

Photometric Test Report

Relevant Standards

- ☒ IES LM-79-2008
- ☒ ANSI C82.77:2017

Prepared For

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Report Number

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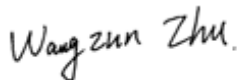
Test Date

2021/11/1

Issue Date

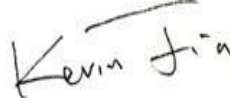
2021/11/4

Prepared By



Wangzun Zhu

Approved By



Kevin Jia

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1.0 Test Summary

DLC Technical Requirements v5.1

Outdoor - Pole/Arm-Mounted Area and Roadway Luminaires				
Requirement Category	Test Method	Requirements		Test value
Luminaire Output (lm) (Goniophotometer - Section 4.2)	IES LM-79-2008	1000		21067
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	143.9
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		146.4
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	3.54%
		20.00%	277V	8.32%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	120V	1.000
		0.9	277V	0.956
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	5029±355	5032
		4 step	5029±220	
Minimum CRI (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥70		84
Minimum R9 (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥-40		14
Minimum Rf (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	≥70		84
Minimum Rg (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	≥89		93
Minimum IES Rcs,h1 (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	-18%≤IES Rcs,h1≤+23%		-12%
Zonal Lumen Requirement (0°-90°) (Goniophotometer - Section 4.2)	IES LM-79-2008	100%		100.00%
Zonal Lumen Requirement (80°-90°) (Goniophotometer - Section 4.2)	IES LM-79-2008	≤10%		0.63%
Input Voltage (V)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		120
(Goniophotometer - Section 4.2)		Non-Worst Case		277
Input Current (A)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		1.221
(Goniophotometer - Section 4.2)		Non-Worst Case		0.541
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		146.4
(Goniophotometer - Section 4.2)		Non-Worst Case		143.2

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2021/11/1	ALEDM5T	N1
2	Goniophotometer Test	2021/11/1	ALEDM5T	N1
3	THD and PF Test	2021/11/1	ALEDM5T	N1

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.

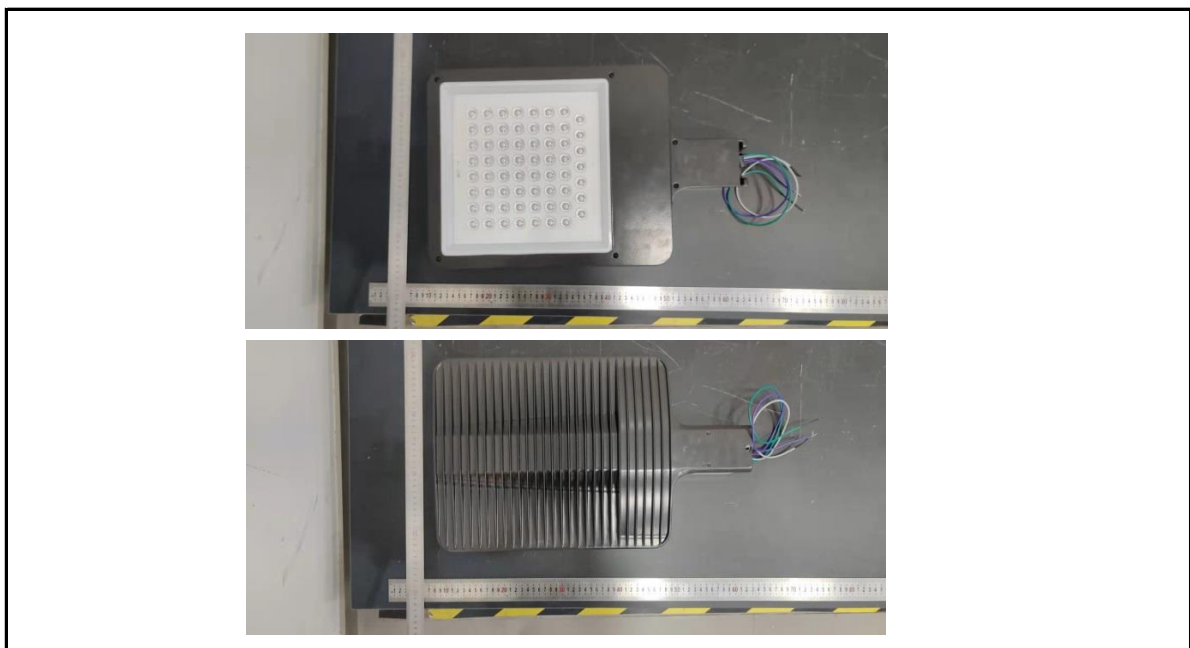
3.0 Production Description

Luminaire Description: ALEDM5T

Description: 150W/18,000 lm @ 5000K

Electrical Specification: 120V-277V,50/60HZ

Photos of Luminaire Characteristics



4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	ALEDM5T	Sample ID.	N1
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-79-2008.

