

LM-79-08 Test Report

For

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

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

LED Lamp

Model name(s): LKRT3574/3575-3090

Model differences: N/A

Test & Report By:

Review By:

Engineer: Johnson Sun

Manager: Tommy Liang

Date:Nov.17, 2015

Update:May.04,2016

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/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, 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	Nov.17, 2015
Test Report No.	GZE151015-B
Laboratory Contact Name	Tommy Liang

Product Information:

Organization Name	L-TECH CORPORTION	
Brand Name	L-TECH CORP	
Model Number	LKRT3574/3575-3090	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	LED Lamp	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

Electrical Measurements:	Integrating Sphere	Goniophotometer	
	Output	Output	
Input Wattage	--	8.526	W
Input Current	--	0.0725	A
Input Voltage (ac)	--	120.0	V
Power Factor	--	0.9806	
Off-State Power	--	0	W

Photometric Characteristics

Total Initial Lumen Output	--	636.35	lm
Initial Lumen Efficacy	--	74.64	lm/w
Correlated color temperature / CCT	2935	--	K
Color rendering index / CRI	93.9	--	
R9 Value	65	--	
Duv	-0.0026	--	
Luminous Intensity Distribution			
Center beam candlepower (if applicable)	--	335	cd
Beam angle (if applicable)	--	83.4	°
Zonal lumens in the 0°-60° zone	--	91.4	%
Zonal lumens in the 60°-90° zone	--	8.6	%
Zonal lumens in the 90°-120° zone	--	0	%
Zonal lumens in the 120°-180° zone	--	0	%

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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

Test Specifications:	
Date of Receipt	: Nov.02,2015
Date of Test	: Nov.16,2015
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
Reference Work Instruction	QD25

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 $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$, 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 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.

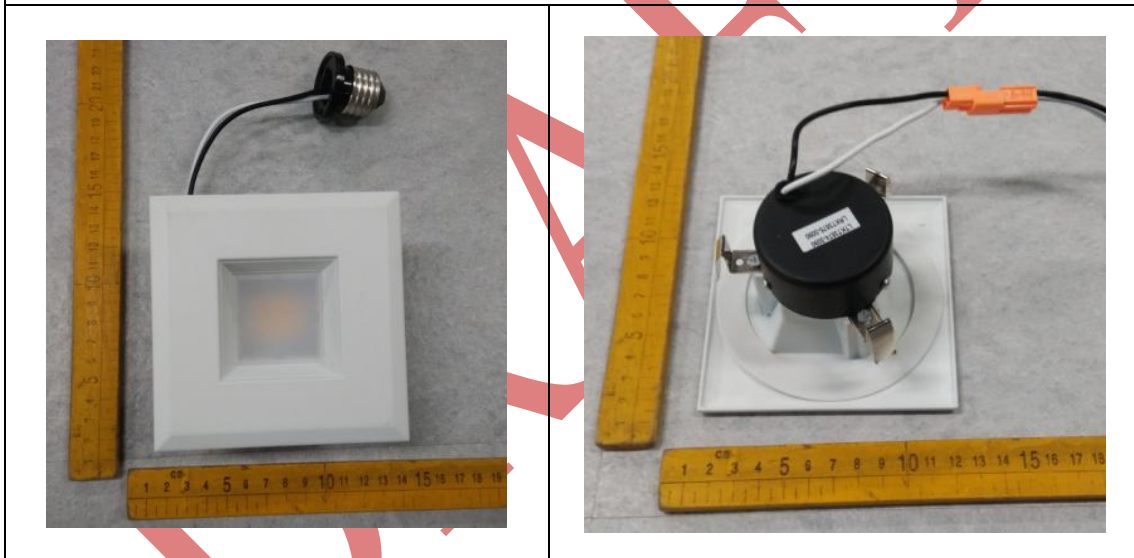
2. Photometric and Electrical Measurements – Integrating Sphere Method:

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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 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.

