1075	951	909	938	1056	1216	
55	895	1065	979	825	750	766	881	1053	1047	1121	968	820	759	799	925	988	
60	335	405	777	651	574	604	714	468	413	502	805	662	591	640	730	387	
65	256	246	339	439	382	414	382	283	332	313	420	466	407	444	322	233	
70	176	163	140	203	188	205	161	199	240	222	186	247	218	217	136	155	
75	107	92.5	68.7	74.1	77.8	78.2	82.1	120	155	137	96.8	99.7	93.1	82.0	68.4	88.8	
80	48.7	40.8	31.0	29.5	30.9	31.9	36.3	54.0	73.4	63.2	44.0	37.3	33.5	31.1	30.6	39.3	
85	15.0	12.0	9.01	7.93	8.11	8.85	11.3	16.4	23.2	19.0	13.3	10.3	8.97	8.42	8.95	11.5	
90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.69	0.00	
110	0.00	0.40	0.07	0.00	0.00	0.00	0.50	0.00	0.13	0.48	0.59	0.00	0.00	0.00	0.42	0.99	
115	0.51	0.67	0.00	0.00	0.00	0.00	0.00	0.80	1.39	1.51	0.68	0.00	0.00	0.00	0.26	0.65	
120	0.32	0.21	0.00	0.00	0.00	0.00	0.00	0.06	1.07	0.98	0.72	0.00	0.00	0.00	0.23	0.42	
125	0.32	0.24	0.00	0.00	0.00	0.00	0.00	0.06	0.60	0.80	0.75	0.00	0.00	0.00	0.19	0.53	
130	0.34	0.26	0.00	0.00	0.00	0.00	0.00	0.06	0.70	0.76	0.75	0.00	0.00	0.00	0.16	0.51	
135	0.44	0.32	0.00	0.00	0.00	0.00	0.00	0.09	0.70	0.75	0.73	0.00	0.00	0.07	0.17	0.49	
140	0.56	0.36	0.00	0.00	0.00	0.00	0.00	0.15	0.70	0.75	0.70	0.14	0.14	0.33	0.23	0.47	
145	0.63	0.54	0.00	0.00	0.00	0.00	0.00	0.22	0.70	0.75	0.65	0.36	0.36	0.40	0.33	0.45	
150	0.58	0.34	0.00	0.00	0.00	0.00	0.00	0.28	0.70	0.74	0.59	0.46	0.52	0.53	0.51	0.45	
155	0.44	0.41	0.00	0.00	0.00	0.00	0.00	0.34	0.70	0.74	0.53	0.50	0.54	0.80	0.57	0.49	
160	0.63	0.54	0.00	0.07	0.26	1.13	0.38	0.41	0.70	0.76	0.48	0.54	0.55	0.73	0.57	0.54	
165	0.63	0.41	0.56	0.23	0.42	0.73	0.51	0.37	0.70	0.79	0.46	0.53	0.56	0.65	0.57	0.54	
170	0.63	0.34	0.34	0.36	0.58	0.64	0.56	0.34	0.51	0.70	0.48	0.48	0.56	0.63	0.57	0.55	
175	0.51	0.27	0.30	0.51	0.62	0.61	0.53	0.32	0.51	0.63	0.40	0.43	0.56	0.61	0.57	0.55	
180	0.51	0.34	0.28	0.57	0.63	0.60	0.50	0.43	0.51	0.54	0.35	0.28	0.56	0.60	0.57	0.49	

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2.4 Electrical, Photometric and Chromaticity Measurements
(Refer to Work Instruction QD25)

Test date	2017-09-12	Test Ambient:	25.2 °C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	IK-T804-0018-35A&B-J (Frosted) (3500K), with ballast OSRAM SYLVANIA QTP 2x32T8/UNV ISN-SC		

Electrical Measurement for Bare-lamp:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE160031 -AY4	120.0	60	0.1581	18.81	0.9917	5.54
	277.0	60	0.0710	18.49	0.9402	7.02
DLC Pass Criteria					$\geq 0.9(-3\%)$	$\leq 20(+5)$

