

Photometric Test Report

Relevant Standards

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

Prepared For

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Project Number

DLF2301106

Report Number

DLF2301106-31a

Test Date

2023/1/13

Issue Date

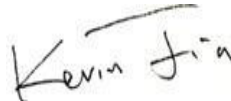
2023/1/16

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		20749
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	142.2
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		145.9
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%		6.73%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9		0.958
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	3045±175	2941
		4 step	3045±100	
Minimum CRI (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥70		81
Minimum R9 (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥-40		2
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		97
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%		0.31%
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		0.317
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		145.9

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2023/1/13	ALEDM5TY/480	AE1
2	Goniophotometer Test	2023/1/13	ALEDM5TY/480	AE1
3	THD and PF Test	2023/1/13	ALEDM5TY/480	AE1

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.

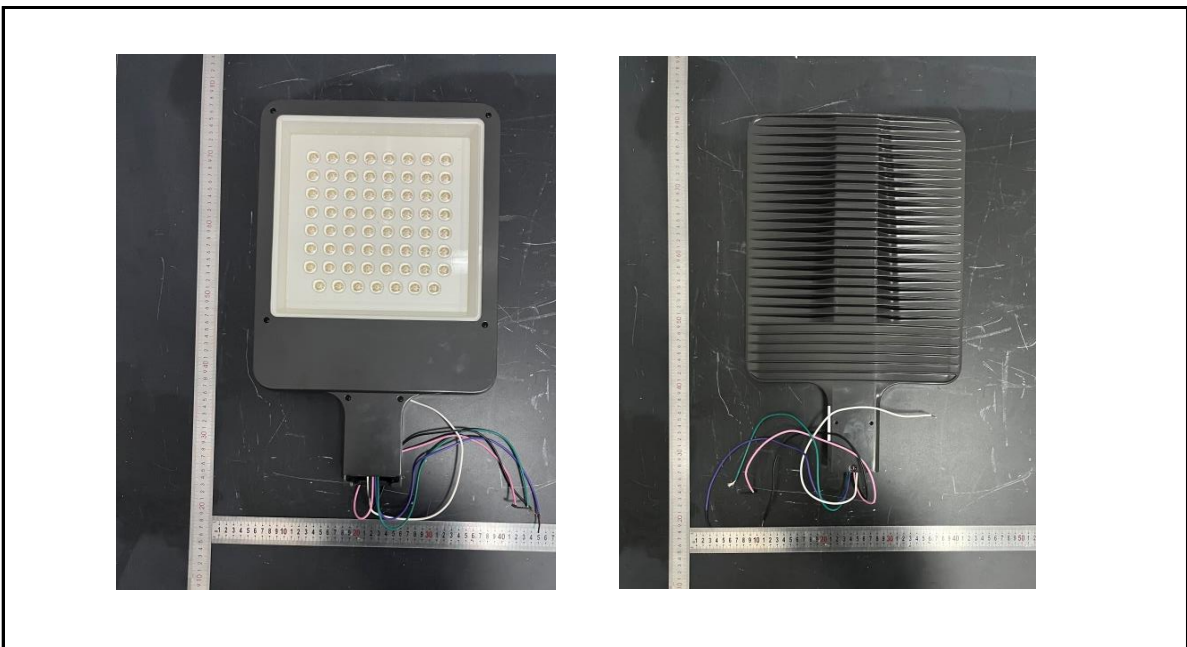
3.0 Production Description

Luminaire Description: ALEDM5TY/480

Description: 150W @ 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.	ALEDM5TY/480	Sample ID.	AE1
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
480.10	60	0.317	146.0	0.958

