

Photometric Test Report

Relevant Standards

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

Prepared For

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DLF2111105

Report Number

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Test Date

2021/11/8

Issue Date

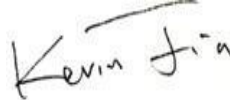
2021/11/11

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		27100
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	160.2
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		169.1
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	4.68%
		20.00%	277V	13.00%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	120V	0.997
		0.9	277V	0.931
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	5029±355	5050
		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		13
Minimum Rf (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	≥70		83
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%		0.45%
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		1.414
(Goniophotometer - Section 4.2)		Non-Worst Case		0.641
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		169.1
(Goniophotometer - Section 4.2)		Non-Worst Case		165.6

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2021/11/8	ALEDL5T	E1
2	Goniophotometer Test	2021/11/8	ALEDL5T	E1
3	THD and PF Test	2021/11/8	ALEDL5T	E1

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.

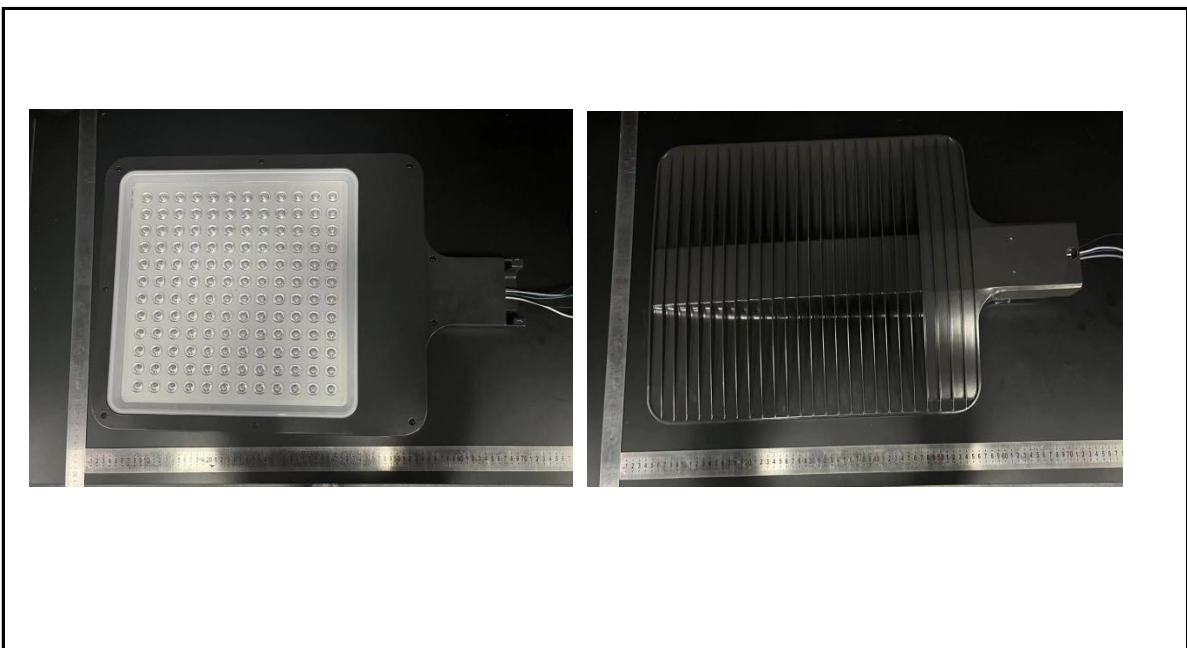
3.0 Production Description

Luminaire Description: ALEDL5T

Description: 170W/24,000 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.	ALEDL5T	Sample ID.	E1
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
120.08	60	1.416	169.6	0.997
277.04	60	0.641	165.4	0.931

