



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

Energy Star Test Report

For

L-TECH CORPORATION

(Brand Name:N/A)

Shaogangtou District, Qiaotou Town, Dongguan City

Model name(s):

LRKT565EN-5CCT

Report Type:

Testing and Report According to ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2

Type of Luminaire:

Downlight retrofits

Report Date:

2021-06-07

Test & Report By:

Garman Mo

Engineer: Garman Mo

Review By:

Johnson Sun

Manager: Johnson Sun

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

2. This report does not imply product certification, approval, or endorsement by A2LA or any agency of the Federal Government.

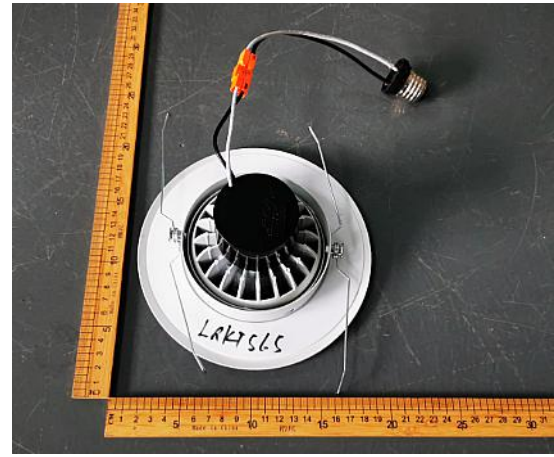
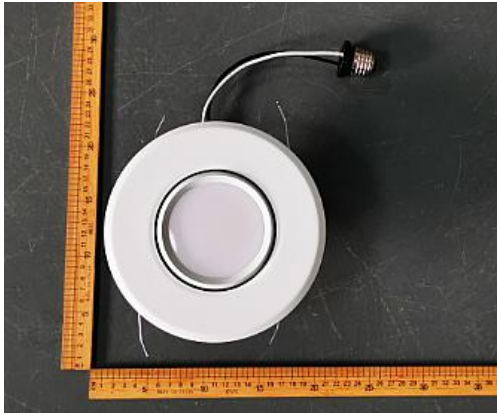
3. This report contains data that are not covered by the A2LA accreditation.



1.1 Product Information:		
Model Number	LRKT565EN-5CCT	
Remark	N/A	
Representative (Tested) Model	LRKT565EN-5CCT(2700K) LRKT565EN-5CCT(3000K) LRKT565EN-5CCT(3500K) LRKT565EN-5CCT(4000K) LRKT565EN-5CCT(5000K)	
Model Difference	N/A	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Downlight retrofits	
LED Manufacturer	EVERLIGHT ELECTRONICS CO., LTD	
LED Model	67-21S Series	
Dimming	10%-100%	
Sample Number	JCE210313-DL-J1	
Date of Receipt	Apr.05,2021	
Luminaire Aperture (for Downlight retrofits)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s
Recessed Can Model	H400/H400R	
Recessed Can UL File/Cert. No.	E252582	
Recessed Can Diameter, mm	4"	
Recessed Can Height, mm	5"	

1.2 Rated Values:	
Rated Voltage / Frequency	120Vac, 50/60Hz
Nominal Power	13W
Rated Initial Lamp Lumen	--
Declared CCT	2700K,3000K,3500K,4000K,5000K

1.3 Product Photos





1.4 Test Specifications:

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 8. Color Angular Uniformity 9. Dimming 10. Flicker 11. Operating Frequency 12. Starting Time 13. Transient Protection Test 14. In-Situ Temperature Measurement Test 15. Standby Power Consumption
Reference Standard	<ol style="list-style-type: none"> 1. IES LM-79-2008 Electrical and Photometric Measurements of Solid-State Lighting Products 2. ANSI C78.377-2015 Specifications for the Chromaticity of Solid State Lighting Products 3. C82.77-10:2014 American National Standard for Lighting Equipment-Harmonic Emission Limits-Related Power Quality Requirements 4. CIE 13.3-1995 Method of Measuring and Specifying Colour Rendering Properties of Light Sources 5. CIE 15-2004 Technical Report Colorimetry 6. UL1993 4th Edition, Self-Ballasted Lamps and Lamp Adapters 7. ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) – Version 2.2 8. ANSI/IEEE C62.41.2:2002 IEEE Recommended Practice on Characterization of Surges in Low-Voltage(1000V and Less) AC Power Circuits 9. IEC 62301:2011 Household electrical appliances - Measurement of standby power 10. NEMA 77-2017 Standard for Temporal Light Artifacts: Test Methods and Guidance for Acceptance Criteria
Remark	<p>Below test and data are not covered by A2LA accreditation:</p> <ul style="list-style-type: none"> - Operating Frequency - Noise



1.5 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.

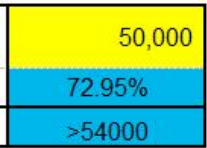
2) Chromaticity Measurement – Sphere-Spectroradiometer Method:

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 Summary of Test Result

Criteria Item	The Type of Luminaires	Requirement (ES for Luminaires V2.2)	Measured Value	Status
Input Wattage	All	≤ Rated Wattage	12.02W	Pass
Luminous Efficacy	Downlight retrofits	≥60 lm/W	81.89lm/W	Pass
Luminaire Minimum Light Output	Downlight retrofits	≤ 4.5" aperture: 345 lumens > 4.5" aperture: 575 lumens	984.34lm	Pass
Correlated Color Temperature (CCT)	Downlight retrofits	Shall be capable of providing at least one of the following nominal correlated color temperatures (CCTs): • 2700 Kelvin • 3000 Kelvin • 3500 Kelvin • 4000 Kelvin • 5000 Kelvin	2691K Duv=-0.0012	Pass
Color Rendering Index (CRI)	Downlight retrofits	Ra ≥ 80 R9 >0	Ra =91.2 R9 =59	Pass
Luminaire Zonal Lumen Density	Downlight retrofits	Luminaire shall deliver a minimum of 75% of total lumens within the 0-60° zone (axially symmetric about the nadir)	81.3	Pass
Color Angular Uniformity	Downlight retrofits	Throughout the beam angle, the variation of chromaticity shall be within a total linear distance of 0.006 from the weighted average point on the CIE 1976 (u',v') diagram.	0.0011	Pass
Lumen Maintenance	Solid State Option 1:	L70 lumen maintenance: ≥ 25,000 hours for indoor ≥ 35,000 hours for outdoor ≥ 50,000 hours for inseparable luminaires		Pass



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xinhua Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

Certificate #4703.03

Light Source Life	Solid State	L70 lumen maintenance: ≥ 25,000 hours for indoor ≥ 35,000 hours for outdoor ≥ 50,000 hours for inseparable luminaires	<table border="1"> <tr> <td>50,000</td> </tr> <tr> <td>72.95%</td> </tr> <tr> <td>>54000</td> </tr> </table>	50,000	72.95%	>54000	Pass
50,000							
72.95%							
>54000							
Color Maintenance	Downlight retrofits	$\Delta u'v' \leq 0.007$	Max.0.00665 in LM-80 report*	Pass			
Source Start Time	Downlight retrofits	<750 ms	72.0ms	Pass			
Power Factor	Solid State	Total luminaire input power ≤ 5 watts: PF ≥ 0.5 Total luminaire input power > 5 watts: PF ≥ 0.7	0.962	Pass			
Transient Protection	Solid State	The line transient shall consist of seven strikes of a 100 kHz ring wave, 2.5 kV level, for both common mode and differential mode.	Survival	Pass			
Standby Power Consumption	All Luminaires	Luminaires shall not draw power in the off state.	0W	Pass			
Operating Frequency	Solid State	Frequency ≥ 120 Hz	120.007Hz	Pass			
Maximum Measured Driver Case Temperature	Solid State	shall not exceed the driver manufacturer's maximum recommended temperature during in situ operation. ≤ 105 °C	91.7°C	Pass			
Maximum In-Situ Source Temperature	Solid State	Maximum permitted Ts temperature for L70≥50,000 hrs ≤ 105°C	84.0°C	Pass			
Dimming	Solid State	The luminaire and its components shall provide continuous dimming from 100% to 20% of total light output. Luminaire shall not emit	Validated	Pass			



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

		noise above 24dBA at 1 meter or less at the minimum output.		
CCT	Solid State	Packaging shall clearly describe the nominal color designation in units of Kelvin (e.g. 2700K, 3000K).	2700K,3000K,3500K,4000K,5000K	Pass

Note: The information or data with an “*” are provided by the manufacturer.

