

Photometric Test Report

Relevant Standards

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

Prepared For

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2023/1/16

Prepared By



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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		10046
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	133.8
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		75.1
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%		21.85%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9		0.862
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	3045±175	2931
		4 step	3045±100	
Minimum CRI (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥70		82
Minimum R9 (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥-40		4
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		98
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%		0.20%
Input Voltage (V)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		480
Input Current (A)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		0.182
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		75.1

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2023/1/13	ALEDM2TY/480	Y1
2	Goniophotometer Test	2023/1/13	ALEDM2TY/480	Y1
3	THD and PF Test	2023/1/13	ALEDM2TY/480	Y1

Remark(If any)

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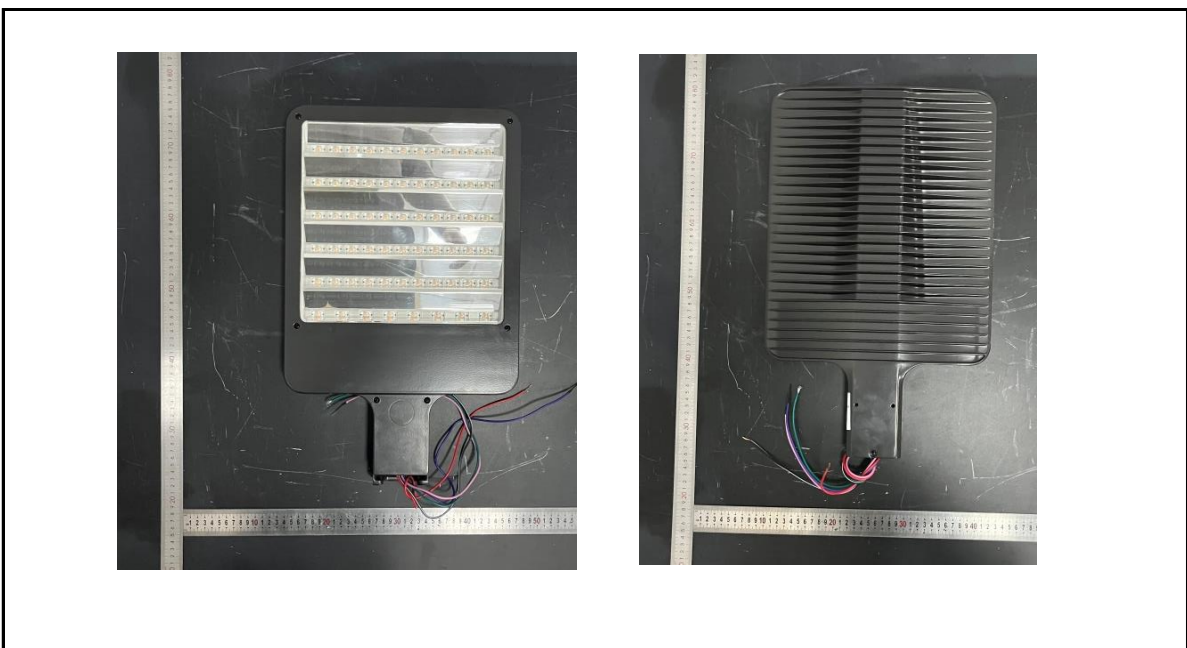
3.0 Production Description

Luminaire Description: ALEDM2TY/480

Description: 78W @ 3000K

Electrical Specification: 480V,50/60HZ

Photos of Luminaire Characteristics



4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	ALEDM2TY/480	Sample ID.	Y1
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
480.00	60	0.182	75.1	0.862

Test Result

CCT (K)	CRI	R9	Duv
2931	82	4	0.0022

Rf	Rg	IES Rcs,h1
83	98	-12%

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	ALEDM2TY/480	Sample ID.	Y1
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	480.00	60	0.182	75.1	0.862

Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
10046	91.9	157.5	63.3	143.6	133.8

Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.20%	B3-U0-G1

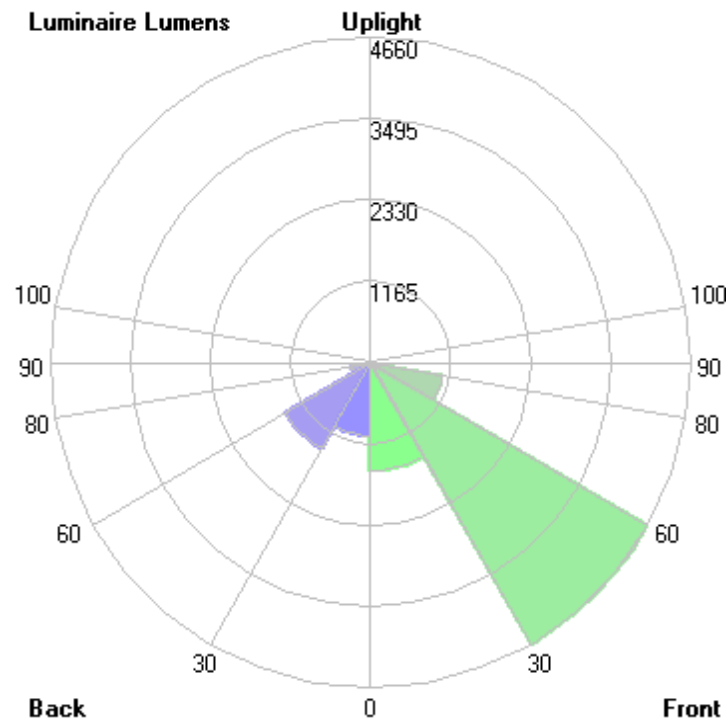
4.2 Goniophotometer Test

Zonal Lumen Summary

	Zonal (lm)		Total (lm)	Percent
0-10	282.07	0 - 10	282.07	2.81%
10-20	874.18	0 - 20	1156.25	11.51%
20-30	1440.01	0 - 30	2596.26	25.84%
30-40	2022.91	0 - 40	4619.17	45.98%
40-50	2252.9	0 - 50	6872.07	68.41%
50-60	1819.64	0 - 60	8691.71	86.52%
60-70	1053.95	0 - 70	9745.66	97.01%
70-80	280.41	0 - 80	10026.07	99.80%
80-90	19.68	0 - 90	10045.75	100.00%
90-100	0.00	0 - 100	10045.75	100.00%
100-110	0.00	0 - 110	10045.75	100.00%
110-120	0.00	0 - 120	10045.75	100.00%
120-130	0.00	0 - 130	10045.75	100.00%
130-140	0.00	0 - 140	10045.75	100.00%
140-150	0.00	0 - 150	10045.75	100.00%
150-160	0.00	0 - 160	10045.75	100.00%
160-170	0.00	0 - 170	10045.75	100.00%
170-180	0.00	0 - 180	10045.75	100.00%