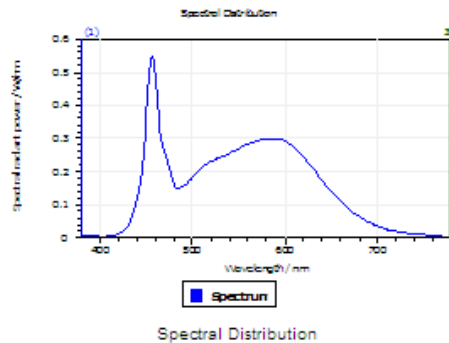
Test Result

CCT (K)	CRI	R9	Duv
5050	84	13	0.00092

Rf	Rg	IES Rcs,h1
83	93	-12%

4.1 Integrating Sphere Test

Results

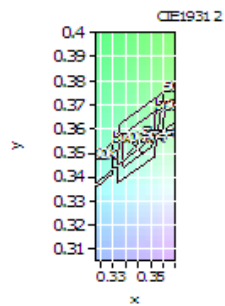


Spectral values

DominantWavelength 571.07 nm
Purity 0.090
PeakWavelength 456.64 nm
Radiant Power 59.2 W
Width50%:

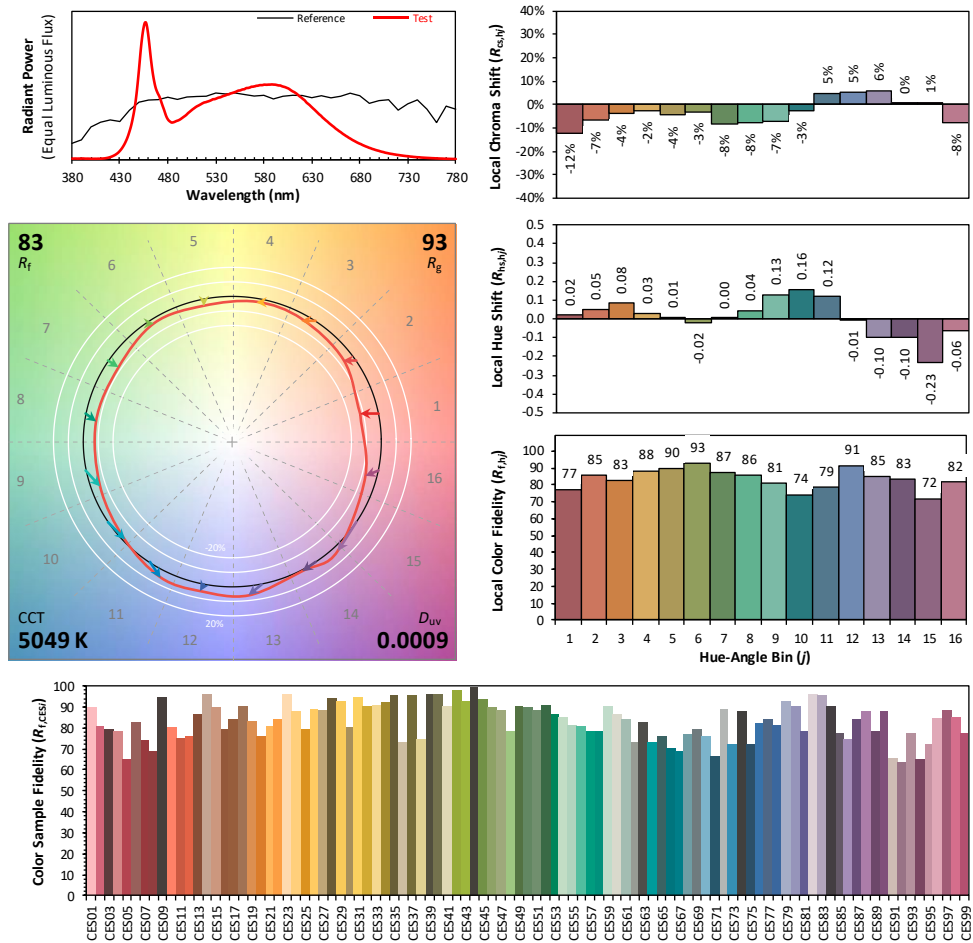
Color Coordinates

Correlated Color Temperat 5050 K
x: 0.3439 u: 0.2103 u': 0.2103
y: 0.3525 v: 0.3233 v': 0.4849
CRI01 83.8 CRI09 13.2
CRI02 93.8 CRI10 83.9
CRI03 94.2 CRI11 79.5
CRI04 80.3 CRI12 63.2
CRI05 83.6 CRI13 87.3
CRI06 88.9 CRI14 97.6
CRI07 84.2 CRI15 78.6
CRI08 66.0 CRI16 73.7
ResultsCRI 84.4