Our laboratory has no responsibility for the decision of compliance with specification that based on the data or information with the “*”.



2.2.1 Electrical, Photometric and Chromaticity Measurements	IES LM-79 2008
--	-----------------------

Test date	2021-04-07	Test Ambient:	25 ± 1° C
Test Orientation	As intended	Stabilization Time (min)	60
Model Number	LRKT565EN-5CCT(2700 K)	Total Operating Time (min)	75

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
JCE210313-DL-J1	120.0	60	0.104	12.02	0.962

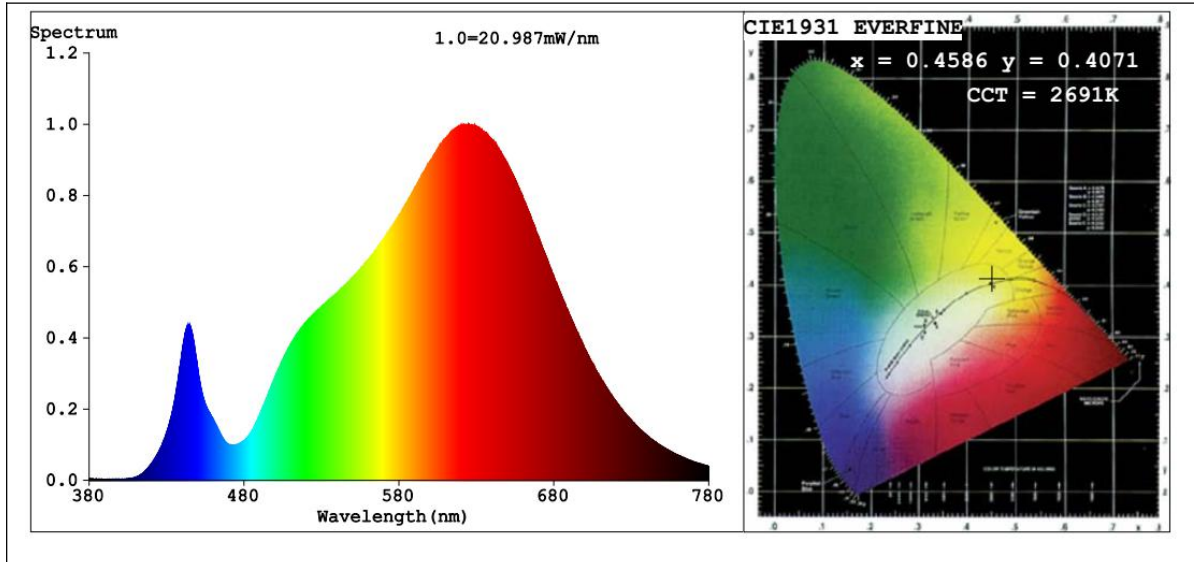
Sphere-Spectroradiometer Method(Self-absorption:1.0527):

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	91.2
R9	59
CCT (K)	2691
Duv	-0.0012

Goniophotometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	984.34
Luminous Efficacy (lm/W)	81.89
Beam Angle°	105.0
Center Beam Candle Power (cd)	378

Spectral Power Distribution and Chromaticity Diagram



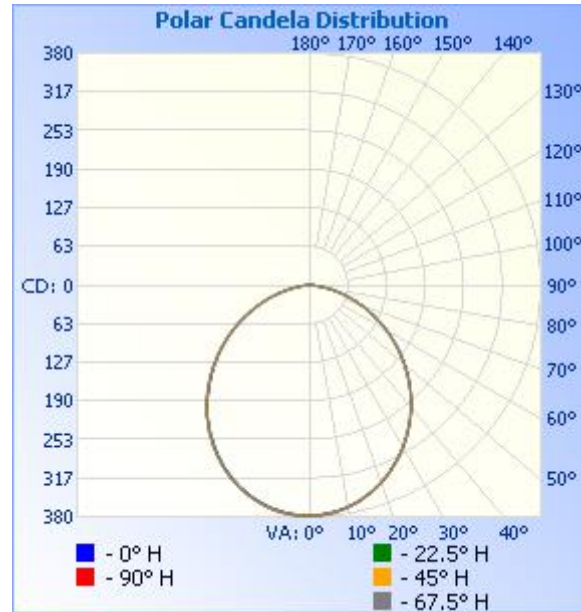
Colorimetric Parameters

Color Parameters:

Chromaticity Coordinate: $x=0.4586$ $y=0.4071$ / $u'=0.2632$ $v'=0.5258$
 CCT=2691K (Duv=-0.0012) Dominant WL:Ld =584.7nm WL:Lc = --nm Purity=59.8%
 Ratio:R=26.4% G=71.7% B=1.9% Peak WL:Lp=624.7nm FWHM=153.4nm
 Render Index:Ra=91.2 AvgR=88.5 TM30:Rf=87 Rg=103

R1 =92	R2 =94	R3 =95	R4 =92	R5 =91	R6 =93	R7 =91
R8 =82	R9 =59	R10=85	R11=94	R12=84	R13=92	R14=96 R15=88

Zonal Lumen Tabulation



Zonal Lumen Summary		
Zone	Lumens	% Luminaire
0-30	288.0	29.3%
0-40	466.1	47.4%
0-60	800.5	81.3%
60-90	180.9	18.4%
70-100	69.8	7.1%
90-120	1.3	0.1%
0-90	981.4	99.7%
90-180	2.9	0.3%
0-180	984.2	100%

Lumens Per Zone					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	35.7	3.6%	90-100	0.5	0.1%
10-20	101.2	10.3%	100-110	0.4	0%
20-30	151.1	15.3%	110-120	0.4	0%
30-40	178.1	18.1%	120-130	0.4	0%
40-50	179.2	18.2%	130-140	0.4	0%
50-60	155.2	15.8%	140-150	0.3	0%
60-70	111.5	11.3%	150-160	0.3	0%
70-80	57.4	5.8%	160-170	0.2	0%
80-90	11.9	1.2%	170-180	0.1	0%



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107
 Tel: (+86)755-2319 2554
 Fax: (+86)755-2319 2815

