



Test Report Of ANSI/IES LM-79-19

APPROVED METHOD FOR OPTICAL AND ELECTRICAL MEASUREMENTS OF SOLID-STATE LIGHTING PRODUCTS

Report Number..... N02A23121042L01701

Client..... IKIO LED LIGHTING

Address..... 8470 Allison Pointe Blvd, Suite 128 Indianapolis, IN 46250

Test Model..... IK-GSCL-150W/120W/100W-40K/50K/57K-WH

Brand Name..... : IKIO

Testing Laboratory... : Guangdong Meide Testing Technology Co., Ltd.

Address..... : 1st floor, B Area, Jinbaisheng Industrial Park, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.

Testing Location..... : As above

Date of receipt..... : Dec. 25, 2023

Date of test Jan. 23, 2024 - Jan. 25, 2024

Date of report..... Jan. 25, 2024

Tested by:

Allen Chen

Allen Chen/ Test Engineer

Checked by:

Jarvis Zhang

Jarvis Zhang/ Project Engineer

Approved by:

Jessie Li

Jessie Li/ Technical Manager



Note 1: The test data was only valid for the test sample(s). This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or use in part without prior written consent from Guangdong Meide Testing Technology Co., Ltd. This report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

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

1. Product Description for Equipment under Test(EUT)

Representative (Tested) Model:	IK-GSCL-150W/120W/100W-40K/50K/57K-WH
Manufacturer:	IKIO LED LIGHTING
Product Type:	Fuel Pump Canopy Luminaires
Rated Voltage/Frequency:	120-277V AC, 50/60Hz
Rated Power:	150/120/100W
Rated luminous flux:	21000/16800/14000lm
Nominal CCT:	4000K/5000K/5700K
LED Manufacturer:	Lumileds Holding B.V.
LED Model No.:	L128-4080RC35004A1, L128-5780RC35004A1

2. Standards Used

- ANSI/IES LM-79-19:APPROVED METHOD:OPTICAL AND ELECTRICAL MEASUREMENTS OF SOLID-STATE LIGHTING PRODUCTS
- IES TM-30-18 IES Method for Evaluating Light Source Color Rendition (This Method is not in Nvlap accreditation scope)
- ANSI C82.77-10:2014 Harmonic Emission Limits – Related Power Quality Requirements for Lighting Equipment-Solid State

3. Test equipment list

Test Equipment	Serial No.	Model No.	Calibration due date
Full-field Speed Goniophotometer	MD-E028	GO-R5000	2024/09/16
Digital Power Meter	MD-E001	PF2010	2024/09/16
AC Testing Power Source	MD-E002	DPS1060	2024/09/16
Total Spectral Radiant Flux Standard Lamp	MD-E007	D908S	2024/09/25
Integrating Sphere System	MD-E029	2M	2024/09/16
High Accuracy Array Spectroradio Meter	MD-E011	HAAS-3000	2024/09/16
Digital Power Meter	MD-E008	PF310	2024/09/16
AC Testing Power Source	MD-E010	DPS1010	2024/09/16
Standard Lamp	MD-E036	D204	2024/09/25

Statement of Traceability: Guangdong Meide Testing Technology Co., Ltd. attested that all calibration has been performed using suitable standards traceable to national primary standards and International System of Unit(SI).

4. Test Method

Requirements of Ambient Condition

Product was tested with no seasoning. All stabilization and measurements were made in compliance with ANSI/IES LM-79-19. The product was operated at rated voltage or at voltage required by manufacturer. The ambient temperature of the sample was maintained at $25^{\circ}\text{C}\pm 1.2^{\circ}\text{C}$ during measurement. And relative humidity between 10% and 65%.

Goniophotometer System

The sample was tested according to the ANSI/IES LM-79-19.

Photometric parameters were measured using a type C goniophotometer and software. The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, Luminous efficacy, zonal flux were calculated from the software taken at 1° vertical intervals and 22.5° horizontal intervals. Photometric distance was more than five times of the Largest dimension of the test SSL product.

Integrating Sphere System

The sample was tested according to the ANSI/IES LM-79-19.

The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere. Coating reflectance of the integrating sphere was 90% to 98%. Photometric measurement conditions was using 4π geometry. The self-absorption factor is applied in the final test result. The sample was operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780 nm.

Fidelity Index (R_f) and Gamut Index (R_g) Calculation

The R_f , R_g was calculated according to IES TM-30-18 by using calculation tools. The calculation was based on the measured SPD from 380nm to 780nm with 1nm intervals. All the colors in this report is for reference only.

THD and PF Test

The sample was tested according to the ANSI C82.77-10:2014.

The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion were calculated from the digital power meter.

5. Integrating Sphere Test Results

5.1 Test Data

Test Ambient Temperature (Integrating sphere internal temperature)	25.3°C	Test orientation	Downward
Operate time(Min.)	60	stabilization time(Min.)	30

Optical and Electrical Measurement Result

Mode	Voltage (V)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	Luminous Flux(lm)	Efficacy (lm/W)	CCT (K)
150W-4000K	119.92	60	1.259	151	0.9995	22097	146.33	4035
150W-5000K	119.93	60	1.209	144.9	0.9995	23052	159.06	4784
150W-5700K	120.03	60	1.249	149.8	0.9992	22771	151.99	5687