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

The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere.

The 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
120.05	60	1.213	145.6	1.000
276.94	60	0.538	142.4	0.956

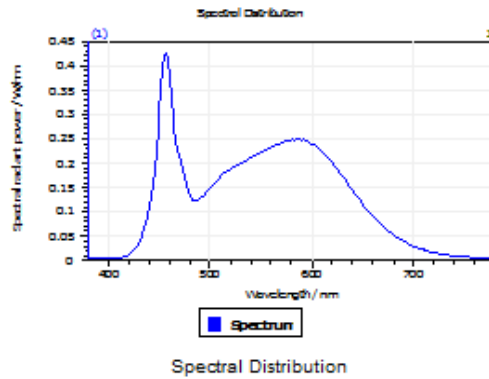
Test Result

CCT (K)	CRI	R9	Duv
5032	84	14	0.0005

Rf	Rg	IES Rcs,h1
84	93	-12%

4.1 Integrating Sphere Test

Results



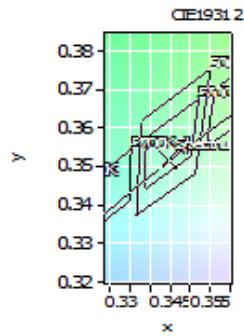
Spectral values

DominantWavelength 571.79 nm
Purity 0.089
PeakWavelength 456.49 nm
Radiant Power 48.85 W
Width50%:

Date: 2021/11/1 16:25:29

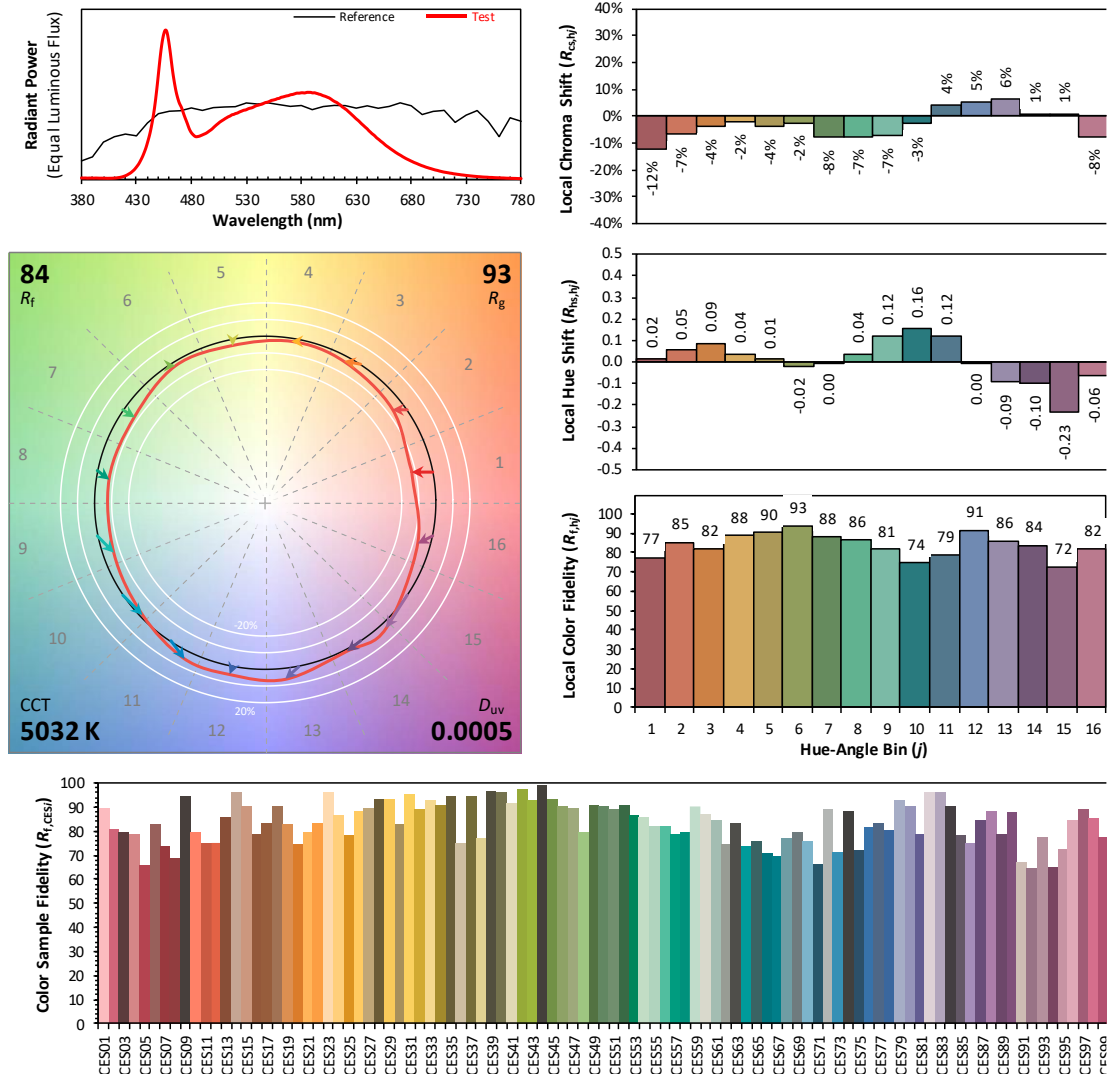
Color Coordinates

Correlated Color Temperat 5032 K
x: 0.3443 u: 0.2107 u': 0.2107
y: 0.3520 v: 0.3232 v': 0.4847
CRI01 83.7 CRI09 13.5
CRI02 93.4 CRI10 82.9
CRI03 94.5 CRI11 79.7
CRI04 80.7 CRI12 64.0
CRI05 83.6 CRI13 87.0
CRI06 88.5 CRI14 97.8
CRI07 84.6 CRI15 78.7
CRI08 66.4 CRI16 74.2
ResultsCRI 84.4



PlankDistance 5.0E-004

4.1 Integrating Sphere Test



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

x 0.3443
 y 0.3520
 u' 0.2107
 v' 0.4847

CIE 13.3-1995
(CRI)

R_a 85

R_g 15

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	ALEDM5T	Sample ID.	N1
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-79-2008.

Photometric parameters were measured using a type C 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 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 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	119.95	60	1.221	146.4	1.000
NON-WORST CASE	277.03	60	0.541	143.2	0.956

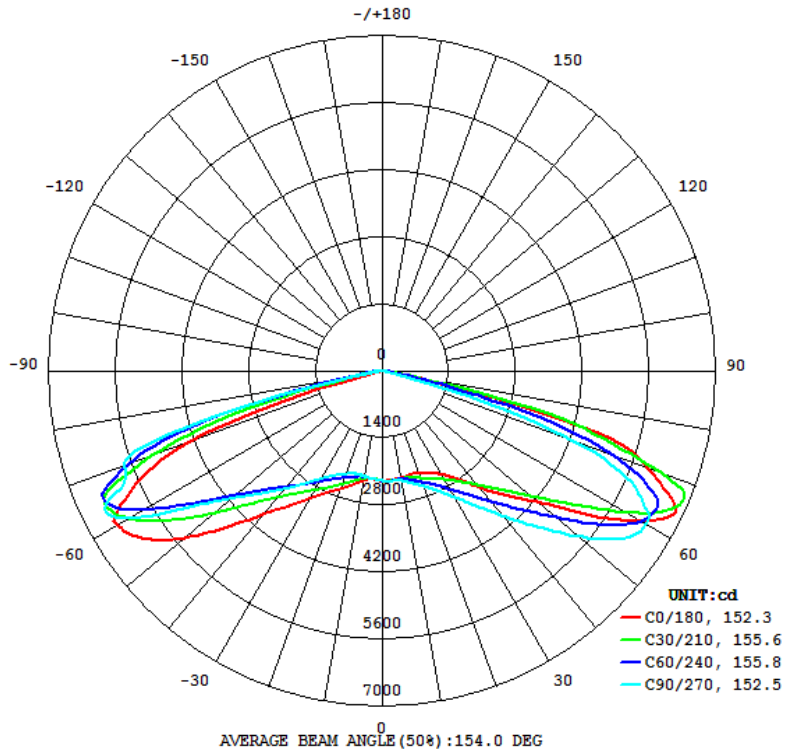
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
21067	158.6	158.8	152.3	152.5	143.9

