

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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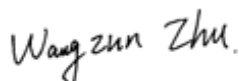
Test Date

2021/11/9

Issue Date

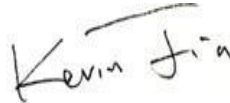
2021/11/12

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	48952	
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	136.4
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case	358.8	
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	5.13%	
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	0.934	
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	5029±355	4986
		4 step	5029±220	
Minimum CRI (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥70	85	
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	83	
Minimum Rg (Integrating Sphere - Section 4.1)	ANSI/IES TM-30-18	≥89	93	
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%	0.17%	
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	0.802	

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2021/11/9	ALEDXLAT/480	Y1
2	Goniophotometer Test	2021/11/9	ALEDXLAT/480	Y1
3	THD and PF Test	2021/11/9	ALEDXLAT/480	Y1

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.

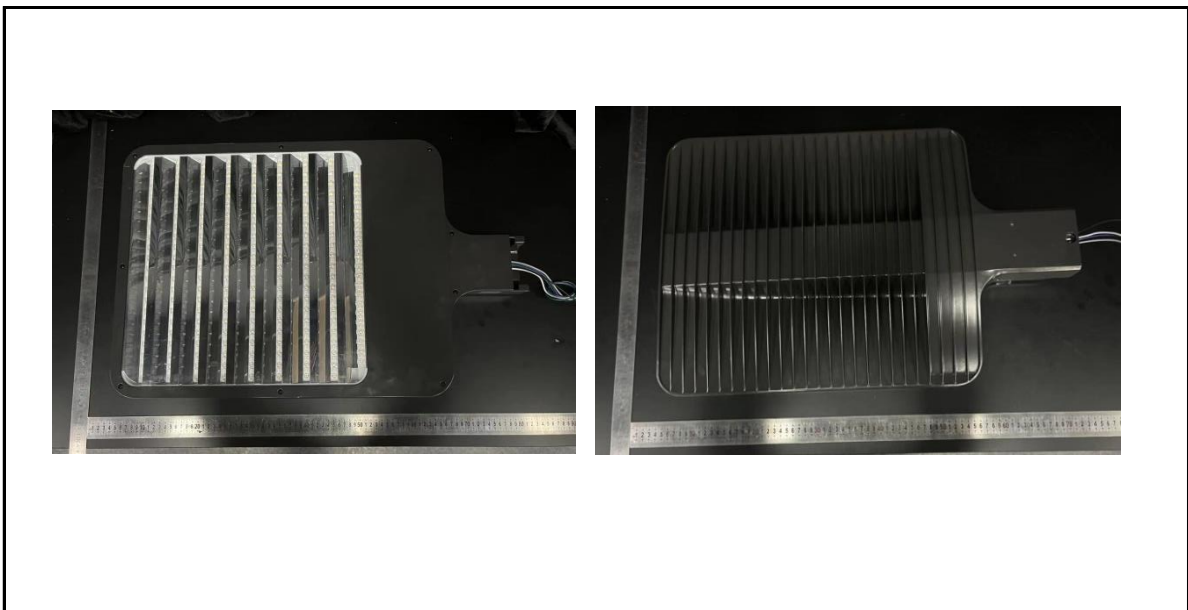
3.0 Production Description

Luminaire Description: ALEDXLAT/480

Description: 385W/50,000 lm @ 5000K

Electrical Specification: 480V,50/60HZ

Photos of Luminaire Characteristics



4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	ALEDXLAT/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	0.799	358.2	0.934

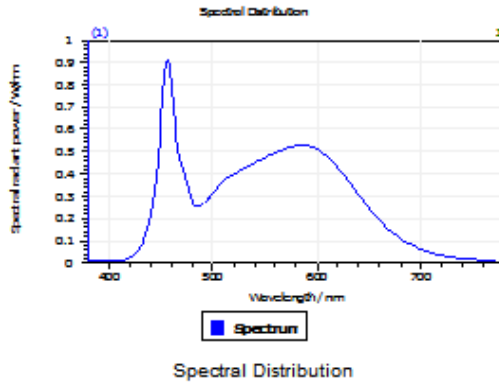
Test Result

CCT (K)	CRI	R9	Duv
4986	85	14	0.00071

Rf	Rg	IES Rcs,h1
83	93	-12%

4.1 Integrating Sphere Test

Results

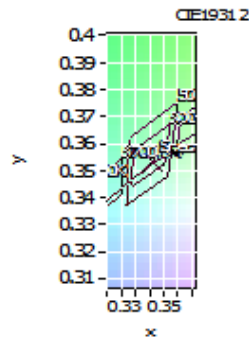


Spectral values

DominantWavelength	572.21 nm
Purity	0.098
PeakWavelength	456.44 nm
Radiant Power	103.4 W
Width50%:	