Mode	Ra	R9	Rf	Rg	x	y	u'	v'	Duv
150W-4000K	82.7	7	84	96	0.3795	0.3781	0.2239	0.5021	9.18E-04
150W-5000K	84	13	84	96	0.3515	0.3573	0.2135	0.4884	3.27E-04
150W-5700K	83.6	10	84	96	0.3282	0.3408	0.2041	0.4768	1.75E-03

5.2 Mode # 150W-4000K Color Rendering Index

Ra				
82.7				
R1	R2	R3	R4	R5
81	89	94	82	81
R6	R7	R8	R9	R10
84	86	64	7	73
R11	R12	R13	R14	R15
81	62	83	97	75

***5.3.1 Mode # 150W-4000K ANSI/IES TM-30-18 Color Rendition Report**

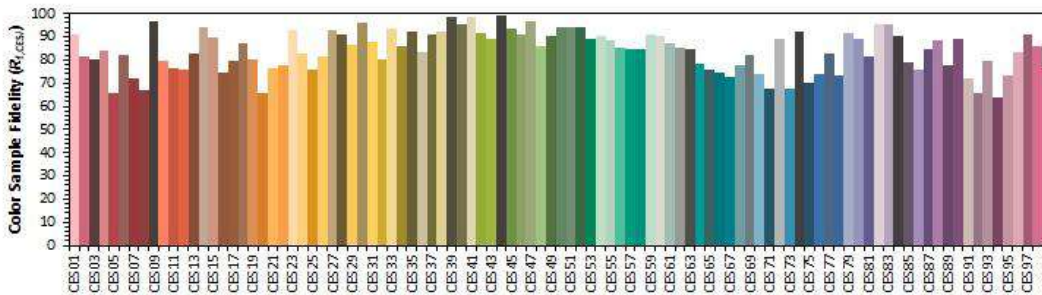
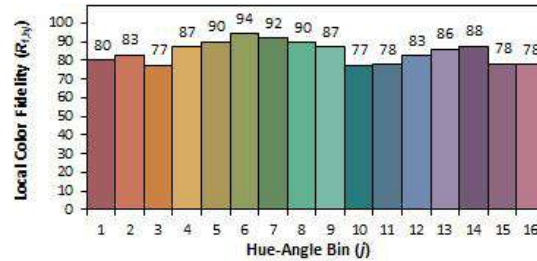
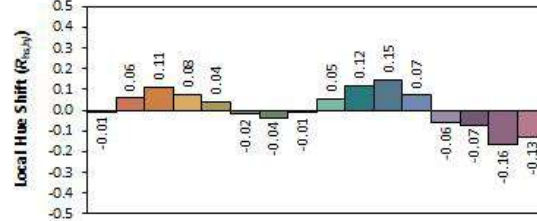
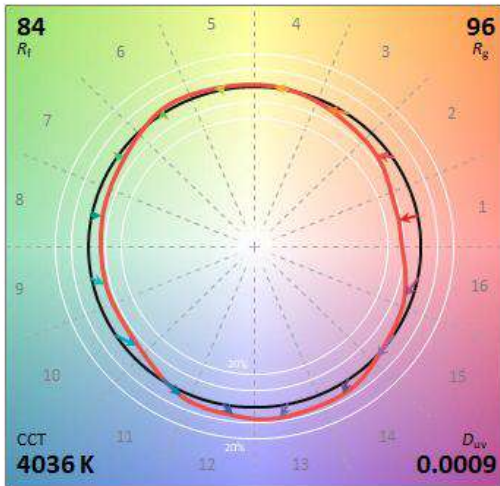
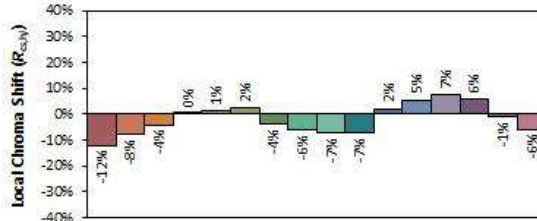
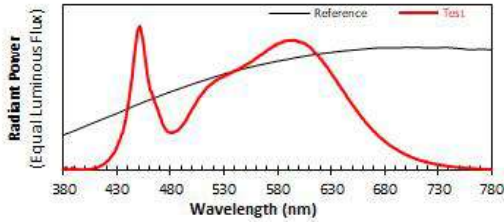
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-4080RC35004A1

Manufacturer: IKIO LED LIGHTING

Date: 2024/1/8

Model: IK-GSCL-150W/120W/100W-40K/50K/57K-WH



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.3795
 y 0.3780
 u' 0.2240
 v' 0.5020

