

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

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Report Number

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Test Date

2023/1/10

Issue Date

2023/1/14

Prepared By



Wangzun Zhu

Approved By



Kevin Jia

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

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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		10181
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	125.8
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		80.9
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	2.06%
		20.00%	277V	7.68%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	120V	0.999
		0.9	277V	0.964
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	3045±175	2891
		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		3
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		94
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%		0.26%
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		0.675
(Goniophotometer - Section 4.2)		Non-Worst Case		0.295
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		80.9
(Goniophotometer - Section 4.2)		Non-Worst Case		78.9

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2023/1/10	ALEDS2TY	A1
2	Goniophotometer Test	2023/1/10	ALEDS2TY	A1
3	THD and PF Test	2023/1/10	ALEDS2TY	A1

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.

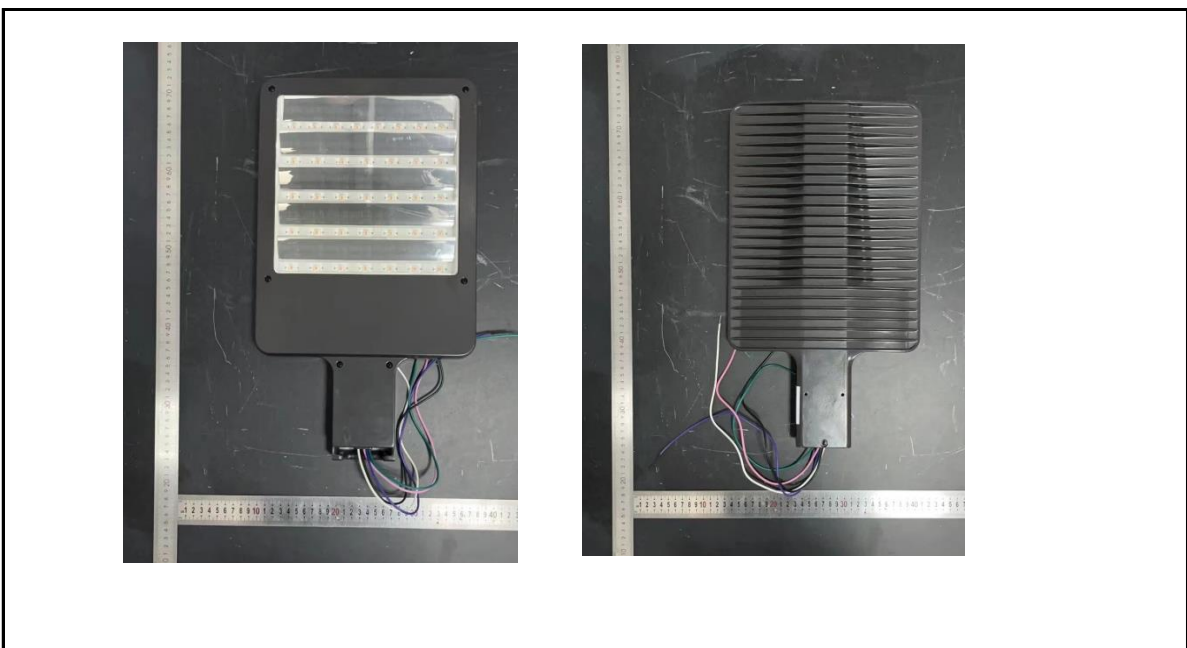
3.0 Production Description

Luminaire Description: ALEDS2TY

Description: 80W @ 3000K

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.	ALEDS2TY	Sample ID.	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-79-2008.

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
120.03	60	0.675	80.9	0.999
277.07	60	0.295	78.7	0.964