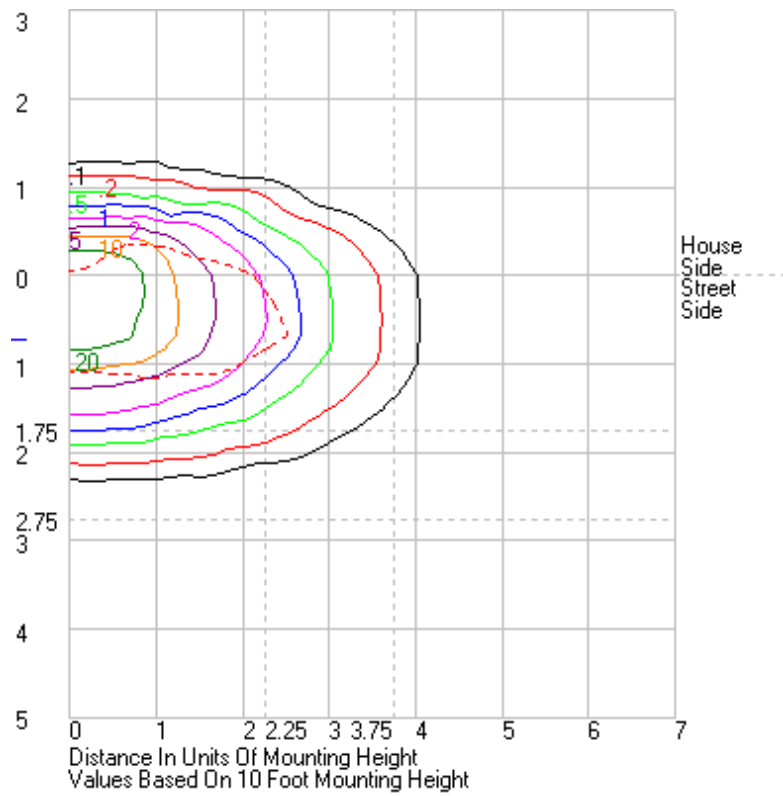
4.2 Goniophotometer Test

LCS/BUG



	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1546.0	N.A.	15.4
FM - Front-Medium (30-60)	4660.4	N.A.	46.4
FH - Front-High (60-80)	1061.4	N.A.	10.6
FVH - Front-Very High (80-90)	15.4	N.A.	0.2
BL - Back-Low (0-30)	1050.3	N.A.	10.5
BM - Back-Medium (30-60)	1435.1	N.A.	14.3
BH - Back-High (60-80)	273.0	N.A.	2.7
BVH - Back-Very High (80-90)	4.3	N.A.	0.0
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	10045.9	N.A.	100.0
BUG Rating	B3-U0-G1		