1. Product Information:

Brand Name	L-TECH CORP
Model Number	LKRT3574/3575-3090
Luminaire Type	LED Lamp
Rated Voltage / Frequency	120Vac, 60Hz
Nominal Power	9W
Rated Initial Lamp Lumen	N/A
Declared CCT	3000K
LED Manufacturer	N/A
LED Model	N/A
Power Supply:	N/A
Sample Receipt Date	Nov.02,2015
Sample Number	GZE151015-B1

Photo



2.1 Electrical, Photometric and Chromaticity Measurements (Refer to Work Instruction QD25)	IES LM-79 2008
--	-----------------------

Test date	2015-11-16	Test Ambient:	25.1° C
Test Orientation	As intended	Stabilization Time (min)	90
Model Number	LKRT3574/3575-3090		

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
GZE151015 -B1	120.0	60	0.0725	8.526	0.9806

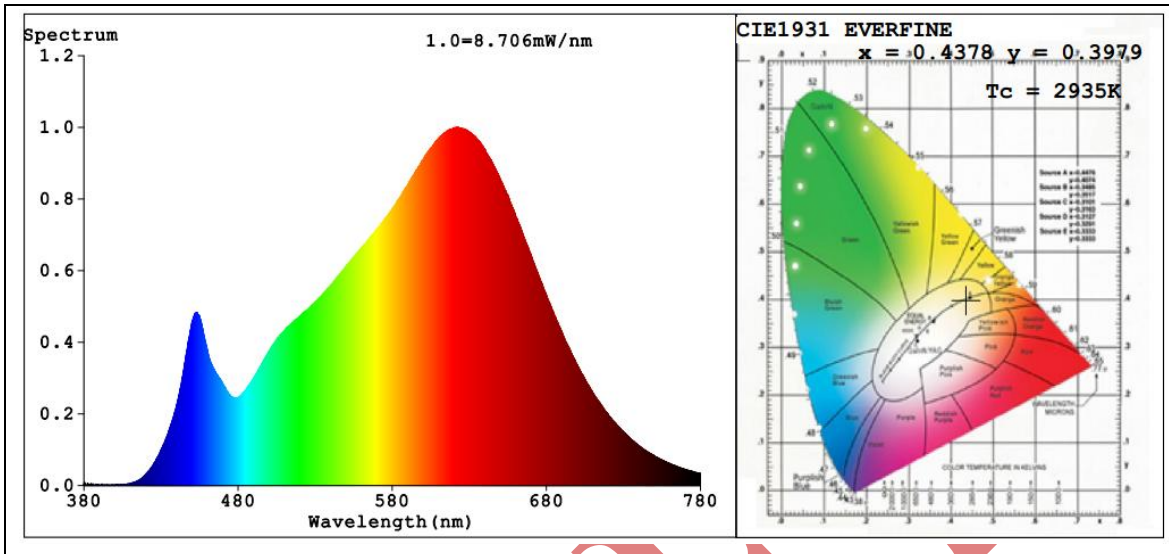
Sphere-Spectroradiometer Method:

Parameter	Result	Special Color Rendering Indices			
Test Voltage (V)	120.0	R1	95	R9	65
Frequency (Hz)	60	R2	98	R10	95
Color Rendering Index (CRI)	93.9	R3	98	R11	95
R9	65	R4	94	R12	87
CCT (K)	2935	R5	95	R13	96
Chromaticity (x, y)	x=0.4378 y=0.3979	R6	97	R14	99
Chromaticity (u', v')	u'=0.2538 v'=0.5190	R7	92	R15	91
Duv	-0.0026	R8	84	--	--

Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	636.35
Luminous Efficacy (lm/W)	74.64
Beam Angle°	83.4
Center Beam Candle Power (cd)	335

Spectral Power Distribution & Chromaticity Diagram



DRAFT

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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

Zonal Lumen Tabulation:

Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	249.5	39.2%
0-40	389.1	61.2%
0-60	581.5	91.4%
60-90	54.7	8.6%
70-100	17.7	2.8%
90-120	0.0	0%
0-90	636.2	100%
90-180	0.0	0%
0-180	636.3	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	31.6	5.0%	90-100	0.0	0%
10-20	89.0	14.0%	100-110	0.0	0%
20-30	129.0	20.3%	110-120	0.0	0%
30-40	139.5	21.9%	120-130	0.0	0%
40-50	116.9	18.4%	130-140	0.0	0%
50-60	75.5	11.9%	140-150	0.0	0%
60-70	37.0	5.8%	150-160	0.0	0%
70-80	14.2	2.2%	160-170	0.0	0%
80-90	3.5	0.6%	170-180	0.0	0%