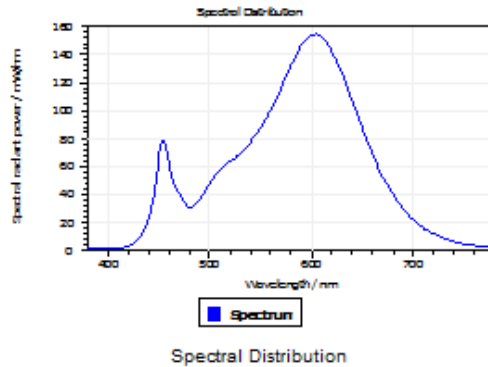
Test Result

CCT (K)	CRI	R9	Duv
2891	82	3	0.0011

Rf	Rg	IES Rcs,h1
84	94	-12%

4.1 Integrating Sphere Test

Results

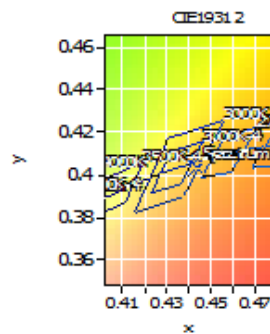


Spectral values

DominantWavelength 583.67 nm
Purity 0.541
PeakWavelength 603.62 nm
Radiant Power 22.13 W
Width50%:

Color Coordinates

Correlated Color Temperat 2891 K
x: 0.4432 u: 0.2549 u': 0.2549
y: 0.4034 v: 0.3481 v': 0.5221
CRI01 80.6 CRI09 3.4
CRI02 92.4 CRI10 83.0
CRI03 93.6 CRI11 77.6
CRI04 78.4 CRI12 73.6
CRI05 80.9 CRI13 83.6
CRI06 91.0 CRI14 97.2
CRI07 80.5 CRI15 72.9
CRI08 56.0 CRI16 69.7
ResultsCRI 81.7



PlanckDistance 1.1E-003

4.1 Integrating Sphere Test

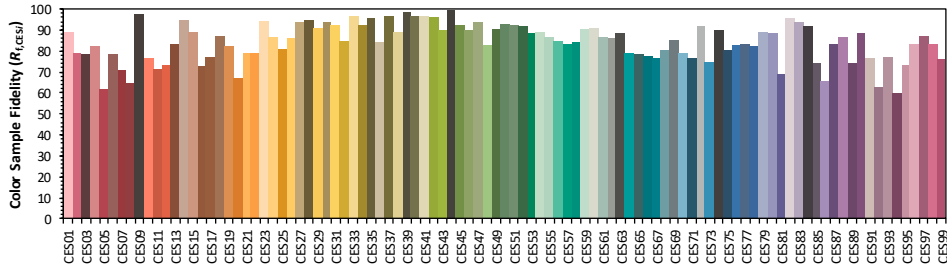
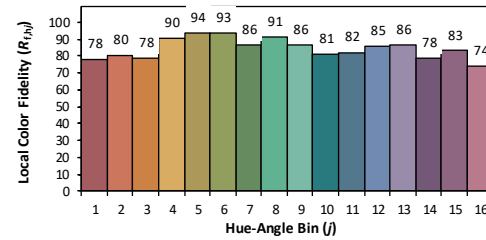
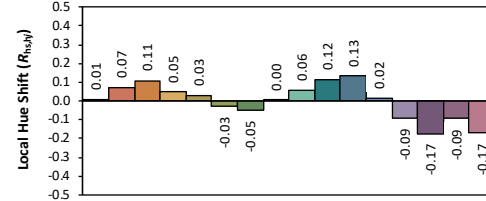
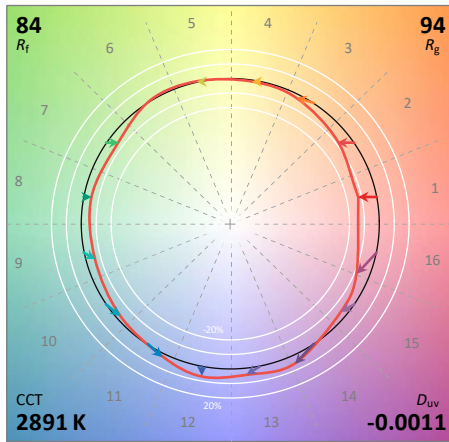
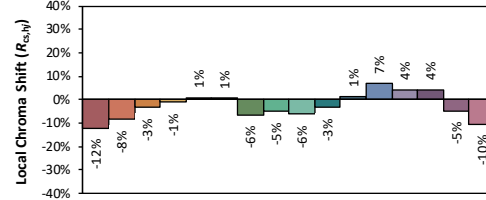
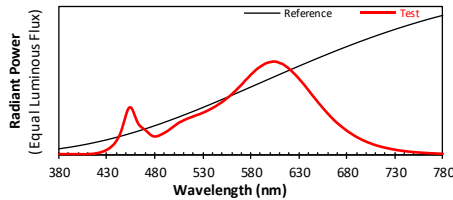
IES TM-30-18 Color Rendition Report

Source: DLF2301106-1a

Manufacturer: RAB Lighting Inc.