PlanckDistance 9.2E-004

4.1 Integrating Sphere Test



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

x 0.3439
 y 0.3525
 u' 0.2103
 v' 0.4849

CIE 13.3-1995
(CRI)

R_a 85
 R_9 15

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.0

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	ALEDL5T	Sample ID.	E1
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	120.01	60	1.414	169.1	0.997
NON-WORST CASE	277.02	60	0.641	165.6	0.933

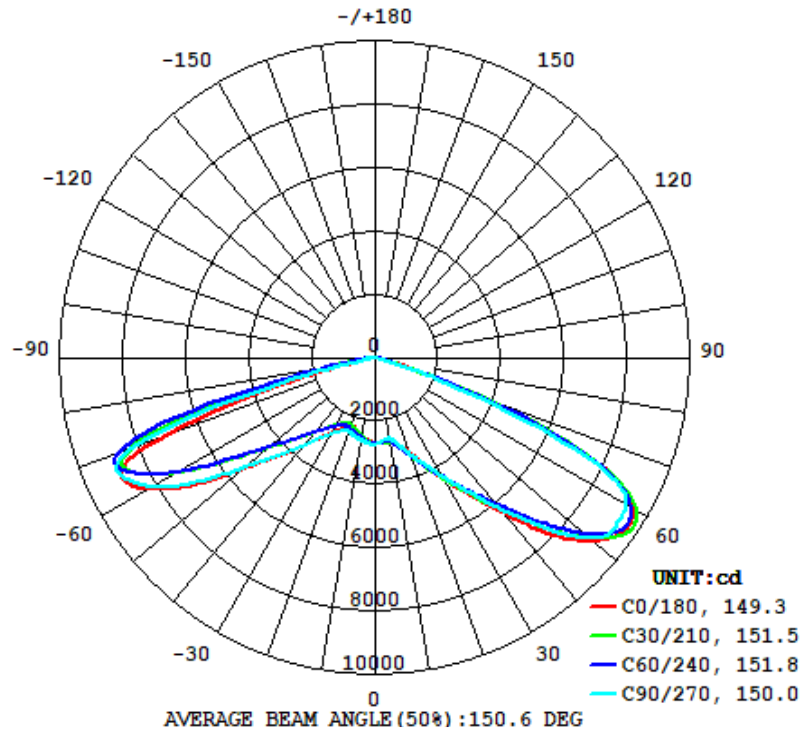
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
27100	155.7	156.2	149.3	150.0	160.2

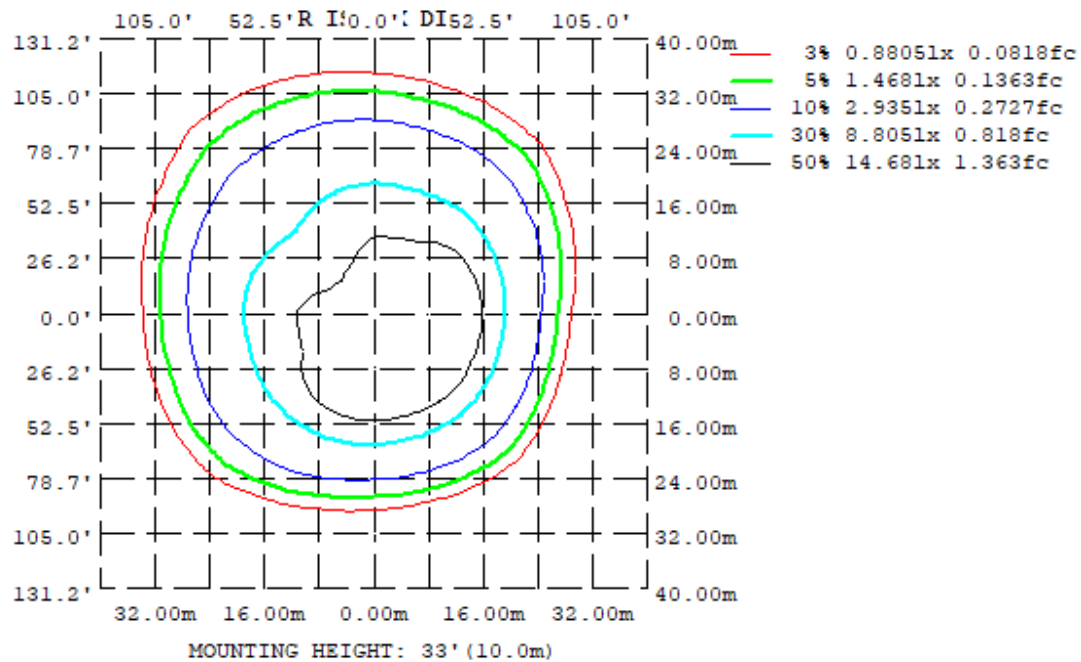
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.45%	B5-U0-G3