	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	378	378	378	378	378	378	378	378	378	378	378	378	378	378	378	378	378
1	377	378	378	379	379	376	376	377	377	378	378	379	379	376	377	377	377
2	377	377	378	378	379	376	376	377	377	378	378	379	379	376	376	377	377
3	376	377	377	378	378	375	376	376	377	377	378	378	378	376	376	376	376
4	376	376	377	377	377	375	375	376	376	377	377	378	378	375	375	376	376
5	375	375	376	376	377	374	375	375	376	376	377	377	377	374	374	375	375
6	374	375	375	375	376	373	373	374	375	375	376	376	377	373	373	374	374
7	373	373	374	374	375	372	372	373	374	374	375	375	376	372	373	373	373
8	372	372	373	373	373	371	371	372	372	373	374	374	375	371	371	371	372
9	370	370	371	371	372	369	370	370	371	372	373	373	373	370	370	370	370
10	369	369	369	370	370	368	368	369	370	370	371	371	371	368	368	368	369
11	367	367	368	368	368	366	366	367	368	369	369	370	370	367	367	367	367
12	365	365	365	366	366	364	365	366	366	367	367	368	368	364	365	365	365
13	363	363	363	364	364	362	362	363	364	365	366	366	366	363	363	363	363
14	360	361	361	361	362	360	361	361	362	362	363	364	364	360	361	361	360
15	358	358	359	359	359	358	358	359	360	360	361	361	362	358	358	358	358
16	355	356	356	356	357	355	356	356	357	358	359	359	359	355	356	356	355
17	353	353	354	354	354	352	353	354	354	355	356	356	357	353	353	353	353
18	350	350	351	351	352	350	350	351	352	352	353	354	354	350	350	350	350
19	347	347	348	348	348	346	347	348	349	350	350	351	351	347	348	347	347
20	344	344	345	345	345	344	344	345	346	347	348	348	348	344	344	344	344
21	341	341	341	341	342	340	341	342	343	343	344	345	345	341	341	341	341
22	337	338	338	338	339	337	338	339	340	341	341	342	342	338	338	338	337
23	334	334	334	335	335	334	335	335	336	337	338	338	338	334	334	334	334
24	330	330	331	332	331	330	331	332	332	334	335	334	334	331	331	330	330
25	326	327	327	327	328	327	327	328	329	330	331	331	331	327	327	327	326
26	323	323	324	324	324	323	323	324	325	327	327	327	327	323	324	323	323
27	319	319	319	320	320	318	319	320	321	322	323	323	323	320	319	320	319
28	315	315	315	315	316	315	315	316	317	318	319	319	319	315	316	315	315
29	311	310	311	312	311	310	311	311	313	313	314	315	314	312	311	311	311
30	307	307	307	307	308	306	306	308	308	309	311	310	310	307	307	307	307



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

Certificate #4703.03

31	302	302	303	303	303	302	302	303	304	304	306	306	306	302	303	302	302
32	297	298	298	298	299	297	298	298	300	300	301	302	301	299	298	298	297
33	293	293	293	294	294	292	293	294	295	295	296	297	296	294	294	293	293
34	288	289	289	289	290	288	288	289	291	290	292	293	292	290	289	288	288
35	284	284	284	284	285	283	284	284	285	286	287	287	287	285	285	284	284
36	279	279	280	280	281	278	279	280	280	281	282	282	282	280	280	279	279
37	275	274	274	275	275	273	273	275	276	276	277	277	277	275	275	275	275
38	270	269	270	270	270	268	269	269	271	271	272	273	272	271	271	270	270
39	265	265	265	265	266	263	263	265	265	266	266	267	267	266	265	265	265
40	260	259	260	260	260	257	258	259	260	260	262	261	261	260	261	260	260
41	254	255	254	255	255	252	253	253	255	256	256	257	256	256	255	255	254
42	249	249	249	249	249	246	247	247	249	250	251	251	251	250	250	249	249
43	243	244	244	244	245	240	241	242	243	244	245	245	245	245	244	243	243
44	239	238	238	238	239	236	235	236	238	238	240	240	240	239	240	239	239
45	233	233	233	233	234	230	230	230	232	233	233	234	234	234	234	233	233
46	228	227	227	227	228	224	224	225	225	227	227	228	228	228	227	228	228
47	222	221	222	222	222	218	218	219	220	220	222	223	221	223	223	222	222
48	217	216	216	216	216	212	213	213	214	215	216	216	216	217	216	217	217
49	211	210	211	211	210	206	206	208	208	209	211	210	210	211	211	211	211
50	204	205	204	204	205	201	200	201	202	204	204	205	205	206	205	206	204
51	199	199	198	199	199	194	195	194	196	197	198	198	198	199	200	199	199
52	193	193	193	193	193	188	188	189	191	191	193	192	191	194	193	194	193
53	187	187	186	186	187	183	183	183	184	185	186	186	186	188	188	188	187
54	181	182	181	181	182	176	176	177	177	179	179	179	180	182	182	181	181
55	176	175	175	175	175	171	170	171	172	172	174	174	173	176	177	176	176
56	169	168	169	170	170	164	164	164	165	167	167	167	168	170	170	169	169
57	164	163	163	163	163	158	158	158	159	160	161	161	161	164	165	164	164
58	157	157	157	157	158	152	151	152	153	154	154	156	156	158	158	157	157
59	152	151	151	151	151	146	146	145	147	148	148	149	149	152	152	152	152
60	145	145	145	145	145	139	139	140	141	141	142	142	142	147	146	145	145
61	139	139	139	139	139	134	132	133	134	136	136	137	137	140	140	140	139
62	133	133	134	134	132	127	127	128	128	129	130	130	130	134	134	134	133



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

Certificate #4703.03

63	127	127	127	127	127	122	120	121	122	122	124	125	123	128	128	128	127
64	121	121	122	122	120	115	115	114	116	117	117	118	118	123	122	122	121
65	116	116	115	115	115	108	108	109	109	110	110	111	111	116	116	116	116
66	110	109	110	110	108	103	102	102	104	103	105	106	104	111	111	110	110
67	104	104	103	103	103	97	96	96	97	98	98	99	99	104	104	104	104
68	98	97	98	98	98	90	90	90	90	92	91	93	92	99	99	98	98
69	93	92	91	91	91	85	83	84	85	85	86	87	87	92	92	93	93
70	86	85	86	86	86	78	78	77	79	80	80	81	81	87	87	86	86
71	81	80	80	80	80	72	72	72	72	73	75	74	74	81	81	80	81
72	75	74	75	75	75	67	65	66	67	68	69	69	69	75	75	75	75
73	70	69	69	68	68	61	61	60	61	62	63	63	63	69	69	69	70
74	63	63	63	63	63	55	54	55	55	56	58	56	57	64	64	64	63
75	58	58	57	57	57	50	50	49	50	51	51	51	52	58	58	58	58
76	53	52	53	52	52	44	44	44	44	45	44	45	46	53	53	54	53
77	48	47	47	46	46	38	38	38	39	39	39	40	40	47	47	48	48
78	42	42	42	42	41	34	34	33	34	35	33	35	35	42	43	43	42
79	38	37	37	36	36	29	28	29	29	29	28	30	30	37	37	38	38
80	32	32	32	32	31	25	23	24	24	24	25	25	25	33	33	33	32
81	28	28	27	27	27	20	20	19	20	20	20	21	21	27	27	28	28
82	23	23	23	23	22	16	15	16	15	16	17	17	17	23	24	24	23
83	19	19	19	18	18	12	12	12	12	12	13	13	13	19	19	19	19
84	15	15	15	15	14	9	9	8	9	9	9	10	10	15	16	16	15
85	12	12	12	11	11	6	6	6	6	6	7	6	7	12	12	12	12
86	9	8	8	8	8	4	4	4	4	4	4	4	5	9	9	9	9
87	6	6	6	6	5	3	2	2	2	3	2	3	3	6	6	6	6
88	4	4	4	4	3	1	1	1	1	1	2	1	1	4	4	4	4
89	3	3	3	2	2	1	1	0	1	1	1	1	1	2	3	3	3
90	2	2	1	1	1	0	0	0	1	1	0	0	0	2	2	2	2
91	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	1	1
92	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
93	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
94	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