Date: 2023/1/10

Model: ALEDS2TY



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

x 0.4432
 y 0.4034
 u' 0.2549
 v' 0.5221

CIE 13.3-1995
(CRI)

R_a 81
 R_9 3

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.	ALEDS2TY	Sample ID.	A1
Opreate 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 paramters 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	120.02	60	0.675	80.9	0.998
NON-WROST CASE	277.01	60	0.295	78.9	0.964

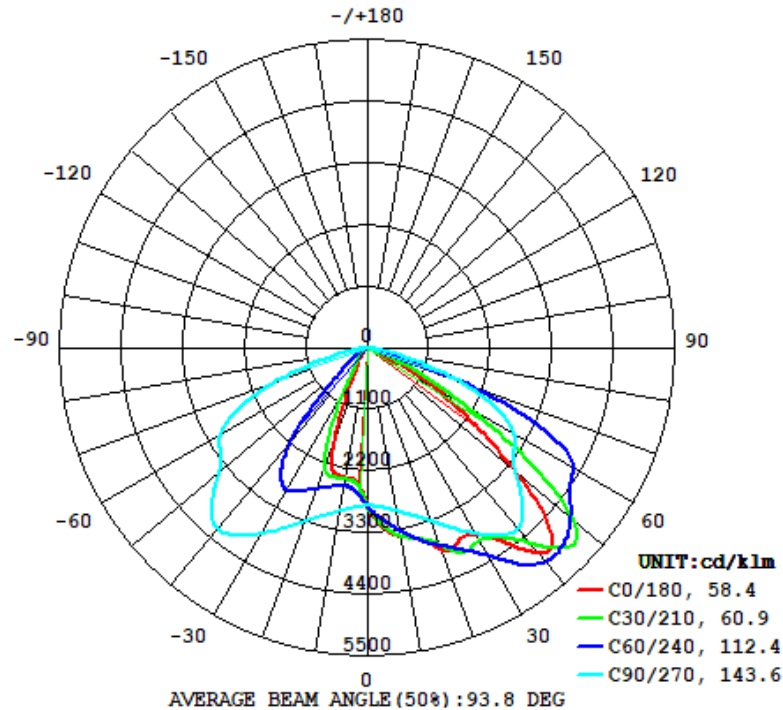
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
10181	92.0	159.1	58.4	143.6	125.8

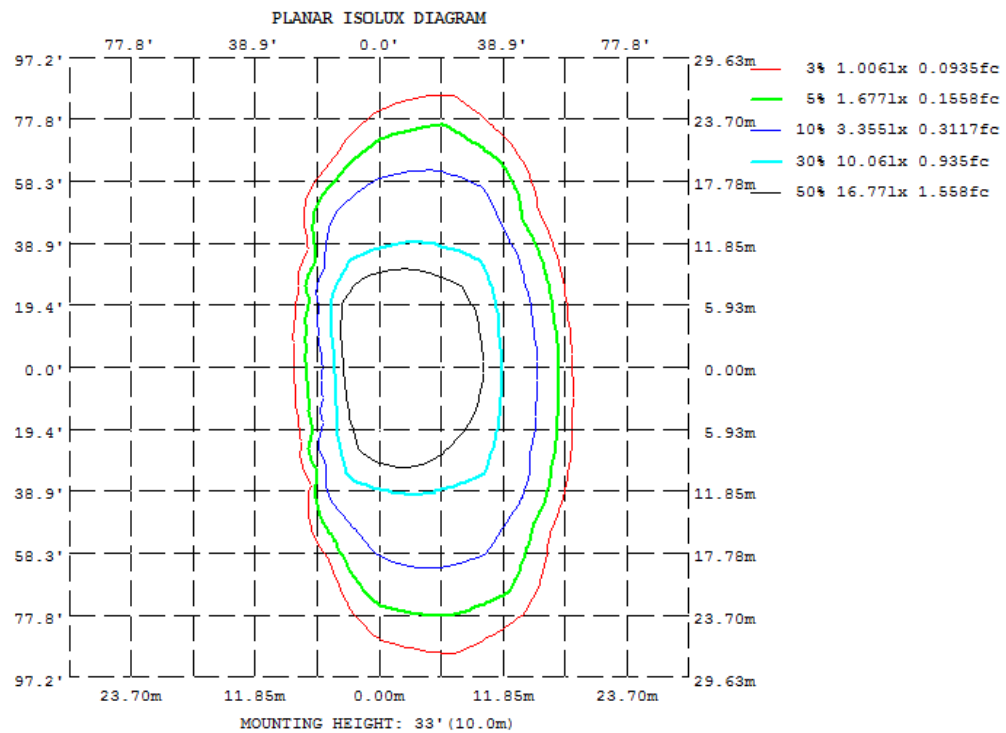
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.26%	B2-U0-G1