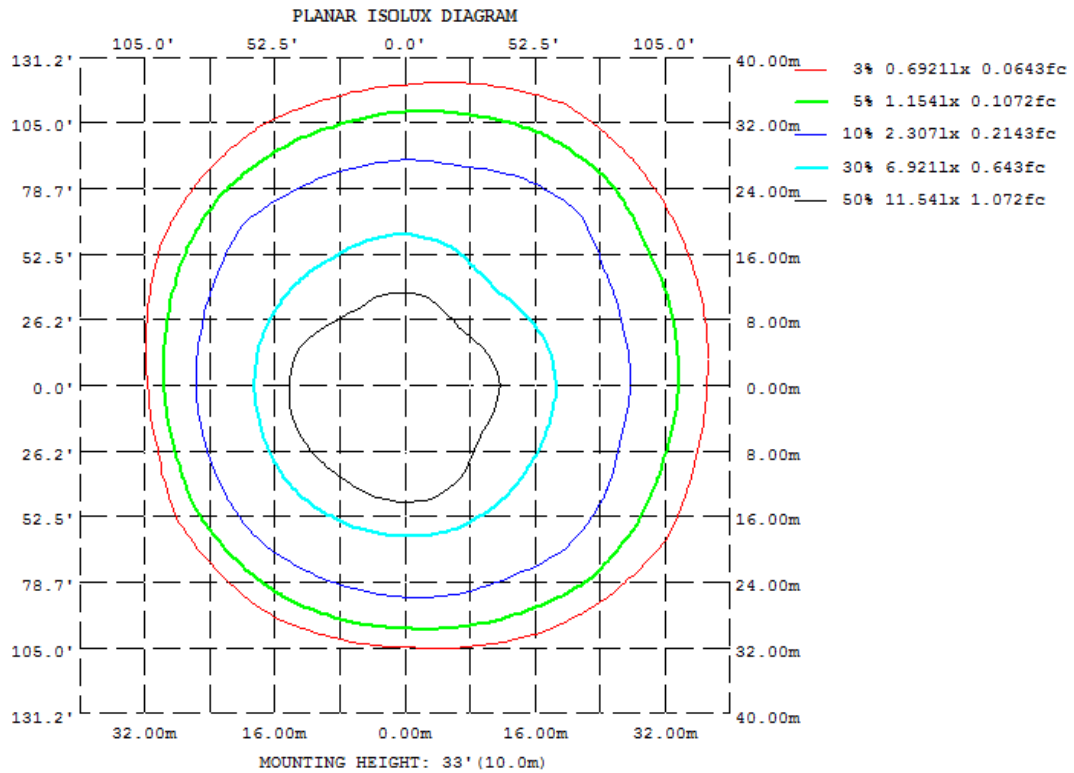
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.63%	B4-U0-G2

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

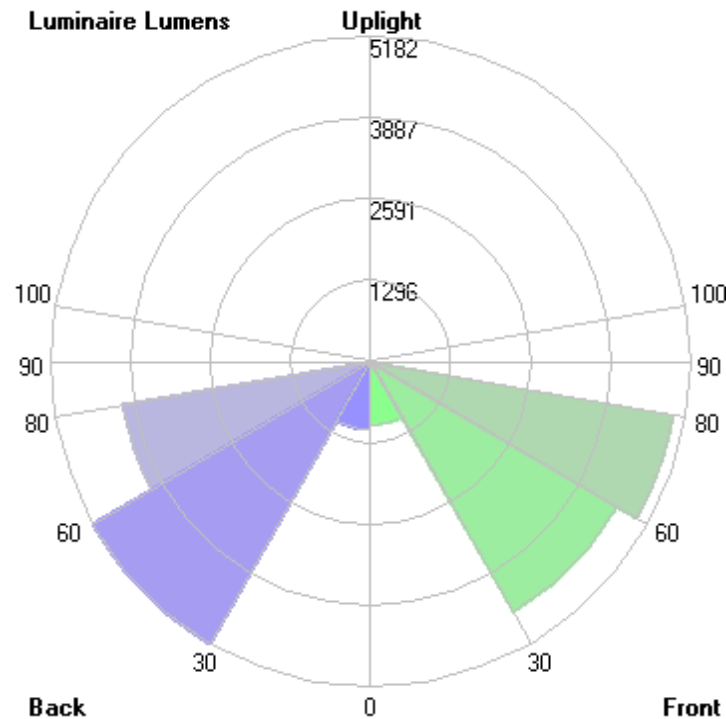
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	2267	2293	2334	2358	2325	2270	2240	2240
20	2270	2444	2569	2675	2629	2452	2295	2274
30	2507	2724	3049	3100	3076	2759	2598	2487
40	3182	3251	3963	3779	3915	3215	3215	2865
50	4261	4284	5378	5021	5421	4157	4132	3568
60	6279	6031	6394	6473	6424	5958	6149	5142
70	5901	6253	4280	4487	4297	6155	5755	7525
80	432.9	580.1	106.8	160.4	139.4	462.1	387.0	1433
90	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0
DEG	LUMINOUS INTENSITY:cd							