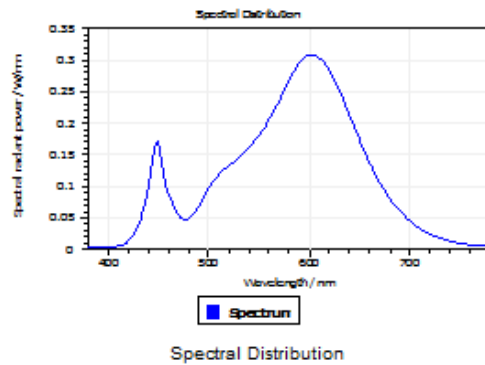
Test Result

CCT (K)	CRI	R9	Duv
2941	81	2	0.0023

Rf	Rg	IES Rcs,h1
83	97	-12%

4.1 Integrating Sphere Test

Results

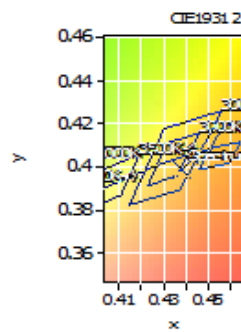


Spectral values

DominantWavelength 583.94 nm
Purity 0.510
PeakWavelength 602.85 nm
Radiant Power 45 W
Width50%:

Color Coordinates

Correlated Color Temperat 2941 K
x: 0.4377 u: 0.2535 u': 0.2535
y: 0.3985 v: 0.3462 v': 0.5193
CRI01 79.5 CRI09 2.1
CRI02 90.0 CRI10 77.8
CRI03 96.0 CRI11 78.9
CRI04 79.5 CRI12 73.8
CRI05 80.2 CRI13 81.9
CRI06 88.0 CRI14 98.5
CRI07 81.1 CRI15 72.2
CRI08 56.4 CRI16 70.2
ResultsCRI 81.4



PlanckDistance 2.3E-003

4.1 Integrating Sphere Test

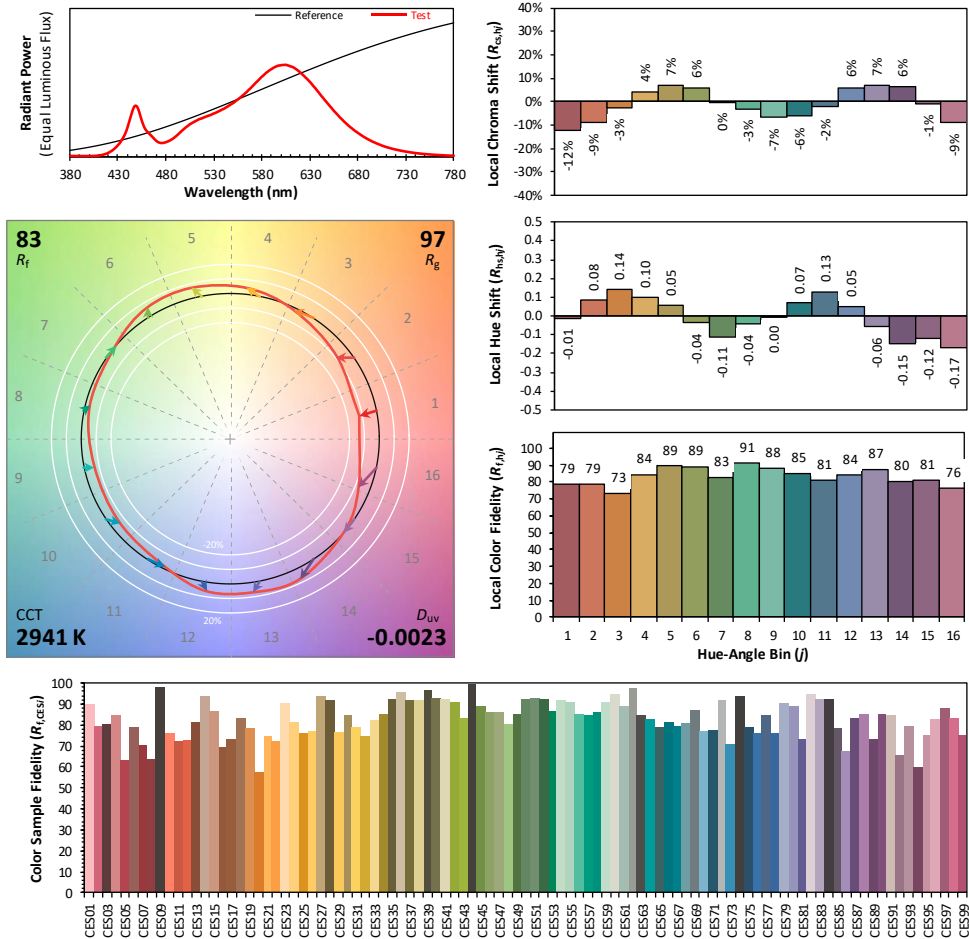
IES TM-30-18 Color Rendition Report

Source: DLF2301106-31a

Manufacturer: RAB Lighting Inc.

