



Photometric Test Report

Relevant Standards

- ☒ IES LM-79-2024
- ☒ ANSI C82.77-10:2020

Prepared For

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DLF2606123

Report Number

DLF2606123-1a

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2026/7/1

Issue Date

2026/7/3

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The results contained in this report pertain only to the tested sample.

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1.0 Test Summary

DLC Technical Requirements v6.0

Linear Replacement Lamps - 8' T8 Lamp - Replacement Lamps ("Plug and Play") (UL Type A)					
Requirement Category		Test Method	Requirements		Test value
Luminaire Output (lm) (Goniophotometer - Section 4.2)		IES LM-79-2024	3200		3750
Minimum Efficacy (lm/W) (Goniophotometer - Section 4.2)		IES LM-79-2024	130		130.2
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)		IES LM-79-2024	Wrost Case		28.8
Beam Angle (Goniophotometer - Section 4.2)		IES LM-79-2024	≥140		192.4
Total Harmonic Distortion (A%) (THD & PF - section 4.3)		ANSI C82.77-10: 2020	20.00%	120V	8.87%
			20.00%	277V	13.27%
Power Factor (THD & PF - section 4.3)		ANSI C82.77-10: 2020	0.9	120V	0.996
			0.9	277V	0.956
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)		IES LM-79-2024	7 step	5029±283	4989
			4 step	5029±220	
Chromaticity (Duv) (Integrating Sphere - Section 4.1)		IES LM-79-2024	7 step	0.0020±0.0060	0.0015
			4 step	0.0020±0.0033	
Minimum CRI (Integrating Sphere - Section 4.1)		IES LM-79-2024 CIE 13.3-1995	≥80		83
Minimum R9 (Integrating Sphere - Section 4.1)		IES LM-79-2024 CIE 13.3-1995	≥0		10
Minimum Rf (Integrating Sphere - Section 4.1)		ANSI/IES TM-30-24	≥70		83
Minimum Rg (Integrating Sphere - Section 4.1)		ANSI/IES TM-30-24	≥89		96
Minimum IES Rcs,h1 (Integrating Sphere - Section 4.1)		ANSI/IES TM-30-24	-12%≤IES Rcs,h1≤+23%		-12%
Input Voltage (V)					
(Goniophotometer - Section 4.2)		IES LM-79-2024	Worst Case		277
(Goniophotometer - Section 4.2)			Non-Worst Case		120
Input Current (A)					
(Goniophotometer - Section 4.2)		IES LM-79-2024	Worst Case		0.109
(Goniophotometer - Section 4.2)			Non-Worst Case		0.239
Power (Input Wattage - W)					
(Goniophotometer - Section 4.2)		IES LM-79-2024	Worst Case		28.8
(Goniophotometer - Section 4.2)			Non-Worst Case		28.6

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2026/7/1	L96T8/850/24G-EB	DLF2606123-A1
			L96T8/835/24G-EB	DLF2605111-A11
2	Goniophotometer Test	2026/7/1	L96T8/850/24G-EB	DLF2606123-A1
3	THD and PF Test	2026/7/1	L96T8/850/24G-EB	DLF2606123-A1
			L96T8/835/24G-EB	DLF2605111-A11

Remark(If any)

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2. The results reported herein have been performed in accordance with the laboratory's terms of accreditation. This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.

3.0 DUT Description

Model Number: L96T8/850/24G-EB

Electrical Rating: 120-277V,50/60Hz

Received Date: 2026/6/29

Ballast Number: VE259MVHIP

Photos of DUT Characteristics



4.0 Test Results

4.1 Integrating Sphere Test - 5000K

Model No.	L96T8/850/24G-EB	Sample ID.	DLF2606123-A1
Operate time (Min.)	90	Stabilization time (Min.)	45
Temperature (°C)	25.3	Humidity (%RH)	56.0

Test Method

The samples were tested according to the IES LM-79-2024.

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature and relative humidity condition inside the sphere was maintained at 25° C ± 1.2° C and 10% - 65% RH.

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 voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ±0.2 percent under load.

The sample was measured using 4π geometry and 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.

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.00	60	0.239	28.6	0.996
276.95	60	0.109	28.8	0.956

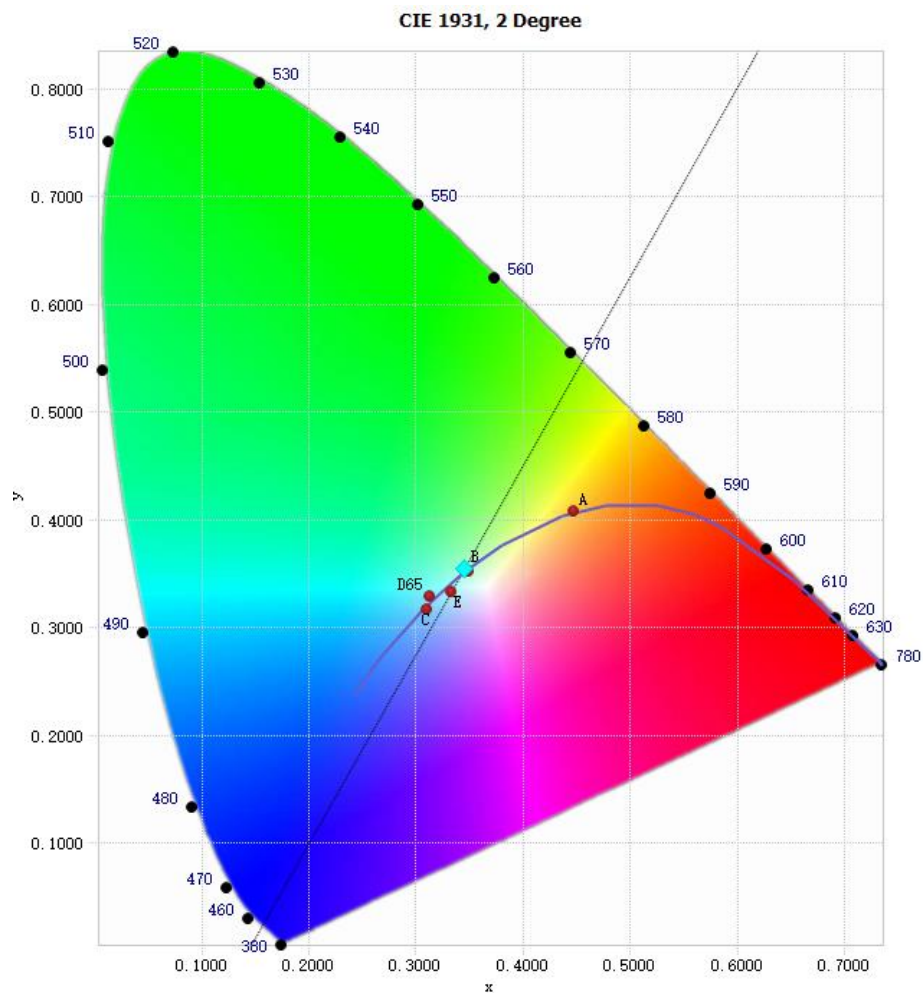
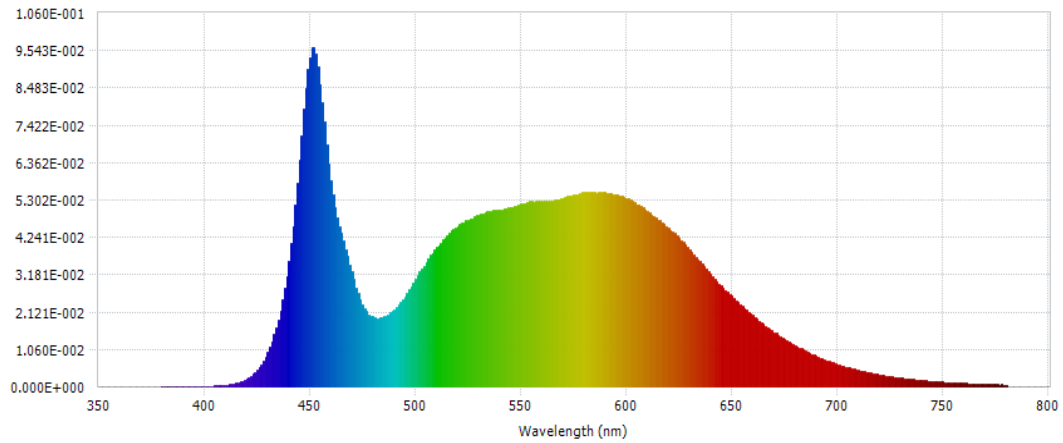
Test Result

CCT (K)	CRI	R9	Duv
4989	83	10	0.0015

Rf	Rg	IES Rcs,h1	Light Output (lm)	Luminous Efficacy (lm/W)
83	96	-12%	3749	130.2

x	y	u'	v'
0.3456	0.3549	0.2105	0.4864

4.1 Integrating Sphere Test



4.1 Integrating Sphere Test

ANSI/IES TM-30-24 Color Rendition Report

Source: DLF2606123-1a

Make: Espen Technology Inc.