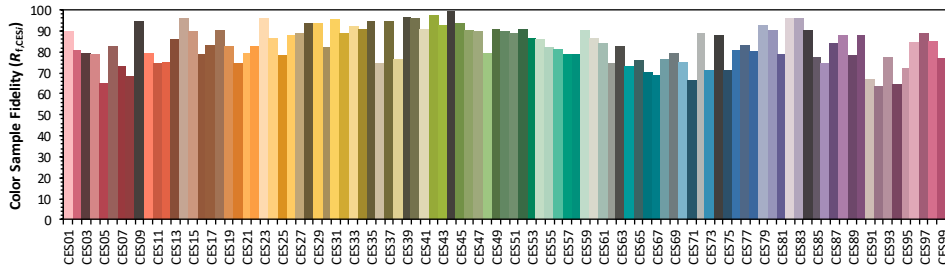
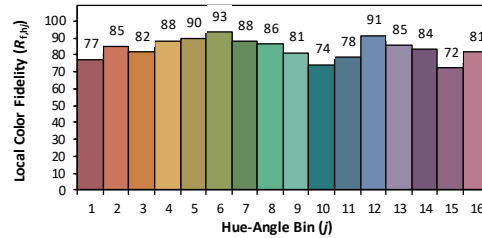
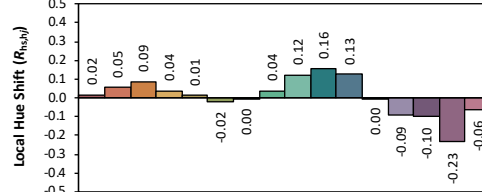
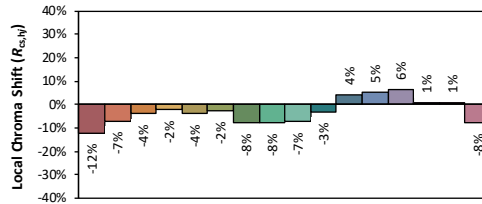
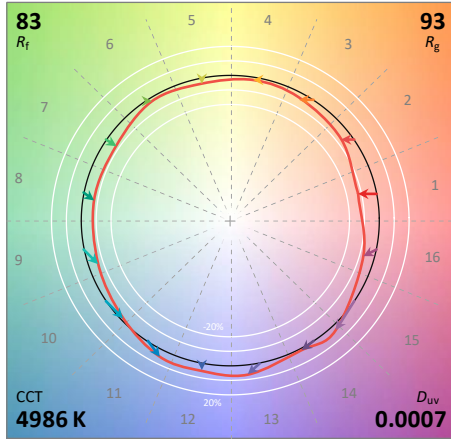
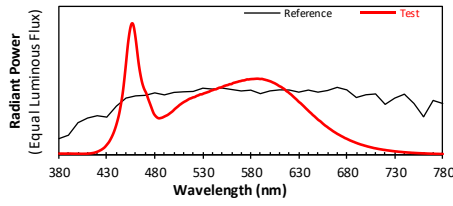
Color Coordinates

Correlated Color Temporal	4986 K		
x:	0.3456	u:	0.2111
		u':	0.2111
y:	0.3535	v:	0.3238
		v':	0.4857
CRI01	83.7	CRI09	13.9
CRI02	93.1	CRI10	82.0
CRI03	94.9	CRI11	80.1
CRI04	81.1	CRI12	62.7
CRI05	83.5	CRI13	86.9
CRI06	88.0	CRI14	98.0
CRI07	85.1	CRI15	78.9
CRI08	66.9	CRI16	74.4
ResultsCRI	84.5		