Date: 2023/1/13

Model: ALEDM5TY/480



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

x 0.4377

y 0.3985

u' 0.2535

v' 0.5193

CIE 13.3-1995
(CRI)

R_a 81

R_9 1

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.	ALEDM5TY/480	Sample ID.	AE1
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	480.03	60	0.317	145.9	0.958

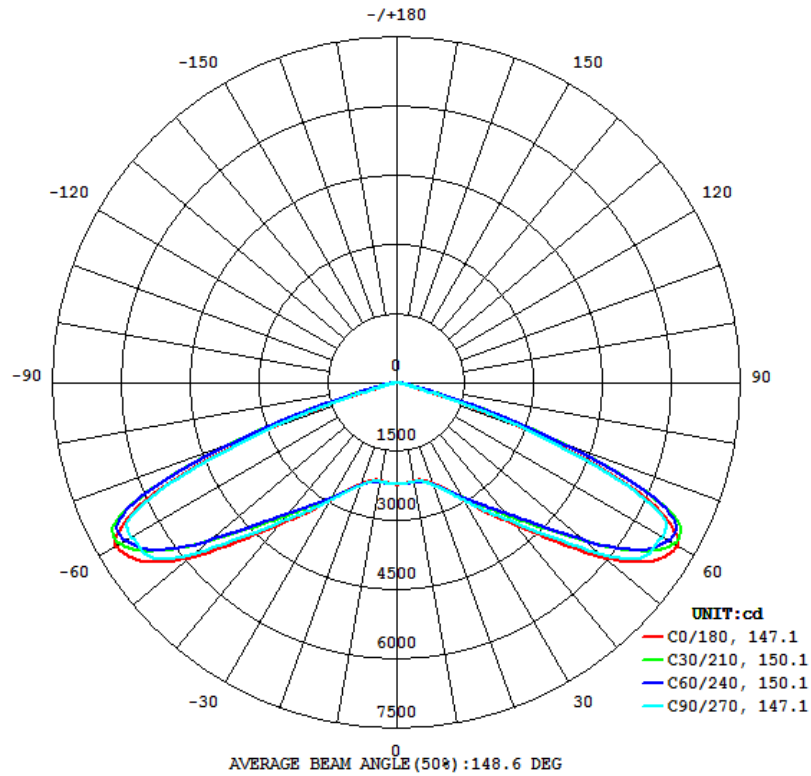
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
20749	155.9	154.9	147.1	147.1	142.2

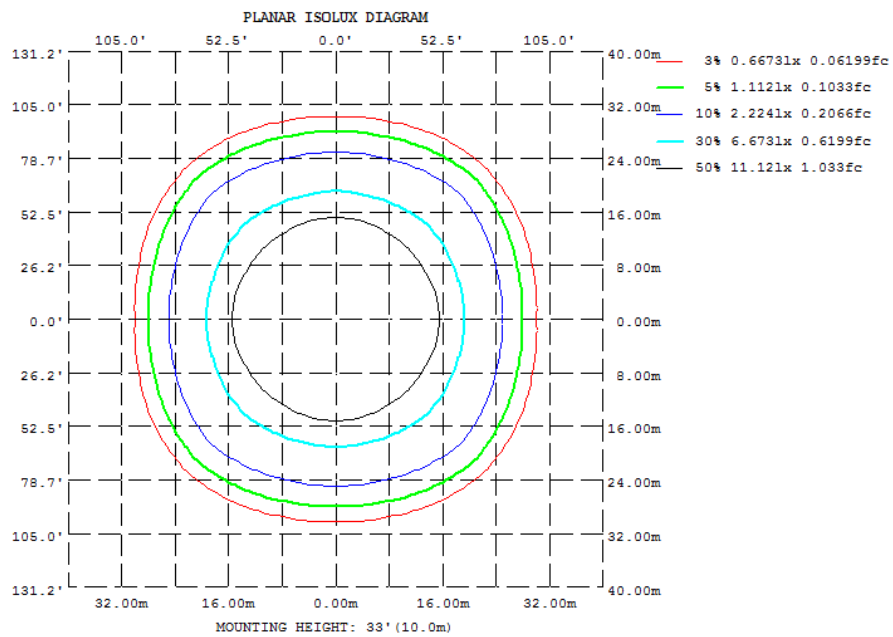
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.31%	B4-U0-G2