Date: 2026/7/1

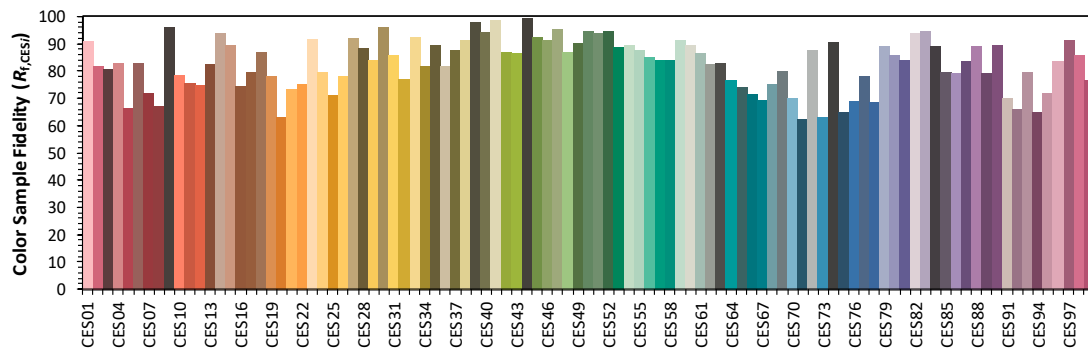
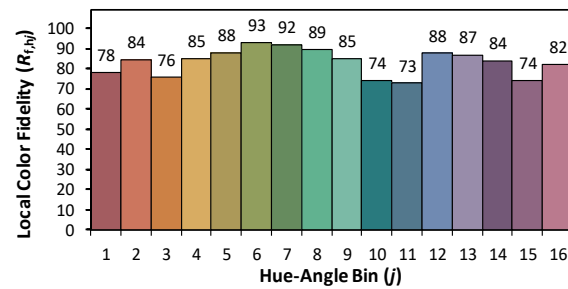
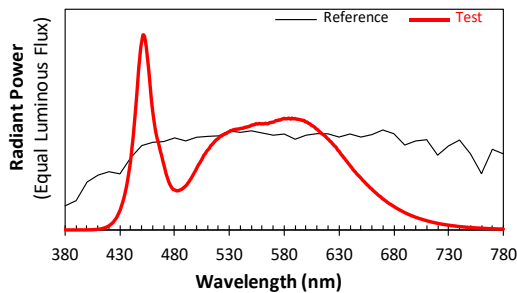
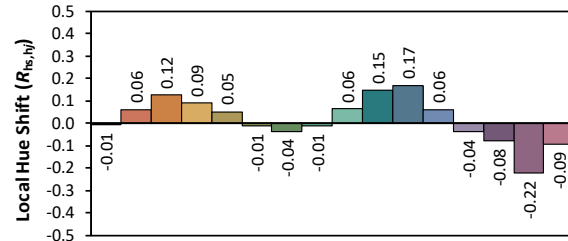
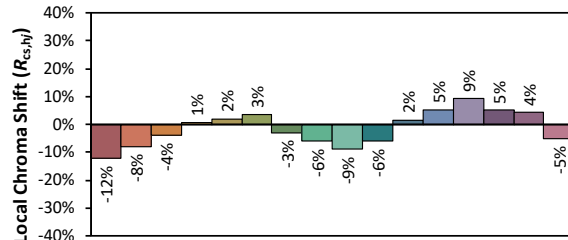
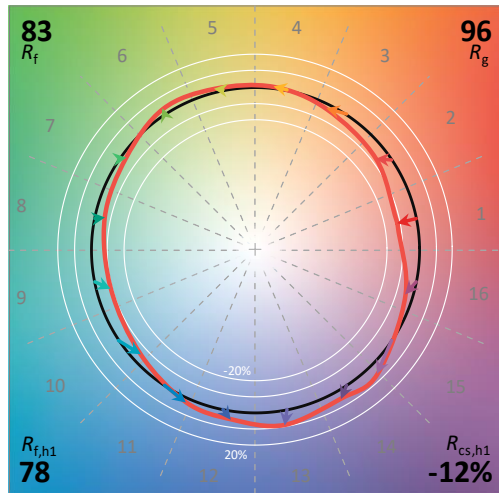
Model: L96T8/850/24G-EB

Note: N/A

Other: N/A

CCT: 4993 K
 D_{uv} : 0.0015

P3 V- F-



4.0 Test Results

4.1 Integrating Sphere Test - 3500K

Model No.	L96T8/835/24G-EB	Sample ID.	DLF2605111-A11
Operate time (Min.)	90	Stabilization time (Min.)	45
Temperature (°C)	25.3	Humidity (%RH)	56.0

Test Method

The samples were tested according to the IES LM-79-2024.

Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature and relative humidity condition inside the sphere was maintained at $25^{\circ}\text{C} \pm 1.2^{\circ}\text{C}$ and 10% - 65% RH.

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 voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ± 0.2 percent under load.

The sample was measured using 4π geometry and 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.

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.09	60	0.241	28.8	0.996
277.03	60	0.109	28.9	0.956