PlanckDistance 7.1E-004

4.1 Integrating Sphere Test



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

x 0.3456
 y 0.3535
 u' 0.2111
 v' 0.4857

CIE 13.3-1995 (CRI)	
R_a	84
R_g	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.	ALEDXLAT/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° C ± 1° 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	479.99	60	0.802	358.8	0.932

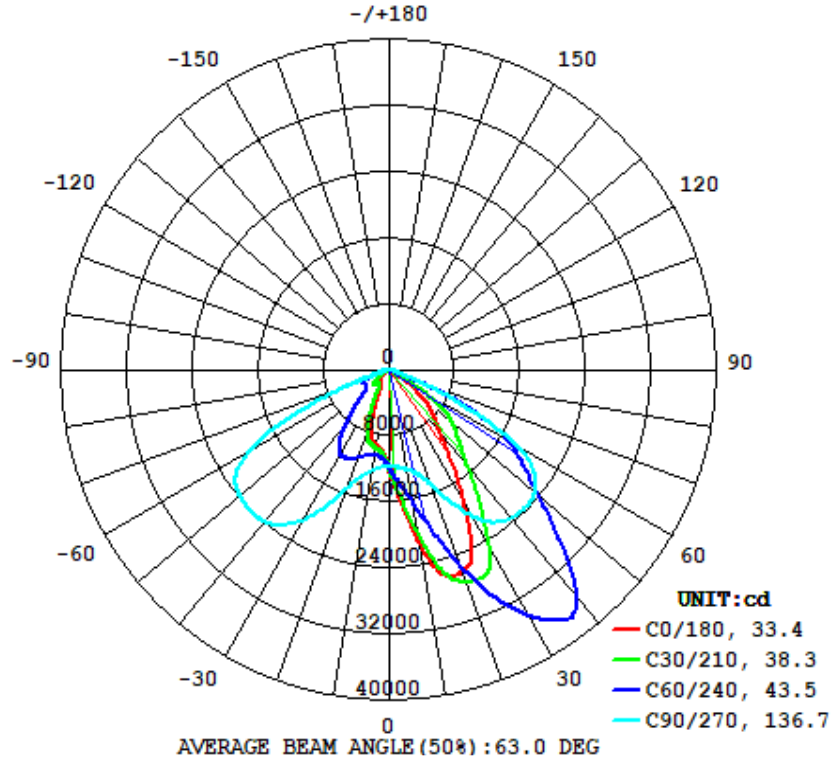
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
48952	82.1	150.4	33.4	136.7	136.4

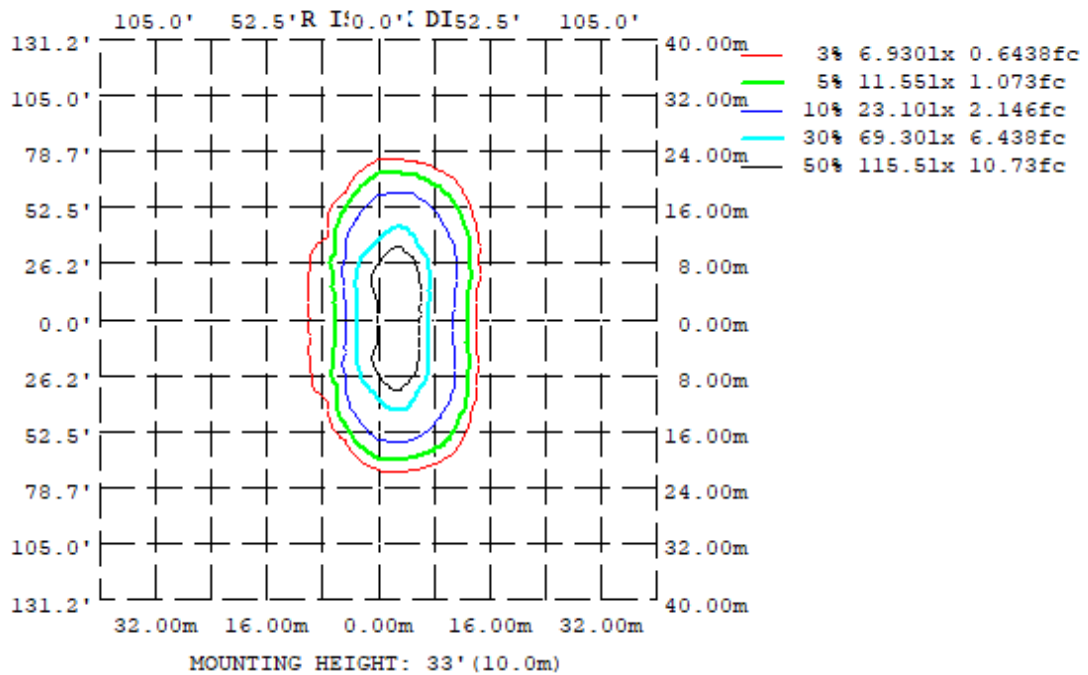
Zonal Lumen Requirement (0°-90°)	Zonal Lumen Requirement (80°-90°)	BUG rating
100.00%	0.17%	B4-U0-G3