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

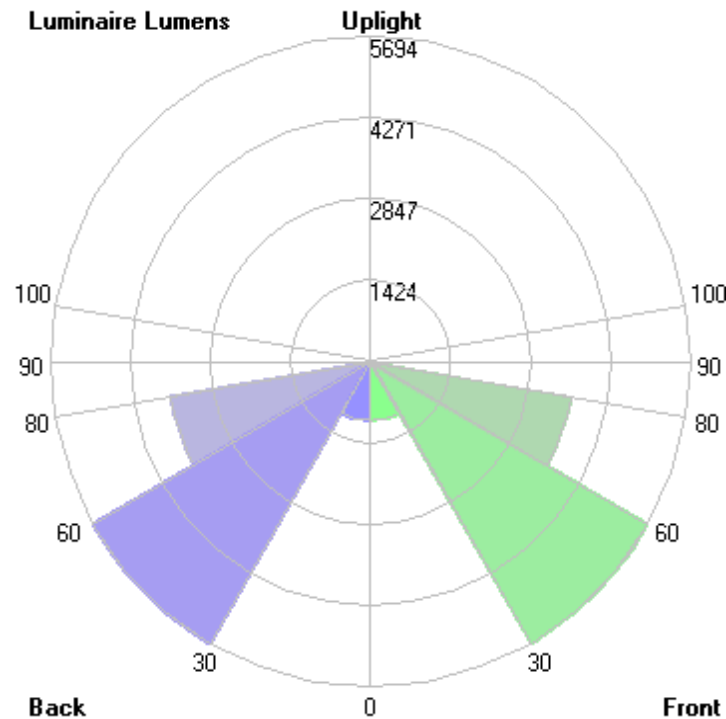
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	2172	2206	2188	2206	2172	2206	2188	2206
20	2341	2378	2373	2378	2341	2378	2373	2378
30	2935	2839	2955	2839	2935	2839	2955	2839
40	4013	3635	3949	3635	4013	3635	3949	3635
50	5897	5149	5750	5149	5897	5149	5750	5149
60	7074	7155	6688	7155	7074	7155	6688	7155
70	3088	4455	3067	4455	3088	4455	3067	4455
80	132.1	211.2	118.0	211.2	132.1	211.2	118.0	211.2
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	210.13	0 - 10	210.13	1.01%
10-20	640.16	0 - 20	850.29	4.10%
20-30	1210.48	0 - 30	2060.77	9.93%
30-40	2101.34	0 - 40	4162.11	20.06%
40-50	3558.47	0 - 50	7720.58	37.21%
50-60	5728.60	0 - 60	13449.18	64.82%
60-70	5876.73	0 - 70	19325.91	93.14%
70-80	1358.87	0 - 80	20684.78	99.69%
80-90	64.46	0 - 90	20749.24	100.00%
90-100	0.00	0 - 100	20749.24	100.00%
100-110	0.00	0 - 110	20749.24	100.00%
110-120	0.00	0 - 120	20749.24	100.00%
120-130	0.00	0 - 130	20749.24	100.00%
130-140	0.00	0 - 140	20749.24	100.00%
140-150	0.00	0 - 150	20749.24	100.00%
150-160	0.00	0 - 160	20749.24	100.00%
160-170	0.00	0 - 170	20749.24	100.00%
170-180	0.00	0 - 180	20749.24	100.00%