	Zonal (lm)		Total (lm)	Percent
0-10	218.43	0 - 10	218.43	1.04%
10-20	670.07	0 - 20	888.50	4.22%
20-30	1208.07	0 - 30	2096.57	9.95%
30-40	1942.68	0 - 40	4039.25	19.17%
40-50	3068.15	0 - 50	7107.40	33.74%
50-60	4777.57	0 - 60	11884.97	56.41%
60-70	6068.64	0 - 70	17953.61	85.22%
70-80	2980.65	0 - 80	20934.26	99.37%
80-90	133.06	0 - 90	21067.32	100.00%
90-100	0.00	0 - 100	21067.32	100.00%
100-110	0.00	0 - 110	21067.32	100.00%
110-120	0.00	0 - 120	21067.32	100.00%
120-130	0.00	0 - 130	21067.32	100.00%
130-140	0.00	0 - 140	21067.32	100.00%
140-150	0.00	0 - 150	21067.32	100.00%
150-160	0.00	0 - 160	21067.32	100.00%
160-170	0.00	0 - 170	21067.32	100.00%
170-180	0.00	0 - 180	21067.32	100.00%

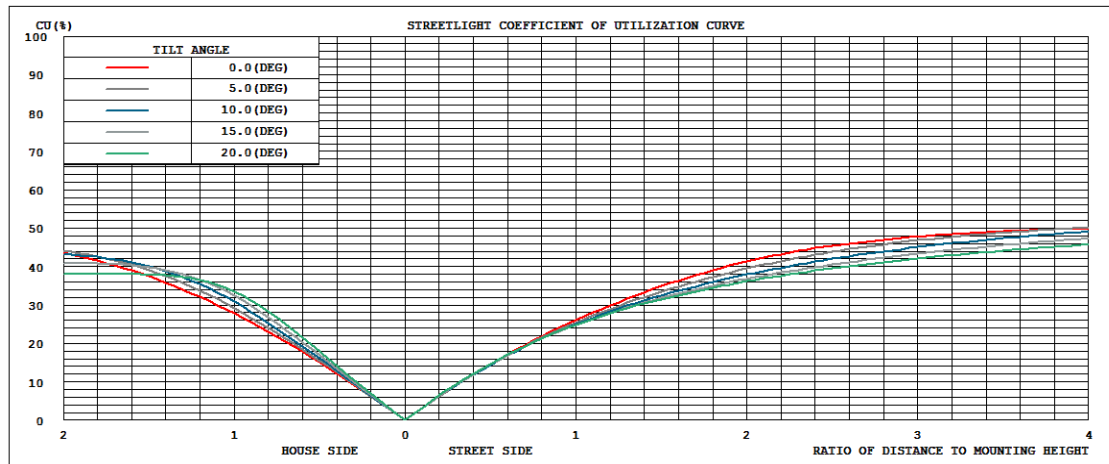
4.2 Goniophotometer Test

LCS/BUG

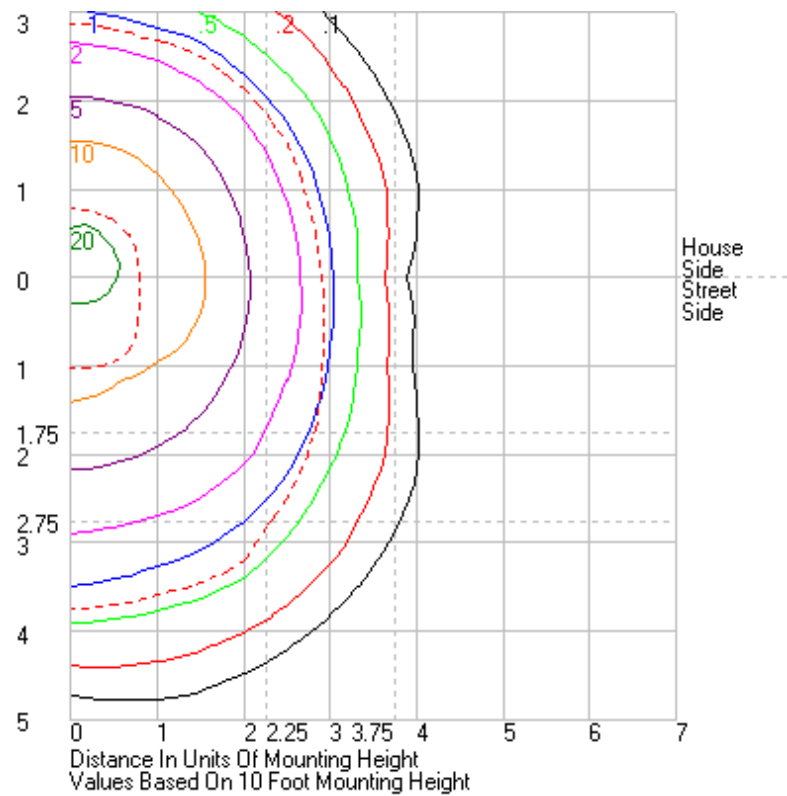


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1007.8	N.A.	4.8
FM - Front-Medium (30-60)	4606.0	N.A.	21.9
FH - Front-High (60-80)	4981.4	N.A.	23.6
FVH - Front-Very High (80-90)	89.3	N.A.	0.4
BL - Back-Low (0-30)	1088.7	N.A.	5.2
BM - Back-Medium (30-60)	5182.4	N.A.	24.6
BH - Back-High (60-80)	4067.9	N.A.	19.3
BVH - Back-Very High (80-90)	43.8	N.A.	0.2
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	21067.3	N.A.	100.0
BUG Rating	B4-U0-G2		