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

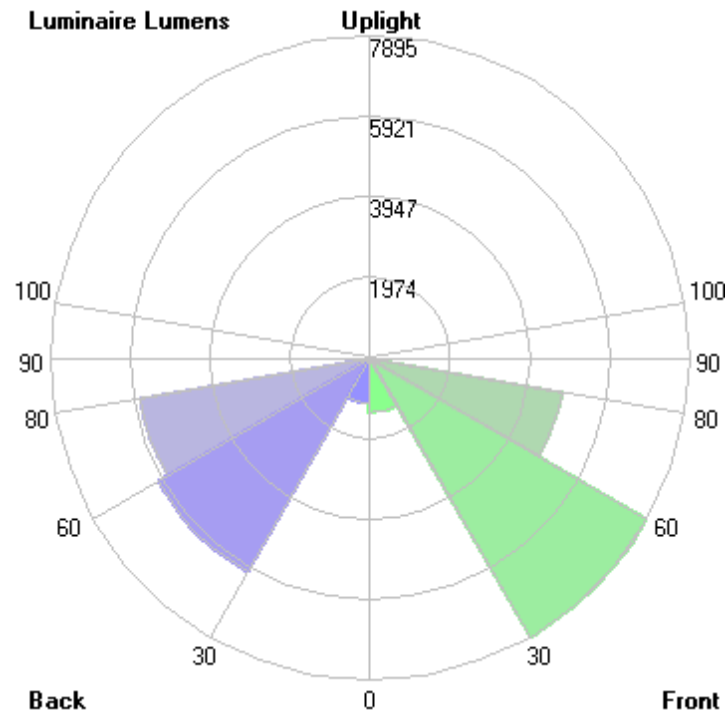
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	269.8	271.6	260.3	251.5	252.7	257.0	265.5	270.8
20	319.0	325.8	321.4	265.2	231.6	233.1	250.2	276.7
30	440.4	434.7	435.8	330.8	271.9	240.6	276.9	330.0
40	640.2	609.8	622.2	442.9	363.4	297.2	362.4	436.1
50	900.9	868.6	886.7	631.3	541.6	409.1	532.9	621.6
60	945.8	987.8	923.0	891.2	831.1	672.1	816.9	907.1
70	305.4	408.2	284.9	679.2	703.4	891.2	801.9	768.3
80	10.64	17.91	10.98	26.07	21.11	87.19	24.70	29.62
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: *10cd							

	Zonal (lm)		Total (lm)	Percent
0-10	254.94	0 - 10	254.94	0.94%
10-20	757.80	0 - 20	1012.74	3.74%
20-30	1430.15	0 - 30	2442.89	9.01%
30-40	2537.66	0 - 40	4980.55	18.38%
40-50	4407.40	0 - 50	9387.95	34.64%
50-60	7003.40	0 - 60	16391.35	60.48%
60-70	7954.42	0 - 70	24345.77	89.84%
70-80	2634.01	0 - 80	26979.78	99.55%
80-90	120.66	0 - 90	27100.44	100.00%
90-100	0.00	0 - 100	27100.44	100.00%
100-110	0.00	0 - 110	27100.44	100.00%
110-120	0.00	0 - 120	27100.44	100.00%
120-130	0.00	0 - 130	27100.44	100.00%
130-140	0.00	0 - 140	27100.44	100.00%
140-150	0.00	0 - 150	27100.44	100.00%
150-160	0.00	0 - 160	27100.44	100.00%
160-170	0.00	0 - 170	27100.44	100.00%
170-180	0.00	0 - 180	27100.44	100.00%