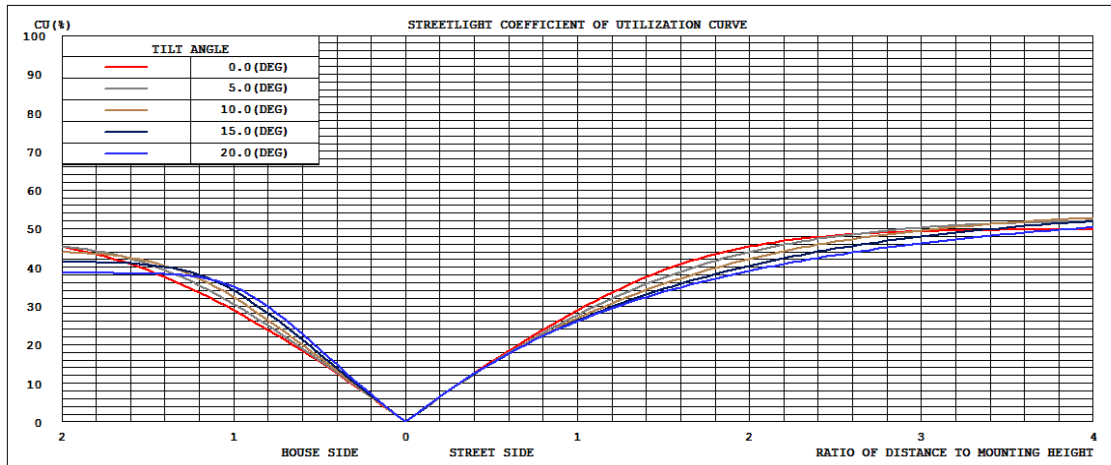
4.2 Goniophotometer Test

LCS/BUG

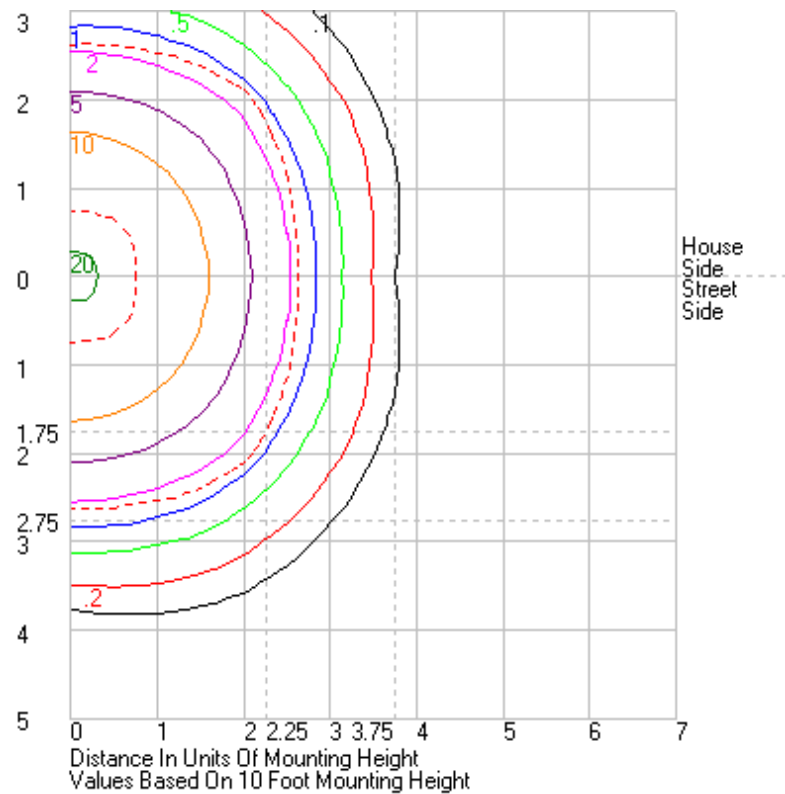


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1030.4	N.A.	5.0
FM - Front-Medium (30-60)	5694.2	N.A.	27.4
FH - Front-High (60-80)	3617.8	N.A.	17.4
FVH - Front-Very High (80-90)	32.2	N.A.	0.2
BL - Back-Low (0-30)	1030.4	N.A.	5.0
BM - Back-Medium (30-60)	5694.2	N.A.	27.4
BH - Back-High (60-80)	3617.8	N.A.	17.4
BVH - Back-Very High (80-90)	32.2	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	20749.2	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	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34	2224.34
1	2218.92	2218.42	2218.69	2218.68	2218.22	2217.65	2217.19	2217.65	2218.22	2218.68	2218.69	2218.42	2218.92	2218.42	2218.69	2218.68	2218.22	2217.65	2217.19	2217.65	2218.22	2218.68	2218.69	2218.42	2218.92
2	2218.71	2218.53	2218.81	2219.48	2218.81	2217.88	2216.94	2217.88	2218.81	2219.48	2218.81	2218.53	2218.71	2218.53	2218.81	2219.48	2218.81	2217.88	2216.94	2217.88	2218.81	2219.48	2218.81	2218.53	2218.71
3	2214.72	2215.06	2216.33	2217.18	2217.5	2216.86	2216.66	2216.86	2217.5	2217.18	2216.33	2215.06	2214.72	2215.06	2216.33	2217.18	2217.5	2216.86	2216.66	2216.86	2217.5	2217.18	2216.33	2215.06	2214.72
4	2207.22	2209.75	2213.91	2214.05	2215.55	2214.25	2213.49	2214.25	2215.55	2214.05	2213.91	2209.75	2207.22	2209.75	2213.91	2214.05	2215.55	2214.25	2213.49	2214.25	2215.55	2214.05	2213.91	2209.75	2207.22
5	2199.06	2200.96	2206.76	2211.62	2210.58	2210.74	2209.38	2210.74	2210.58	2211.62	2206.76	2200.96	2199.06	2200.96	2206.76	2211.62	2210.58	2210.74	2209.38	2210.74	2210.58	2211.62	2206.76	2200.96	2199.06
6	2193.58	2196.57	2200.99	2206.04	2207.31	2207.35	2204.45	2207.35	2207.31	2206.04	2200.99	2196.57	2193.58	2196.57	2200.99	2206.04	2207.31	2207.35	2204.45	2207.35	2207.31	2206.04	2200.99	2196.57	2193.58
7	2188.61	2192.77	2199.39	2202.05	2204.71	2202.42	2196.86	2202.42	2204.71	2202.05	2199.39	2192.77	2188.61	2192.77	2199.39	2202.05	2204.71	2202.42	2196.86	2202.42	2204.71	2202.05	2199.39	2192.77	2188.61