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

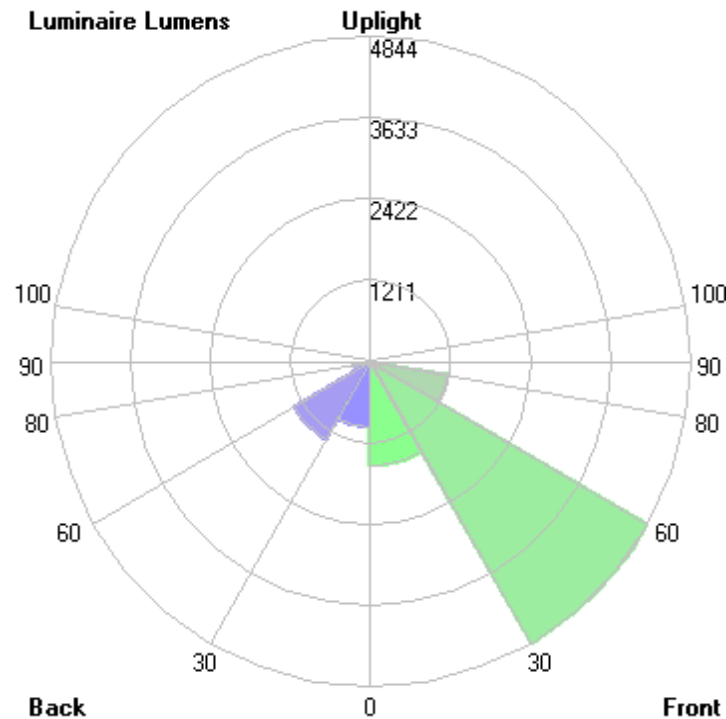
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	3416	3380	2958	2430	2358	2430	2958	3380
20	3816	3709	3284	2531	1783	2531	3284	3709
30	3868	4313	3829	1775	400.2	1775	3829	4313
40	4776	4619	4191	500.9	193.9	500.9	4191	4619
50	3528	5439	3480	242.6	83.73	242.6	3480	5439
60	1242	3454	3027	103.7	37.74	103.7	3027	3454
70	112.8	568.2	1742	46.98	14.74	46.98	1742	568.2
80	20.06	59.06	244.1	9.339	4.519	9.339	244.1	59.06
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/klm							

	Zonal (lm)		Total (lm)	Percent
0-10	272.10	0 - 10	272.10	2.67%
10-20	853.55	0 - 20	1125.65	11.06%
20-30	1406.91	0 - 30	2532.56	24.87%
30-40	1906.51	0 - 40	4439.07	43.60%
40-50	2292.52	0 - 50	6731.59	66.12%
50-60	1977.8	0 - 60	8709.39	85.54%
60-70	1127.56	0 - 70	9836.95	96.62%
70-80	317.98	0 - 80	10154.93	99.74%
80-90	26.27	0 - 90	10181.20	100.00%
90-100	0.00	0 - 100	10181.20	100.00%
100-110	0.00	0 - 110	10181.20	100.00%
110-120	0.00	0 - 120	10181.20	100.00%
120-130	0.00	0 - 130	10181.20	100.00%
130-140	0.00	0 - 140	10181.20	100.00%
140-150	0.00	0 - 150	10181.20	100.00%
150-160	0.00	0 - 160	10181.20	100.00%
160-170	0.00	0 - 170	10181.20	100.00%
170-180	0.00	0 - 180	10181.20	100.00%