CIE 13.3-1995 (CRI)	
R _a	83
R _g	7

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

***5.3.2 Mode # 150W-5000K ANSI/IES TM-30-18 Color Rendition Report**

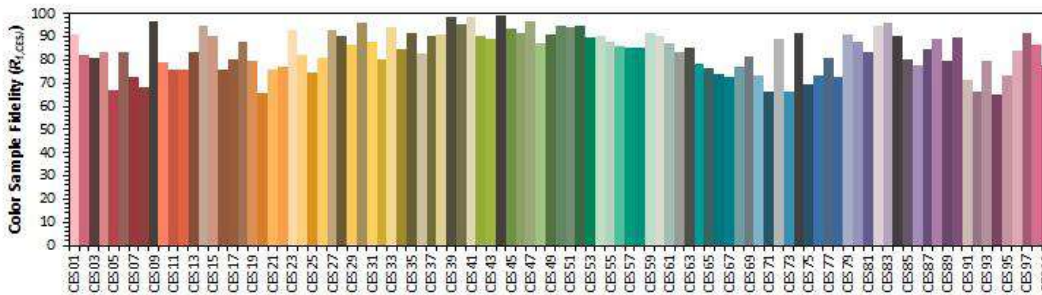
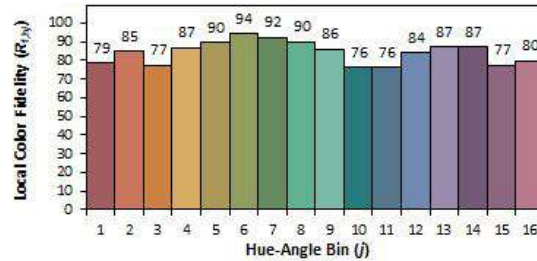
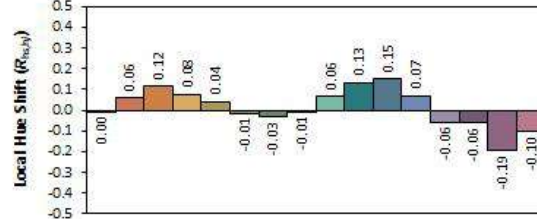
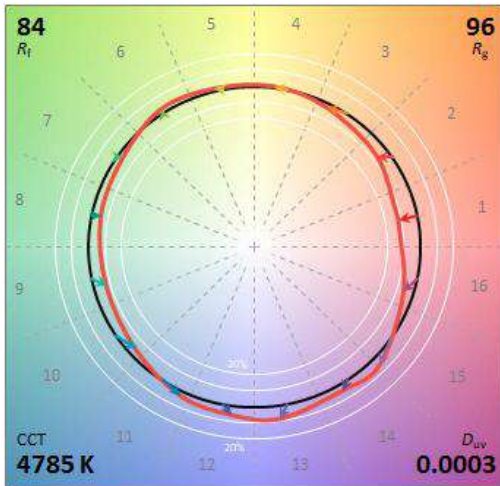
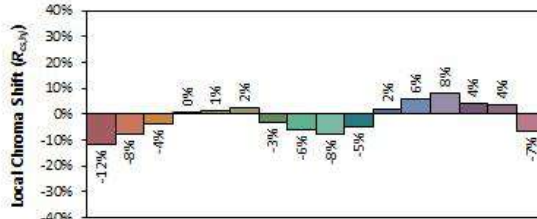
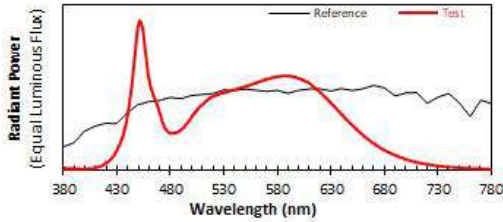
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-4080RC35004A1, L128-5780RC35004A1

Manufacturer: IKIO LED LIGHTING

Date: 2024/1/8

Model: IK-GSCL-150W/120W/100W-40K/50K/57K-WH



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.3515
 y 0.3572
 u' 0.2136
 v' 0.4883

CIE 13.3-1995 (CRI)	
R_a	84
R_g	13

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

***5.3.3 Mode # 150W-5700K ANSI/IES TM-30-18 Color Rendition Report**

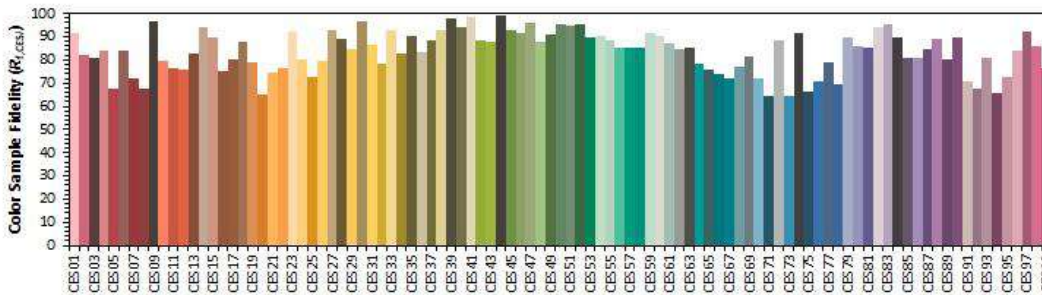
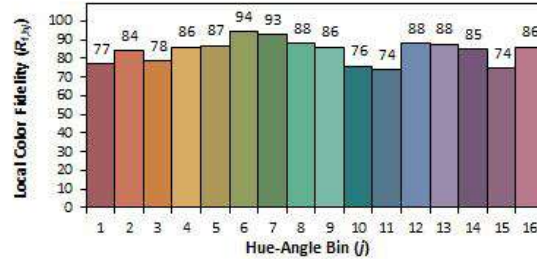
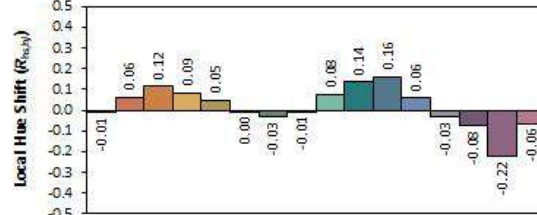
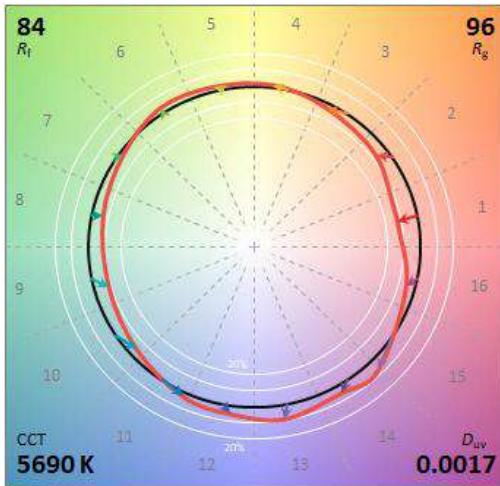
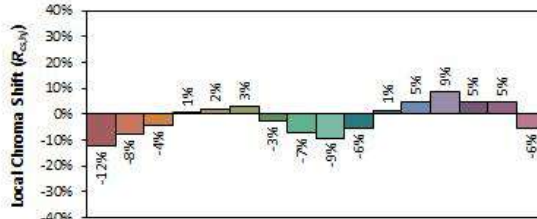
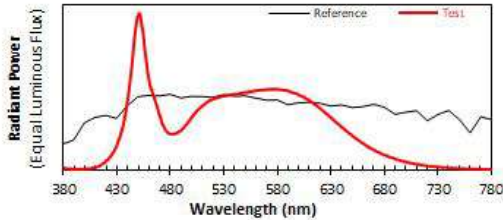
ANSI/IES TM-30-18 Color Rendition Report