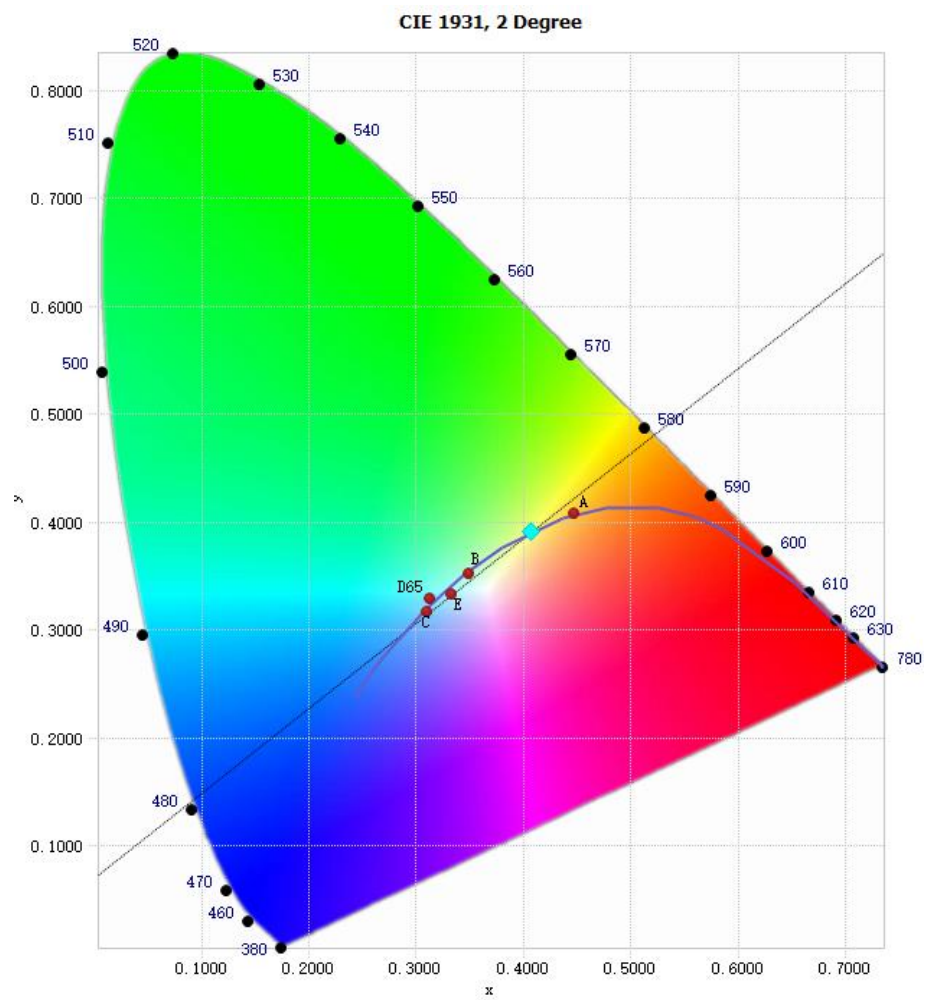
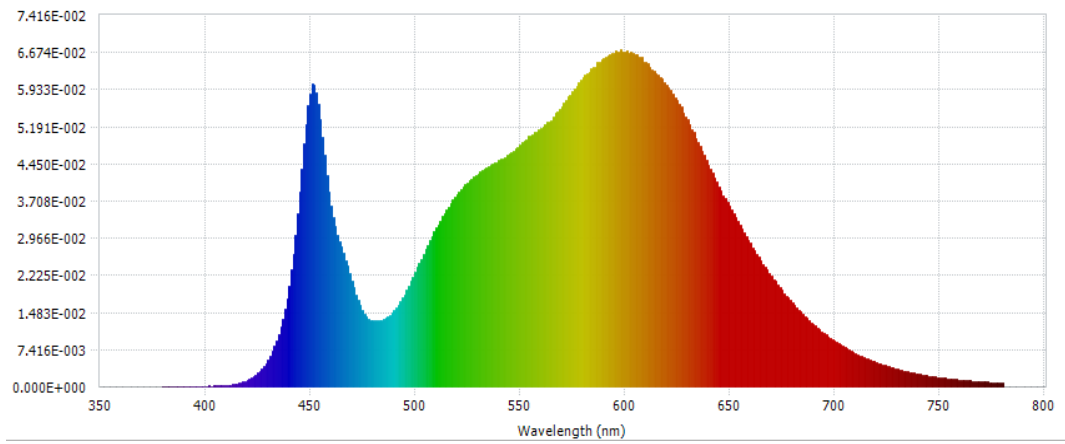
Test Result

CCT (K)	CRI	R9	Duv
3466	82	7	-0.0002

Rf	Rg	IES Rcs,h1	Light Output (lm)	Luminous Efficacy (lm/W)
83	96	-12%	3845	133.0

x	y	u'	v'
0.4069	0.3912	0.2366	0.5117

4.1 Integrating Sphere Test



4.1 Integrating Sphere Test

ANSI/IES TM-30-24 Color Rendition Report

Source: DLF2606123-1a

Make: Espen Technology Inc.

Date: 2026/7/1

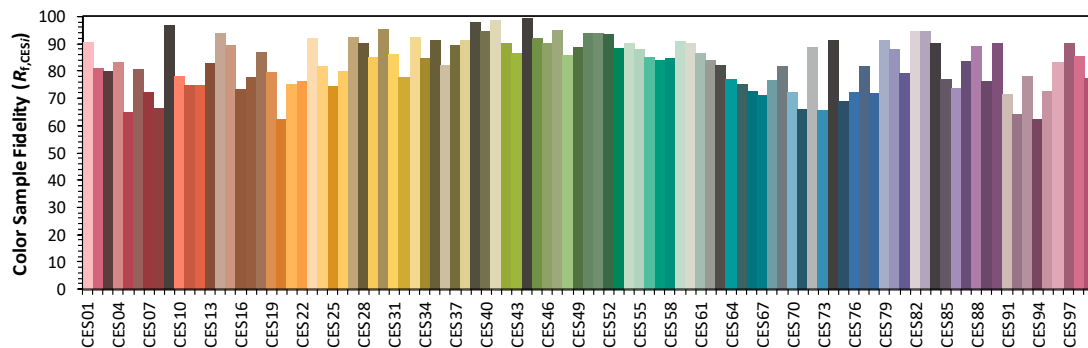
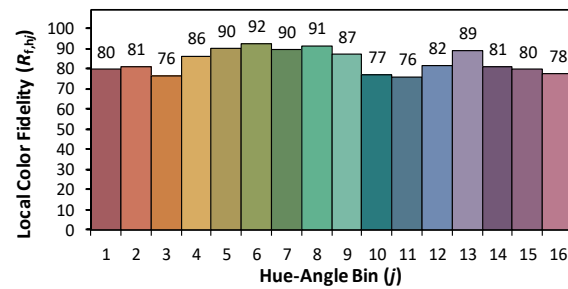
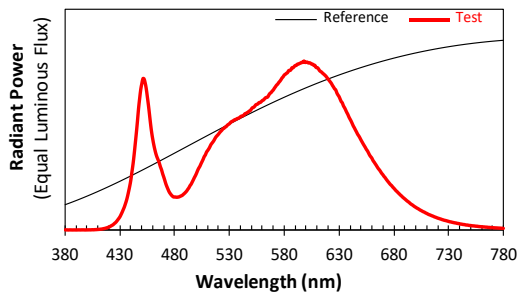
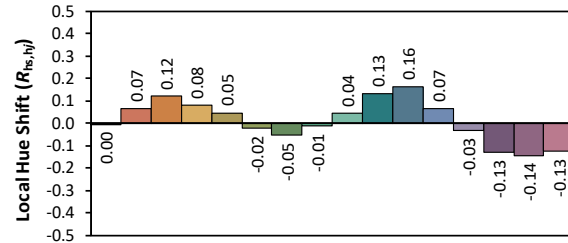
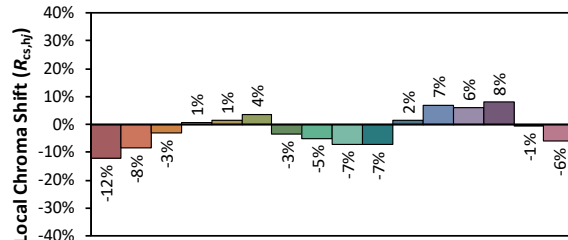
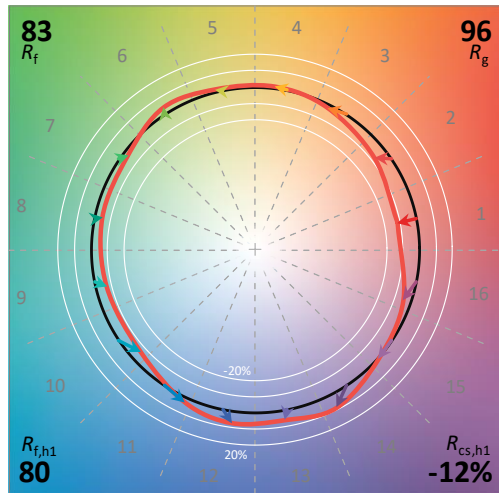
Model: L96T8/835/24G-EB

Note: N/A

Other: N/A

CCT: 3469 K
 D_{uv} : -0.0001

P3 V- F-



4.0 Test Results

4.2 Goniophotometer Test - 5000K

Model No.	L96T8/850/24G-EB	Sample ID.	DLF2606123-A1
Operate time (Min.)	90	Stabilization time (Min.)	45
Temperature (°C)	25.3	Humidity (%RH)	54.0

Test Method

The samples were tested according to the IES LM-79-2024.

Photometric parameters were measured using a type C goniophotometer and software.

The ambient temperature shall be maintained at $25^{\circ}\text{C} \pm 1.2^{\circ}\text{C}$ and 10% - 65% RH, measured at a point not more than 1 m from the sample and at the same height as the sample.

The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ± 0.2 percent under load.

Airflow for the instantaneous tangential velocity of any point on the DUT shall be less than an upper tolerance limit of 0.20 m/s.