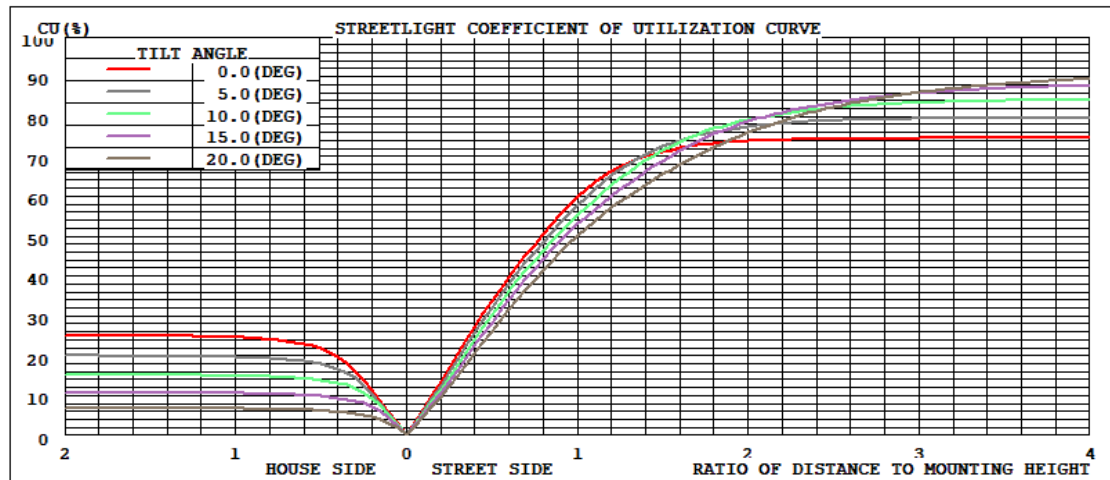
4.2 Goniophotometer Test

LCS/BUG

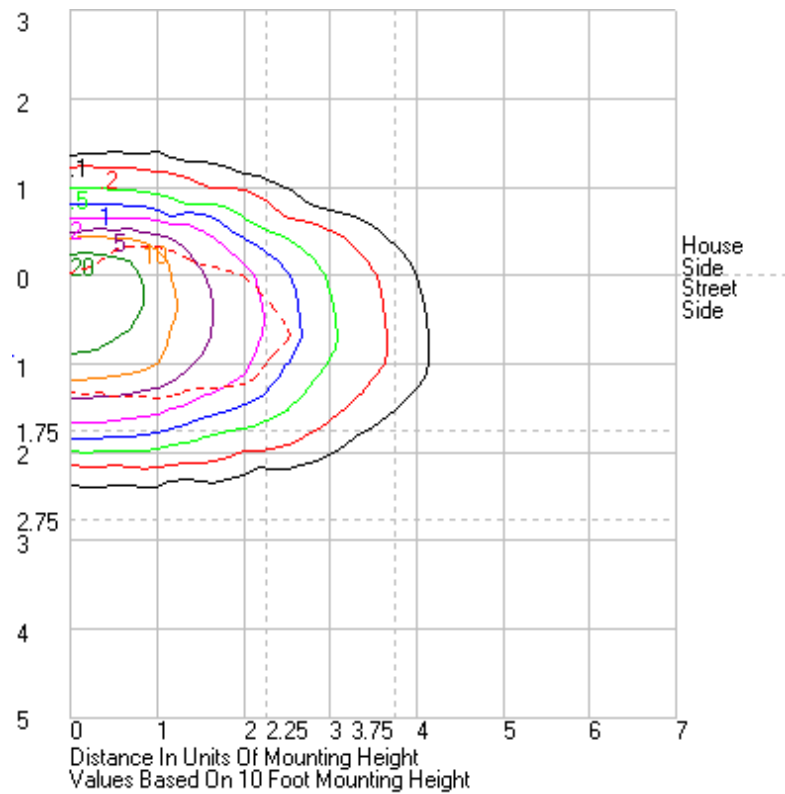


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1555.9	N.A.	15.3
FM - Front-Medium (30-60)	4844.1	N.A.	47.6
FH - Front-High (60-80)	1190.7	N.A.	11.7
FVH - Front-Very High (80-90)	20.7	N.A.	0.2
BL - Back-Low (0-30)	976.7	N.A.	9.6
BM - Back-Medium (30-60)	1332.7	N.A.	13.1
BH - Back-High (60-80)	254.8	N.A.	2.5
BVH - Back-Very High (80-90)	5.6	N.A.	0.1
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	10181.2	N.A.	100.0
BUG Rating	B2-U0-G1		