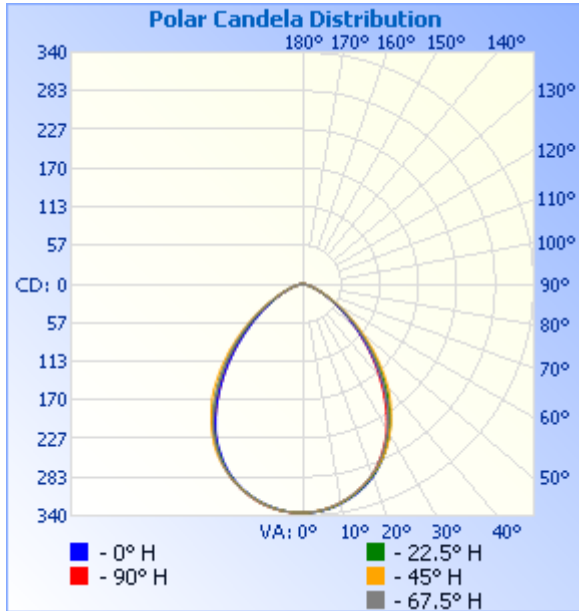
Laboratory: Standard-Tech Co. Ltd Testing Center
 NVLAP CODE: 201011-0

Report Format Number STD/QR4909-A/2

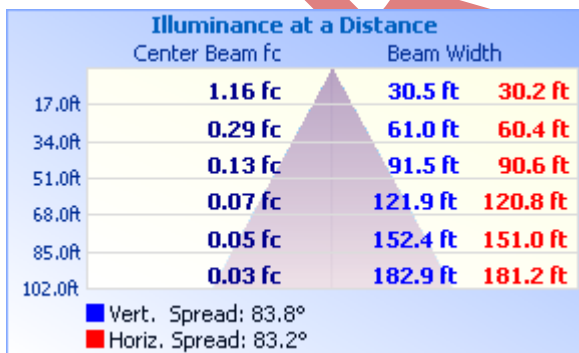
Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

Photometric Data



Illuminance Plots

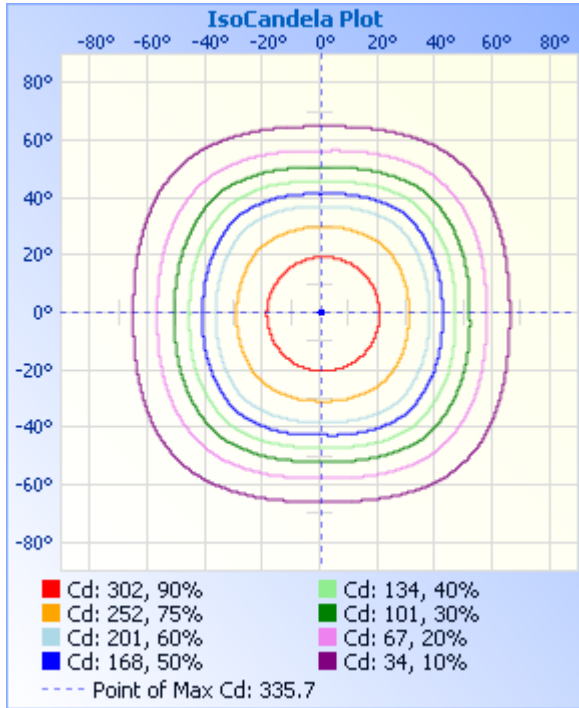


Illuminance at a Distance

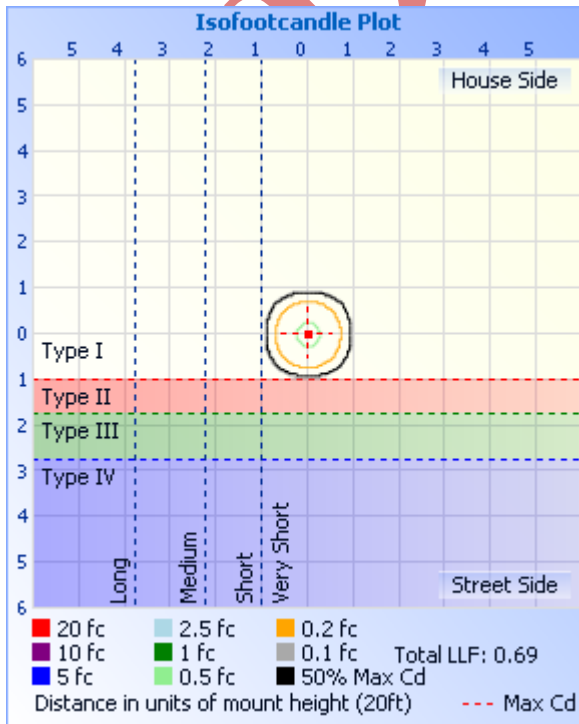
	Center Beam fc	Beam Width	
17.0ft	1.16 fc	30.5 ft	30.2 ft
34.0ft	0.29 fc	61.0 ft	60.4 ft
51.0ft	0.13 fc	91.5 ft	90.6 ft
68.0ft	0.07 fc	121.9 ft	120.8 ft
85.0ft	0.05 fc	152.4 ft	151.0 ft
102.0ft	0.03 fc	182.9 ft	181.2 ft