The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 0.5° vertical intervals and 10° horizontal intervals.

Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	277.06	60	0.109	28.8	0.956
NON-WORST CASE	119.98	60	0.239	28.6	0.996

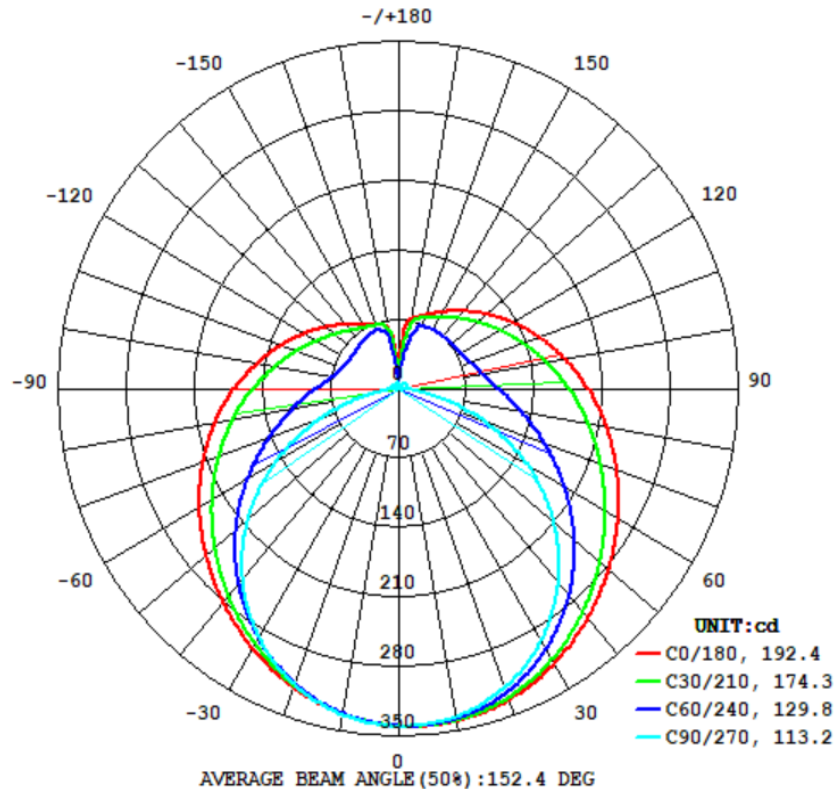
Test Result

4FT light output in Sphere	1876	Scale Factor	1.998400853
8FT light output in Sphere	3749	4FT Gonio Light output	1877

Flux (lm)	Luminous Efficacy (lm/W)	Beam Angle
3750	130.2	192.4

4.2 Goniophotometer Test

Light Distribution Curve



Zonal Lumen Summary

	Zonal (lm)		Total (lm)	Percent
0-10	64.36	0 - 10	64.36	1.72%
10-20	186.13	0 - 20	250.49	6.68%
20-30	288.09	0 - 30	538.58	14.36%
30-40	360.62	0 - 40	899.20	23.98%
40-50	398.76	0 - 50	1297.96	34.61%
50-60	402.58	0 - 60	1700.54	45.35%
60-70	376.76	0 - 70	2077.30	55.39%
70-80	331.19	0 - 80	2408.49	64.22%
80-90	280.76	0 - 90	2689.25	71.71%
90-100	239.70	0 - 100	2928.95	78.10%
100-110	205.89	0 - 110	3134.84	83.59%
110-120	174.28	0 - 120	3309.12	88.24%
120-130	143.87	0 - 130	3452.99	92.08%
130-140	114.92	0 - 140	3567.91	95.14%
140-150	87.25	0 - 150	3655.16	97.47%
150-160	59.56	0 - 160	3714.72	99.06%
160-170	30.45	0 - 170	3745.17	99.87%
170-180	4.94	0 - 180	3750.11	100.00%