Coefficients of Utilization



Isolines



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	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16	2307.16
1	2307.72	2308.14	2307.9	2308.25	2307.97	2307.87	2307.23	2305.62	2303.61	2301.5	2298.65	2295.97	2305.15	2301.75	2298.34	2295.73	2294.12	2293.25	2293.21	2293.05	2293.05	2293.44	2293.68	2294.35	2307.72
2	2304.14	2307.1	2310.2	2312.9	2313.99	2314.57	2314.15	2312.11	2309.14	2304.29	2298.5	2292.88	2299.28	2294.14	2290.82	2290.28	2288.27	2287.18	2286.91	2287.02	2286.85	2287.45	2288.68	2304.14	
3	2298.73	2303.74	2309.11	2314.7	2316.52	2317.85	2318.28	2317.57	2313.79	2305.64	2296.22	2287.67	2291.59	2285.11	2281.2	2281.28	2283.27	2282.58	2281.74	2282.12	2280.92	2279.28	2279.98	2281.63	2298.73
4	2296.22	2302.32	2308.56	2312.06	2314.36	2317.24	2318.79	2319	2314.49	2307.01	2295.98	2284.05	2284.32	2276.69	2273.67	2273.96	2277.9	2279.25	2278.82	2278.7	2274.47	2272.18	2272.26	2276.57	2296.22
5	2294.7	2302.54	2308	2309.08	2309.64	2313.47	2316.57	2318.78	2314.93	2308.6	2297.5	2284.02	2280.16	2270.64	2267.9	2268.42	2272.94	2276.57	2275.81	2274.65	2269.73	2267.26	2269.97	2274.02	2294.7
6	2289.08	2300.32	2306.85	2305.75	2303.35	2306.91	2312.95	2317.23	2316.71	2311.47	2302.59	2287.61	2279.08	2267.77	2264.38	2264.06	2269.56	2273.52	2271.67	2269.21	2265.43	2265.61	2264.05	2266.98	2289.08
7	2283.69	2295.39	2302.85	2301.26	2297.03	2302.79	2312.67	2319.67	2318.93	2317.25	2311.52	2295.44	2282.85	2269.22	2263.49	2262.35	2265.82	2267.76	2264.64	2261.14	2260.05	2260.45	2256.8	2259.63	2283.69
8	2278.43	2293.29	2297.23	2296.47	2294.42	2303.17	2316.52	2325.79	2325.92	2326.19	2324.22	2307.93	2292.18	2275.29	2266.21	2263.04	2260.5	2261.08	2255.97	2250.57	2253.53	2254.85	2250.6	2252.66	2278.43
9	2271.54	2289.34	2293.14	2292.19	2295.93	2306.28	2324.12	2336.73	2337.25	2339.35	2340.34	2325.07	2305.92	2286.29	2272.68	2265.19	2256.01	2255.7	2248.55	2241.08	2245.15	2247.7	2243.85	2243.61	2271.54
10	2266.74	2287.42	2290.42	2293.24	2299.56	2311.6	2334.35	2349.47	2352.63	2358.11	2360.48	2346.46	2325.1	2301.83	2283.99	2269.99	2254.02	2252.1	2240.4	2230.61	2235.61	2239.81	2237.26	2236.6	2266.74
11	2264.64	2288.76	2289.88	2296.36	2304.51	2322.11	2349.22	2366.25	2372.34	2382.02	2382.35	2370.49	2348.02	2321.62	2299.25	2276.83	2255.84	2251.09	2234.58	2221.02	2226.47	2232.71	2233.16	2230.94	2264.64
12	2262.66	2292.53	2292.29	2301.7	2314.47	2337.78	2367.93	2386.82	2394.69	2408.72	2409.23	2398	2374.24	2344.97	2317.06	2286.16	2261.78	2253.1	2230.72	2214.02	2219.9	2226.83	2230.96	2226.13	2262.66
13	2258.47	2293.84	2299.29	2309.71	2329.49	2357.83	2388.47	2410.68	2422.3	2437.57	2438.23	2425.93	2402.76	2370.08	2338.77	2299.69	2271.22	2258.1	2230.68	2210.9	2214.95	2224.88	2230.52	2220.45	2258.47
14	2253.4	2294.56	2308.71	2322.58	2347.45	2379.1	2411.5	2435.1	2451.12	2469.75	2467.53	2456.29	2433.45	2398.36	2361.34	2317.87	2284.26	2263.84	2230.64	2211.8	2214.76	2225.11	2230.52	2213.33	2253.4
15	2247.69	2295.29	2319.6	2340.39	2366.71	2402.67	2433.48	2459.37	2482.33	2501.74	2500.64	2486.77	2465.28	2427.77	2384.39	2337.52	2298.74	2269.9	2232.56	2212.7	2219.45	2227.42	2230.29	2207.14	2247.69
16	2244.8	2296.65	2331.82	2361.35	2388.14	2427.87	2459.9	2487.62	2514.41	2534.52	2532.23	2519.39	2497.82	2457.52	2409.56	2360.69	2312.88	2279.13	2240.49	2218.81	2226.35	2233.1	2229.85	2203.65	2244.8
17	2245.38	2300.63	2345.43	2382.87	2409.24	2452.98	2486	2514.66	2544.52	2567.74	2567.11	2551.94	2530.72	2487.97	2435.05	2384.5	2328.44	2291	2251.57	2229.46	2234.32	2240.73	2230.33	2204.13	2245.38
18	2249.85	2307.55	2359.76	2404.95	2432.57	2481.4	2514.36	2545.29	2579.15	2602.01	2604.06	2585.22	2563.98	2518.73	2461.69	2407.65	2347.26	2302.78	2264.49	2244.01	2245.16	2250.91	2231.88	2207.83	2249.85