Certificate #4703.03

95	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0
96	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
97	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1
98	1	1	0	1	1	0	0	0	0	0	0	0	0	1	1	1	1
99	1	1	1	0	1	0	0	0	0	0	0	0	0	1	0	1	1
100	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1
101	1	1	1	0	1	0	0	0	0	0	0	0	0	1	0	1	1
102	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	0	1
103	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0
104	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
105	1	1	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1
106	1	1	1	1	1	0	0	0	0	0	0	0	0	1	0	1	1
107	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
108	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1	1
109	0	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1	0
110	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	1	0
111	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0
112	1	1	1	0	1	0	0	0	0	0	0	0	0	1	1	1	1
113	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
114	0	1	0	1	1	0	0	0	0	0	0	0	0	1	1	1	0
115	1	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	1
116	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	1
117	0	1	1	0	1	0	0	0	0	0	0	0	0	1	1	1	0
118	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	0
119	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
120	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
121	1	1	1	1	0	0	0	0	0	0	0	0	0	1	1	0	1
122	0	0	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0
123	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
124	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
125	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
126	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

Certificate #4703.03

127	1	0	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
128	1	1	1	0	1	0	0	0	0	0	0	0	0	1	1	1	1
129	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
130	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
131	1	1	1	1	1	0	0	0	0	1	0	1	0	1	1	1	1
132	1	0	1	1	1	0	0	0	1	0	0	1	0	1	1	1	1
133	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
134	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
135	1	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	1
136	1	1	1	1	1	0	0	0	0	0	1	0	0	1	1	1	1
137	1	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	1
138	1	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
139	1	1	1	1	1	0	0	1	0	0	0	0	0	1	1	1	1
140	1	1	1	1	1	0	0	1	0	1	0	1	1	1	1	1	1
141	1	1	1	1	1	0	0	0	0	0	0	1	0	1	1	1	1
142	1	1	1	1	1	0	0	1	0	0	0	0	0	1	1	1	1
143	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1
144	1	1	1	1	1	0	0	1	1	0	1	1	0	1	1	1	1
145	1	1	1	1	1	0	1	0	1	0	0	0	1	1	1	1	1
146	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1
147	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1
148	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1
149	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1
150	1	1	1	1	1	1	0	1	1	0	0	0	1	1	1	1	1
151	1	1	1	1	1	0	0	0	0	0	1	1	1	1	1	1	1
152	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1	1
153	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1
154	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1
155	1	1	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1
156	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1
157	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
158	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xinhua Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

Certificate #4703.03

159	1	1	1	1	1	0	1	0	1	1	1	1	1	1	1	1
160	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1
161	1	1	1	1	1	0	1	0	0	1	1	1	1	1	1	1
162	1	1	1	1	1	1	1	1	0	1	0	1	1	1	1	1
163	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
164	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
165	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1
166	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
167	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1
168	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
169	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
170	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1
171	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
172	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
173	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
174	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
175	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
176	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
177	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
178	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
179	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
180	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1



2.2.2 Electrical, Photometric and Chromaticity Measurements	IES LM-79 2008
--	-----------------------

Test date	2021-04-07	Test Ambient:	25 ± 1° C
Test Orientation	As intended	Stabilization Time (min)	60
Model Number	LRKT565EN-5CCT(3000 K)	Total Operating Time (min)	61

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
JCE210313-DL-J1	120.0	60	0.107	12.07	0.941

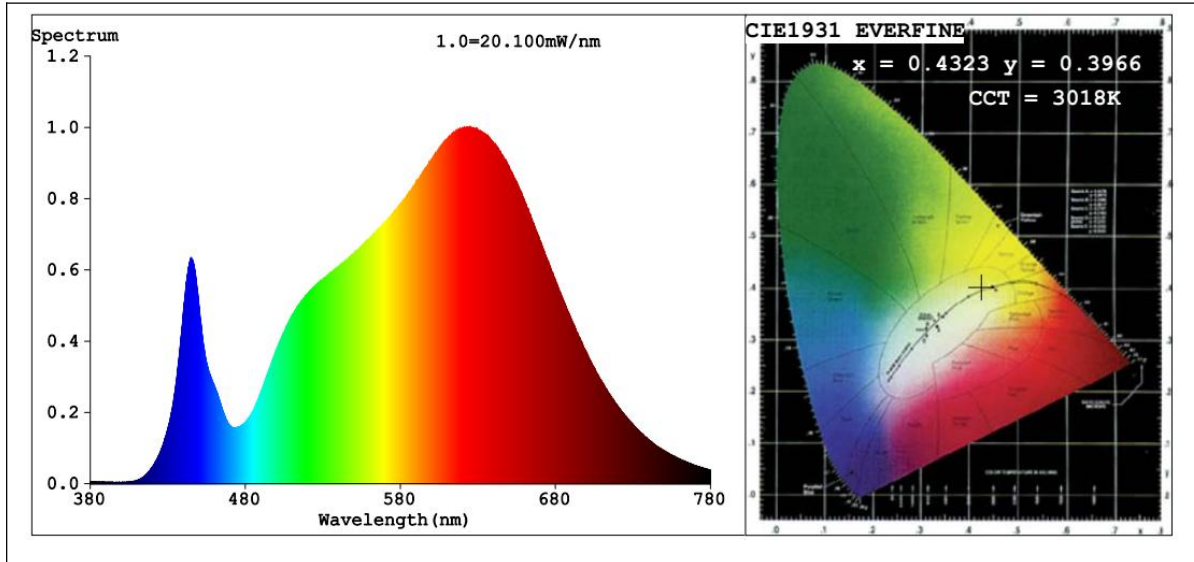
Sphere-Spectroradiometer Method(Self-absorption:1.0527):

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	92.7
R9	68
CCT (K)	3018
Duv	-0.0024

Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	1026
Luminous Efficacy (lm/W)	85.00

Spectral Power Distribution and Chromaticity Diagram



Colorimetric Parameters

Color Parameters:

Chromaticity Coordinate: $x=0.4323$ $y=0.3966$ $u'=0.2508$ $v'=0.5177$

CCT=3018K (Duv=-0.0024) Dominant WL:Ld =583.6nm WL:Lc = --nm Purity=48.8%

Ratio:R=24.3% G=73.1% B=2.5% Peak WL:Lp=625.0nm FWHM=171.9nm

Render Index:Ra=92.7 AvgR=90.5 TM30:Rf=89 Rg=104

R1 =94	R2 =95	R3 =94	R4 =93	R5 =94	R6 =94	R7 =93	
R8 =86	R9 =68	R10=87	R11=94	R12=85	R13=94	R14=96	R15=91



2.2.3 Electrical, Photometric and Chromaticity Measurements	IES LM-79 2008
--	-----------------------

Test date	2021-04-07	Test Ambient:	25 ± 1° C
Test Orientation	As intended	Stabilization Time (min)	60
Model Number	LRKT565EN-5CCT(3500 K)	Total Operating Time (min)	61

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
JCE210313-DL-J1	120.0	60	0.106	12.00	0.940