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	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01	2814.01
1	2917.01	2914.52	2908.51	2894.93	2875.31	2851.54	2822.43	2794.18	2766.33	2741.58	2722.11	2706.53	2700.36	2706.53	2722.11	2741.58	2766.33	2794.18	2822.43	2851.54	2875.31	2894.93	2908.51	2914.52	2917.01
2	2997.8	2992.13	2980.94	2959.1	2928.05	2883.2	2827.51	2770.96	2714.22	2663.41	2626.22	2604.61	2596.87	2604.61	2626.22	2663.41	2714.22	2770.96	2827.51	2883.2	2928.05	2959.1	2980.94	2992.13	2997.8
3	3068.87	3061.59	3043.19	3015.38	2973.93	2915.38	2834.21	2747.93	2662.64	2597.49	2549.66	2519.22	2509.92	2519.22	2549.66	2597.49	2662.64	2747.93	2834.21	2915.38	2973.93	3015.38	3043.19	3061.59	3068.87
4	3138.26	3127.95	3107.01	3071.09	3018.56	2948.04	2844.23	2726.98	2619.28	2539.76	2478.74	2446.4	2437.89	2446.4	2478.74	2539.76	2619.28	2726.98	2844.23	2948.04	3018.56	3071.09	3107.01	3127.95	3138.26
5	3204.09	3194.18	3170.33	3124.53	3062.44	2982.71	2857.53	2709.58	2583.78	2459.51	2432.73	2406.69	2400.79	2406.69	2432.73	2459.51	2583.78	2709.58	2857.53	2982.71	3062.44	3124.53	3170.33	3194.18	3204.09
6	3253.69	3245.58	3228.36	3182.68	3110.99	3018.56	2873.9	2695.71	2552.75	2453.69	2406.21	2380	2373.99	2380	2406.21	2453.69	2552.75	2695.71	2873.9	3018.56	3110.99	3182.68	3228.36	3245.58	3253.69
7	3305.9	3295.53	3274.96	3236.22	3160.6	3054.92	2891.93	2686.26	2524.67	2434.75	2388.08	2369.06	2367.99	2369.06	2388.08	2434.75	2524.67	2686.26	2891.93	3054.92	3160.6	3236.22	3274.96	3295.53	3305.9
8	3356.3	3347.92	3323.06	3283.57	3209.38	3092.52	2912.78	2680.97	2509.23	2425.83	2384.61	2368.17	2366.87	2368.17	2384.61	2425.83	2509.23	2680.97	2912.78	3092.52	3209.38	3283.57	3323.06	3347.92	3356.3
9	3385.67	3383.92	3373.97	3329.93	3260.64	3129.83	2934.78	2678.07	2501.61	2422.28	2387.3	2367.03	2362.96	2367.03	2387.3	2422.28	2501.61	2678.07	2934.78	3129.83	3260.64	3329.93	3373.97	3383.92	3385.67
10	3415.84	3411.95	3409.36	3379.54	3308.88	3171.73	2958.11	2676.37	2501.73	2429.69	2390.64	2363.3	2358.32	2363.3	2390.64	2429.69	2501.73	2676.37	2958.11	3171.73	3308.88	3379.54	3409.36	3411.95	3415.84
11	3436.66	3436.52	3438.05	3429.16	3354.82	3215.04	2982.98	2678.67	2507.35	2440.83	2391.89	2358.28	2352.66	2358.28	2391.89	2440.83	2507.35	2678.67	2982.98	3215.04	3354.82	3429.16	3438.05	3436.52	3436.66
12	3455.93	3456.37	3465.51	3464.63	3401.76	3258.69	3009	2681.43	2515.79	2452.33	2391.09	2354.56	2348.73	2354.56	2391.09	2452.33	2515.79	2681.43	3009	3258.69	3401.76	3464.63	3465.51	3456.37	3455.93
13	3479.81	3477.6	3488.59	3498.69	3449.7	3302.66	3035.24	2685.65	2529.14	2461.8	2393.35	2351.78	2344.57	2351.78	2393.35	2461.8	2529.14	2685.65	3035.24	3302.66	3449.7	3498.69	3488.59	3477.6	3479.81