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	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55	3022.55
1	3047.98	3041.9	3040.71	3037.99	3034.31	3029.25	3021.05	3011.92	3002.06	2992.57	2983.97	2977.45	2978.51	2977.45	2983.97	2992.57	3002.06	3011.92	3021.05	3029.25	3034.31	3037.99	3040.71	3041.9	3047.98
2	3058.53	3051.85	3051.11	3049.24	3046.13	3039.29	3025.61	3007.01	2982.92	2958.82	2938.16	2922.05	2917.82	2922.05	2938.16	2958.82	2982.92	3007.01	3025.61	3039.29	3046.13	3049.24	3051.11	3051.85	3058.53
3	3054.3	3048.25	3052.45	3057.68	3056.94	3050.16	3031.92	3000.78	2959.09	2915.32	2881.53	2859.59	2852.38	2859.59	2881.53	2915.32	2959.09	3000.78	3031.92	3050.16	3056.94	3057.68	3052.45	3048.25	3054.3
4	3049.85	3044.71	3048.13	3057.82	3067.47	3062.28	3041.19	2996.81	2933.9	2876.11	2827.58	2792.13	2781.5	2792.13	2827.58	2876.11	2933.9	2996.81	3041.19	3062.28	3067.47	3057.82	3048.13	3044.71	3049.85
5	3058.86	3053.71	3053.54	3058.65	3075.57	3078.1	3053.99	2994.3	2912.88	2834.38	2768.53	2726.58	2710.81	2726.58	2768.53	2834.38	2912.88	2994.3	3053.99	3078.1	3075.57	3058.65	3053.54	3053.71	3058.86
6	3074.09	3069.42	3067.98	3068.88	3082.04	3094.77	3068.64	2991.93	2890.64	2788.46	2707.91	2658.84	2643.76	2658.84	2707.91	2788.46	2890.64	2991.93	3068.64	3094.77	3082.04	3068.88	3067.98	3069.42	3074.09
7	3101.01	3094.69	3087.04	3086.2	3093.51	3113.42	3085.97	2993.25	2869.12	2749.23	2658.43	2601.63	2587.59	2601.63	2658.43	2749.23	2869.12	2993.25	3085.97	3113.42	3093.51	3086.2	3087.04	3094.69	3101.01
8	3147.39	3138.29	3119.65	3107.63	3109.55	3133.03	3107.42	2994.8	2846.27	2707.25	2606.31	2559.36	2545.99	2559.36	2606.31	2707.25	2846.27	2994.8	3107.42	3133.03	3109.55	3107.63	3119.65	3138.29	3147.39
9	3194.8	3184.4	3163.78	3134.84	3131.04	3154.93	3129.69	2999.9	2826.56	2670.64	2575.01	2521.28	2510.28	2521.28	2575.01	2670.64	2826.56	2999.9	3129.69	3154.93	3131.04	3134.84	3163.78	3184.4	3194.8
10	3262.05	3246.92	3208.63	3171.46	3157.2	3176.81	3155.24	3005.11	2808.9	2641.31	2543.36	2495.59	2484.73	2495.59	2543.36	2641.31	2808.9	3005.11	3155.24	3176.81	3157.2	3171.46	3208.63	3246.92	3262.05
11	3349.64	3328.17	3271.71	3217.58	3185.79	3200.29	3181.3	3011.84	2789.26	2618.84	2520.75	2478	2472.37	2478	2520.75	2618.84	2789.26	3011.84	3181.3	3200.29	3185.79	3217.58	3271.71	3328.17	3349.64
12	3435.51	3416.02	3340.97	3263.95	3218.83	3226.95	3210.75	3021.01	2775.86	2600.36	2507.29	2468.98	2459.41	2468.98	2507.29	2600.36	2775.86	3021.01	3210.75	3226.95	3218.83	3263.95	3340.97	3416.02	3435.51
13	3525.02	3502.45	3426.71	3321.28	3255.67	3256.6	3243.76	3029.91	2763.49	2587.05	2501.04	2454.44	2443.08	2454.44	2501.04	2587.05	2763.49	3029.91	3243.76	3256.6	3255.67	3321.28	3426.71	3502.45	3525.02
14	3603.37	3584.78	3510.7	3387.03	3297.72	3289.66	3278.21	3043.5	2755.4	2578.75	2491.96	2438.86	2423.09	2438.86	2491.96	2578.75	2755.4	3043.5	3278.21	3289.66	3297.72	3387.03	3510.7	3584.78	3603.37
15	3661.14	3649.14	3587.01	3459.21	3344.99	3324.13	3313.89	3057.02	2755.07	2578.94	2482.06	2416.33	2392.22	2416.33	2482.06	2578.94	2755.07	3057.02	3313.89	3324.13	3344.99	3459.21	3587.01	3649.14	3661.14
16	3719.59	3707.68	3663.46	3540.84	3397.86	3362.2	3350.94	3070.38	2755.14	2581.87	2467.28	2380.51	2347.68	2380.51	2467.28	2581.87	2755.14	3070.38	3350.94	3362.2	3397.86	3540.84	3663.46	3707.68	3719.59
17	3731.27	3742.56	3722.65	3616.81	3453.51	3401.24	3390.03	3085.97	2759.65	2584.98	2447.21	2333.88	2282.31	2333.88	2447.21	2584.98	2759.65	3085.97	3390.03	3401.24	3453.51	3616.81	3722.65	3742.56	3731.27
18	3739.37	3744.04	3773.89	3694.59	3513.93	3444.17	3431.39	3102.32	2767.46	2586.5	2416.95	2259.45	2193.15	2259.45	2416.95	2586.5	2767.46	3102.32	3431.39	3444.17	3513.93	3694.59	3773.89	3744.04	3739.37