4.2 Goniophotometer Test

	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360	
0	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	678.597	
1	678.917	678.357	678.357	677.798	677.518	677.518	677.998	677.358	677.478	678.177	678.057	678.577	678.677	678.537	678.957	678.637	678.817	678.977	679.516	678.997	679.037	679.516	679.276	679.237	678.917	678.917
2	678.817	678.057	677.938	677.078	676.659	676.579	676.998	676.439	676.499	677.158	677.298	677.798	678.057	678.237	678.897	678.777	679.097	679.436	680.136	679.576	679.576	679.956	679.476	679.336	678.817	678.817
3	678.457	677.558	677.098	676.179	675.759	675.52	675.979	675.26	675.46	676.139	676.259	676.918	677.338	677.718	678.617	678.717	679.237	679.816	680.516	680.036	679.936	680.036	679.396	679.237	678.457	678.457
4	677.838	676.798	676.199	675.3	674.78	674.38	674.74	674.121	674.161	674.78	675.02	675.819	676.379	677.058	678.157	678.537	679.237	679.916	680.755	680.276	680.096	679.996	679.336	678.817	677.838	677.838
5	677.078	675.839	675.02	674.101	673.441	673.181	673.601	672.902	672.882	673.481	673.701	674.48	675.28	676.119	677.518	678.197	679.157	679.896	680.735	680.216	680.096	679.956	679.057	678.317	677.078	677.078
6	676.059	674.54	673.761	672.782	672.142	671.882	672.082	671.363	671.243	671.822	672.002	672.982	673.961	675.1	676.759	677.578	678.757	679.856	680.695	680.156	679.996	679.676	678.497	677.518	676.059	676.059
7	674.86	673.161	672.262	671.243	670.563	670.284	670.464	669.784	669.604	670.124	670.304	671.183	672.382	673.701	675.699	676.958	678.377	679.576	680.675	680.096	679.716	679.097	677.738	676.459	674.86	674.86
8	673.461	671.503	670.583	669.484	668.845	668.385	668.765	667.986	667.786	668.345	668.285	669.304	670.583	672.062	674.4	676.119	677.818	679.157	680.296	679.636	679.157	678.417	676.719	675.22	673.461	673.461
9	671.743	669.684	668.725	667.586	667.066	666.627	666.826	665.867	665.687	666.167	666.127	667.046	668.585	670.364	673.022	674.94	676.858	678.477	679.776	679.257	678.357	677.478	675.52	673.721	671.743	671.743
10	669.944	667.646	666.767	665.607	664.808	664.488	664.768	663.829	663.549	663.929	663.909	664.828	666.367	668.465	671.363	673.741	676.019	677.818	679.057	678.457	677.558	676.379	674.201	672.082	669.944	669.944
11	667.746	665.368	664.468	663.309	662.65	662.31	662.73	661.571	661.131	661.351	661.311	662.25	663.949	666.287	669.544	672.182	674.86	676.978	678.297	677.598	676.459	675.12	672.602	670.144	667.746	667.746
12	665.428	663.069	662.09	661.031	660.332	660.092	660.332	659.273	658.673	658.673	658.593	659.472	661.251	663.809	667.586	670.583	673.641	675.979	677.198	676.639	675.44	673.681	670.843	668.065	665.428	665.428
13	662.81	660.312	659.352	658.293	657.734	657.394	658.033	656.735	655.975	655.995	655.675	656.555	658.393	661.231	665.248	668.825	672.202	674.76	676.159	675.4	674.001	672.002	668.765	665.667	662.81	662.81
14	660.072	657.494	656.495	655.575	655.236	654.996	655.416	654.157	653.317	653.018	652.498	653.317	655.356	658.493	662.89	666.826	670.543	673.361	674.82	674.3	672.562	670.144	666.567	663.229	660.072	660.072
15	656.994	654.376	653.537	652.718	652.498	652.478	652.898	651.579	650.52	649.86	649.38	650.12	652.138	655.416	660.312	664.668	668.805	672.022	673.501	672.722	670.883	668.125	664.189	660.412	656.994	656.994
16	653.717	651.079	650.22	649.52	649.52	649.54	650.16	648.801	647.342	646.523	645.823	646.543	648.581	652.218	657.414	662.33	666.926	670.384	671.942	671.303	669.005	665.967	661.571	657.354	653.717	653.717
17	650.48	647.662	647.042	646.443	646.723	647.022	647.282	645.743	644.324	643.165	642.066	642.726	644.864	648.761	654.436	659.872	664.868	668.605	670.344	669.524	667.326	663.629	658.813	654.157	650.48	650.48
18	646.683	643.905	643.205	642.946	643.305	643.625	644.524	642.746	640.987	639.628	638.209	638.769	640.867	645.224	651.339	657.194	662.73	666.846	668.545	667.546	665.028	660.991	655.715	650.839	646.683	646.683
19	642.966	640.148	639.468	639.428	640.048	640.547	641.327	639.548	637.49	635.851	634.153	634.532	636.731	641.347	647.922	654.237	660.352	664.668	666.707	665.787	662.75	658.353	652.678	647.382	642.966	642.966
20	638.729	635.891	635.512	635.911	636.81	637.55	638.269	636.291	634.053	631.894	629.956	630.176	632.394	637.27	644.404	651.339	657.854	662.67	664.668	663.489	660.512	655.516	649.241	643.485	638.729	638.729
21	634.492	631.695	631.275	631.874	633.133	633.893	635.032	632.934	630.476	627.938	625.5	625.559	627.758	632.934	640.587	648.181	655.196	660.332	662.43	661.311	657.634	652.458	645.623	639.428	634.492	634.492
22	629.996	627.098	627.078	628.097	629.856	630.935	631.635	629.496	626.579	623.781	621.003	620.783	622.922	628.537	636.631	644.904	652.418	657.994	660.372	659.113	655.216	649.4	641.926	635.252	629.996	629.996
23	625.3	622.362	622.422	623.841	625.879	627.298	628.257	626.059	622.862	619.464	616.207	615.727	617.946	623.801	632.434	641.467	649.66	655.535	657.874	656.495	652.358	646.103	637.91	630.655	625.3	625.3
24	620.264	617.346	617.826	619.644	622.262	623.661	624.9	622.462	618.805	615.088	611.351	610.551	612.77	618.965	628.177	637.79	646.623	652.938	655.416	654.037	649.52	642.526	633.833	626.119	620.264	620.264
25	614.928	612.37	613.089	615.428	618.385	620.404	621.303	618.825	614.788	610.532	606.375	605.116	607.314	613.689	623.761	633.953	643.485	650.32	652.958	651.359	646.583	638.809	629.556	621.183	614.928	614.928
26	609.612	606.894	607.974	610.651	614.029	616.107	617.686	614.928	610.671	605.855	601.199	599.58	601.659	608.513	619.065	630.116	640.188	647.542	650.2	648.501	643.165	635.072	625.06	616.227	609.612	609.612
27	603.957	601.399	602.978	606.555	610.252	612.75	613.949	611.111	606.415	601.119	595.803	593.725	595.883	603.097	614.189	626.139	636.81	644.624	647.662	645.823	640.008	631.095	620.364	610.791	603.957	603.957
28	598.141	595.703	597.562	601.519	605.815	608.813	610.272	607.234	602.218	596.129	590.268	587.75	589.648	597.302	609.233	621.922	633.453	641.567	644.644	642.566	636.411	627.038	615.428	605.176	598.141	598.141
29	592.146	589.688	592.106	596.683	601.619	604.676	606.475	603.277	597.742	591.207	584.492	581.495	583.373	591.507	604.037	617.626	629.796	638.429	641.507	639.568	632.734	622.782	610.372	599.68	592.146	592.146
30	585.771	583.473	586.531	591.886	597.582	601.219	602.758	599.221	593.325	586.031	578.637	575.06	576.898	585.352	598.701	613.089	626.099	635.172	638.749	636.431	629.356	618.465	605.136	593.685	585.771	585.771
31	579.516	577.198	580.695	586.551	592.726	596.663	598.801	595.064	588.729	580.695	572.582	568.645	570.184	579.037	593.245	608.433	622.282	631.994	635.332	632.934	625.44	613.849	599.96	587.69	579.516	579.516
32	572.602	570.663	574.8	581.515	588.549	592.766	594.804	590.927	584.113	575.52	566.487	561.691	563.249	572.602	587.51	603.797	618.465	628.537	632.314	629.776	621.703	609.412	594.444	581.295	572.602	572.602
33	565.707	563.969	568.725	576.299	583.913	588.749	590.807	586.771	579.416	569.884	560.172	554.816	556.035	565.767	581.715	599.061	614.368	625.14	628.997	626.179	617.826	604.636	588.809	574.78	565.707	565.707
34	558.733	557.074	562.43	570.783	579.057	584.312	586.711	582.514	574.66	564.508	553.957	547.742	548.801	558.893	575.839	594.145	610.352	621.563	625.48	622.642	613.629	599.72	582.974	568.165	558.733	558.733
35	551.359	549.94	556.275	565.647	574.76	580.396	582.614	578.297	569.944	559.013	547.322	540.328	541.107	551.798	569.604	589.109	606.315	617.906	622.342	619.285	609.832	595.004	576.998	561.191	551.359	551.359
36	543.925	542.806	549.92	559.932	569.684	575.919	578.397	574.041	564.988	553.337	540.667	532.794	533.453	544.544	563.329	583.973	601.938	614.209	618.625	615.448	605.396	589.728	571.063	554.157	543.925	543.925
37	535.951	535.112	543.125																							