19	2258.42	2317.47	2374.91	2423.74	2457.96	2507.71	2542.28	2577.8	2613.09	2638.41	2641.18	2620.17	2597.2	2550.47	2488.75	2429.16	2365.05	2315.46	2277.93	2257.19	2261.12	2261.99	2235.01	2215.06	2258.42
20	2270.36	2330.43	2390.06	2443.58	2484	2533.64	2569.01	2608.24	2649.17	2674.58	2683.06	2654.65	2629.06	2581.97	2518.35	2451.91	2383.77	2330.11	2295.37	2272.1	2278.39	2273.59	2240.67	2226.13	2270.36
21	2285.42	2346.09	2406.67	2464.64	2510.63	2560.51	2601.18	2643.8	2688.56	2714.67	2723.92	2690.97	2660.02	2613.25	2550.83	2476.84	2402.67	2348.22	2314.78	2289.46	2296.04	2284.75	2250.47	2238.78	2285.42
22	2301.42	2362.72	2423.99	2485.97	2536.07	2587.74	2634.05	2678.74	2724.32	2754.64	2766.45	2728.5	2691.97	2645.04	2584.86	2503.46	2423.58	2368.63	2336.49	2309.62	2313.18	2297.15	2263.98	2251.82	2301.42
23	2317.23	2381.18	2444.6	2511.87	2565.07	2621.51	2671.09	2719.84	2765.12	2797.83	2809.97	2767.42	2725.47	2676.92	2620.67	2530.33	2449.07	2391.53	2362.38	2333.66	2333.22	2313.01	2279.71	2266.18	2317.23
24	2335	2399.69	2466.34	2535.49	2598.17	2655.82	2714.01	2764.87	2805.47	2841.93	2852.5	2807.57	2762.22	2708.6	2653.75	2557.56	2474.42	2416.55	2386.41	2360.48	2357.34	2331.95	2297.84	2280.61	2335
25	2357.59	2421.45	2491.36	2560.14	2632.82	2695.62	2759.55	2809.3	2847.98	2885.83	2895.35	2852.83	2804.35	2745.47	2688.3	2586.86	2504.1	2439.92	2412.54	2390.12	2383.05	2354	2316.62	2300.3	2357.59
26	2382.77	2449.3	2514.85	2586.38	2672.86	2746.05	2812.83	2861.01	2896.93	2930.6	2937.05	2901.22	2850.75	2784.37	2722	2618.09	2534.52	2467.16	2441.19	2418.8	2414.7	2377.5	2339.89	2323.61	2382.77
27	2408.1	2479.12	2536.6	2613.36	2713.48	2793.7	2866.5	2910.53	2941.21	2972.27	2983.6	2954.58	2901.24	2826.65	2756.55	2652.57	2562.61	2499.58	2474.2	2449.52	2447.28	2402.63	2366.45	2347.98	2408.1
28	2436.62	2511.78	2564.32	2648.74	2761.91	2851.42	2923.37	2965.1	2992.86	3014.67	3031.09	3010.77	2955.37	2873.04	2794.95	2686.84	2595.65	2534.67	2513.03	2487.54	2480.25	2428.95	2396.1	2374.04	2436.62
29	2469.72	2545.44	2596.64	2684.65	2813.07	2909.5	2986.74	3025.93	3045.68	3055.92	3081.14	3071.82	3014.08	2925.37	2835.05	2721.97	2631.84	2573.23	2552.48	2525.26	2511.34	2456.31	2426.65	2402.82	2469.72
30	2506.92	2582.27	2631.52	2723.91	2863.05	2968.33	3048.84	3084.81	3097.77	3099.94	3135.79	3134.75	3075.55	2982.66	2876.03	2758.91	2670.29	2615.71	2597.92	2568.87	2542.13	2486.85	2458.78	2434.37	2506.92
31	2550.56	2624.01	2667.82	2766.88	2919.9	3039.41	3121.62	3153.1	3157.91	3150.96	3193.9	3203.57	3138.39	3041.67	2917.88	2792	2710.46	2661.27	2647.29	2615.03	2578.78	2516.26	2490.88	2470.06	2550.56
32	2597.66	2667.44	2703.38	2805.08	2973.19	3105.87	3194.17	3222.01	3211.49	3201.99	3252.7	3274.33	3207.26	3105.08	2962.41	2826.65	2752.41	2710.81	2696.87	2661.12	2613.42	2550.85	2526.15	2510.86	2597.66
33	2648.94	2718.82	2741.55	2849.75	3034.15	3184.36	3274.19	3294.13	3275.36	3258.25	3318.47	3350.18	3279.49	3173.34	3012.68	2862.12	2798.5	2763.95	2755.42	2715.35	2651.81	2588.73	2562.99	2554.24	2648.94
34	2702.7	2773.32	2782.04	2896.2	3097.54	3266.62	3360.13	3374.78	3337.98	3319.04	3385.26	3429.34	3353.64	3244.51	3066.35	2901.15	2845.32	2819.41	2810.64	2767.87	2691.3	2619.57	2603.52	2598.33	2702.7
35	2762.1	2832.94	2826.3	2945.33	3161.76	3345.88	3444.66	3453.73	3399.18	3381.52	3458.71	3511.71	3433.4	3320.36	3120.05	2943.72	2894.31	2878.28	2873.37	2825	2730.54	2652.55	2647.04	2645.78	2762.1
36	2832.4	2894.54	2877.86	3002.32	3237.36	3440.49	3539.56	3543.47	3471.47	3453.34	3531.76	3601.54	3517.17	3399.98	3178.62	2989.65	2944.76	2939.08	2938.36	2885.21	2775.59	2687.25	2693.04	2701.71	2832.4
37	2909.54	2959.83	2929.44	3056.77	3313.14	3530.9	3637.74	3636.56	3539.11	3526.54	3611.09	3691.86	3606.57	3481.66	3239.65	3039.94	2997.93	3002.79	3002.24	2943.98	2820.14	2727.39	2744.99	2771.1	2909.54
38	2997.7	3030.62	2988.17	3119.25	3394.62	3630.47	3737.9	3730.23	3617.99	3605.44	3696.54	3791.12	3698.99	3571.1	3303.65	3093.95	3								