8	2180.59	2186.61	2197.83	2201.25	2201.93	2196.56	2190.74	2196.56	2201.93	2201.25	2197.83	2186.61	2180.59	2186.61	2197.83	2201.25	2201.93	2196.56	2190.74	2196.56	2201.93	2201.25	2197.83	2186.61	2180.59
9	2174.54	2181.47	2195.28	2203.09	2200.25	2193.9	2188.61	2193.9	2200.25	2203.09	2195.28	2181.47	2174.54	2181.47	2195.28	2203.09	2200.25	2193.9	2188.61	2193.9	2200.25	2203.09	2195.28	2181.47	2174.54
10	2171.6	2179.5	2192.64	2206.33	2201.47	2194.76	2187.99	2194.76	2201.47	2206.33	2192.64	2179.5	2171.6	2179.5	2192.64	2206.33	2201.47	2194.76	2187.99	2194.76	2201.47	2206.33	2192.64	2179.5	2171.6
11	2170.02	2179.69	2195.51	2209.9	2206.18	2196.28	2187.58	2196.28	2206.18	2209.9	2195.51	2179.69	2170.02	2179.69	2195.51	2209.9	2206.18	2196.28	2187.58	2196.28	2206.18	2209.9	2195.51	2179.69	2170.02
12	2171.18	2182.29	2201.18	2215.11	2211.44	2199.94	2191.77	2199.94	2211.44	2215.11	2201.18	2182.29	2171.18	2182.29	2201.18	2215.11	2211.44	2199.94	2191.77	2199.94	2211.44	2215.11	2201.18	2182.29	2171.18
13	2176.89	2187.47	2210.47	2223.68	2218.88	2207.17	2200.97	2207.17	2218.88	2223.68	2210.47	2187.47	2176.89	2187.47	2210.47	2223.68	2218.88	2207.17	2200.97	2207.17	2218.88	2223.68	2210.47	2187.47	2176.89
14	2187.45	2197.51	2222.39	2235.09	2230.24	2219.04	2212.81	2219.04	2230.24	2235.09	2222.39	2197.51	2187.45	2197.51	2222.39	2235.09	2230.24	2219.04	2212.81	2219.04	2230.24	2235.09	2222.39	2197.51	2187.45
15	2205.15	2212.99	2237.9	2251.08	2244.57	2234.74	2228.67	2234.74	2244.57	2251.08	2237.9	2212.99	2205.15	2212.99	2237.9	2251.08	2244.57	2234.74	2228.67	2234.74	2244.57	2251.08	2237.9	2212.99	2205.15
16	2226	2233.53	2258.73	2269.81	2262.29	2254.19	2248.99	2254.19	2262.29	2269.81	2258.73	2233.53	2226	2233.53	2258.73	2269.81	2262.29	2254.19	2248.99	2254.19	2262.29	2269.81	2258.73	2233.53	2226
17	2248.83	2256.35	2283.88	2292.41	2282.64	2277.66	2274.71	2277.66	2282.64	2292.41	2283.88	2256.35	2248.83	2256.35	2283.88	2292.41	2282.64	2277.66	2274.71	2277.66	2282.64	2292.41	2283.88	2256.35	2248.83
18	2275.72	2282.33	2311.99	2318.7	2306.37	2303.97	2303.87	2306.37	2318.7	2311.99	2282.33	2275.72	2282.33	2311.99	2318.7	2306.37	2303.97	2303.87	2306.37	2318.7	2311.99	2282.33	2275.72	2282.33	2275.72