4.2 Goniophotometer Test

Light Distribution Curve



Isolux Plot



4.2 Goniophotometer Test

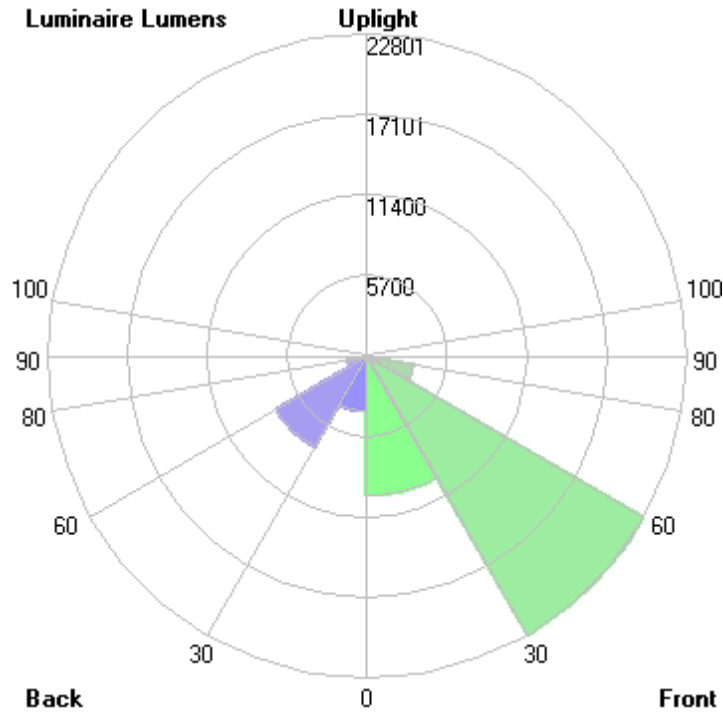
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	2094	1809	1228	986.0	933.4	1005	1238	1814
20	2601	2768	1465	933.4	593.9	980.3	1509	2817
30	1837	3110	2047	560.0	183.4	614.7	2087	3218
40	973.1	2372	2340	267.4	212.3	274.5	2397	2477
50	595.8	1718	2327	323.6	111.2	313.8	2379	1795
60	116.5	971.6	1760	203.7	14.25	244.0	1981	1098
70	15.15	74.92	296.3	14.26	6.285	20.86	504.4	103.8
80	5.414	12.66	64.37	6.434	3.255	6.949	84.92	15.87
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	1225.64	0 - 10	1225.64	2.50%
10-20	4492.95	0 - 20	5718.59	11.68%
20-30	8139.85	0 - 30	13858.44	28.31%
30-40	10423.49	0 - 40	24281.93	49.60%
40-50	10760.98	0 - 50	35042.91	71.59%
50-60	9056.66	0 - 60	44099.57	90.09%
60-70	4133.74	0 - 70	48233.31	98.53%
70-80	635.77	0 - 80	48869.08	99.83%
80-90	83.23	0 - 90	48952.31	100.00%
90-100	0.00	0 - 100	48952.31	100.00%
100-110	0.00	0 - 110	48952.31	100.00%
110-120	0.00	0 - 120	48952.31	100.00%
120-130	0.00	0 - 130	48952.31	100.00%
130-140	0.00	0 - 140	48952.31	100.00%
140-150	0.00	0 - 150	48952.31	100.00%
150-160	0.00	0 - 160	48952.31	100.00%
160-170	0.00	0 - 170	48952.31	100.00%
170-180	0.00	0 - 180	48952.31	100.00%