Source: L128-5780RC35004A1

Manufacturer: IKIO LED LIGHTING

Date: 2024/1/9

Model: IK-GSCL-150W/120W/100W-40K/50K/57K-WH



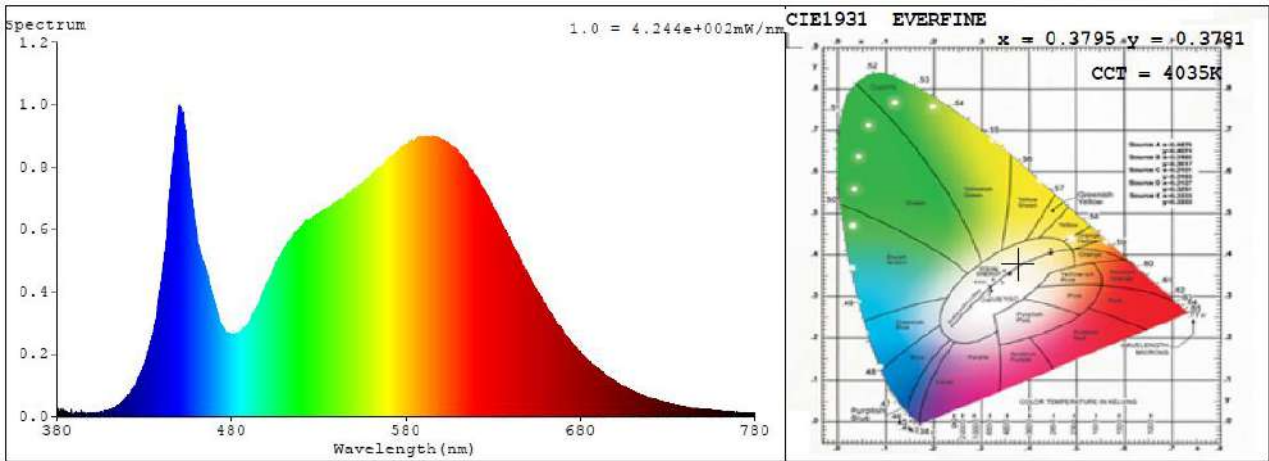
Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.3282
 y 0.3406
 u' 0.2041
 v' 0.4767

CIE 13.3-1995 (CRI)	
R _a	84
R _g	10

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

5.4 Mode # 150W-4000K Relative Spectral Power Distribution



nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
380	0.008	414	0.0335	448	0.9015	482	0.2639	516	0.584
381	0.018	415	0.0376	449	0.9596	483	0.2657	517	0.5908
382	0.0245	416	0.04	450	0.9742	484	0.2701	518	0.5928
383	0.0143	417	0.0447	451	0.9927	485	0.2702	519	0.6024
384	0.0111	418	0.0498	452	0.9704	486	0.276	520	0.6048
385	0.0058	419	0.0569	453	0.936	487	0.2818	521	0.6126
386	0.0102	420	0.0631	454	0.8964	488	0.2879	522	0.6191
387	0.0116	421	0.0707	455	0.8445	489	0.2932	523	0.6227
388	0.0222	422	0.0733	456	0.7845	490	0.3045	524	0.6266
389	0.0026	423	0.0845	457	0.7258	491	0.3122	525	0.6301
390	0.0011	424	0.0966	458	0.671	492	0.3227	526	0.6357
391	0.0145	425	0.1029	459	0.6246	493	0.334	527	0.6395
392	0.0059	426	0.1149	460	0.5852	494	0.3428	528	0.6412
393	0.0089	427	0.1219	461	0.5492	495	0.3554	529	0.6496
394	0.0079	428	0.1403	462	0.5448	496	0.3694	530	0.6468
395	0.0123	429	0.1497	463	0.5152	497	0.386	531	0.6551
396	0.0068	430	0.171	464	0.4958	498	0.397	532	0.655
397	0.0076	431	0.1881	465	0.477	499	0.4098	533	0.6596
398	0.007	432	0.2063	466	0.4542	500	0.4219	534	0.6621
399	0.0105	433	0.224	467	0.4395	501	0.4336	535	0.6698
400	0.0093	434	0.2462	468	0.4179	502	0.4467	536	0.6692
401	0.0096	435	0.2633	469	0.3938	503	0.4546	537	0.6742
402	0.0105	436	0.2917	470	0.3771	504	0.4709	538	0.6819
403	0.0116	437	0.3228	471	0.3548	505	0.4818	539	0.6815
404	0.0111	438	0.3601	472	0.331	506	0.4953	540	0.6868
405	0.014	439	0.4017	473	0.3137	507	0.5099	541	0.691
406	0.0132	440	0.4384	474	0.2982	508	0.5124	542	0.688
407	0.0156	441	0.4917	475	0.2907	509	0.5242	543	0.6976
408	0.0177	442	0.5427	476	0.2784	510	0.5353	544	0.7015
409	0.0197	443	0.5984	477	0.2692	511	0.5414	545	0.7043
410	0.0182	444	0.6479	478	0.2663	512	0.5548	546	0.7077
411	0.0224	445	0.7247	479	0.2656	513	0.5626	547	0.7148
412	0.0254	446	0.7908	480	0.2635	514	0.5727	548	0.7164
413	0.0284	447	0.8478	481	0.2613	515	0.5776	549	0.7228