- Vert. Spread: 83.8°
- Horiz. Spread: 83.2°

ISOCANDELA DIAGRAM



ISOLUX DIAGRAM



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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

Candela Table - Type C

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	360
0	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335
1	335	335	335	335	335	335	335	335	336	335	336	336	336	336	335	336	335
2	335	335	335	335	335	335	335	335	335	335	335	335	335	336	335	335	335
3	335	335	334	334	334	334	334	335	335	335	335	335	335	335	335	335	335
4	334	334	333	333	334	333	333	334	334	334	334	335	335	335	334	334	334
5	333	333	333	332	333	333	333	333	334	334	334	334	334	334	334	334	333
6	332	332	331	331	331	331	331	332	332	333	333	333	333	333	333	333	332
7	331	331	330	330	330	330	330	331	331	331	332	332	332	332	332	332	331
8	330	329	329	328	329	329	329	330	330	330	331	331	331	331	331	330	330
9	328	328	327	327	327	327	327	328	329	329	329	330	330	330	329	329	328
10	327	326	325	325	325	325	325	326	327	327	328	328	328	328	328	328	327
11	325	324	323	323	323	323	323	324	325	326	326	326	327	326	326	326	325
12	323	322	321	321	321	321	321	322	323	324	324	325	325	324	324	324	323
13	321	320	319	318	319	319	319	320	321	322	322	322	323	322	322	322	321
14	318	317	316	316	316	316	317	318	319	319	320	320	320	320	320	319	318
15	316	315	314	313	314	313	314	316	317	317	318	318	318	318	317	317	316
16	313	312	311	310	311	311	312	313	314	315	315	316	316	315	315	314	313
17	311	309	308	307	308	308	309	310	311	312	312	313	313	313	312	311	311
18	308	306	305	304	305	305	306	307	308	309	310	310	310	310	309	309	308
19	304	303	302	301	301	302	303	304	305	306	307	307	307	307	306	306	304
20	301	300	298	297	298	298	299	301	302	303	304	304	304	304	303	302	301
21	297	296	295	294	294	294	296	297	298	299	301	301	300	300	300	299	297
22	293	292	291	290	289	291	292	293	294	296	297	297	296	297	296	295	293
23	289	288	288	285	285	286	289	289	290	292	293	293	292	293	293	291	289
24	284	284	284	281	280	282	285	285	285	287	290	289	287	288	289	286	284
25	279	279	280	276	275	277	281	281	281	283	286	284	283	284	285	282	279
26	274	275	275	271	270	272	277	276	276	278	282	280	278	279	281	277	274
27	269	270	271	266	264	267	272	271	271	273	278	275	272	274	277	273	269
28	264	264	266	260	259	261	268	266	266	268	273	270	268	269	272	267	264

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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