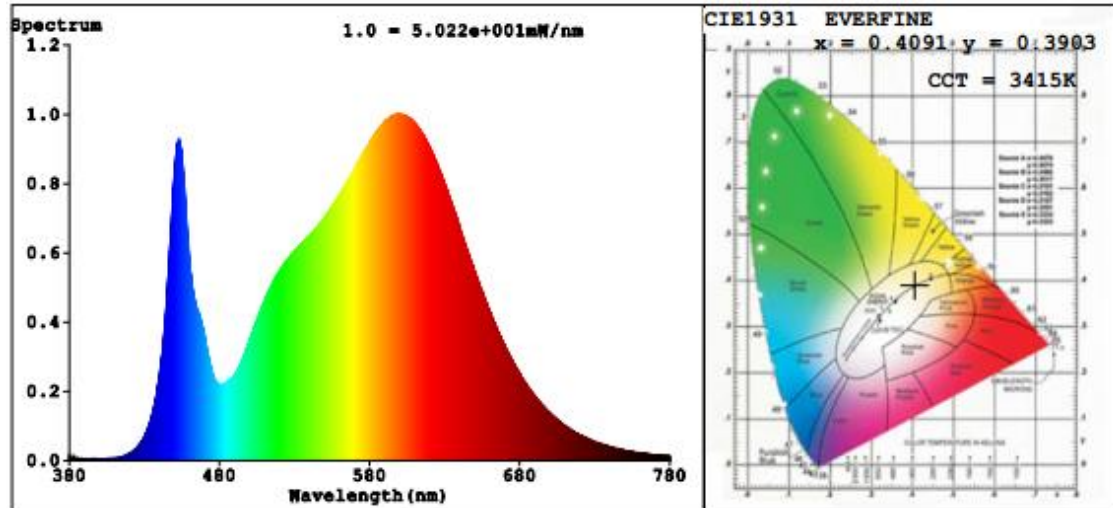
Chromaticity Measurement for Bare-lamp - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	81	R9	9
Frequency (Hz)	60	R2	90	R10	77
CCT (K)	3415	R3	96	R11	79
Duv	-0.0010	R4	80	R12	62
Chromaticity (x, y)	x=0.4091 y=0.3903	R5	81	R13	84
Chromaticity (u', v')	u'=0.2383 v'=0.5117	R6	87	R14	98
Color Rendering Index (CRI)	82.7	R7	84	R15	75
R9	9	R8	62	--	--

Photometric Measurement for Bare-lamp –Sphere-Spectroradiometer Method:

Parameter	Result		DLC V4.2 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	2519	2491	Bare Lamp: >= 1600(-10%)
Luminous Efficacy (lm/W)	133.92	134.72	Bare lamp: >= 110(-3%)
Most Worst Luminous/Highest Watts	132.43		

Spectral Power Distribution & Chromaticity Diagram



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2.5 Electrical, Photometric and Chromaticity Measurements
(Refer to Work Instruction QD25)

Test date	2017-09-12	Test Ambient:	25.2 °C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	IK-T804-0018-40A&B-J (Frosted) (4000K), with ballast OSRAM SYLVANIA QTP 2x32T8/UNV ISN-SC		

Electrical Measurement for Bare-lamp:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE160031 -AY5	120.0	60	0.1578	18.78	0.9920	5.71
	277.0	60	0.0706	18.42	0.9418	6.78
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

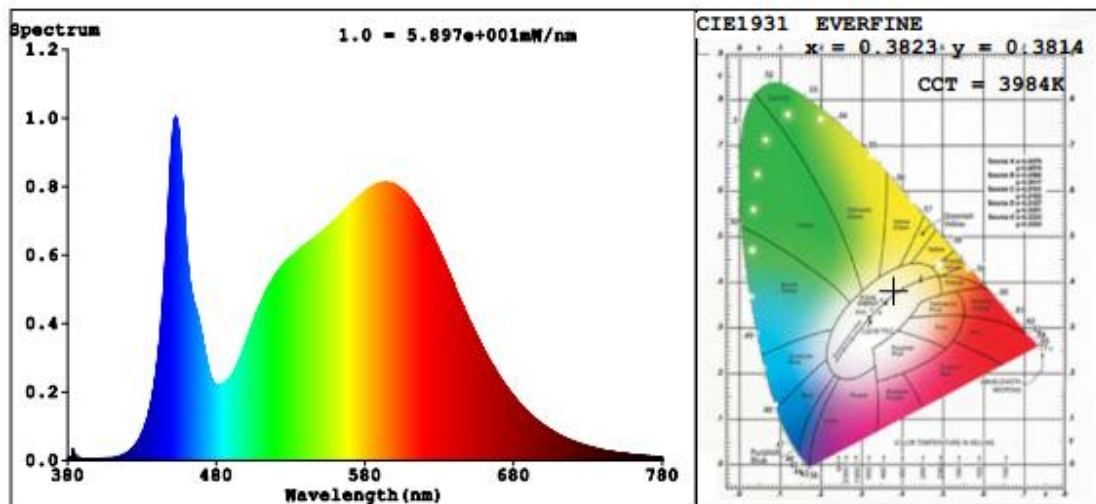
Chromaticity Measurement for Bare-lamp - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	80	R9	6
Frequency (Hz)	60	R2	89	R10	72
CCT (K)	3984	R3	94	R11	79
Duv	0.0016	R4	80	R12	56
Chromaticity (x, y)	x=0.3823 y=0.3814	R5	80	R13	82
Chromaticity (u', v')	u'=0.2245 v'=0.5039	R6	84	R14	97
Color Rendering Index (CRI)	82.1	R7	86	R15	74
R9	6	R8	64	--	--