19	3709.25	3741.04	3802.34	3769.07	3579.02	3489.23	3474.14	3120.7	2778.85	2586.96	2370.27	2165.92	2076.86	2165.92	2370.27	2586.96	2778.85	3120.7	3474.14	3489.23	3579.02	3769.07	3802.34	3741.04	3709.25
20	3683.35	3712.41	3814.74	3831.88	3651.22	3539.2	3519.97	3141.99	2798.61	2584.54	2311.12	2051.44	1944.35	2051.44	2311.12	2584.54	2798.61	3141.99	3519.97	3539.2	3651.22	3831.88	3814.74	3712.41	3683.35
21	3634.93	3679.47	3813.62	3895.44	3728.17	3591.51	3569.01	3162.65	2817.33	2574.95	2223.6	1908.19	1782.07	1908.19	2223.6	2574.95	2817.33	3162.65	3569.01	3591.51	3728.17	3895.44	3813.62	3679.47	3634.93
22	3604.06	3646.68	3798.18	3942.26	3803.4	3647.24	3620.27	3188.53	2841.15	2559.99	2125.81	1757.87	1620.08	1757.87	2125.81	2559.99	2841.15	3188.53	3620.27	3647.24	3803.4	3942.26	3798.18	3646.68	3604.06
23	3606.51	3624.95	3777.24	3979.01	3889.38	3707.47	3676.1	3219.22	2868.56	2532.33	2006.86	1590.61	1442.26	1590.61	2006.86	2532.33	2868.56	3219.22	3676.1	3707.47	3889.38	3979.01	3777.24	3624.95	3606.51
24	3638.88	3634.33	3754.74	4007.2	3969.5	3769.75	3732.28	3254.72	2895.36	2491.31	1867.38	1415.02	1264.85	1415.02	1867.38	2491.31	2895.36	3254.72	3732.28	3769.75	3969.5	4007.2	3754.74	3634.33	3638.88
25	3709.58	3682.19	3746.43	4020.79	4045.64	3835.2	3791.7	3291.82	2924.33	2440.32	1737.14	1254.53	1099.82	1254.53	1737.14	2440.32	2924.33	3291.82	3791.7	3835.2	4045.64	4020.79	3746.43	3682.19	3709.58
26	3806.44	3763.17	3750.62	4038.49	4126.36	3902.8	3854.75	3330.03	2950.68	2367.84	1572.26	1082.1	929.952	1082.1	1572.26	2367.84	2950.68	3330.03	3854.75	3902.8	4126.36	4038.49	3750.62	3763.17	3806.44
27	3919.72	3866.2	3790.64	4035.88	4200.36	3974.71	3917.83	3371.34	2975.21	2285.99	1421.15	924.98	796.432	924.98	1421.15	2285.99	2975.21	3371.34	3917.83	3974.71	4200.36	4035.88	3790.64	3866.2	3919.72
28	4043.16	3978.5	3862.83	4047.31	4274.68	4052.51	3984.18	3415.51	2994.87	2192.55	1270.73	788.556	662.917	788.556	1270.73	2192.55	2994.87	3415.51	3984.18	4052.51	4274.68	4047.31	3862.83	3978.5	4043.16
29	4191.26	4114.57	3960.93	4051.5	4338.55	4133.06	4050.51	3464.08	3008.29	2081.82	1109.55	655.205	544.297	655.205	1109.55	2081.82	3008.29	3464.08	4050.51	4133.06	4338.55	4051.5	3960.93	4114.57	4191.26
30	4325.15	4249.7	4070.62	4075.66	4396.35	4215.73	4119.36	3513.75	3017.45	1970.03	969.645	549.734	464.73	549.734	969.645	1970.03	3017.45	3513.75	4119.36	4215.73	4396.35	4075.66	4070.62	4249.7	4325.15
31	4464.06	4385.47	4198.58	4101.9	4461.84	4298.35	4185.01	3561.75	3016.68	1844.85	833.33	467.043	400.297	467.043	833.33	1844.85	3016.68	3561.75	4185.01	4298.35	4461.84	4101.9	4198.58	4385.47	4464.06
32	4593.41	4522.15	4332.81	4166.53	4508.22	4378.61	4247.77	3609.95	3007.11	1713.63	712.281	404.853	358.733	404.853	712.281	1713.63	3007.11	3609.95	4247.77	4378.61	4508.22	4166.53	4332.81	4522.15	4593.41
33	4703.36	4641.8	4468.46	4239.9	4546.78	4460.18	4308.22	3656	2987.11	1581.14	605.218	363.7	328.026	363.7	605.218	1581.14	2987.11	3656	4308.22	4460.18	4546.78	4239.9	4468.46	4641.8	4703.36
34	4799.32	4752.28	4607.41	4345.54	4589.57	4536.89	4360.03	3697.87	2950.52	1435.96	515.866	332.375	301.192	332.375	515.866	1435.96	2950.52	3697.87	4360.03	4536.89	4589.57	4345.54	4607.41	4752.28	4799.32
35	4831.86	4832.4	4737.96	4460.22	4627.29	4609.4	4406.87	3737.02	2906.55	1294.32	450.645	304.545	279.461	304.545	450.645	1294.32	2906.55	3737.02	4406.87	4609.4	4627.29	4460.22	4737.96	4832.4	4831.86
36	4821.47	4861.1	4862.28	4592.74	4653	4676.4	4448.18	3768.88	2846.92	1146.38	400.707	280.167	257.151	280.167	400.707	1146.38	2846.92	3768.88	4448.18	4676.4	4653	4592.74	4862.28	4861.1	4821.47
37	4762.26	4840.86	4974.12	4727.24	4681.89	4736.51	4479.76	3793.75	2770.59	996.567	362.6	257.052	234.074	257.052	362.6	996.567	2770.59	3793.75	4479.76	4736.51	4681.89	4727.24	4974.12	4840.86	4762.26
38	4676.79	4787.14	5052.44	4869.23	4719.57	4788.04	4501.32	3809.91	2682.54	868.101	332.183	235.95	213.185	235.95											