29	259	259	261	255	254	256	263	261	261	263	268	264	262	264	267	262	259
30	253	254	255	249	247	251	257	256	255	258	263	259	256	259	262	257	253
31	246	249	250	244	240	245	251	251	248	253	257	254	250	253	256	252	246
32	240	243	244	237	234	239	246	245	242	247	252	248	243	247	251	245	240
33	233	236	238	230	226	232	240	238	235	241	246	242	236	241	245	239	233
34	226	229	232	223	219	226	234	232	228	234	240	235	229	234	239	232	226
35	218	223	226	216	212	219	228	225	221	228	234	228	222	227	233	225	218
36	210	216	220	209	204	212	222	218	214	221	228	221	214	220	227	219	210
37	203	209	214	202	197	204	216	211	206	214	222	214	207	213	221	211	203
38	195	201	208	195	190	197	210	204	199	207	216	207	199	206	215	204	195
39	187	194	201	188	182	190	203	197	191	200	210	200	192	199	208	197	187
40	180	186	193	181	175	183	196	190	184	193	202	193	185	192	201	189	180
41	172	179	186	174	168	176	189	183	176	185	195	186	177	185	193	182	172
42	164	172	178	166	160	169	181	176	169	178	188	179	170	177	185	174	164
43	156	164	171	159	153	162	174	168	161	171	180	172	162	170	178	167	156
44	149	157	163	152	146	155	166	161	153	163	173	164	155	163	170	159	149
45	141	149	155	145	139	148	159	153	145	156	165	157	148	155	162	151	141
46	134	142	148	138	132	141	151	146	138	148	158	150	140	148	155	144	134
47	126	134	140	131	125	134	143	138	131	141	150	143	133	141	147	136	126
48	119	127	133	124	119	127	136	131	123	133	143	136	126	134	139	129	119
49	112	120	126	118	112	120	129	124	116	126	135	128	119	127	132	122	112
50	105	113	119	111	106	114	122	117	109	119	128	122	113	120	125	115	105
51	99	106	112	105	99	107	115	110	103	112	121	115	106	113	117	108	99
52	92	100	105	99	93	101	108	103	96	105	114	108	100	106	110	101	92
53	86	93	98	92	87	95	101	97	90	98	107	102	93	100	103	95	86
54	81	87	92	86	82	89	94	90	84	92	100	95	87	94	97	88	81
55	75	81	85	81	76	83	88	84	78	86	93	89	82	88	90	83	75
56	70	76	80	76	71	77	82	78	73	80	87	83	76	82	84	77	70
57	65	70	74	70	66	72	76	72	67	74	81	78	71	76	78	71	65
58	60	65	68	65	61	67	70	67	62	68	75	72	66	71	72	66	60
59	55	60	63	60	57	61	65	62	58	63	69	66	61	65	66	61	55

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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

60	51	55	58	55	52	57	59	57	53	58	63	61	56	60	61	56	51
61	47	50	53	51	48	52	54	52	49	53	58	56	52	55	56	51	47
62	44	46	49	47	44	48	50	48	45	49	53	51	47	50	51	47	44
63	40	42	44	43	41	44	45	44	42	45	48	47	43	46	46	43	40
64	37	38	40	39	37	40	41	40	38	41	44	43	40	42	42	39	37
65	34	35	36	35	34	36	37	36	35	37	40	39	36	38	38	36	34
66	31	32	33	32	31	33	34	33	32	34	36	35	33	34	34	33	31
67	28	29	30	29	28	30	30	30	29	31	32	32	30	31	31	30	28
68	26	26	27	26	26	27	27	27	27	28	29	29	27	28	28	27	26
69	23	24	24	24	23	24	25	25	24	25	26	26	24	25	25	24	23
70	21	22	22	21	21	22	22	22	22	23	23	23	22	23	22	22	21
71	18	19	19	19	19	20	20	20	19	20	21	21	19	20	20	20	18
72	16	17	17	17	17	18	18	18	17	18	19	19	16	18	18	18	16
73	15	15	16	15	15	15	16	16	15	16	17	17	15	16	16	16	15
74	13	14	14	14	13	14	14	14	14	14	15	14	14	14	15	14	13
75	12	13	13	12	12	13	13	13	13	13	13	13	12	13	13	13	12
76	12	11	11	11	12	12	12	12	12	12	12	12	12	12	12	12	12
77	10	11	10	10	10	11	10	11	11	11	11	11	10	11	10	11	10
78	10	9	9	9	10	9	9	10	10	10	10	10	10	10	9	10	10
79	9	8	8	8	8	9	8	9	9	9	9	9	9	9	8	9	9
80	8	7	7	7	7	7	7	8	8	8	8	8	8	8	7	8	8
81	6	7	6	6	6	7	6	7	7	7	7	7	7	7	6	7	6
82	5	5	5	5	5	6	5	6	6	6	6	6	5	6	5	6	5
83	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
84	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
85	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
86	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
87	1	1	1	1	1	1	1	1	1	1	2	2	1	2	2	1	1
88	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
114	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
127	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
146	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
151	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
171	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
178	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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



Report No.:GZE151015-B

NVLAP LAB CODE 201011-0

DRAFT

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

Report Format Number STD/QR4909-A/2

Address: 8th floor, Block B, No. 11 Caipin Road, Guangzhou Science City, Tianhe, Guangzhou 510663, China

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

3. 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
D204	Standard Lamp	2015-07-01	2016-06-30
PF2010	Power Meter for Integrating Sphere	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
PF210	Power Meter for Goniophotometer	2015-07-01	2016-06-30
ST-R-181A	Temperature Tester	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 *******

DRAFT