Photometric Measurement for Bare-lamp –Sphere-Spectroradiometer Method:

Parameter	Result		DLC V4.2 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	2536	2502	Bare Lamp: >= 1600(-10%)
Luminous Efficacy (lm/W)	135.04	135.83	Bare lamp: >= 110(-3%)
Most Worst Luminous/Highest Watts	133.23		

Spectral Power Distribution & Chromaticity Diagram



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

Report Format Number STD/QR4909-A/2

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

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2.6 Electrical, Photometric and Chromaticity Measurements
(Refer to Work Instruction QD25)

Test date	2017-09-12	Test Ambient:	25.2 °C
Test Orientation	Horizontal	Stabilization Time (min)	90
Model Number	IK-T804-0018-50A&B-J (Frosted) (5000K), with ballast OSRAM SYLVANIA QTP 2x32T8/UNV ISN-SC		

Electrical Measurement for Bare-lamp:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD %
GZE160031 -AY6	120.0	60	0.1577	18.77	0.9916	6.10
	277.0	60	0.0709	18.50	0.9416	6.69
DLC Pass Criteria					>= 0.9(-3%)	<= 20(+5)

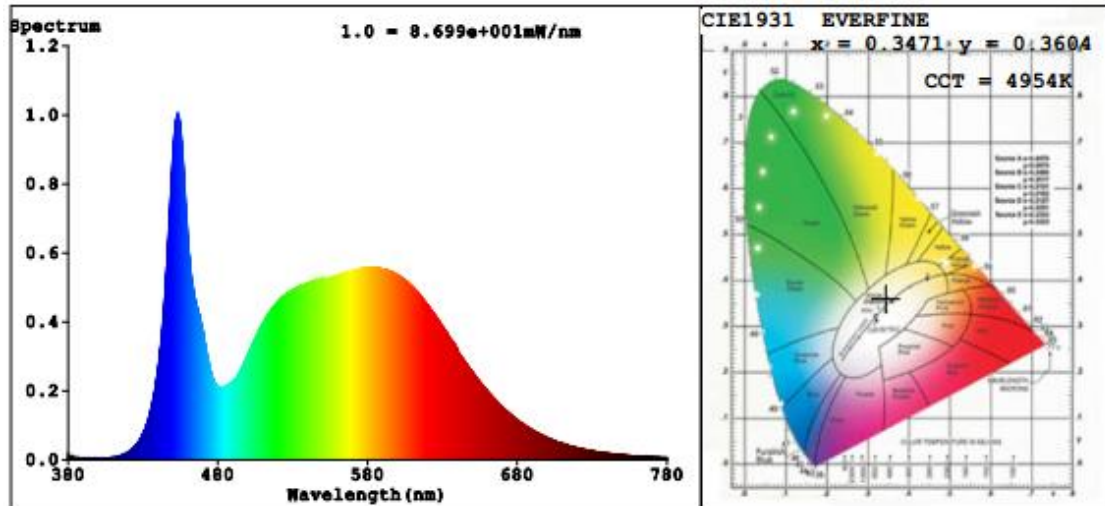
Chromaticity Measurement for Bare-lamp - Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	80	R9	6
Frequency (Hz)	60	R2	88	R10	71
CCT (K)	4954	R3	93	R11	78
Duv	0.0035	R4	80	R12	51
Chromaticity (x, y)	x=0.3471 y=0.3604	R5	80	R13	83
Chromaticity (u', v')	u'=0.2094 v'=0.4892	R6	82	R14	96
Color Rendering Index (CRI)	82.2	R7	88	R15	75
R9	6	R8	66	--	--

Photometric Measurement for Bare-lamp –Sphere-Spectroradiometer Method:

Parameter	Result		DLC V4.2 Pass Criteria
Test Voltage (V)	120.0	277.0	--
Frequency (Hz)	60	60	
Total Luminous (lm)	2559	2538	Bare Lamp: >= 1600(-10%)
Luminous Efficacy (lm/W)	136.33	137.19	Bare lamp: >= 110(-3%)
Most Worst Luminous/Highest Watts	135.22		

Spectral Power Distribution & Chromaticity Diagram



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3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-331	2 meter Integrating Sphere	2017-07-01	2018-06-30
ST-R-327	Spectral analysis system HAAS-2000	2017-07-01	2018-06-30
D204	Standard Lamp	2017-07-12	2018-07-11
PF2010	Power Meter for Integrating Sphere	2017-07-01	2018-06-30
GO-R5000	Goniophotometer system	2017-07-01	2018-06-30
D908S	Standard Lamp	2017-07-12	2018-07-11
PF210	Power Meter for Goniophotometer	2017-07-07	2018-07-06
Expand Uncertainty: Photometric Measurement (Sphere):2.04%, k=2 Chromaticity Measurement(Sphere):28.8K, k=2 Photometric Measurement(Goniophotometer):2.36%, k=2			

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