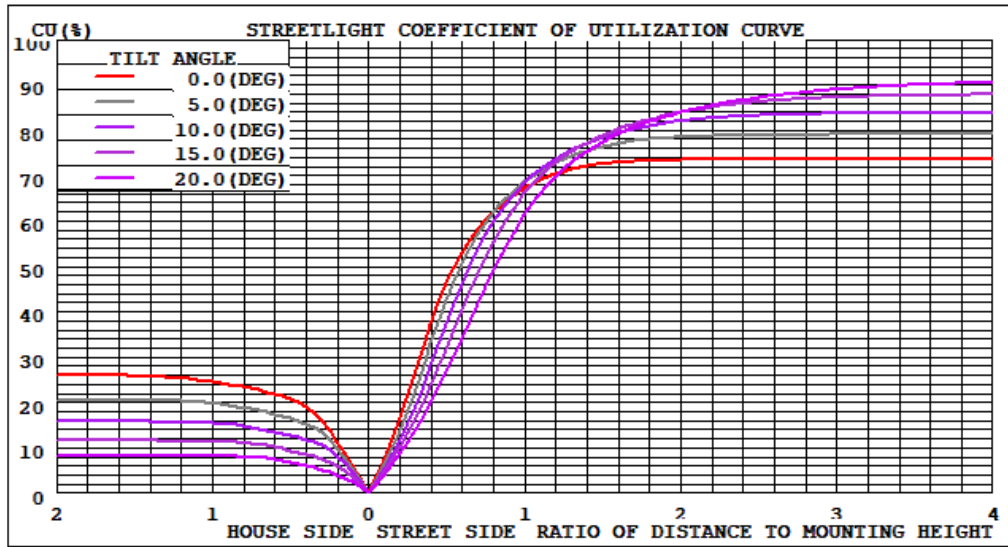
4.2 Goniophotometer Test

LCS/BUG

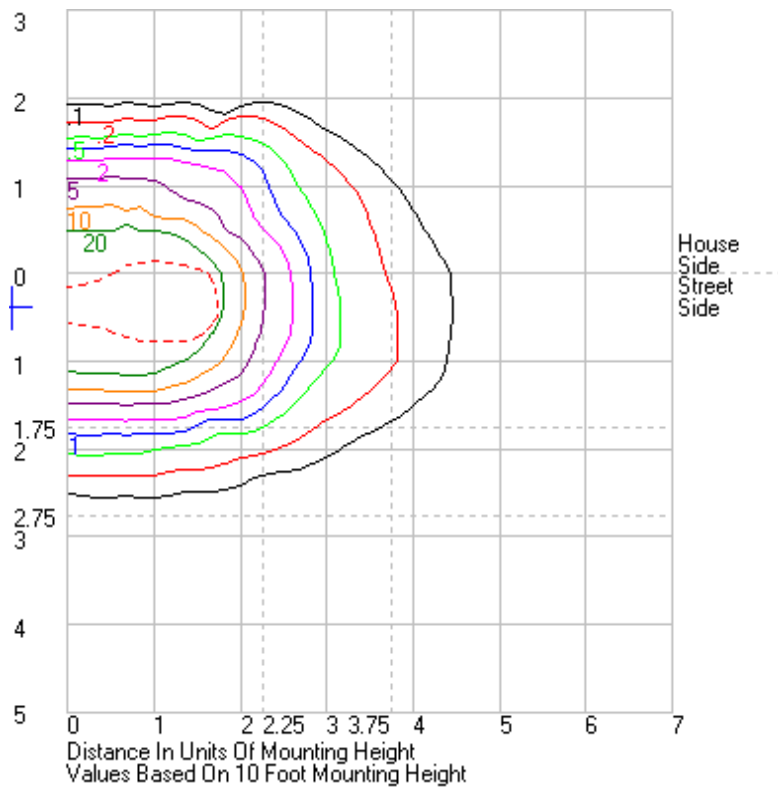


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	9893.5	N.A.	20.2
FM - Front-Medium (30-60)	22800.8	N.A.	46.6
FH - Front-High (60-80)	3390.9	N.A.	6.9
FVH - Front-Very High (80-90)	50.9	N.A.	0.1
BL - Back-Low (0-30)	3965.0	N.A.	8.1
BM - Back-Medium (30-60)	7440.4	N.A.	15.2
BH - Back-High (60-80)	1378.6	N.A.	2.8
BVH - Back-Very High (80-90)	32.3	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	48952.4	N.A.	100.0
BUG Rating	B4-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	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7	11801.7
1	12388.4	12370.3	12299.5	12201	12074.3	11871.7	11719.9	11573.1	11437.3	11322.5	11172.7	11318.8	11328	11381.1	11450	11544.2	11600.6	11725	11847.9	11967.5	12062.4	12137.5	12187.9	12388.4	12388.4
2	13098.3	12997.7	12869.8	12652.4	12382.6	12032.2	11735.7	11454.1	11211.4	11004.8	10861.2	10774.2	10888.2	10920.4	10998.3	11134.1	11321.5	11491.1	11744.9	12015.3	12277.5	12513.6	12689.3	12813.2	13098.3
3	13875.5	13764.2	13545.4	13126.9	12718.8	12207.3	11766.7	11363.4	11015.8	10748.3	10556.3	10446.1	10537.8	10576.9	10686.9	10868.9	11128.7	11401.3	11781.9	12195.6	12616.8	13016	13337.5	13552.4	13875.5
4	14652.8	14530.9	14281.8	13703.3	13096.8	12403.3	11807.1	11281.4	10847.6	10524.5	10297.1	10171.6	10252.8	10293.6	10429.7	10648.2	10962.9	11326.1	11827.5	12395.3	13000.5	13583.4	14066.6	14368.8	14652.8
5	15558.9	15393.4	14942.1	14284	13511.2	12608.2	11859.5	11218.2	10712.5	10337.8	10094.4	9953.98	10029.2	10076.1	10222.4	10466.6	10827.5	11267	11889.8	12610.1	13413.1	14210.8	14842.3	15223.3	15558.9
6	16530.3	16311.6	15766.7	14925.9	13926	12832.2	11926.1	11173	10597.2	10194.8	9926.45	9783.08	9851.96	9907.87	10061.3	10320.7	10721	11224.7	11965.4	12854.6	13883.4	14878.6	15675.5	16167	16530.3
7	17564.9	17342.1	16638.1	15621.1	14377.9	13076.4	11998.2	11138.3	10505.1	10075.5	9792.53	9637.85	9711.31	9772.53	9940.76	10215.4	10635	11196.3	12050.6	13118.7	14401.2	15611.6	16571.2	17175.3	17564.9