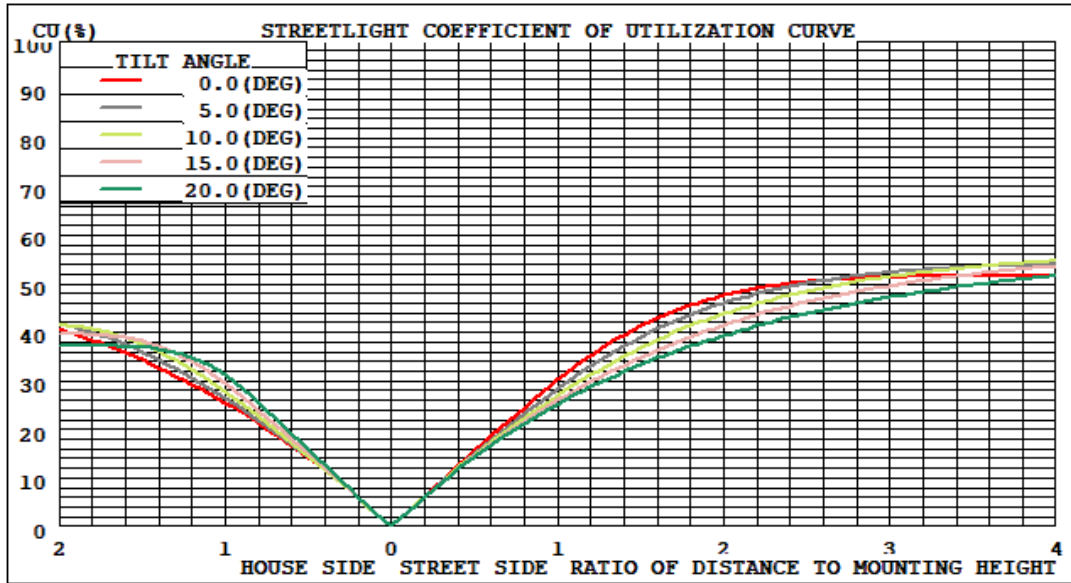
4.2 Goniophotometer Test

LCS/BUG

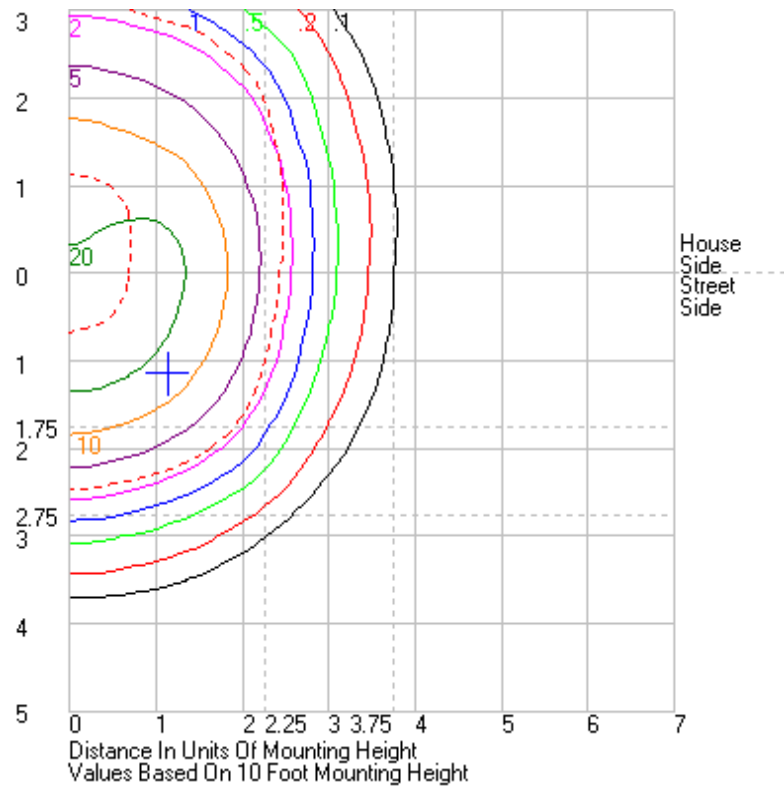


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1330.2	N.A.	4.9
FM - Front-Medium (30-60)	7894.9	N.A.	29.1
FH - Front-High (60-80)	4814.0	N.A.	17.8
FVH - Front-Very High (80-90)	43.9	N.A.	0.2
BL - Back-Low (0-30)	1112.7	N.A.	4.1
BM - Back-Medium (30-60)	6053.6	N.A.	22.3
BH - Back-High (60-80)	5774.4	N.A.	21.3
BVH - Back-Very High (80-90)	76.8	N.A.	0.3
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	27100.5	N.A.	100.0
BUG Rating	B5-U0-G3		