51	2144.06	2294.01	3097.41	5193.75	5404.55	4330.28	3751.84	2819.39	626.32	196.186	95.752	54.811	43.385	54.811	95.752	196.186	626.32	2819.39	3751.84	4330.28	5404.55	5193.75	3097.41	2294.01	2144.06
52	2013.46	2147.46	2828.8	4910.53	5407.25	4246.1	3698.98	2679.96	537.591	177.113	86.661	45.819	36.565	45.819	86.661	177.113	537.591	2679.96	3698.98	4246.1	5407.25	4910.53	2828.8	2147.46	2013.46
53	1886.66	2018.82	2601.69	4589.65	5376.81	4183.3	3667.08	2550.24	471.89	159.878	75.159	39.223	33.677	39.223	75.159	159.878	471.89	2550.24	3667.08	4183.3	5376.81	4589.65	2601.69	2018.82	1886.66
54	1760.53	1888.95	2396.83	4228.26	5289.9	4152.51	3641.62	2424.41	416.58	144.476	64.372	36.548	31.467	36.548	64.372	144.476	416.58	2424.41	3641.62	4152.51	5289.9	4228.26	2396.83	1888.95	1760.53
55	1629.9	1754.03	2217.85	3857.04	5150.98	4133.07	3617.28	2304.47	370.92	132.065	54.461	34.535	31.002	34.535	54.461	132.065	370.92	2304.47	3617.28	4133.07	5150.98	3857.04	2217.85	1754.03	1629.9
56	1494.3	1624.69	2066.93	3486.84	4976.13	4124.25	3594.56	2189.24	331.538	122.471	47.318	33.529	29.793	33.529	47.318	122.471	331.538	2189.24	3594.56	4124.25	4976.13	3486.84	2066.93	1624.69	1494.3
57	1335.77	1474.38	1922.42	3112.13	4778.71	4109.3	3567.78	2070.36	295.34	112.084	43.473	32.594	29.345	32.594	43.473	112.084	295.34	2070.36	3567.78	4109.3	4778.71	3112.13	1922.42	1474.38	1335.77
58	1176.84	1314.98	1779.28	2797.22	4568.1	4104.08	3542.87	1944.79	264.332	97.732	41.039	31.653	28.327	31.653	41.039	97.732	264.332	1944.79	3542.87	4104.08	4568.1	2797.22	1779.28	1314.98	1176.84
59	1010.67	1153.82	1629.67	2501.19	4346.92	4112.53	3503.01	1806.82	236.032	83.068	38.9	30.537	27.48	30.537	38.9	83.068	236.032	1806.82	3503.01	4112.53	4346.92	2501.19	1629.67	1153.82	1010.67
60	831.613	982.362	1464.97	2230.28	4129.17	4106.86	3445.5	1664.75	209.958	70.023	37.686	29.804	26.648	29.804	37.686	70.023	209.958	1664.75	3445.5	4106.86	4129.17	2230.28	1464.97	982.362	831.613
61	655.172	812.83	1298.24	1994.66	3910.62	4076.3	3360.96	1505.64	187.549	59.718	36.745	29.213	25.8	29.213	36.745	59.718	187.549	1505.64	3360.96	4076.3	3910.62	1994.66	1298.24	812.83	655.172
62	509.176	637.637	1120.66	1777.63	3678.41	4033.46	3257.9	1342.77	168.925	53.805	35.744	27.802	25.303	27.802	35.744	53.805	168.925	1342.77	3257.9	4033.46	3678.41	1777.63	1120.66	637.637	509.176
63	380.256	489.989	940.399	1595.01	3430.87	3961.94	3133.67	1184.56	153.774	50.578	34.678	27.119	24.761	27.119	34.678	50.578	153.774	1184.56	3133.67	3961.94	3430.87	1595.01	940.399	489.989	380.256
64	307.045	375.716	758.708	1412.9	3145.75	3863.06	2993.38	1026.93	140.745	47.821	33.359	26.741	23.076	26.741	33.359	47.821	140.745	1026.93	2993.38	3863.06	3145.75	1412.9	758.708	375.716	307.045
65	234.298	294.071	583.23	1235.31	2862.67	3735.7	2823.99	882.82	126.519	45.163	32.249	24.663	21.567	24.663	32.249	45.163	126.519	882.82	2823.99	3735.7	2862.67	1235.31	583.23	294.071	234.298
66	175.149	225.7	450.448	1069.94	2567.48	3571.75	2647.62	750.148	110.525	43.347	31.719	22.694	19.215	22.694	31.719	43.347	110.525	750.148	2647.62	3571.75	2567.48	1069.94	450.448	225.7	175.149
67	139.241	168.252	340.437	897.566	2249.31	3365.65	2464.92	639.163	96.332	41.952	29.487	20.254	16.6	20.254	29.487	41.952	96.332	639.163	2464.92	3365.65	2249.31	897.566	340.437	168.252	139.241
68	107.052	130.725	262.719	737.956	1950.52	3121.6	2272.72	537.558	84.085	40.317	27.616	17.322	13.302	17.322	27.616	40.317	84.085	537.558	2272.72	3121.6	1950.52	737.956	262.719	130.725	107.052