nm	mW	nm	mW	nm	mW	nm	mW	nm	mW
550	0.7243	599	0.8852	648	0.4774	697	0.1224	746	0.0266
551	0.7297	600	0.8886	649	0.4645	698	0.1197	747	0.0258
552	0.7343	601	0.8841	650	0.457	699	0.1151	748	0.0249
553	0.7372	602	0.8818	651	0.4448	700	0.1132	749	0.024
554	0.7438	603	0.8796	652	0.436	701	0.108	750	0.0235
555	0.747	604	0.881	653	0.4271	702	0.1057	751	0.0233
556	0.75	605	0.8752	654	0.4133	703	0.1025	752	0.0226
557	0.7558	606	0.8698	655	0.4073	704	0.0993	753	0.022
558	0.763	607	0.8673	656	0.3946	705	0.0953	754	0.0211
559	0.7688	608	0.8605	657	0.3846	706	0.0925	755	0.0209
560	0.7728	609	0.8558	658	0.3774	707	0.0895	756	0.0199
561	0.7792	610	0.8508	659	0.364	708	0.0877	757	0.019
562	0.7847	611	0.8442	660	0.359	709	0.0826	758	0.0189
563	0.7901	612	0.8389	661	0.3478	710	0.0813	759	0.0182
564	0.7943	613	0.8274	662	0.3369	711	0.0781	760	0.0177
565	0.7992	614	0.8174	663	0.3294	712	0.0769	761	0.0162
566	0.8038	615	0.8117	664	0.3199	713	0.0737	762	0.0177
567	0.8065	616	0.8021	665	0.3144	714	0.0724	763	0.0152
568	0.8142	617	0.796	666	0.3046	715	0.069	764	0.0164
569	0.8204	618	0.7899	667	0.2976	716	0.0681	765	0.0158
570	0.8247	619	0.7796	668	0.289	717	0.0666	766	0.0154
571	0.8306	620	0.7697	669	0.2791	718	0.0631	767	0.0146
572	0.8377	621	0.7653	670	0.2717	719	0.0603	768	0.0145
573	0.8372	622	0.7527	671	0.268	720	0.0604	769	0.0138
574	0.8449	623	0.7434	672	0.2589	721	0.0575	770	0.0132
575	0.848	624	0.7329	673	0.25	722	0.0566	771	0.013
576	0.8511	625	0.7235	674	0.2444	723	0.0551	772	0.0125
577	0.8637	626	0.7162	675	0.2365	724	0.0529	773	0.0123
578	0.8595	627	0.7083	676	0.2288	725	0.0513	774	0.0122
579	0.8646	628	0.6906	677	0.2235	726	0.0496	775	0.0124
580	0.8713	629	0.6826	678	0.2208	727	0.0477	776	0.0115
581	0.8748	630	0.6738	679	0.2119	728	0.046	777	0.0109
582	0.8781	631	0.6602	680	0.2042	729	0.0445	778	0.0112
583	0.8799	632	0.6509	681	0.2	730	0.0441	779	0.0114
584	0.8814	633	0.6394	682	0.1943	731	0.0414	780	0.0114
585	0.8848	634	0.6308	683	0.188	732	0.0419		
586	0.8908	635	0.6188	684	0.1818	733	0.039		
587	0.8902	636	0.6085	685	0.1765	734	0.0386		
588	0.8922	637	0.5948	686	0.1718	735	0.0382		
589	0.8961	638	0.5855	687	0.1675	736	0.0367		
590	0.8953	639	0.5745	688	0.1623	737	0.0349		
591	0.8956	640	0.5625	689	0.1582	738	0.0347		
592	0.8949	641	0.5536	690	0.1537	739	0.0331		
593	0.8964	642	0.5445	691	0.1498	740	0.031		
594	0.8947	643	0.5323	692	0.1444	741	0.0302		
595	0.8972	644	0.5217	693	0.1414	742	0.0302		
596	0.8963	645	0.5073	694	0.1359	743	0.0286		
597	0.8923	646	0.496	695	0.1315	744	0.0276		
598	0.8947	647	0.4867	696	0.1269	745	0.0273		

6. Goniophotometer Test results for mode # 150W-4000K

6.1 Test Data

Test Ambient Temperature	25.2°C	Test orientation	Downward
Operate time(Min.)	90	stabilization time(Min.)	30