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

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	ALEDM5T	Sample ID.	N1
Temperature (°C)	25.3	Humidity (%RH)	56.0

Test Method

The samples were tested according to the ANSI C82.77:2002.

The total harmonic distortion shall be measured to the 40th order.

The ambient temperature condition was maintained at $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$. 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

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	THD
120.05	60	1.213	145.6	1.000	3.54%
276.94	60	0.538	142.4	0.956	8.32%

5.0 Equipment Information

Test Equipment			
Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
DLF107	Integrating Sphere System	2020/12/26	2021/12/25
DLF108	Auxiliary Lamp	2020/12/26	2021/12/25
DLF122	Measurement Standard Lamp Standard Lamp Type: 220 V, 0.4720 A, Tungsten, Omni-derectional	2020/12/26	2021/12/25
DLF116	AC Power Source	2020/12/26	2021/12/25
DLF113	Power Meter	2020/12/26	2021/12/25
DLF112	Temperature Recorder	2020/12/26	2021/12/25
DLF114	Temperature & Humidity Datalogger	2020/12/26	2021/12/25
DLF101	Goniophotometer	2020/12/26	2021/12/25
DLF125	Standard Lamp Standard Lamp Type: 76.58 V, 6.7875 A, Tungsten, Omni-derectional	2020/12/26	2021/12/25
DLF104	AC Power Source	2020/12/26	2021/12/25
DLF507	DC Power Source	2020/12/26	2021/12/25
DLF102	Power Meter	2020/12/26	2021/12/25
DLF111	Temperature & Humidity Datalogger	2020/12/26	2021/12/25
DLF119	Power Meter	2020/12/26	2021/12/25
DLF031	Temperature data logger	2020/12/26	2021/12/25
DLF022	Digital power meter	2020/12/26	2021/12/25
DLF003	Temperature & Humidity Datalogger	2020/12/26	2021/12/25

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