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	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	2723.4	
1	2728.15	2728.23	2729.21	2730.8	2732.76	2734.55	2735.77	2736.61	2738.05	2739.9	2742.71	2746.27	2712.35	2719.11	2726.48	2733.57	2741.3	2748.54	2755.6	2760.79	2764.41	2766.83	2768.43	2768.69	2728.15	
2	2727.78	2725.83	2725.32	2725.61	2725.71	2725.77	2724.7	2724.7	2723.18	2721.99	2723.14	2726.5	2731.42	2699.74	2708.11	2716.89	2726.24	2737.25	2747.4	2757.33	2763.21	2767.05	2769.75	2770.21	2769.76	2727.78
3	2725.98	2722.6	2721.12	2720.7	2717.85	2712.68	2707.28	2702.7	2702.54	2705.92	2709.46	2714.48	2684.41	2694.75	2704.87	2714.06	2727.39	2740.97	2753.36	2760.45	2766.2	2769.04	2770.67	2770.22	2725.98	
4	2727.54	2724.37	2719.89	2713.33	2706.38	2696.38	2686.16	2678.76	2679.2	2683.87	2686.92	2691.85	2664.83	2676.24	2686.45	2698.84	2713.16	2729	2744.34	2752.97	2759.14	2765.65	2771.78	2772.9	2727.54	
5	2725.31	2725.28	2721.65	2704.79	2689.67	2677.13	2660.37	2649.35	2650.1	2654.97	2662.32	2670.51	2645.19	2656.05	2665.3	2678.18	2694.55	2713.32	2730.99	2742.07	2749.47	2761.1	2768.51	2770.22	2725.31	
6	2718.15	2722.26	2721.25	2700.51	2673.98	2653.62	2630.98	2615.99	2614.72	2622.4	2637.91	2654.23	2631.15	2639.35	2643.48	2653.06	2671.6	2695.51	2716.42	2728.6	2737.47	2752.51	2759.91	2760.1	2718.15	
7	2708.69	2715.85	2716.86	2698.02	2661.85	2637.59	2609.84	2588.23	2579.26	2590.56	2616.72	2636.05	2616.1	2622.85	2622.95	2629.13	2650.95	2678.5	2702.76	2717.01	2729.38	2741.3	2746.42	2744.11	2708.69	
8	2698.86	2709.78	2712.96	2699.06	2656.94	2626.42	2595.29	2566.67	2548.65	2560.1	2594.24	2609.67	2590.83	2596.86	2602.83	2607.66	2628.65	2659.66	2687.13	2705.85	2721.28	2728.42	2729.64	2729.09	2698.86	
9	2693.99	2709.01	2715.29	2704.71	2663.41	2629.19	2593.88	2557.49	2526.98	2534.76	2566.86	2579.76	2558.73	2563.6	2575.49	2588.32	2606.36	2641.17	2671.06	2691.92	2713.37	2717.35	2714.83	2719.33	2693.99	
10	2697.91	2717.55	2725.34	2715.7	2678.76	2642.09	2602.89	2556.63	2516.52	2514.75	2537.49	2549.93	2526.95	2527.73	2543.49	2569.61	2588.05	2621.72	2655.02	2679.56	2704.73	2708.09	2705.29	2716.29	2697.91	
11	2712.61	2737.77	2744.78	2736.1	2702.52	2667.8	2626.54	2569.01	2514.93	2498.6	2508.25	2520.95	2495.15	2492.71	2509.65	2548.15	2570.54	2602.2	2639.48	2667.03	2693.56	2700.32	2701.22	2723.34	2712.61	
12	2733.35	2765.07	2774.7	2764.36	2734.66	2701.97	2658.93	2590.56	2521.29	2488.79	2480.48	2491.75	2460.93	2457.28	2479.68	2526.51	2554.28	2584.9	2626.19	2657.5	2681.87	2694.11	2706.27	2736.92	2733.35	
13	2762.01	2798.58	2812.68	2802.09	2779.85	2751.5	2707.58	2629.14	2538.69	2483.34	2455.56	2459.97	2427.68	2420.29	2449.05	2502.88	2536.85	2565.95	2610.71	2647.8	2671.46	2689.4	2717.14	2755.2	2762.01	