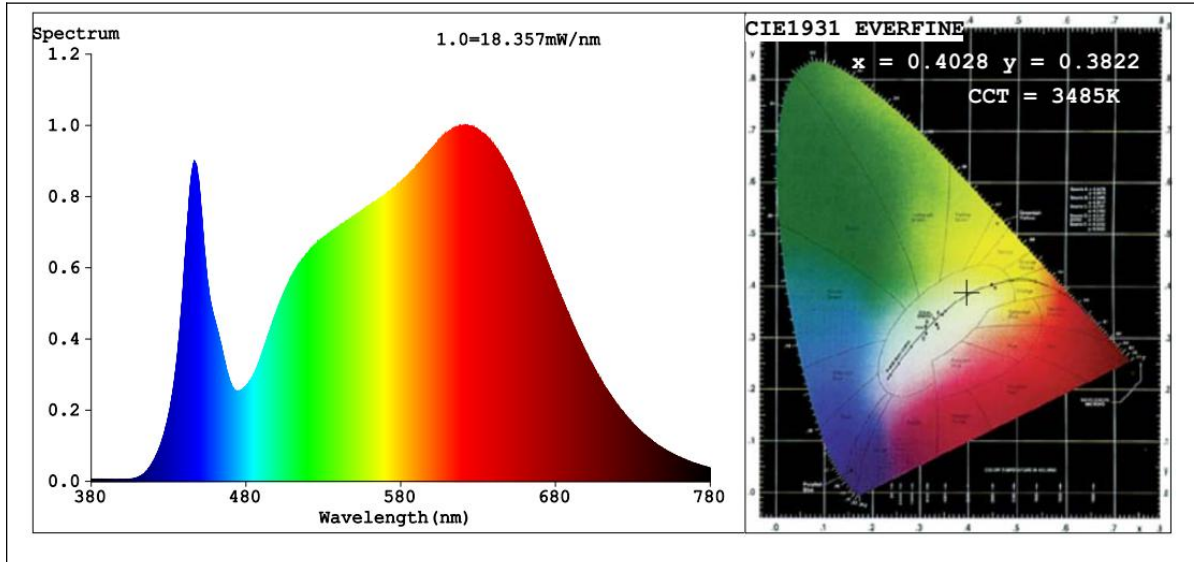
Sphere-Spectroradiometer Method(Self-absorption:1.0527):

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	93.9
R9	75
CCT (K)	3485
Duv	-0.0032

Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	1037
Luminous Efficacy (lm/W)	86.42

Spectral Power Distribution and Chromaticity Diagram



Colorimetric Parameters

Color Parameters:

Chromaticity Coordinate: $x=0.4028$ $y=0.3822$ $u'=0.2376$ $v'=0.5073$

CCT=3485K (Duv=-0.0032) Dominant WL:Ld =582.5nm WL:Lc = --nm Purity=35.6%

Ratio:R=22.1% G=74.6% B=3.3% Peak WL:Lp=622.1nm FWHM=183.5nm

Render Index:Ra=93.9 AvgR=91.8 TM30:Rf=91 Rg=103

R1 =96	R2 =96	R3 =94	R4 =94	R5 =95	R6 =93	R7 =94
R8 =90	R9 =75	R10=89	R11=94	R12=83	R13=96	R14=96 R15=94



2.2.4 Electrical, Photometric and Chromaticity Measurements	IES LM-79 2008
--	-----------------------

Test date	2021-04-07	Test Ambient:	25 ± 1° C
Test Orientation	As intended	Stabilization Time (min)	60
Model Number	LRKT565EN-5CCT(4000 K)	Total Operating Time (min)	61

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
JCE210313-DL-J1	120.0	60	0.106	11.98	0.941

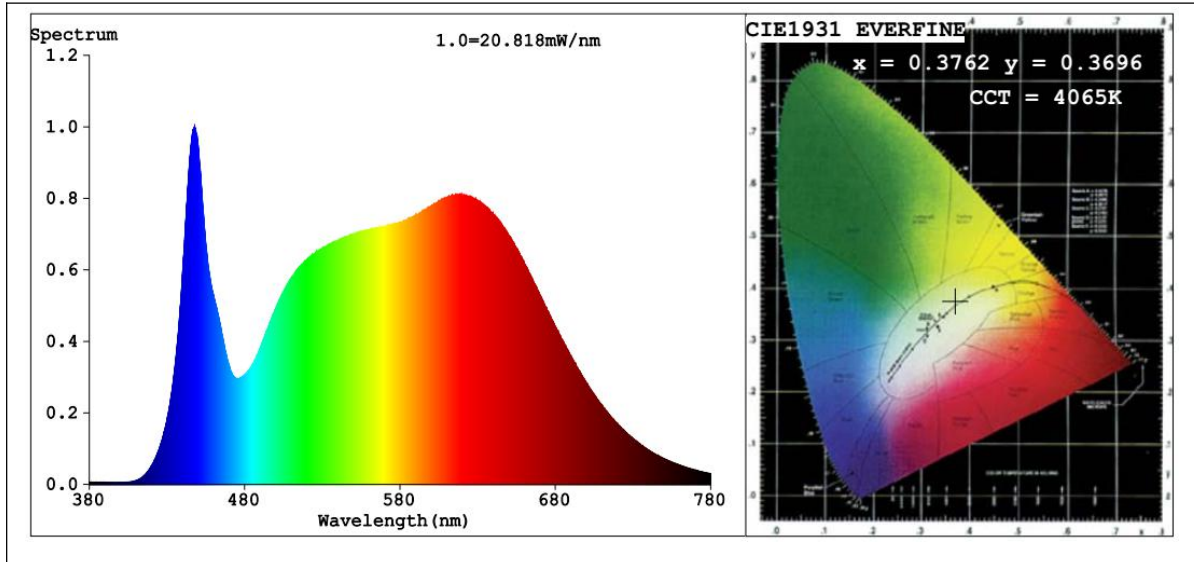
Sphere-Spectroradiometer Method(Self-absorption:1.0527):

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	94.1
R9	78
CCT (K)	4065
Duv	-0.0021

Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	1061
Luminous Efficacy (lm/W)	88.56

Spectral Power Distribution and Chromaticity Diagram



Colorimetric Parameters

Color Parameters:

Chromaticity Coordinate: $x=0.3762$ $y=0.3696$ $u'=0.2252$ $v'=0.4978$
 CCT=4065K (Duv=-0.0021) Dominant WL: $L_d = 580.1\text{nm}$ WL: $L_c = \text{--nm}$ Purity=23.8%
 Ratio: R=19.9% G=76.0% B=4.1% Peak WL: $L_p = 447.8\text{nm}$ FWHM=22.9nm
 Render Index: Ra=94.1 AvgR=91.7 TM30: Rf=92 Rg=102

R1 =96	R2 =95	R3 =93	R4 =95	R5 =95	R6 =92	R7 =95
R8 =92	R9 =78	R10=88	R11=94	R12=77	R13=96	R14=96 R15=95



2.2.5 Electrical, Photometric and Chromaticity Measurements	IES LM-79 2008
--	-----------------------

Test date	2021-04-07	Test Ambient:	25 ± 1° C
Test Orientation	As intended	Stabilization Time (min)	60
Model Number	LRKT565EN-5CCT(5000 K)	Total Operating Time (min)	61

Electrical Measurement:

Sample No.	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
JCE210313-DL-J1	120.0	60	0.106	11.92	0.940