19	2305.8	2310.74	2343.18	2346.55	2334.31	2334.14	2336.55	2334.14	2334.31	2346.55	2343.18	2310.74	2305.8	2310.74	2343.18	2346.55	2334.31	2334.14	2336.55	2334.14	2334.31	2346.55	2343.18	2310.74	2305.8
20	2340.8	2342.52	2376.86	2378.17	2366.21	2368.9	2373.43	2368.9	2366.21	2378.17	2376.86	2342.52	2340.8	2342.52	2376.86	2378.17	2366.21	2368.9	2373.43	2368.9	2366.21	2378.17	2376.86	2342.52	2340.8
21	2380.54	2379.31	2411.74	2412.58	2402.79	2406.78	2412.44	2406.78	2402.79	2412.58	2411.74	2379.31	2380.54	2379.31	2411.74	2412.58	2402.79	2406.78	2412.44	2406.78	2402.79	2412.58	2411.74	2379.31	2380.54
22	2420.9	2420.38	2449.67	2449.4	2444.07	2447.96	2453.8	2447.96	2444.07	2449.4	2449.67	2420.38	2420.9	2420.38	2449.67	2449.4	2444.07	2447.96	2453.8	2447.96	2444.07	2449.4	2449.67	2420.38	2420.9
23	2464.7	2466.56	2491.17	2488.44	2487.15	2492.1	2501.01	2492.1	2487.15	2488.44	2491.17	2466.56	2464.7	2466.56	2491.17	2488.44	2487.15	2492.1	2501.01	2492.1	2487.15	2488.44	2491.17	2466.56	2464.7
24	2511.03	2514.99	2535.86	2529.55	2533.53	2541.52	2552.26	2541.52	2533.53	2529.55	2535.86	2514.99	2511.03	2514.99	2535.86	2529.55	2533.53	2541.52	2552.26	2541.52	2533.53	2529.55	2535.86	2514.99	2511.03
25	2563.26	2567.94	2585.61	2575.22	2582.32	2595.62	2609.11	2595.62	2582.32	2575.22	2585.61	2567.94	2563.26	2567.94	2585.61	2575.22	2582.32	2595.62	2609.11	2595.62	2582.32	2575.22	2585.61	2567.94	2563.26
26	2625.71	2626.33	2638.17	2621.26	2634.72	2653.66	2669.07	2653.66	2634.72	2621.26	2638.17	2626.33	2625.71	2626.33	2638.17	2621.26	2634.72	2653.66	2669.07	2653.66	2634.72	2621.26	2638.17	2626.33	2625.71
27	2691.99	2688.7	2694.27	2671.14	2690.54	2715.45	2734.76	2715.45	2690.54	2671.14	2694.27	2688.7	2691.99	2688.7	2694.27	2671.14	2690.54	2715.45	2734.76	2715.45	2690.54	2671.14	2694.27	2688.7	2691.99
28	2769.56	2759.34	2754.05	2723.96	2748.81	2781.89	2804.28	2781.89	2748.81	2723.96	2754.05	2759.34	2769.56	2759.34	2754.05	2723.96	2748.81	2781.89	2804.28	2781.89	2723.96	2754.05	2759.34	2769.56	2769.56
29	2850.01	2833.07	2815	2778.93	2809.14	2851.05	2875.67	2851.05	2809.14	2778.93	2815	2833.07	2850.01	2833.07	2815	2778.93	2809.14	2851.05	2875.67	2851.05	2809.14	2778.93	2815	2833.07	2850.01