51	407.694	414.508	441.467	471.723	495.643	509.412	513.669	506.495	489.448	463.149	430.256	402.058	394.344	415.887	456.395	498.121	531.675	552.918	560.292	554.596	536.191	505.156	465.388	427.718	407.694
52	396.942	404.816	433.293	465.028	489.948	504.157	509.193	501.938	484.392	457.054	422.322	392.226	383.772	406.195	448.541	492.146	526.739	548.481	555.695	549.86	530.855	498.881	457.594	418.006	396.942
53	386.311	395.104	425.739	459.392	485.472	500.34	504.836	497.362	479.257	450.919	414.528	382.414	373.022	396.423	440.707	486.091	521.802	544.125	551.978	545.983	526.279	493.205	450.04	408.493	386.311
54	375.3	385.092	417.746	453.077	480.036	495.364	500.46	492.666	474.141	444.804	406.595	372.502	361.91	386.551	433.014	480.016	516.886	539.728	547.502	541.187	521.103	486.93	441.966	398.361	375.3
55	364.388	375.36	409.852	446.922	475	490.687	495.903	488.109	468.905	438.469	398.741	362.47	350.839	376.679	425.1	473.961	511.791	535.272	543.145	536.97	516.167	481.035	434.332	388.549	364.388
56	352.998	364.988	402.058	440.987	470.124	486.571	491.467	483.493	463.849	432.374	390.927	352.438	339.548	366.587	417.266	467.946	506.894	530.815	539.209	532.654	511.451	474.94	426.399	378.397	352.998
57	341.807	354.916	394.045	434.672	464.488	481.335	487.01	478.937	458.813	426.259	383.213	342.366	328.437	356.495	409.532	461.91	502.078	526.519	534.392	527.858	506.115	468.785	418.585	368.345	341.807
58	330.356	344.604	386.291	428.837	459.972	477.258	482.494	474.281	453.757	420.124	375.24	332.114	316.407	346.263	401.559	455.935	497.062	521.942	530.615	523.721	501.559	462.97	410.791	358.133	330.356
59	318.385	334.093	378.277	422.642	454.676	472.462	478.018	469.684	448.721	414.069	367.386	321.603	304.396	336.011	393.705	449.92	492.066	517.546	525.979	519.065	496.363	456.755	402.718	347.682	318.385
60	306.974	324.021	370.504	416.527	449.58	467.706	473.581	465.068	443.665	408.153	359.692	310.851	292.466	325.879	386.071	444.105	487.17	513.069	521.603	514.488	491.427	450.879	395.124	337.49	306.974
61	294.624	313.249	362.65	410.611	444.824	463.509	469.065	460.372	438.609	402.038	351.838	300.12	280.595	314.708	378.357	438.01	482.174	508.553	517.506	510.292	486.611	444.944	387.03	326.878	294.624
62	282.834	303.117	354.856	404.456	439.328	458.273	464.668	455.895	433.613	396.163	344.045	289.848	268.625	303.577	370.643	432.294	477.338	504.157	512.57	505.456	481.415	438.789	379.456	316.607	282.834
63	270.484	292.286	347.122	398.601	434.692	454.197	460.192	451.319	428.617	390.268	336.451	279.476	256.675	293.765	362.85	426.339	472.382	499.7	508.693	501.299	476.679	433.034	371.663	306.075	270.484
64	258.393	281.974	339.368	392.726	429.556	449.42	455.675	446.683	423.581	384.392	328.877	269.185	244.404	283.453	355.436	420.484	467.566	495.184	504.157	496.623	471.703	427.118	363.969	295.703	258.393
65	246.063	271.423	331.735	386.731	424.46	444.644	451.239	442.106	418.645	378.637	321.343	258.713	232.314	273.201	347.902	414.848	462.63	490.747	499.74	491.986	466.607	421.243	356.395	285.172	246.063
66	233.453	260.771	324.061	381.075	419.744	440.288	446.623	437.43	413.629	372.802	313.409	248.461	219.984	262.95	340.368	409.113	457.854	486.151	495.563	487.81	461.93	415.528	348.681	274.56	233.453
67	221.223	250.639	316.627	375.28	414.608	435.492	442.186	432.914	408.753	367.066	305.476	238.189	207.694	252.678	333.173	403.557	453.097	481.775	490.867	483.014	456.934	409.772	341.407	264.388	221.223
68	208.453	239.848	309.093	369.444	409.632	430.935	437.63	428.297	403.937	361.411	298.201	227.918	195.254	242.506	325.839	397.922	448.241	477.378	486.691	478.617	452.138	403.997	333.793	253.737	208.453
69	195.901	229.736	301.799	363.789	404.796	426.519	433.173	423.761	398.921	355.775	291.127	218.046	183.094	232.494	318.725	392.386	443.465	472.842	482.234	474.161	447.302	398.501	326.719	243.625	195.901
70	183.167	219.504	294.484	358.133	399.8	421.623	428.677	419.165	394.085	350.18	284.013	207.934	170.598	222.722	311.371	386.93	438.809	468.385	477.838	469.564	442.306	392.666	319.344	233.453	183.167
71	170.649	209.352	287.27	352.598	394.924	417.146	424.141	414.488	389.189	344.644	277.038	198.187	158.337	212.87	304.017	381.735	433.993	463.889	473.561	465.268	437.69	387.27	312.29	223.341	170.649
72	158.024	199.48	280.356	347.042	390.088	412.63	419.624	410.032	384.512	339.169	270.244	188.443	146.095	203.357	297.322	376.319	429.396	459.472	469.005	460.591	432.894	381.874	305.396	213.429	158.024
73	145.58	189.52	273.321	341.387	385.132	407.894	415.108	405.536	379.656	333.793	263.509	178.863	133.953	193.937	290.747	371.083	424.78	455.196	464.748	456.215	428.077	376.399	298.541	203.597	145.58
74	133.457	180.024	266.627	336.191	380.635	403.697	410.611	400.979	374.8	328.497	256.974	169.54	121.827	184.64	284.273	365.887	420.124	450.699	460.392	451.918	423.541	371.223	291.926	194.113	133.457
75	121.281	170.508	259.972	330.695	375.599	398.821	406.275	396.463	370.124	323.241	250.58	160.502	110.042	175.643	278.018	360.871	415.488	446.363	455.995	447.182	418.585	365.747	285.372	184.71	121.281
76	109.105	161.471	253.557	325.46	370.903	394.404	401.779	391.886	365.368	317.966	244.305	151.783	98.331	167.03	271.922	355.895	410.951	441.966	451.799	443.065	414.149	360.871	279.097	175.831	109.105
77	97.362	152.542	247.262	320.284	366.327	390.028	397.302	387.301	360.731	312.463	238.109	143.271	86.805	158.631	266.047	351.079	406.535	437.57	447.382	438.529	409.552	355.815	272.862	167.056	97.362
78	85.582	143.919	240.887	314.828	361.171	385.192	392.826	383.034	356.095	306.894	232.094	135.08	75.647	150.621	260.252	346.143	401.958	433.193	442.866	433.893	404.816	350.579	266.667	158.583	85.582
79	74.522	136.041	235.052	310.092	356.954	381.215	388.429	378.497	351.359	301.978	226.559	127.346	64.96	143.002	254.696	341.327	397.522	428.757	438.729	429.896	400.54	345.963	261.051	150.492	74.522
80	63.461	128.279	229.097	304.876	352.098	376.379	384.093	374.081	346.842	297.042	220.603	119.856	54.514	135.725	249.321	336.625	393.105	424.48	434.173	425.16	395.743	340.727	255.196	142.78	63.461
81	53.159	120.518	223.301	299.88	347.362	371.982	379.656	369.564	342.126	292.166	215.148	112.928	44.752	128.923	244.145	332.114	388.589	420.064	429.936	420.903	391.307	336.211	249.8	135.673	53.159
82	43.165	113.609	217.806	295.144	343.085	367.786	375.26	365.128	337.71	287.33	209.832	106.361	35.865	122.596	239.129	327.478	384.332	415.727	425.739	416.567	386.93	331.395	244.305	128.811	43.165
83	34.031	106.986	212.43	289.868	338.03	362.87	370.923	360.851	333.333	282.694	204.656	100.25	27.608	116.667	234.313	323.141	380.096	411.411	421.023	411.87	382.294	326.679	239.209	121.95	34.031
84	25.546	100.977	207.394	285.472	333.993	359.073	366.507	356.495	328.697	277.978	199.678	94.684	19.385	111.249	229.636	318.705	375.659	407.174	417.046	408.073	378.177	322.262	234.213	115.476	25.546
85	17.878	95.234	202.178	280.556	329.197	354.376	362.21	352.198	324.42	273.441	194.95	89.496	12.824	106.329	225.26	314.169	371.423	402.838	412.45	403.217	373.461	317.526	229.277	109.402	17.878
86	12.043	90.172	197.4	275.999	324.76	350.06	358.093	347.882	320.024	268.985	190.296	84.746	7.453	101.629	220.903	309.612	367.166	398.621	408.253	399.061	369.205	313.349	224.82	103.675	12.043
87	6.951	85.52	192.74	271.503	320.524	346.023	353.657	343.545	315.627	264.468	185.813	80.472	3.428	97.266	216.787	305.256	362.87	394.225	404.157	394.904	365.008	309.013	220.244	98.185	6.951
88	2.722	81.275	188.123	266.827	315.747	341.127	349.48	339.309	310.971	260.292	181.633	76.653	1.126	93.123	212.87	301.159	358.853	390.028	399.44	390.168	360.472	304.596	216.047	93.361	2.722
89	0.85	77.602	184.049	262.77	311.91	337.35	345.144	335.112	306.315	256.035	177.488	73.295	0.527	89.366	209.133	297.222	354.616	385.811	395.703	386.351	356.575	300.56	212.01	88.763	0.85
90	0.482	74.273	179.684	258.333	307.354	332.814	340.947	330.895	302.098	251.799	173.527	70.372	0.437	85.897	205.										