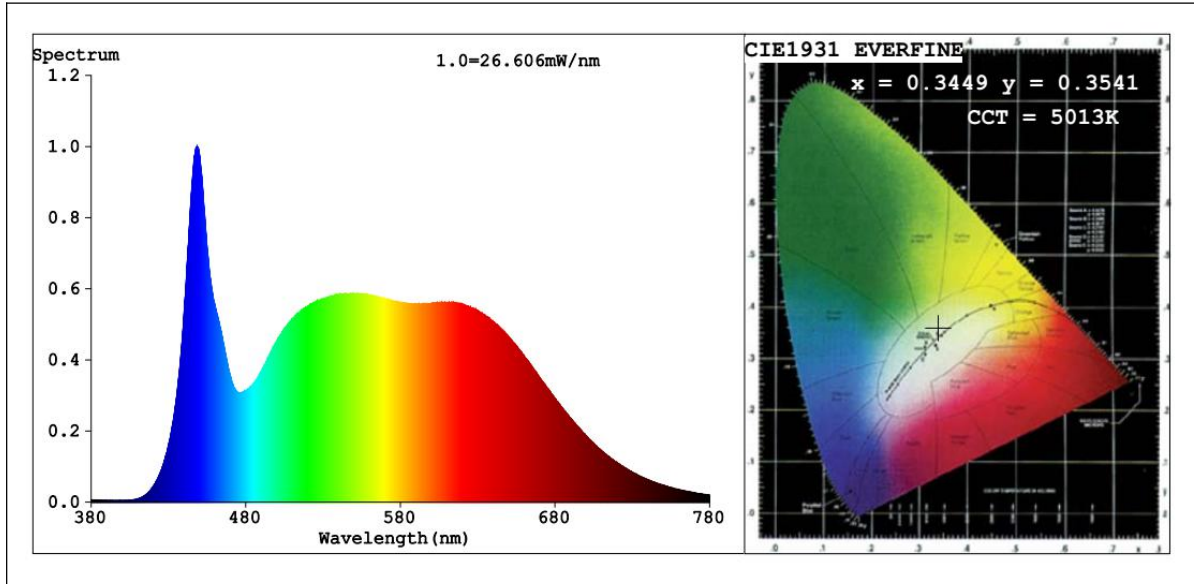
Sphere-Spectroradiometer Method(Self-absorption:1.0527):

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Color Rendering Index (CRI)	92.7
R9	71
CCT (K)	5013
Duv	0.0013

Sphere-Spectroradiometer Method:

Parameter	Result
Test Voltage (V)	120.0
Frequency (Hz)	60
Total Luminous (lm)	1085
Luminous Efficacy (lm/W)	91.02

Spectral Power Distribution and Chromaticity Diagram



Colorimetric Parameters

Color Parameters:

Chromaticity Coordinate: $x=0.3449$ $y=0.3541$ / $u'=0.2103$ $v'=0.4859$
 CCT=5013K (Duv=0.0013) Dominant WL:Ld =571.2nm WL:Lc = --nm Purity=9.8%
 Ratio: R=17.2% G=77.8% B=5.0% Peak WL:Lp=448.5nm FWHM=23.5nm
 Render Index: Ra=92.7 AvgR=89.9 TM30:Rf=92 Rg=101

R1 =93	R2 =94	R3 =92	R4 =94	R5 =93	R6 =91	R7 =94	
R8 =90	R9 =71	R10=84	R11=94	R12=75	R13=93	R14=96	R15=93



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

2.3 Color Spatial Uniformity	IES LM-79 2008 ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2
-------------------------------------	---

Test Data:

Test date	2021-04-07	Test Ambient	25.1°C
Sample No.	Maximum $\Delta u'v'$		
JCE210313-DL-J1	0.0011		



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xinhu Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

Fax: (+86)755-2319 2815

C0				C90			
gamma	Δu'	Δv'	Δu'v'	gamma	Δu'	Δv'	Δu'v'
0	0.00030	0.00028	0.00040	0	0.00039	0.00005	0.00040
1	0.00030	0.00028	0.00040	1	0.00035	0.00009	0.00036
2	0.00036	0.00029	0.00046	2	0.00033	0.00004	0.00033
3	0.00030	0.00028	0.00040	3	0.00039	0.00005	0.00040
4	0.00030	0.00028	0.00040	4	0.00033	0.00004	0.00033
5	0.00030	0.00028	0.00040	5	0.00033	0.00004	0.00033
6	0.00034	0.00024	0.00042	6	0.00039	0.00005	0.00040
7	0.00034	0.00024	0.00042	7	0.00039	0.00005	0.00040
8	0.00034	0.00024	0.00042	8	0.00039	0.00005	0.00040
9	0.00034	0.00024	0.00042	9	0.00039	0.00005	0.00040
10	0.00034	0.00024	0.00042	10	0.00039	0.00005	0.00040
11	0.00039	0.00020	0.00044	11	0.00039	0.00005	0.00040
12	0.00032	0.00018	0.00037	12	0.00046	0.00007	0.00046
13	0.00039	0.00020	0.00044	13	0.00039	0.00005	0.00040
14	0.00039	0.00020	0.00044	14	0.00039	0.00005	0.00040
15	0.00039	0.00020	0.00044	15	0.00044	0.00001	0.00044
16	0.00039	0.00020	0.00044	16	0.00039	0.00005	0.00040
17	0.00032	0.00018	0.00037	17	0.00039	0.00005	0.00040
18	0.00039	0.00020	0.00044	18	0.00039	0.00005	0.00040
19	0.00032	0.00018	0.00037	19	0.00039	0.00005	0.00040
20	0.00032	0.00018	0.00037	20	0.00046	0.00007	0.00046
21	0.00037	0.00014	0.00040	21	0.00039	0.00005	0.00040
22	0.00037	0.00014	0.00040	22	0.00039	0.00005	0.00040
23	0.00037	0.00014	0.00040	23	0.00039	0.00005	0.00040
24	0.00037	0.00014	0.00040	24	0.00033	0.00004	0.00033
25	0.00037	0.00014	0.00040	25	0.00033	0.00004	0.00033
26	0.00030	0.00013	0.00033	26	0.00037	0.00000	0.00037
27	0.00035	0.00009	0.00036	27	0.00037	0.00000	0.00037
28	0.00035	0.00009	0.00036	28	0.00037	0.00000	0.00037
29	0.00035	0.00009	0.00036	29	0.00031	-0.00002	0.00031
30	0.00035	0.00009	0.00036	30	0.00031	-0.00002	0.00031
31	0.00028	0.00007	0.00029	31	0.00031	-0.00002	0.00031
32	0.00026	0.00002	0.00026	32	0.00031	-0.00002	0.00031
33	0.00033	0.00004	0.00033	33	0.00031	-0.00002	0.00031
34	0.00022	0.00006	0.00023	34	0.00022	-0.00009	0.00024
35	0.00026	0.00002	0.00026	35	0.00029	-0.00007	0.00030
36	0.00020	0.00001	0.00020	36	0.00022	-0.00009	0.00024
37	0.00024	-0.00003	0.00025	37	0.00022	-0.00009	0.00024
38	0.00020	0.00001	0.00020	38	0.00016	-0.00010	0.00019
39	0.00011	-0.00006	0.00013	39	0.00016	-0.00010	0.00019
40	0.00011	-0.00006	0.00013	40	0.00014	-0.00016	0.00021
41	0.00016	-0.00010	0.00019	41	0.00007	-0.00017	0.00019
42	0.00009	-0.00012	0.00015	42	0.00014	-0.00016	0.00021
43	0.00003	-0.00013	0.00014	43	0.00005	-0.00023	0.00023
44	0.00007	-0.00017	0.00019	44	-0.00001	-0.00024	0.00024
45	0.00001	-0.00019	0.00019	45	-0.00010	-0.00031	0.00032
46	-0.00001	-0.00024	0.00024	46	-0.00010	-0.00031	0.00032
47	-0.00003	-0.00029	0.00030	47	-0.00005	-0.00035	0.00035
48	-0.00014	-0.00027	0.00031	48	-0.00011	-0.00036	0.00038
49	-0.00010	-0.00031	0.00032	49	-0.00013	-0.00042	0.00044
50	-0.00016	-0.00033	0.00036	50	-0.00015	-0.00047	0.00050
51	-0.00025	-0.00039	0.00046	51	-0.00022	-0.00049	0.00053



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xinhu Street, Guangming New district, Shenzhen 518107