69	76.778	100.171	203.329	588.01	1652.04	2843.97	2076.58	446.576	74.819	38.206	24.088	14.254	10.901	14.254	24.088	38.206	74.819	446.576	2076.58	2843.97	1652.04	588.01	203.329	100.171	76.778
70	54.44	71.051	151.274	457.307	1376.66	2528.31	1874.86	374.212	67.244	35.947	20.374	11.36	9.129	11.36	20.374	35.947	67.244	374.212	1874.86	2528.31	1376.66	457.307	151.274	71.051	54.44
71	40.191	54.401	114.721	353.34	1147.98	2189.17	1676.29	314.112	63.01	33.102	16.693	9.528	7.69	9.528	16.693	33.102	63.01	314.112	1676.29	2189.17	1147.98	353.34	114.721	54.401	40.191
72	34.043	43.429	82.936	260.175	920.965	1860.1	1473.87	260.471	59.433	29.646	13.641	8.112	6.263	8.112	13.641	29.646	59.433	260.471	1473.87	1860.1	920.965	260.175	82.936	43.429	34.043
73	31.358	37.675	64.722	199.003	742.359	1576.15	1273.62	217.758	56.075	24.466	11.043	6.957	5.382	6.957	11.043	24.466	56.075	217.758	1273.62	1576.15	742.359	199.003	64.722	37.675	31.358
74	28.672	35.422	54.1	147.21	592.069	1312.54	1064.38	182.725	52.913	19.445	9.391	5.973	4.72	5.973	9.391	19.445	52.913	182.725	1064.38	1312.54	592.069	147.21	54.1	35.422	28.672
75	27.228	33.6	47.821	101.621	474.723	1073.94	881.496	149.36	48.707	15.107	8.112	5.207	4.157	5.207	8.112	15.107	48.707	149.36	881.496	1073.94	474.723	101.621	47.821	33.6	27.228
76	25.609	31.358	44.239	76.285	376.34	846.561	710.066	119.977	42.8	12.017	7.023	4.605	3.687	4.605	7.023	12.017	42.8	119.977	710.066	846.561	376.34	76.285	44.239	31.358	25.609
77	23.252	28.688	41.061	61.545	286.517	679.649	539.735	98.891	34.891	9.818	6.115	4.064	3.298	4.064	6.115	9.818	34.891	98.891	539.735	679.649	286.517	61.545	41.061	28.688	23.252
78	19.953	25.259	37.112	53.067	208.367	559.661	396.075	79.797	25.871	8.33	5.333	3.419	2.888	3.419	5.333	8.33	25.871	79.797	396.075	559.661	208.367	53.067	37.112	25.259	19.953
79	16.841	21.447	32.484	47.455	140.368	435.483	272.023	63.289	17.891	7.061	4.649	2.997	2.511	2.997	4.649	7.061	17.891	63.289	272.023	435.483	140.368	47.455	32.484	21.447	16.841
80	14.155	18.061	27.518	41.772	86.169	313.384	195.972	50.474	12.465	5.918	3.971	2.642	2.128	2.642	3.971	5.918	12.465	50.474	195.972	313.384	86.169	41.772	27.518	18.061	14.155
81	12.099	15.271	23.12	35.761	62.119	228.993	133.082	39.283	9.588	4.945	3.309	2.232	1.778	2.232	3.309	4.945	9.588	39.283	133.082	228.993	62.119	35.761	23.12	15.271	12.099
82	10.649	13.215	19.335	29.646	49.643	153.101	90.846	28.36	7.581	4.048	2.74	1.882	1.526	1.882	2.74	4.048	7.581	28.36	90.846	153.101	49.643	29.646	19.335	13.215	10.649
83	9.309	11.311	16.3	25.029	41.427	86.142	57.196	20.09	5.776	3.233	2.177	1.548	1.258	1.548	2.177	3.233	5.776	20.09	57.196	86.142	41.427	25.029	16.3	11.311	9.309
84	8.226	9.67	13.581	20.484	33.617	51.568	37.708	13.133	4.414	2.5	1.679	1.176	0.968	1.176	1.679	2.5	4.414	13.133	37.708	51.568	33.617	20.484	13.581	9.67	8.226
85	7.346	8.188	11.043	16.201	25.806	34.568	25.024	9.194	3.26	1.821	1.187	0.837	0.689	0.837	1.187	1.821	3.26	9.194	25.024	34.568	25.806	16.201	11.043	8.188	7.346
86	5.995	6.558	8.429	12.17	19.023	24.149	17.421	5.94	2.314	1.22	0.738	0.503	0.399	0.503	0.738	1.22	2.314	5.94	17.421	24.149	19.023	12.17	8.429	6.558	5.995
87	4.157	4.43	5.595	7.893	12.247	14.932	9.851	3.55	1.482	0.711	0.372	0.175	0.066	0.175	0.372	0.711	1.482	3.55	9.851	14.932	12.247	7.893	5.595	4.43	4.157
88	2.56	2.341	2.751	3.916	5.929	6.75	4.343	1.964	0.777	0.372	0.142	0.082	0.055	0.082	0.142	0.372	0.777	1.964	4.343	6.75	5.929	3.916	2.751	2.341	2.56
89	0.963	0.777	1.171	1.81	2.204	2.516	1.603	1.176	0.427	0.219	0.115	0.093	0.06	0.093	0.115	0.219	0.427	1.176	1.603	2.516	2.204	1.81	1.171	0.777	0.963
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0																				