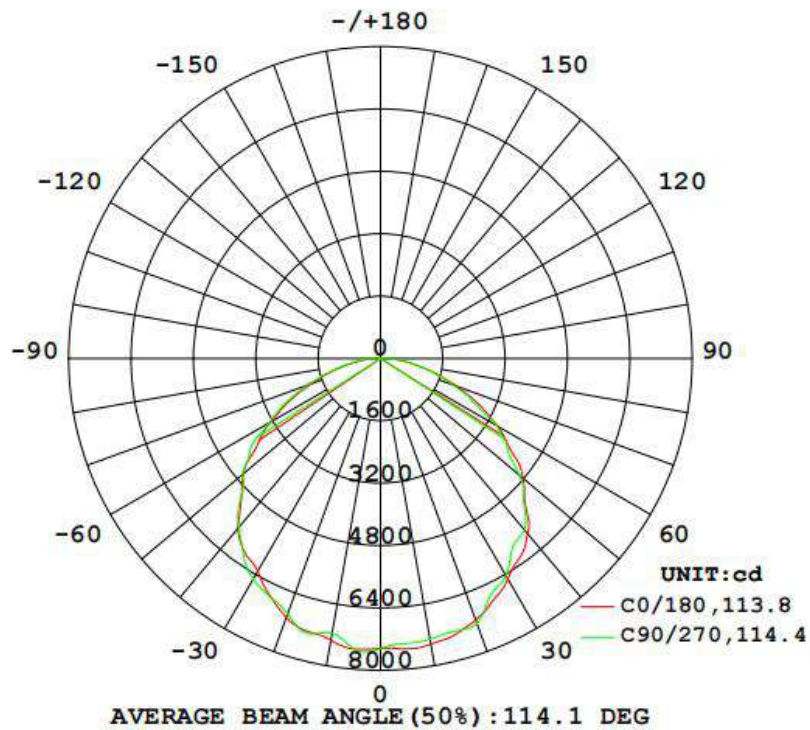
Electrical Measurement

Input Voltage (V)	Frequency (Hz)	Input Current(A)	Power Factor	Power(W)
119.9	60	1.2655	0.9995	151.7

Optical Measurement

Luminous Flux (lm)	Efficacy(lm/W)	Imax (cd)	ZL (0-40°)	ZL (40-70°)
22003	145.09	7559	44.1%	46.5%