8	18671.6	18381.1	17598.4	16372.9	14871	13332.9	12083.4	11113.9	10433.9	9979.01	9684.42	9514.43	9588.93	9661.04	9848.39	10136.7	10574.7	11193.9	12148.3	13409.4	14937.3	16377.6	17520.9	18218.8	18671.6
9	19818.9	19489.2	18632.4	17205.1	15426.8	13620.5	12175.1	11111.2	10379.6	9911.74	9587.73	9397.66	9463.38	9557.25	9771.2	10081.3	10534.6	11191.5	12258.7	13722	15521.4	17243.6	18553.3	19336.9	19818.9
10	20937	20623.4	19665.5	18088.5	16012.6	13912.2	12277.1	11117.7	10350	9859.88	9500.01	9271.18	9333.96	9444.53	9705.33	10047.1	10514.7	11199.2	12381.9	14054.4	16154.2	18142.7	19642.8	20481.5	20937
11	22125.8	21778.5	20803.2	19035.5	16657.3	14243.1	12395.1	11137.2	10338.3	9814.75	9405.64	9154.27	9218.99	9336.22	9633.44	10026.3	10517.3	11228.4	12512.1	14422.6	16839.5	19103.5	20750.7	21623.6	22125.8
12	23242.3	22919.2	21908.1	20019	17347.4	14595.2	12521.5	11176.1	10346.5	9783.02	9315.36	9051.72	9103.38	9240.52	9558.28	10016.4	10537.2	11272.8	12655.3	14821.7	17572.6	20149	21879.8	22757.4	23242.3
13	24234.9	23967.4	23029.5	21051.3	18096.6	14977.8	12662.9	11227.2	10375.7	9756.27	9234.67	8915.44	8942.23	9120.11	9488.81	10011.4	10577.1	11338.6	12835.9	15252.5	18371.4	21223.8	23001.1	23808.1	24234.9
14	25038	24856.6	24106.7	22129.8	18914.2	15408.2	12837.7	11309.5	10420.9	9720.88	9145.64	8712.42	8712.05	8942.3	9417.09	9997.39	10639.8	11428.5	13037.9	15753.7	19261.6	22317.2	24005.7	24693.8	25038
15	25636.3	25526.6	25027.5	23193.9	19766.6	15876.3	13036.1	11420.5	10481.2	9691.77	9007.17	8440.31	8395.88	8692.2	9305.96	9990.03	10722.2	11543.2	13276.4	16297.9	20204.7	24005.5	25397.3	25636.3	25636.3
16	25994.4	26008.4	25795.5	24266.4	20717	16395.5	13280.6	11546.9	10566.9	9664.42	8825.3	8091.25	7988.6	8355.64	9144.85	9996.05	10823	11689.4	13559.6	16903.5	21235.6	24514	25795.7	25937.4	25994.4
17	26166.1	26272.9	26384.8	25261.2	21695.5	16985	13558.9	11706.1	10653.8	9631.21	8567.41	7675.62	7547.21	7956.47	8931.55	9991.29	10934.5	11864.3	13866.3	17567.7	22282.4	25548.3	26446	26267.9	26166.1
18	26193.6	26382.4	26822.3	26183.4	22722.7	17617.2	13869.4	11905.4	10758.7	9569.18	8244.99	7213.37	7049.38	7518.33	8640.89	9967.86	11066.8	12075.3	14236.6	18303	23378.4	26525.3	26946.6	26422.8	26193.6