106	13.94	62.176	134.74	199.636	244.025	268.585	275.979	266.647	240.528	195.484	131.355	61.347	14.959	79.84	166.773	238.949	288.209	317.026	325.1	316.287	288.889	239.548	166.239	77.06	13.94
107	15.011	62.998	133.092	196.679	240.568	264.628	272.182	262.89	237.13	192.684	129.856	62.308	16.224	80.927	165.206	236.031	284.632	312.65	321.183	312.51	285.372	236.691	164.652	78.078	15.011
108	16.208	63.979	131.619	193.775	237.11	261.171	268.525	259.273	233.713	189.874	128.475	63.363	16.83	82.078	163.773	233.213	281.175	308.293	317.166	308.693	281.775	233.673	163.066	79.085	16.208
109	17.538	65.04	130.168	190.937	233.453	257.394	264.728	255.655	230.356	187.222	127.246	64.468	17.169	83.407	162.408	230.436	277.618	304.576	313.329	304.776	278.078	230.755	161.557	80.186	17.538
110	18.357	66.177	128.947	188.259	230.276	253.837	261.051	252.098	227.058	184.628	126.113	65.715	17.253	84.724	161.085	227.678	274.201	300.819	309.512	301.099	274.76	228.018	160.246	81.373	18.357
111	19.036	67.406	127.73	185.496	226.759	250.06	257.454	248.601	223.881	182.128	125.044	66.934	17.501	86.159	159.862	225	270.803	297.062	305.576	297.142	271.043	225.08	158.845	82.554	19.036
112	19.565	68.667	126.679	182.978	223.561	246.563	253.737	244.964	220.623	179.692	124.145	68.315	17.507	87.456	158.683	222.322	267.326	293.285	301.759	293.385	267.666	222.462	157.636	83.847	19.565
113	20.108	70.048	125.695	180.49	220.364	243.026	250.28	241.627	217.586	177.372	123.271	69.67	17.735	88.899	157.596	219.784	264.029	289.588	297.982	289.688	264.309	219.704	156.509	85.086	20.108
114	20.667	71.423	124.79	177.984	217.046	239.648	246.763	238.129	214.508	175.046	122.518	71.079	17.65	90.18	156.511	217.146	260.731	285.971	294.045	285.891	260.891	217.046	155.424	86.427	20.667
115	21.081	72.84	124.067	175.775	214.269	236.311	243.205	234.792	211.491	172.882	121.853	72.524	17.749	91.623	155.605	214.728	257.394	282.234	290.448	282.334	257.734	214.688	154.506	87.77	21.081
116	21.555	74.341	123.295	173.445	211.011	232.814	239.868	231.555	208.633	170.811	121.271	74.049	17.375	92.948	154.63	212.27	254.177	278.697	286.611	278.577	254.217	212.09	153.477	89.139	21.555
117	21.902	75.817	122.7	171.315	208.173	229.576	236.431	228.237	205.675	168.747	120.737	75.53	17.149	94.349	153.805	209.892	250.959	275.06	282.814	274.94	251.019	209.772	152.676	90.56	21.902
118	22.372	77.366	122.158	169.283	205.236	226.239	233.093	225.02	202.898	166.789	120.324	77.074	16.753	95.679	152.978	207.494	247.702	271.483	279.217	271.423	247.902	207.314	151.856	91.95	22.372
119	22.734	78.911	121.641	167.266	202.238	223.002	229.836	221.862	200.2	164.972	119.962	78.631	16.425	97.07	152.268	205.296	244.664	268.026	275.32	267.626	244.544	204.856	151.053	93.375	22.734
120	22.824	80.482	121.313	165.438	199.668	219.844	226.459	218.745	197.464	163.1	119.66	80.174	15.956	98.383	151.529	202.978	241.467	264.408	271.882	264.388	241.587	202.658	150.39	94.78	22.824
121	22.628	82.054	120.905	163.435	196.787	216.767	223.341	215.687	194.874	161.423	119.418	81.745	15.507	99.752	150.889	200.879	238.509	261.011	268.165	260.691	238.349	200.42	149.6	96.145	22.628
122	22.36	83.611	120.661	161.729	194.169	213.749	220.144	212.69	192.304	159.712	119.241	83.291	15.033	101.089	150.232	198.705	235.452	257.434	264.648	257.374	235.312	198.333	149.079	97.384	22.36
123	21.988	85.206	120.448	160.032	191.601	210.711	217.026	209.732	189.756	158.102	119.129	84.87	14.632	102.44	149.704	196.661	232.494	254.057	261.271	253.997	232.474	196.161	148.453	98.407	21.988
124	21.393	86.773	120.244	158.303	188.911	207.714	213.949	206.835	187.368	156.591	119.081	86.403	14.149	103.747	149.165	194.638	229.576	250.719	257.394	250.42	229.337	194.111	147.888	99.582	21.393
125	20.631	88.321	120.172	156.847	186.651	204.856	210.891	203.977	184.926	155.116	119.035	87.982	13.669	105.026	148.695	192.648	226.699	247.382	254.197	247.302	226.559	192.146	147.464	100.935	20.631
126	20.036	89.902	120.074	155.26	184.129	201.958	207.954	201.139	182.64	153.691	119.023	89.49	13.191	106.347	148.219	190.721	223.861	244.085	250.58	243.825	223.541	190.166	146.954	102.306	20.036
127	19.703	91.433	120.042	153.795	181.761	199.191	204.976	198.361	180.286	152.35	119.127	90.931	12.646	107.6	147.788	188.801	221.003	240.767	247.182	240.588	220.763	188.271	146.525	103.667	19.703
128	19.412	92.994	120.082	152.442	179.522	196.417	202.138	195.695	178.167	151.115	119.175	92.278	12.206	108.877	147.412	187.028	218.325	237.59	243.945	237.51	218.046	186.449	146.097	104.962	19.412
129	19.189	94.466	120.108	151.039	177.182	193.717	199.345	193.044	175.993	149.844	119.341	93.469	11.655	110.08	147.014	185.23	215.627	234.452	240.408	234.053	215.348	184.618	145.721	106.303	19.189
130	18.856	95.975	120.236	149.854	175.084	191.057	196.601	190.432	173.873	148.711	119.486	94.754	11.446	111.305	146.721	183.493	212.93	231.255	237.33	231.095	212.73	182.878	145.382	107.638	18.856
131	18.471	97.46	120.32	148.559	172.872	188.513	193.891	187.936	171.872	147.628	119.678	96.203	10.966	112.472	146.343	181.858	210.412	228.237	233.893	227.898	210.032	181.121	145.01	108.921	18.471
132	18.001	98.887	120.478	147.442	170.851	186.009	191.253	185.426	169.896	146.507	119.89	97.508	10.777	113.663	146.069	180.206	207.794	225.14	230.715	224.86	207.494	179.526	144.724	110.178	18.001
133	17.552	100.33	120.657	146.335	168.897	183.497	188.621	182.99	167.974	145.534	120.132	98.599	10.536	114.77	145.755	178.567	205.296	222.162	227.578	221.763	204.976	177.844	144.482	111.491	17.552
134	17.079	101.697	120.829	145.268	166.97	181.053	186.087	180.627	166.173	144.568	120.408	99.632	10.305	115.909	145.518	177.092	202.858	219.185	224.321	218.785	202.478	176.301	144.157	112.652	17.079
135	16.568	103.09	121.101	144.327	165.176	178.685	183.607	178.323	164.293	143.671	120.683	100.973	10.141	116.966	145.254	175.508	200.4	216.287	221.363	215.967	200.06	174.798	144.013	113.845	16.568
136	16.099	104.418	121.323	143.385	163.291	176.371	181.133	176.015	162.57	142.79	120.985	102.362	9.912	118.05	145.06	174.075	198.09	213.369	218.205	213.05	197.686	173.251	143.733	115.01	16.099
137	15.628	105.745	121.603	142.548	161.551	174.055	178.805	173.867	160.923	142.026	121.377	103.747	9.732	118.981	144.746	172.564	195.713	210.592	215.348	210.272	195.294	171.753	143.543	116.155	15.628
138	15.154	107.036	121.894	141.711	159.888	171.835	176.359	171.733	159.301	141.247	121.683	105.068	9.633	119.978	144.52	171.153	193.539	207.774	212.45	207.474	192.974	170.398	143.397	117.262	15.154
139	14.546	108.295	122.164	140.869	158.167	169.708	174.097	169.618	157.74	140.564	122.1	105.931	9.524	120.931	144.233	169.71	191.145	205.016	209.392	204.696	190.743	168.977	143.161	118.351	14.546
140	13.956	109.305	122.504	140.138	156.581	167.678	171.936	167.628	156.227	139.876	122.424	106.515	9.319	121.862	144.043	168.391	188.975	202.398	206.655	201.958	188.583	167.748	143.022	119.404	13.956
141	13.323	110.002	122.814	139.538	155.098	165.693	169.744	165.611	154.778	139.255	122.846	107.324	9.353	122.726	143.741	167.026	186.862	199.69	203.777	199.35	186.381	166.507	142.786	120.44	13.323
142	12.712	110.857	123.127	138.869	153.601	163.755	167.68	163.703	153.379	138.675	123.249	108.026	9.678	123.409	143.565	165.711	184.55	197.038	200.959	196.631	184.271	165.15	142.598	121.453	12.712
143	12.111	111.591	123.491	138.199	152.2	161.866	165.629	161.896	152.092	138.211	123.675	108.759	10.414	123.763	143.267	164.376	182.542	194.458	198.261	194.075	182.176	163.943	142.454	122.53	12.111
144	11.498	112.138	123.833	137.63	150.803	160.024	163.653	160.13	150.847	137.738	124.149	109.464	11.338	124.125	142.856	163.048	180.39	191.89	195.574	191.599	180.208	162.778	142.312	123.485	11.498
145	10.88	111.994	124.181	137.064	149.496	158.227	161.697	158.419	149.634	137.32	124.59	110.01	11.985	124.676	141.936	161.721	178.305	189.293	192.868	189.085	178.151	161.567	142.17	124.	