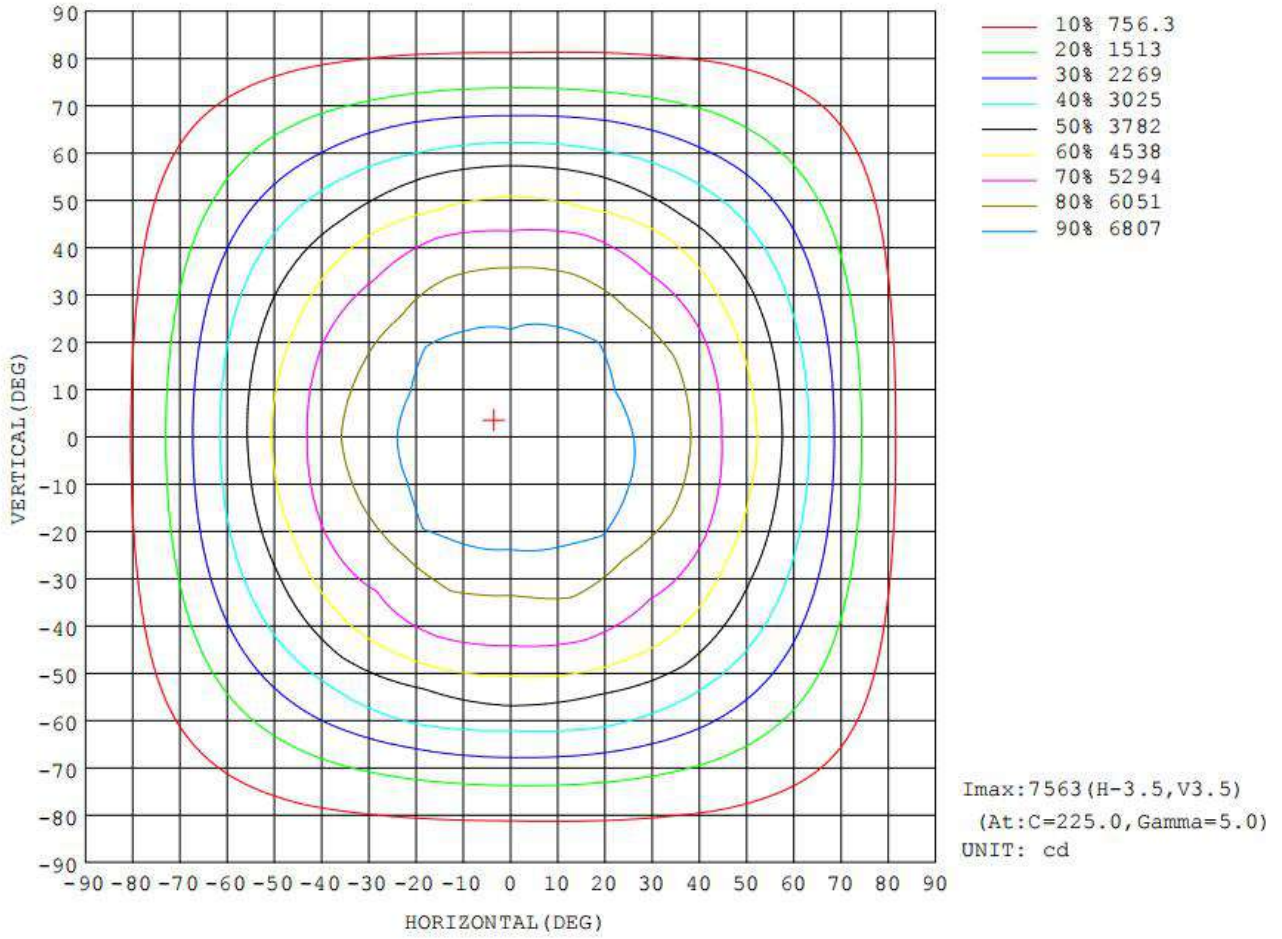
6.2 Luminous Intensity Distribution



6.3 Zonal Flux Diagram

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	lum, lamp
10	7439	7465	7314	7424	7340	7345	7157	7385	0- 10	708.7	708.7	3.22,3.22
20	7137	7097	7227	6984	7071	7021	6971	7115	10- 20	2049	2758	12.5,12.5
30	6536	6625	6444	6490	6301	6473	6535	6580	20- 30	3136	5894	26.8,26.8
40	5874	5636	5746	5450	5694	5609	5651	5739	30- 40	3812	9707	44.1,44.1
50	4768	4814	4661	4609	4598	4596	4620	4740	40- 50	4014	13721	62.4,62.4
60	3480	3390	3467	3248	3238	3285	3265	3404	50- 60	3566	17286	78.6,78.6
70	2073	2105	1937	1916	1885	1933	2015	2034	60- 70	2642	19928	90.6,90.6
80	899.4	930.4	868.1	848.0	786.6	861.4	867.8	938.2	70- 80	1476	21403	97.3,97.3
90	102.2	128.5	44.50	81.95	66.51	97.25	128.3	166.5	80- 90	530.8	21934	99.7,99.7
100	64.19	18.48	1.881	22.99	99.64	23.97	3.081	24.33	90-100	25.04	21959	99.8,99.8
110	14.29	2.821	2.612	2.880	3.750	3.965	3.434	3.672	100-110	21.18	21980	99.9,99.9
120	3.630	3.599	3.807	3.867	3.905	3.954	3.742	3.719	110-120	3.554	21984	99.9,99.9
130	4.673	4.719	5.094	4.978	4.867	4.777	4.709	4.623	120-130	3.786	21988	99.9,99.9
140	5.679	5.489	5.994	5.784	6.653	6.486	6.435	6.417	130-140	4.207	21992	99.9,99.9
150	5.748	6.002	6.285	6.329	8.351	8.637	8.384	8.518	140-150	4.229	21996	100,100
160	6.264	7.052	7.281	7.181	9.444	9.761	9.954	9.834	150-160	3.641	22000	100,100
170	7.346	7.674	8.051	8.153	9.405	9.181	9.793	10.04	160-170	2.405	22002	100,100
180	8.993	8.919	9.263	9.567	9.028	8.727	9.068	9.467	170-180	0.8498	22003	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