14	3503.01	3500.53	3510.89	3532.75	3497.9	3345.5	3063.17	2694.57	2547.7	2470.95	2394.83	2348.2	2338.73	2348.2	2394.83	2470.95	2547.7	2694.57	3063.17	3345.5	3497.9	3532.75	3510.89	3500.53	3503.01
15	3528.48	3524.94	3536.12	3561.59	3544.11	3391.74	3093.97	2706.38	2567.93	2479.96	2398.22	2343.06	2323.89	2343.06	2398.22	2479.96	2567.93	2706.38	3093.97	3391.74	3544.11	3561.59	3536.12	3524.94	3528.48
16	3559.17	3552.18	3559.91	3588.85	3587.75	3441.81	3128.02	2724.4	2588.14	2489.75	2400.26	2318.83	2286.71	2318.83	2400.26	2489.75	2588.14	2724.4	3128.02	3441.81	3587.75	3588.85	3559.91	3552.18	3559.17
17	3608.23	3591.46	3587.57	3618.96	3630.7	3492.17	3163.37	2745.75	2610.48	2499.08	2394.97	2271.04	2212.42	2271.04	2394.97	2499.08	2610.48	2745.75	3163.37	3492.17	3630.7	3618.96	3587.57	3591.46	3608.23
18	3670.82	3645.71	3620.73	3648.61	3670.85	3543.83	3201.7	2769.99	2632.03	2510.09	2372.71	2184.06	2097.21	2184.06	2372.71	2510.09	2632.03	2769.99	3201.7	3543.83	3648.61	3670.85	3620.73	3645.71	3670.82
19	3740.28	3710.99	3667.47	3679.15	3711.87	3597.77	3240.36	2798.33	2653.32	2521.98	2326.6	2060.68	1952.07	2060.68	2326.6	2521.98	2653.32	2798.33	3240.36	3597.77	3711.87	3679.15	3667.47	3710.99	3740.28
20	3815.71	3782.57	3726.33	3708.93	3750.51	3654.62	3284.2	2830.8	2676.36	2531.33	2247.47	1913.21	1783.31	1913.21	2247.47	2531.33	2676.36	2830.8	3284.2	3654.62	3750.51	3708.93	3726.33	3782.57	3815.71
21	3884.02	3855.15	3793.15	3745.27	3789.01	3712.89	3331.26	2865.26	2701.82	2527.84	2143.2	1747.7	1604.6	1747.7	2143.2	2527.84	2701.82	2865.26	3331.26	3712.89	3789.01	3745.27	3793.15	3855.15	3884.02
22	3914.34	3911.56	3865.25	3791.25	3829.53	3774.82	3380.42	2905.04	2728.26	2511.71	2016.37	1574.46	1424.01	1574.46	2016.37	2511.71	2728.26	2905.04	3380.42	3774.82	3829.53	3791.25	3865.25	3911.56	3914.34
23	3905.07	3929.79	3940	3849.18	3877.35	3837.16	3433.72	2948.88	2757.59	2475.67	1875.75	1393.47	1243.42	1393.47	1875.75	2475.67	2757.59	2948.88	3433.72	3837.16	3877.35	3849.18	3940	3929.79	3905.07
24	3879.65	3915.81	3998.84	3912.01	3926.38	3904.5	3487.11	2996.23	2788.98	2420.13	1723.98	1217.3	1067.04	1217.3	1723.98	2420.13	2788.98	2996.23	3487.11	3904.5	3926.38	3912.01	3998.84	3915.81	3879.65
25	3834.88	3886.35	4033.35	3984.83	3975.9	3971.34	3543.99	3043.54	2823.2	2342.98	1564.12	1046.12	895.83	1046.12	1564.12	2342.98	2823.2	3043.54	3543.99	3971.34	3975.9	3984.83	4033.35	3886.35	3834.88
26	3794.76	3847.23	4040.4	4063.22	4025.27	4037.69	3600.31	3094.05	2858.15	2252.87	1404.35	884.63	745.1	884.63	1404.35	2252.87	2858.15	3094.05	3600.31	4037.69	4025.27	4063.22	4040.4	3847.23	3794.76