19	26132.3	26395.8	27111.7	26986.6	23810.2	18356.2	14246.1	12121.1	10874.5	9477.38	7878.89	6720.72	6511.53	7031.52	8293.23	9907.67	11197	12315.6	14641.1	19073.1	24500.2	27393.8	27307.5	26469.6	26132.3
20	26010.4	26342.4	27303.5	27676.7	24880.6	19156.2	14654	12386.7	10979.6	9333.84	7466.58	6159.98	5938.64	6501.08	7921.39	9802.79	11329.7	12596.5	15091.1	19932.8	25628.1	28165.3	27572.2	26437.8	26010.4
21	25866.1	26256.7	27422.5	28295.9	25991.3	20037.9	15120.9	12682.6	11108.9	9142.51	7004.73	5597.79	5326.92	5915.95	7485.42	9653.73	11469.9	12912.1	15603.5	20833.6	26759.2	28839.6	27756.8	26372.3	25866.1
22	25706.4	26159.7	27502.7	28785.6	27069.2	20952.1	15649.4	12984.2	11216.2	8911.43	6597.18	5031.89	4708.84	5313.38	7012.93	9455.92	11605.1	13253	16156.1	21794.5	27868.7	29433.2	27872.8	26287.6	25706.4
23	25472.7	26027.8	27561.2	29234	28164.9	21917.1	16200.7	13331.8	11309.9	8641.98	6017.87	4448.19	4119.43	4705.64	6468.11	9214.29	11744.1	13637.3	16746.1	22786.6	28980.9	29950.8	27971	26149	25472.7
24	25042	25779.9	27593.1	29638.8	29184.5	22940.6	16815.5	13689.9	11405.1	8327.39	5434.41	3898.06	3587.68	4144.14	5908.18	8931.47	11867.1	14025	17360.2	23782.4	30030.5	30406.5	28042	25912.8	25042
25	24335.5	25316.5	27572.3	29994.1	30159.4	23948	17443.6	14049.1	11443.1	7964.47	4882.58	3401.93	3103.12	3616.61	5322.41	8585.3	11960.9	14429.7	17986.9	24824.8	31048.5	30826.7	28057	25478.4	24335.5
26	23355.2	24532.3	27436.5	30337.2	31100.7	24983.8	18078.2	14443.3	11463.9	7546.95	4367.16	2965.38	2695.22	3156.24	4763.76	8180.12	12024.7	14832	18596.5	25867.3	32028.5	31201.7	27954.7	24770.7	23355.2
27	22121.5	23483.1	27091.1	30649.6	31962.5	26044.1	18711.5	14845.6	11458	7063.17	3886.68	2605.4	2385.79	2773.67	4256.8	7719.92	12047.1	15223.8	19195.7	26885	32948.5	31558.9	27662.9	23804.3	22121.5
28	20811	22262.8	26473.1	30917.2	32797.3	27072.9	19325.8	15221.2	11402.3	6501.72	3451.73	2321.92	2133.7	2462.81	3778.44	7198.65	12040.9	15602.7	19780.2	27905.5	33833.6	31869.1	27150.6	22658.8	20811
29	19550.3	21020.5	25614.1	31067.9	33581.3	28089.1	19915.8	15607.8	11325.4	6049.4	3076.98	2103.33	1945.62	2206.52	3366.86	6673.02	11999.3	15965.8	20344.2	28879.1	34669.6	32089.8	26391.6	21395.3	19550.3