6.4 Isocandela Diagram



6.5 Luminous Distribution Intensity Data

Table--1 UNIT: cd

C (DEG) γ (DEG)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5			
0	7435	7435	7435	7435	7435	7435	7435	7435	7435	7435	7435	7435	7435	7435	7435	7435			
5	7478	7417	7369	7333	7341	7379	7410	7435	7485	7537	7559	7523	7498	7536	7553	7525			
10	7439	7457	7465	7377	7314	7391	7424	7391	7340	7359	7345	7257	7157	7305	7385	7398			
15	7347	7242	7295	7298	7250	7286	7210	7166	7247	7241	7161	7315	7303	7346	7187	7283			
20	7137	7155	7097	7157	7227	7120	6984	7013	7071	7014	7021	7082	6971	7112	7115	7040			
25	6846	6973	6970	6829	6695	6768	6891	6721	6718	6621	6864	6747	6735	6818	6929	6755			
30	6536	6538	6625	6340	6444	6306	6490	6369	6301	6382	6473	6415	6535	6502	6580	6488			
35	6235	6199	6017	6139	5916	6042	5871	6014	6086	6005	5981	6127	6140	6195	6104	6159			
40	5874	5905	5636	5710	5746	5689	5450	5711	5694	5714	5609	5733	5651	5734	5739	5925			
45	5241	5371	5209	5329	5198	5235	5110	5096	5047	5064	5071	5191	5084	5293	5210	5331			
50	4768	4727	4814	4813	4661	4641	4609	4493	4598	4519	4596	4517	4620	4567	4740	4736			
55	4065	4071	4057	3989	3966	3832	3927	3809	3844	3962	3845	3949	4093	3981	3978	4143			
60	3480	3344	3390	3361	3467	3285	3248	3210	3238	3293	3285	3267	3265	3379	3404	3503			
65	2782	2821	2670	2693	2610	2590	2543	2537	2573	2599	2600	2678	2697	2708	2741	2762			
70	2073	2118	2105	2055	1937	1939	1916	1905	1885	1903	1933	1950	2015	2000	2034	2077			
75	1430	1445	1439	1415	1391	1338	1309	1297	1286	1311	1338	1370	1356	1399	1433	1432			
80	899	923	930	916	868	869	848	808	787	822	861	881	868	914	938	934			
85	494	532	533	494	443	454	461	445	419	459	474	465	438	495	532	529			
90	102	123	129	95.6	44.5	87.3	82.0	82.8	66.5	82.0	97.3	81.8	128	159	166	167			
95	3.86	3.74	1.50	1.44	1.41	1.53	2.41	3.85	5.21	19.6	3.09	2.59	2.49	2.47	2.56	4.81			
100	64.2	83.2	18.5	1.97	1.88	1.99	23.0	77.1	99.6	70.2	24.0	3.28	3.08	3.14	24.3	92.4			
105	57.3	41.1	2.63	2.23	2.24	2.31	2.59	36.3	53.4	38.6	3.96	3.51	3.40	3.33	3.68	47.5			
110	14.3	3.26	2.82	2.57	2.61	2.67	2.88	3.07	3.75	4.20	3.97	3.55	3.43	3.42	3.67	3.88			
115	3.19	3.36	3.21	3.02	3.12	3.15	3.25	3.65	3.87	4.10	3.93	3.56	3.50	3.47	3.64	4.03			
120	3.63	3.78	3.60	3.60	3.81	3.74	3.87	3.96	3.90	4.09	3.95	3.70	3.74	3.64	3.72	3.91			
125	4.12	4.22	4.03	4.12	4.47	4.28	4.22	4.65	4.26	4.40	3.95	3.92	4.09	3.88	3.92	4.17			
130	4.67	4.68	4.72	4.93	5.09	5.07	4.98	5.10	4.87	4.83	4.78	4.71	4.71	4.63	4.62	4.68			
135	4.97	5.10	5.16	5.35	5.61	5.61	5.45	5.51	5.49	5.64	5.65	5.56	5.51	5.49	5.57	5.46			
140	5.68	5.69	5.49	5.64	5.99	5.98	5.78	5.91	6.65	6.62	6.49	6.49	6.43	6.42	6.42	6.64			
145	5.92	5.83	5.79	5.82	6.14	6.19	6.08	6.06	7.80	7.57	7.73	7.51	7.42	7.40	7.65	7.56			
150	5.75	5.78	6.00	5.99	6.28	6.49	6.33	6.03	8.35	8.59	8.64	8.55	8.38	8.30	8.52	8.51			
155	6.07	6.31	6.59	6.63	6.81	7.04	6.85	6.58	9.13	9.23	9.32	9.60	9.25	8.99	9.30	9.22			
160	6.26	6.74	7.05	7.02	7.28	7.43	7.18	6.84	9.44	9.53	9.76	9.92	9.95	9.84	9.83	9.77			
165	6.63	7.06	7.34	7.28	7.49	7.87	7.57	6.99	9.42	9.38	9.44	9.79	9.91	9.82	9.78	9.89			
170	7.35	7.33	7.67	7.82	8.05	8.30	8.15	7.45	9.41	9.37	9.18	9.54	9.79	9.92	10.0	9.99			
175	8.14	8.23	8.52	8.77	9.02	9.06	9.01	8.58	9.11	9.12	9.26	9.52	9.64	9.90	10.0	9.85			
180	8.99	8.75	8.92	9.08	9.26	9.51	9.57	9.09	9.03	9.03	8.73	8.95	9.07	9.28	9.47	9.52			

7. THD and PF Test

Mode	Voltage (V AC)	Frequency (Hz)	Power Factor	THD (%)
150W-4000K	120.0	60	0.999	1.73
	277.0	60	0.96	5.45
150W-5000K	277.0	60	0.957	5.45
150W-5700K	277.0	60	0.959	5.49

8. Photo of sample



Figure 1

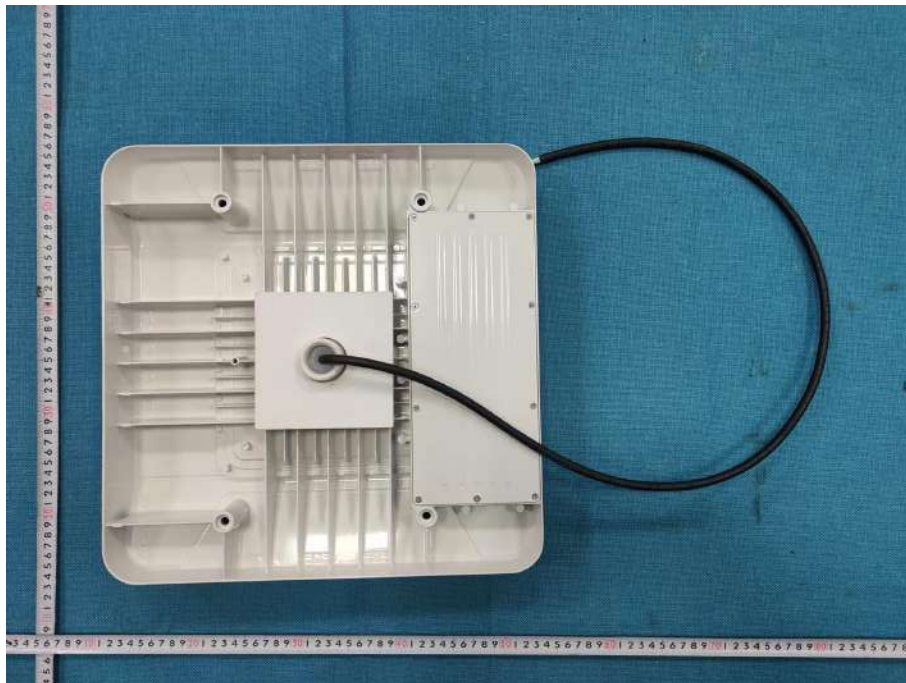


Figure 2

---End of Report---