14	2798.81	2840.16	2855.74	2844.24	2831.11	2808.47	2764.23	2674.27	2565.34	2484.58	2436.51	2430.59	2396.98	2386.73	2418.97	2477.41	2519.43	2546.21	2594.27	2635.18	2661.53	2688.06	2732.08	2781.41	2798.81	
15	2842.68	2886.56	2909.37	2897.54	2889.84	2866	2822.6	2724.14	2599.31	2495	2427.36	2408.32	2368.34	2355.6	2390.61	2453.91	2501.76	2527.77	2577.4	2623.04	2652.22	2690.76	2751.47	2814.79	2842.68	
16	2896.82	2944.22	2967.84	2957.4	2958.2	2938.53	2896.9	2791.67	2647.18	2514.38	2425.54	2390.71	2342.62	2326.98	2361.28	2428.67	2482.91	2507.25	2558.17	2606.87	2644.82	2697.09	2777.47	2856.42	2896.82	
17	2957.91	3008.45	3034.95	3022.74	3024.65	3006.18	2965.96	2851.08	2692.83	2536.33	2431.53	2381.28	2323.69	2306.09	2336.13	2402.17	2463.46	2488.59	2541.75	2591.99	2639.91	2707.77	2809.31	2904.61	2957.91	
18	3028.49	3081.87	3110.5	3099.46	3103.08	3082.74	3045.71	2923.3	2751.47	2573.04	2446.07	2380.37	2313.29	2292.3	2315.44	2375	2444.11	2470.56	2524.79	2577.1	2639.08	2721.86	2846.35	2962.34	3028.49	
19	3106.47	3161.89	3187.56	3172.82	3181.68	3167.62	3131.95	2999.99	2810.97	2610.09	2465.86	2387.36	2311.39	2283.78	2297.35	2351.35	2422.8	2452.47	2510.85	2564.57	2642.52	2741.56	2890.15	3026.31	3106.47	
20	3189.98	3249.45	3273.15	3257.74	3263.79	3246.24	3213.6	3069.81	2870.32	2652.21	2493.96	2399.88	2315.79	2280.87	2285.72	2330.79	2402.89	2437.61	2502.02	2558.71	2651.41	2767.2	2943.14	3096.53	3189.98	
21	3281.7	3343.27	3361.27	3343.5	3356.34	3344.71	3313.07	3162.03	2943.68	2705.86	2529.73	2416.04	2326.77	2283.28	2279.9	2313.06	2383.89	2426.43	2498.45	2557.63	2665.98	2800.74	2998	3172.4	3281.7	
22	3379.12	3441.48	3457.71	3432.04	3442.35	3433.67	3401.83	3236.39	3007.71	2753.28	2567	2439.05	2345.74	2290.51	2278.42	2300.12	2370.75	2420.08	2501.98	2563.44	2686.53	2839.17	3057.67	3252.45	3379.12	
23	3484.35	3549.5	3561.32	3532.36	3545.94	3531.35	3497.53	3324.92	3085.14	2815.19	2613.05	2471.44	2372.05	2304.56	2280.44	2292.58	2364.58	2419.53	2511.34	2576.87	2712.55	2881.8	3121.48	3338.43	3484.35	
24	3597.11	3661.15	3665.6	3628.35	3648.45	3642.71	3605.56	3420.15	3161.78	2873.23	2657	2508.34	2405.22	2327.13	2286.29	2290.35	2363.26	2425.02	2528.7	2597.6	2743.23	2928.4	3189.18	3428.68	3597.11	
25	3713.01	3782.06	3782.5	3739.63	3750.72	3741.76	3704.29	3502.03	3235.26	2933.15	2707.57	2550.95	2444.69	2356.13	2297.76	2293.3	2366.66	2438.4	2552.14	2624.5	2778.67	2979.74	3263.09	3523.74	3713.01	
26	3836.1	3908.99	3900.22	3853.16	3874.73	3867.2	3829.28	3615.91	3329.08	3006.46	2763.42	2598.17	2491.66	2391.01	2317.59	2302.6	2376.89	2459.86	2584.41	2657.01	2819.49	3033.96	3340.21	3625.23	3836.1	