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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.	ALEDM2TY/480	Sample ID.	Y1
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
480.00	60	0.182	75.1	0.862	21.85%

5.0 Equipment Information

Test Equipment			
Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
DLF107	Integrating Sphere System	2022/12/26	2023/12/25
DLF108	Auxiliary Lamp	2022/12/26	2023/12/25
DLF122	Measurement Standard Lamp Standard Lamp Type: 220 V, 0.4720 A, Tungsten, Omni-derectional	2022/12/26	2023/12/25
DLF116	AC Power Source	2022/12/26	2023/12/25
DLF113	Power Meter	2022/12/26	2023/12/25
DLF112	Temperature Recorder	2022/12/26	2023/12/25
DLF114	Temperature & Humidity Datalogger	2022/12/26	2023/12/25
DLF101	Goniophotometer	2022/12/26	2023/12/25
DLF125	Standard Lamp Standard Lamp Type: 76.58 V, 6.7875 A, Tungsten, Omni-derectional	2022/12/26	2023/12/25
DLF104	AC Power Source	2022/12/26	2023/12/25
DLF507	DC Power Source	2022/12/26	2023/12/25
DLF102	Power Meter	2022/12/26	2023/12/25
DLF111	Temperature & Humidity Datalogger	2022/12/26	2023/12/25
DLF119	Power Meter	2022/12/26	2023/12/25
DLF031	Temperature data logger	2022/12/26	2023/12/25
DLF022	Digital power meter	2022/12/26	2023/12/25
DLF003	Temperature & Humidity Datalogger	2022/12/26	2023/12/25

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