161	6.024	48.014	120.2	132.798	135.809	138.353	139.666	139.356	137.508	134.127	127.126	88.843	17.42	61.249	129.323	141.563	143.115	155.32	158.08	156.647	152.59	143.949	137.836	92.066	6.024
162	5.891	43.499	120.635	132.544	135.302	137.48	138.869	138.599	136.765	133.527	126.221	85.905	17.988	50.55	123.965	141.105	144.49	153.685	156.299	154.944	151.343	143.465	134.938	83.098	5.891
163	5.768	37.92	120.675	130.711	134.58	136.663	137.734	137.568	136.289	133.309	124.398	81.163	18.112	40.46	116.749	139.968	143.681	151.247	154.654	153.383	150.152	141.703	127.476	74.74	5.768
164	5.585	30.683	116.329	127.776	134.013	135.967	136.996	136.868	135.59	133.181	123.052	75.941	18.138	32.1	108.219	135.316	142.868	146.455	153.014	151.97	148.981	138.675	121.858	66.329	5.585
165	5.539	21.139	110.342	123.901	133.567	134.87	136.051	135.903	134.626	132.298	121.735	67.708	18.059	23.741	100.342	123.769	142.36	142.624	151.411	150.518	147.884	134.596	117.81	58.479	5.539
166	5.418	13.416	101.167	122.132	131.547	134.289	135.02	134.95	134.197	129.353	120.31	60.278	17.978	17.14	91.289	117.074	139.8	142.71	150.04	149.127	145.478	130.516	111.753	51.519	5.418
167	5.14	7.713	85.106	120.899	128.012	133.493	134.426	134.313	132.942	126.143	119.037	53.769	17.793	13.508	80.492	111.501	133.279	142.754	148.549	147.84	142.964	127.298	103.038	43.643	5.14
168	4.96	2.01	66.111	119.72	123.475	129.732	131.775	131.717	129.133	123.491	111.633	47.658	17.375	11.562	70.208	104.321	125.791	142.186	147.176	146.551	141.079	119.378	93.555	36.437	4.96
169	4.729	2.125	52.77	110.805	121.129	124.856	127.62	127.652	124.686	121.265	98.961	38.935	16.448	10.827	59.566	96.017	114.005	139.728	145.953	145.368	131.477	107.662	82.036	29.716	4.729
170	4.54	3.052	45.915	99.081	120.727	121.739	123.533	123.433	122.124	119.061	83.927	27.992	14.653	10.964	52.608	86.213	103.757	130.681	144.678	144.251	118.793	100.528	70.33	21.633	4.54
171	4.414	6.54	34.972	75.438	110.841	120.396	121.301	121.363	120.062	105.24	62.568	17.047	12.144	11.262	46.011	77.808	94.814	120.068	142.966	139.36	111.849	89.48	59.009	13.806	4.414
172	4.208	11.516	20.608	53.695	93.563	109.456	114.101	114.267	106.874	86.163	48.287	4.371	9.115	11.698	40.224	67.986	84.311	104.197	136.481	129.556	100.332	76.395	49.039	11.097	4.208
173	4.096	16.096	10.181	43.809	64.353	90.338	95.29	95.959	86.257	59.622	31.938	8.008	6.427	11.988	33.809	57.324	76.679	86.569	127.648	119.66	82.44	64.145	42.794	8.521	4.096
174	4.209	18.745	5.937	27.118	46.109	59.121	63.583	64.562	56.857	41.121	15.59	14.364	4.313	12.031	26.827	50.39	71.421	71.944	118.817	96.119	62.278	56.713	34.738	10.396	4.209
175	5.146	17.765	5.099	13.844	29.392	42.31	43.953	43.419	36.97	23.821	6.88	15.656	3.888	12	19.884	41.807	57.608	61.533	101.435	57.092	45.775	45.637	24.52	16.343	5.146
176	6.421	14.191	12.493	9.964	14.836	17.913	20.098	25.695	17.082	7.039	13.79	10.165	5.895	11.992	15.805	33.257	42.616	49.261	80.791	36.962	38.947	29.734	17.343	18.783	6.421
177	7.329	10.958	17.713	11.958	12.061	5.807	8.753	8.201	10.934	14.091	13.193	7.642	8.134	11.935	13.744	24.706	32.372	36.795	37.774	16.835	24.658	19.16	17.615	16.537	7.329
178	8.477	9.405	13.096	16.903	14.544	10.165	6.405	7.184	8.143	12.588	10.3	8.805	9.933	11.7	11.927	17.217	22.128	24.329	13.77	13.477	17.785	21.395	19.206	10.954	8.477
179	9.686	10.071	9.686	10.226	11.118	10.999	10.675	10.647	9.673	10.014	8.705	9.657	10.694	10.537	9.43	9.648	11.057	11.841	5.471	10.133	11.868	11.647	9.176	9.139	9.686
180	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89	9.89

4.0 Test Results

4.3 THD and PF Test

Model No.	L96T8/850/24G-EB	Sample ID.	DLF2606123-A1
Model No.	L96T8/835/24G-EB	Sample ID.	DLF2605111-A11
Temperature (°C)	25.3	Humidity (%RH)	56.0

Test Method

The samples were tested according to the ANSI C82.77-10:2020.

The ambient temperature shall be maintained at 25° C ± 1.0° C and 10% - 65% RH. The sample measurements were made using a digital power meter and power supply. The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion were calculated.

Test Results

5000K

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD
120.00	60	0.239	28.6	0.996	8.87%
276.95	60	0.109	28.8	0.956	13.27%

3500K

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD
120.09	60	0.241	28.8	0.996	8.85%
277.03	60	0.109	28.9	0.956	13.27%

5.0 Equipment Information

Test Equipment			
Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
DLF107	Integrating Sphere System	2025/12/10	2026/12/9
DLF108	Auxiliary Lamp	2025/12/10	2026/12/9
DLF122	Measurement Standard Lamp Standard Lamp Type: Tungsten, Omni-directional	2025/12/10	2026/12/9
DLF116	AC Power Source	2025/12/8	2026/12/7
DLF516	Power Meter	2025/12/8	2026/12/7
DLF112	Temperature Recorder	2025/12/15	2026/12/14
DLF114	Temperature & Humidity Datalogger	2025/12/11	2026/12/10
DLF521	Measurement Standard Lamp Standard Lamp Type: Tungsten, Omni-directional	2025/12/10	2026/12/9
DLF101	Goniophotometer	2025/12/10	2026/12/9
DLF511	AC Power Source	2025/12/8	2026/12/7
DLF512	AC Power Source	2025/12/8	2026/12/7
DLF513	AC Power Source	2025/12/8	2026/12/7
DLF507	DC Power Source	2025/12/8	2026/12/7
DLF111	Temperature & Humidity Datalogger	2025/12/11	2026/12/10
DLF119	Power Meter	2025/12/8	2026/12/7
DLF530	Hot-wire anemometer	2026/1/26	2027/1/25
DLF129	Clock	2025/9/4	2026/9/3

***** End of Test Report*****