Tel: (+86)755-2319 2554

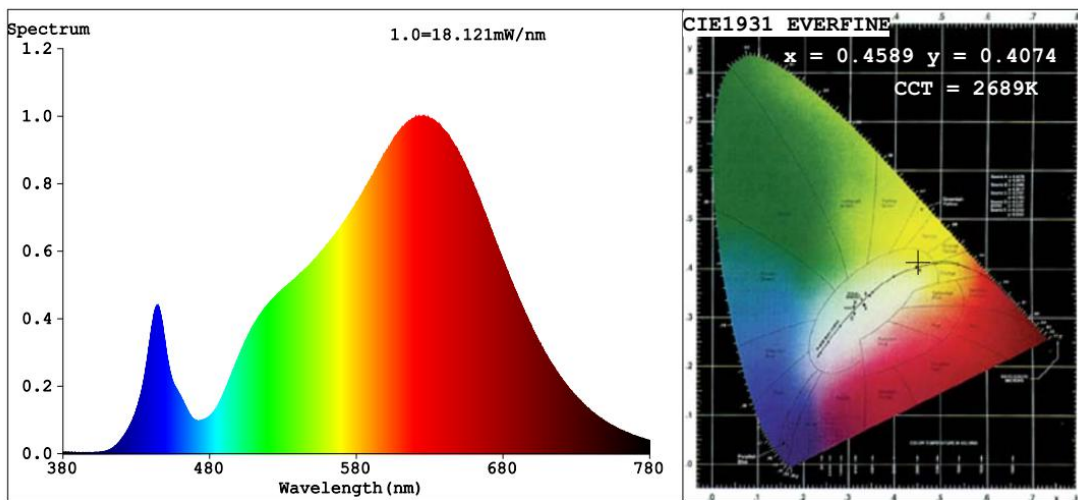
Fax: (+86)755-2319 2815

Certificate #4703.03

C180				C270			
gamma	Δu'	Δv'	Δu'v'	gamma	Δu'	Δv'	Δu'v'
0	0.00030	0.00028	0.00040	0	0.00039	0.00005	0.00040
1	0.00030	0.00028	0.00040	1	0.00033	0.00004	0.00033
2	0.00030	0.00028	0.00040	2	0.00033	0.00004	0.00033
3	0.00030	0.00028	0.00040	3	0.00033	0.00004	0.00033
4	0.00030	0.00028	0.00040	4	0.00039	0.00005	0.00040
5	0.00030	0.00028	0.00040	5	0.00033	0.00004	0.00033
6	0.00025	0.00031	0.00040	6	0.00033	0.00004	0.00033
7	0.00030	0.00028	0.00040	7	0.00033	0.00004	0.00033
8	0.00025	0.00031	0.00040	8	0.00033	0.00004	0.00033
9	0.00030	0.00028	0.00040	9	0.00028	0.00007	0.00029
10	0.00025	0.00031	0.00040	10	0.00033	0.00004	0.00033
11	0.00019	0.00030	0.00035	11	0.00026	0.00002	0.00026
12	0.00019	0.00030	0.00035	12	0.00022	0.00006	0.00023
13	0.00014	0.00034	0.00037	13	0.00026	0.00002	0.00026
14	0.00014	0.00034	0.00037	14	0.00022	0.00006	0.00023
15	0.00019	0.00030	0.00035	15	0.00028	0.00007	0.00029
16	0.00014	0.00034	0.00037	16	0.00026	0.00002	0.00026
17	0.00014	0.00034	0.00037	17	0.00022	0.00006	0.00023
18	0.00014	0.00034	0.00037	18	0.00015	0.00004	0.00016
19	0.00008	0.00032	0.00033	19	0.00020	0.00001	0.00020
20	0.00008	0.00032	0.00033	20	0.00020	0.00001	0.00020
21	0.00008	0.00032	0.00033	21	0.00020	0.00001	0.00020
22	0.00008	0.00032	0.00033	22	0.00009	0.00003	0.00009
23	-0.00004	0.00035	0.00035	23	0.00013	-0.00001	0.00013
24	-0.00004	0.00035	0.00035	24	0.00007	-0.00002	0.00007
25	-0.00004	0.00035	0.00035	25	0.00013	-0.00001	0.00013
26	-0.00010	0.00033	0.00035	26	0.00007	-0.00002	0.00007
27	-0.00010	0.00033	0.00035	27	0.00007	-0.00002	0.00007
28	-0.00015	0.00037	0.00040	28	0.00000	-0.00004	0.00004
29	-0.00010	0.00033	0.00035	29	0.00000	-0.00004	0.00004
30	-0.00015	0.00037	0.00040	30	-0.00006	-0.00005	0.00008
31	-0.00021	0.00035	0.00041	31	-0.00006	-0.00005	0.00008
32	-0.00021	0.00035	0.00041	32	-0.00013	-0.00007	0.00015
33	-0.00023	0.00030	0.00038	33	-0.00008	-0.00011	0.00014
34	-0.00023	0.00030	0.00038	34	-0.00021	-0.00014	0.00025
35	-0.00030	0.00029	0.00041	35	-0.00015	-0.00012	0.00019
36	-0.00036	0.00027	0.00045	36	-0.00021	-0.00014	0.00025
37	-0.00036	0.00027	0.00045	37	-0.00028	-0.00015	0.00032
38	-0.00036	0.00027	0.00045	38	-0.00028	-0.00015	0.00032
39	-0.00049	0.00024	0.00055	39	-0.00034	-0.00017	0.00038
40	-0.00045	0.00020	0.00049	40	-0.00036	-0.00022	0.00043
41	-0.00051	0.00019	0.00054	41	-0.00032	-0.00026	0.00041
42	-0.00051	0.00019	0.00054	42	-0.00036	-0.00022	0.00043
43	-0.00064	0.00016	0.00066	43	-0.00045	-0.00029	0.00053
44	-0.00060	0.00012	0.00061	44	-0.00051	-0.00031	0.00060
45	-0.00071	0.00014	0.00072	45	-0.00053	-0.00036	0.00064
46	-0.00073	0.00009	0.00073	46	-0.00055	-0.00042	0.00069
47	-0.00079	0.00007	0.00079	47	-0.00062	-0.00043	0.00075
48	-0.00081	0.00002	0.00081	48	-0.00057	-0.00047	0.00074
49	-0.00088	0.00000	0.00088	49	-0.00066	-0.00054	0.00085
50	-0.00089	-0.00005	0.00090	50	-0.00068	-0.00059	0.00090
51	-0.00096	-0.00007	0.00096	51	-0.00081	-0.00062	0.00102

2.4 Electrical and Photometric Measurements, with dimming	IES LM-79 2008 ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2
Noted: The noise test and data are not covered by A2LA accreditation	

Test date	2021-04-07		Test Ambient:	25±1° C
Dimmer Technology			Forward phase-cut	
Sample No.		Maximum Level	Minimum Level	
JCE210313-DL-J1	Input: 120.0V / 60Hz	Light outout(Lumen)	902.3	66.64
		Percentage	91.67%	7.39%



Color Parameters:

Chromaticity Coordinate: x=0.4589 y=0.4074/u'=0.2633 v'=0.5260
CCT=2689K(Duv=-0.0011) Dominant WL:Ld =584.6nm WL:Lc = --nm Purity=60.0%
Ratio:R=26.4% G=71.7% B=1.9% Peak WL:Lp=626.3nm FWHM=153.3nm
Render Index:Ra=91.3 AvgR=88.5 TM30:Rf=88 Rg=103

R1 =92 R2 =94 R3 =95 R4 =92 R5 =91 R6 =93 R7 =91
R8 =82 R9 =59 R10=85 R11=94 R12=83 R13=92 R14=96 R15=88

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

Dimmer Technology	Peak Noise Reading (dBA)	Test Condition	Distance between the microphone and the UUT
LUTRON MACL-153M	13.8	Dimmer adjusted to lowest light output	< 1 m



ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107
 Tel: (+86)755-2319 2554
 Fax: (+86)755-2319 2815