27	3969.31	4041.92	4026.57	3969.65	3982.52	3989.01	3953.12	3720.17	3410.47	3070.12	2817.89	2649.59	2543.58	2429.91	2345.39	2318.24	2395.68	2487.6	2621.63	2696.82	2864.74	3092.52	3422.65	3732.89	3969.31	
28	4107.88	4180.02	4155.54	4094.85	4105.61	4109.72	4075.9	3832.66	3509.5	3149.86	2880.11	2705.52	2599.47	2474.81	2377.71	2342.23	2420.86	2520.85	2665.31	2741.15	2913.21	3155.77	3510.85	3850.31	4107.88	
29	4251.64	4320.48	4281.47	4216.94	4229.52	4253.51	4225.42	3971.98	3613.21	3228.55	2940.84	2762.65	2657.9	2523.92	2414.18	2371.48	2453.43	2560.98	2715.58	2791.28	2966.57	3225.06	3604.69	3975.17	4251.64	
30	4404.05	4475.47	4421.68	4346.71	4350.67	4380.7	4357.74	4089.71	3710.86	3308.02	3008.84	2824.32	2718.94	2578.08	2454.85	2405.94	2490.72	2606.65	2769.39	2846.01	3025.1	3299.85	3704.1	4107.83	4404.05	
31	4567.47	4634.01	4565.33	4486.91	4495.93	4533.17	4516.46	4246.27	3833.85	3401.74	3081.73	2888.09	2783.81	2634.95	2498.3	2442.45	2529.72	2657.04	2829.04	2905.55	3087.18	3379.83	3811.28	4248.11	4567.47	
32	4737.1	4802.47	4718.95	4627.85	4633.49	4691.67	4680.21	4394.02	3949.59	3487.52	3152.82	2956.76	2854.32	2695.49	2546.87	2484.24	2576.91	2714.63	2893.71	2972.53	3153.68	3464.97	3927.97	4397.88	4737.1	
33	4913.77	4976.62	4881.71	4785.81	4780.32	4842.96	4830.35	4539.24	4076.32	3589.59	3234.62	3028.83	2926.89	2759.97	2599.02	2531.39	2626.11	2775.9	2959.72	3040.53	3226.18	3556.42	4048.73	4551.06	4913.77	
34	5093.69	5154.39	5045.46	4943.68	4943.5	5026.6	5015.75	4717.5	4221.17	3694.67	3315.13	3107.9	3003.83	2827.87	2654.18	2580.53	2679.97	2839.88	3032.16	3114.39	3302.89	3652.08	4179.18	4709.76	5093.69	
35	5278.9	5342.07	5218.33	5104.84	5093.12	5188.18	5178.07	4865.13	4439.97	3798.85	3401.9	3191.78	3088.86	2902.59	2713.32	2635.79	2738.19	2907.41	3108.59	3196.4	3385.82	3756.28	4314.94	4873.72	5278.9	
36	5471.85	5538.18	5406.13	5288.12	5274.63	5372.59	5358.16	5038.5	4504.93	3923.5	3496.24	3281.88	3179.14	2981.81	2778.2	2693.34	2798.48	2981.03	3195.99	3283	3473.94	3866.12	4453.16	5039.72	5471.85	
37	5678.64	5754.36	5597.52	5469.58	5454.05	5573.15	5561.53	5220.95	4652.51	4039.21	3591.29	3380.33	3279.68	3066.39	2847.66	2756.17	2865.89	3062.01	3289.7	3380.63	3566.88	3981.36	4598.05	5212.06	5678.64	
38	5895.89	5970.02	5803.85	5668.93	5637.04	5758.79	5748.82	5387.73	4798.98	4164.93	3695.7	3482.55	3388.4	3150.95	2921.64	2823.23	2									

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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.	ALEDL5T	Sample ID.	E1
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
120.08	60	1.416	169.6	0.997	4.68%
277.04	60	0.641	165.4	0.931	13.00%

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*****