27	3777.61	3816.1	4025.3	4143.69	4078.03	4100.59	3657.48	3145.8	2889.97	2146.78	1243.69	737.48	612.34	737.48	1243.69	2146.78	2889.97	3145.8	3657.48	4100.59	4078.03	4143.69	4025.3	3816.1	3777.61
28	3793.12	3806.59	4006.02	4127.23	4138.34	4163.24	3713.32	3199.18	2914.05	2030.24	1090.62	617.6	514.05	617.6	1090.62	2030.24	2914.05	3199.18	3713.32	4163.24	4138.34	4127.23	4006.02	3806.59	3793.12
29	3829.16	3828.85	3982.39	4274.84	4204.67	4225.09	3769.93	3249.58	2926.62	1907.23	940.7	523.3	445.35	523.3	940.7	1907.23	2926.62	3249.58	3769.93	4225.09	4204.67	4274.84	3982.39	3828.85	3829.16
30	3868.34	3864.95	3967.6	4313.42	4279.15	4287.77	3829.01	3304.23	2926.29	1774.52	794.15	450.1	400.17	450.1	794.15	1774.52	2926.29	3304.23	3829.01	4287.77	4279.15	4313.42	3967.6	3864.95	3868.34
31	3915.25	3902.58	3976.9	4341.99	4357.27	4346.82	3882.91	3355.28	2911.88	1642.82	682.51	406.85	367.5	406.85	682.51	1642.82	2911.88	3355.28	3882.91	4346.82	4357.27	4341.99	3976.9	3902.58	3915.25
32	3973.78	3949.76	4004.88	4351.3	4439.36	4405.15	3938.3	3405.57	2881.08	1502.01	578.44	374.51	344.27	374.51	578.44	1502.01	2881.08	3405.57	3938.3	4405.15	4439.36	4351.3	4004.88	3949.76	3973.78
33	4045.32	4011.15	4046.39	4362.51	4530.2	4463.33	3993.84	3452.6	2835.34	1357.35	497.98	350.71	327.37	350.71	497.98	1357.35	2835.34	3452.6	3993.84	4463.33	4530.2	4362.51	4046.39	4011.15	4045.32
34	4123.89	4079.52	4086.78	4366.77	4617.48	4518.53	4044.19	3499.11	2777.72	1209.47	445.96	334.14	310.27	334.14	445.96	1209.47	2777.72	3499.11	4044.19	4518.53	4617.48	4366.77	4086.78	4079.52	4123.89
35	4123.97	4157.46	4138.8	4380.64	4705.1	4569.22	4042.95	3541.56	2702.96	1059.96	405.15	316.17	291.7	316.17	405.15	1059.96	2702.96	3541.56	4092.45	4569.22	4705.1	4380.64	4138.8	4157.46	4123.97
36	4337.15	4255.16	4201.26	4409.02	4786.71	4614.02	4134.82	3579.52	2613.94	915.33	375.21	296.85	271.59	296.85	375.21	915.33	2613.94	3579.52	4134.82	4614.02	4786.71	4409.02	4201.26	4255.16	4337.15
37	4467.5	4372.29	4268.23	4446.22	4849.56	4651.78	4165.88	3608.9	2511.16	783.8	353.07	278.05	252.62	278.05	353.07	783.8	2511.16	3608.9	4165.88	4651.78	4849.56	4446.22	4268.23	4372.29	4467.5
38	4586.24	4497.94	4351.58	4494.72	4897.02	4682.52	4189.35	3631.33	2396.39	671.13	334.48	258.26	233.28	258.26	334.48	671.13	2396.39	3631.33	4189.35	4682.52	4897.				

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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.	ALEDS2TY	Sample ID.	A1
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
120.03	60	0.675	80.9	0.999	2.06%
277.07	60	0.295	78.7	0.964	7.68%

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*****