2.5 Flicker	NEMA 77-2017 ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2
--------------------	---

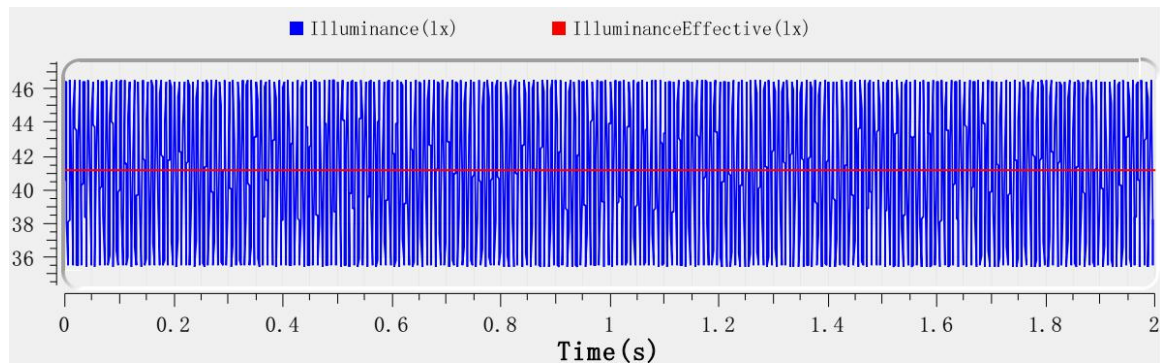
Dimming Technology	Forward phase-cut
Dimmer	LUTRON MACL-153M

Item	Short Term Flicker Indicator (Pst)	Stroboscopic Visibility Measure (SVM)
Maximum conduction	0.054	0.426
Intermediate conduction	0.108	0.636
Minimum conduction	0.519	0.393



2.6 Operating Frequency	ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2
Noted: This test and data are not covered by A2LA accreditation	

Test date	2021-04-07	Test Ambient:	25±1° C
Sample No.	Operating Frequency (Hz)		
JCE210313-DL-J1	120.007		



2.7 Starting Time	ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2
--------------------------	--

Test date	2021-04-07	Test Ambient:	25±1° C
Sample No.	Start Time (ms)		
JCE210313-DL-J1	72.0		

Graph (Start Time):





ShenZhen Xin An Biao Technology Service Co. Ltd Testing Center

Floor 3, Building 3, No. 17, Yigongliu road, Loucun community building, Xihu Street, Guangming New district, Shenzhen 518107
 Tel: (+86)755-2319 2554
 Fax: (+86)755-2319 2815

2.8 Transient Protection Test	ANSI/IEEE C62.41 ENERGY STAR® Program Requirements for Luminaires – Version 2.2
--------------------------------------	--

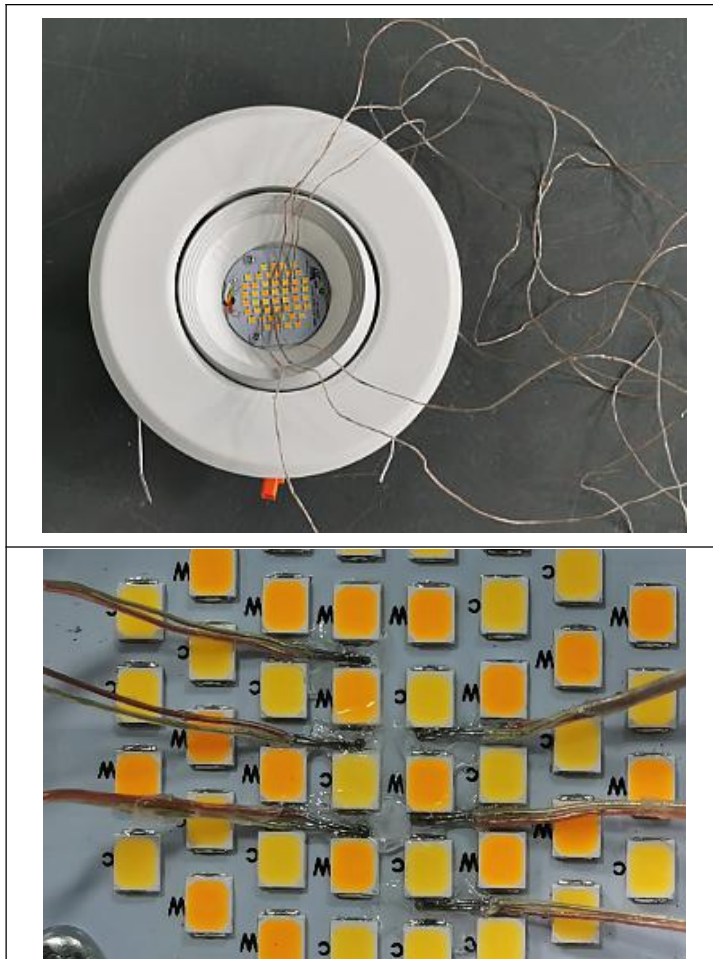
Test voltage: 120V,60Hz

Test date	2021-04-07	Test Ambient	25±1° C
Sample No.		Transient Protection Test - Seven Strikes	
JCE210313-DL-J1		Survival	

2.9 In-Situ Temperature Measurement Test (ISTMT) | UL1598-2008, 3rd Edition

Test date	2021-04-07	Test Ambient	25±5° C
Input Vol./Frequency	120.0V / 60Hz	Output Current of Single LED(mA)	143.1
Sample No.	LED Package Model	Maximum Measured LED Ts Point Temperature (°C)	Maximum permitted Ts temperature for L70 ≥ 50,000 hrs (°C)
JCE210313-DL-J1	67-21S Series	84.0	105

In-Situ Picture - Ts:



2.10 Maximum Measured Ballast or Driver Case Temperature	UL1598-2008, 3rd Edition
---	--

Test date	2021-04-07	Test Ambient	25±5° C
Sample No.	Maximum Measured Driver Case Temperature (°C)		Maximum Driver Case Temperature Limited (°C)
JCE210313-DL-J1	91.7		105

In-Situ Picture - Ts:





2.11 Standby Power Consumption:	ENERGY STAR® Program Requirements Product Specification for Luminaires (Light Fixtures) - Version 2.2
--	--

Test date	2021-04-07	Test Ambient:	25±1° C
Model Number	LRKT565EN-5CCT(2700K)	Stabilization Time (min)	60

Electrical Measurement – when the luminaires turned off:

Sample No.	Standby Power Consumption(W):
JCE210313-DL-J1	0



3. Test Equipment

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-S-451	2 meter Integrating Sphere	Verified by D204 standard lamp	
ST-R-S-455	Spectral analysis system HAAS-1200	Verified by D204 standard lamp	
ST-R-S-452	Standard Lamp D204	2021-04-15	2022-04-14
ST-R-S-453	Power Meter for Integrating Sphere	2021-04-07	2022-04-06
ST-R-S-407	Goniophotometer system	Verified by S1530039 standard lamp	
ST-R-S-410	Standard Lamp S1530039	2021-04-15	2022-04-14
ST-R-S-408	Power Meter for Goniophotometer	2021-04-07	2022-04-06
ST-R-S-027	Digital Luxmeter	2021-04-08	2022-04-07
ST-R-S-016	Oscillograph	2021-04-07	2022-04-06
ST-R-S-017	Probe	2021-04-08	2022-04-07
ST-R-361	ZLB61012X	2020-08-19	2021-08-20
ST-R-414	LFA-3000	2020-12-18	2021-12-17
Uncertainty: Photometric Measurement (Sphere): 2.72%, k=2 Chromaticity Measurement(Sphere): 43.60K, k=2 Photometric Measurement(Goniophotometer): 3.44%, k=2			

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