30	2935.22	2914.77	2881.21	2838.71	2873.42	2925.32	2954.72	2925.32	2873.42	2838.71	2881.21	2914.77	2935.22	2914.77	2881.21	2838.71	2873.42	2925.32	2954.72	2925.32	2873.42	2838.71	2881.21	2914.77	2935.22
31	3030.24	3002.86	2951.14	2899.74	2938.92	3003.26	3034.26	3003.26	2938.92	2899.74	2951.14	3002.86	3030.24	3002.86	2951.14	2899.74	2938.92	3003.26	3034.26	3003.26	2938.92	2899.74	2951.14	3002.86	3030.24
32	3123.2	3093.29	3024.02	2966.3	3007.85	3085.86	3120.53	3085.86	3007.85	2966.3	3024.02	3093.29	3123.2	3093.29	3024.02	2966.3	3007.85	3085.86	3120.53	3085.86	3007.85	2966.3	3024.02	3093.29	3123.2
33	3229.23	3192.45	3103.02	3035.94	3078.7	3171.65	3208.7	3171.65	3078.7	3035.94	3103.02	3192.45	3229.23	3192.45	3103.02	3035.94	3078.7	3171.65	3208.7	3171.65	3078.7	3035.94	3103.02	3192.45	3229.23
34	3331.29	3292.06	3183.84	3108.46	3154.18	3261.3	3302.06	3261.3	3154.18	3108.46	3183.84	3292.06	3331.29	3292.06	3183.84	3108.46	3154.18	3261.3	3302.06	3261.3	3154.18	3108.46	3183.84	3292.06	3331.29
35	3439.17	3395.79	3268.87	3185.7	3234.07	3355.9	3398.04	3355.9	3234.07	3185.7	3268.87	3395.79	3439.17	3395.79	3268.87	3185.7	3234.07	3355.9	3398.04	3355.9	3234.07	3185.7	3268.87	3395.79	3439.17
36	3550.04	3503.93	3357.27	3264.93	3317.92	3451.7	3496.9	3451.7	3317.92	3264.93	3357.27	3503.93	3550.04	3503.93	3357.27	3264.93	3317.92	3451.7	3496.9	3451.7	3317.92	3264.93	3357.27	3503.93	3550.04
37	3657.54	3613.99	3451.02	3350.07	3406.14	3553.69	3600.99	3553.69	3406.14	3350.07	3451.02	3613.99	3657.54	3613.99	3451.02	3350.07	3406.14	3553.69	3600.99	3553.69	3406.14	3350.07	3451.02	3613.99	3657.54
38	3771.88	3731.1	3551.01	3439.91	3498.7	3659.05	3711.8	3659.05	3498.7	3439.91	3551.01	3731.1	3771.88	3731.1	355										

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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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	ALEDM5TY/480	Sample ID.	AE1
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
480.10	60	0.317	146.0	0.958	6.73%

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*****