30	18372.4	19826.3	24535.6	31102.1	34311.8	29052.1	20471.8	15949.8	11205.7	5600.27	2752.83	1938.64	1834.43	2013	3009.41	6147.13	11910.5	16312.3	20871.4	29826.4	35451.9	32178.2	25426.6	20178.5	18372.4
31	17327.3	18774.8	23407.2	30934.3	35004.1	30013.5	21006.5	16256.6	11031.7	5143.24	2499.29	1850.88	1789.61	1895.54	2704.42	5647.35	11780	16636.5	21358	30750.4	36171.8	32068.5	24339.9	19037.8	17327.3
32	16378.3	17782.7	22296.1	30534.1	35635.2	30936.9	21503.9	16565.6	10820.2	4706.73	2295.8	1825.52	1787.34	1847.99	2447.67	5178.78	11583.6	16927.3	21804.2	31630.1	36825.1	31750	23227.2	18022.4	16378.3
33	15427.9	16813.4	21270.2	29901.5	36201.8	31826.8	21940.1	16805.1	10534.3	4304.99	2151.22	1836.78	1798.32	1843.92	2254.82	4741.81	11313.9	17179.3	22218.7	32470.6	37418.4	31227.5	22125.3	17081.3	15427.9
34	14424.7	15850.6	20296.5	29052.3	36667.3	32625.9	22307.5	17006.3	10188.8	3939.44	2075.84	1857.85	1818.29	1857.81	2128	4399.94	10987.1	17389.6	22606	33294.9	37934.8	30488.6	21115	16150	14424.7
35	13447.8	14840.2	19395.4	28114.8	37041	33320.7	22600.8	17147.5	9788.44	3613.5	2058.31	1888.7	1847.16	1881.43	2072.16	3968.72	10584.1	17553.7	22967.1	34045.2	38363.4	29582.4	20166.2	15167.5	13447.8
36	12522.2	13823.2	18497.4	27153.4	37252.2	33923.3	22844.3	17209.3	9333.82	3328.18	2073.9	1930.45	1891.37	1915.13	2066.3	3634.65	10127.6	17672.4	23279.5	34760.5	38651.2	28636.8	19250	14231.2	12522.2
37	11667.8	12890.3	17562.7	26202.9	37257.6	34437.9	23035.5	17221.8	8872.03	3081.91	2110.49	1983.99	1948.95	1965.4	2088.42	3336.52	9641.5	17750.3	23538.9	35401.5	38774.4	27634.5	18339.5	13330.3	11667.8
38	10942.4	12092	16639	25323.9	37012.8	34857.6	23179.6	17182.5	8395.3	2886.42	2154.53	2050.57	2014.95	2030.34	2123.48	3084.97	9136.96	17765.7	23731.3	35947.2	38688.8				



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.	ALEDXLAT/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° C ± 1° 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	0.799	358.2	0.934	5.13%

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*****