

Photometric Test Report

Relevant Standards

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

Prepared For

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2021/11/8

Issue Date

2021/11/11

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		54644
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	147.1
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		371.4
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	3.01%
		20.00%	277V	9.45%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	120V	0.999
		0.9	277V	0.967
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	5029±355	5073
		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		16
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		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%		0.62%
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		3.100
(Goniophotometer - Section 4.2)		Non-Worst Case		1.368
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		371.4
(Goniophotometer - Section 4.2)		Non-Worst Case		365.3

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2021/11/8	ALEDXL5T	N1
2	Goniophotometer Test	2021/11/8	ALEDXL5T	N1
3	THD and PF Test	2021/11/8	ALEDXL5T	N1

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.

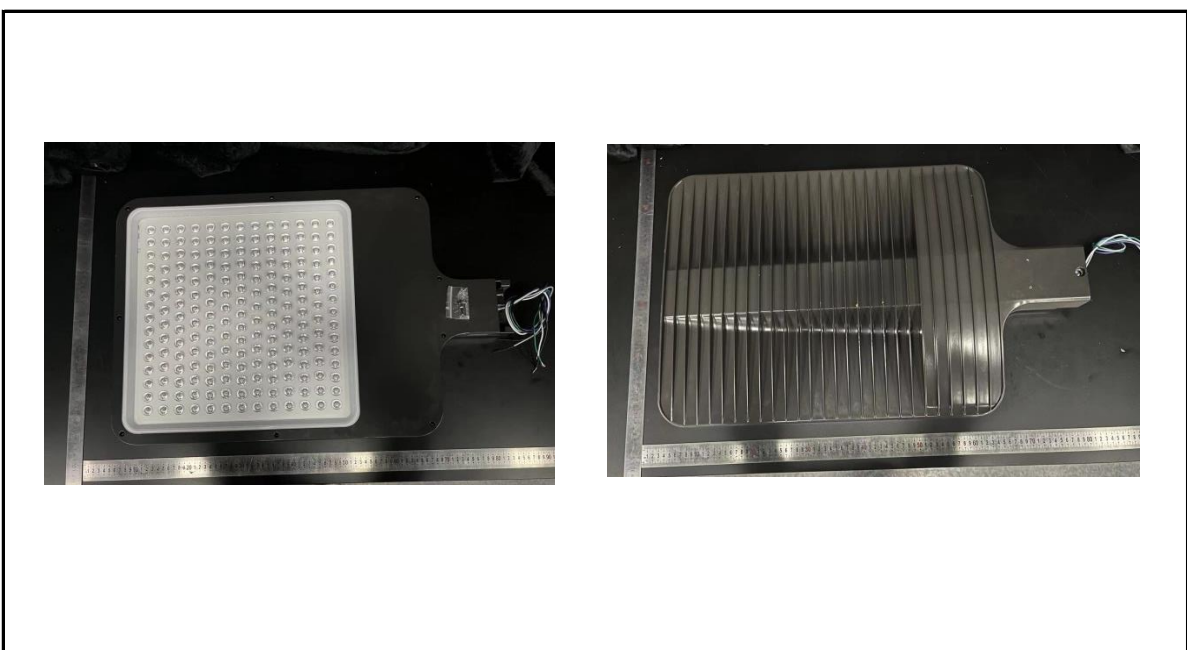
3.0 Production Description

Luminaire Description: ALEDXL5T

Description: 385W/50,000 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.	ALEDXL5T	Sample ID.	N1
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
120.00	60	3.084	369.9	0.999
277.07	60	1.361	364.6	0.967

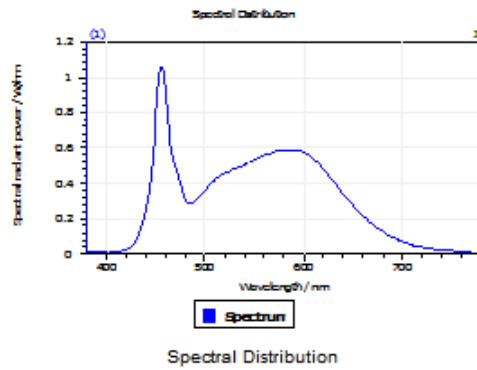
Test Result

CCT (K)	CRI	R9	Duv
5073	85	16	0.0008

Rf	Rg	IES Rcs,h1
84	93	-12%

4.1 Integrating Sphere Test

Results

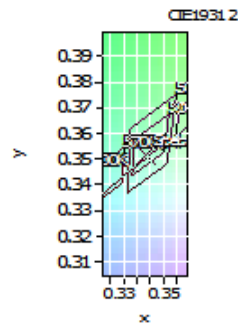


Spectral values

DominantWavelength 570.82 nm
Purity 0.085
PeakWavelength 456.11 nm
Radiant Power 116.8 W
Width50%:

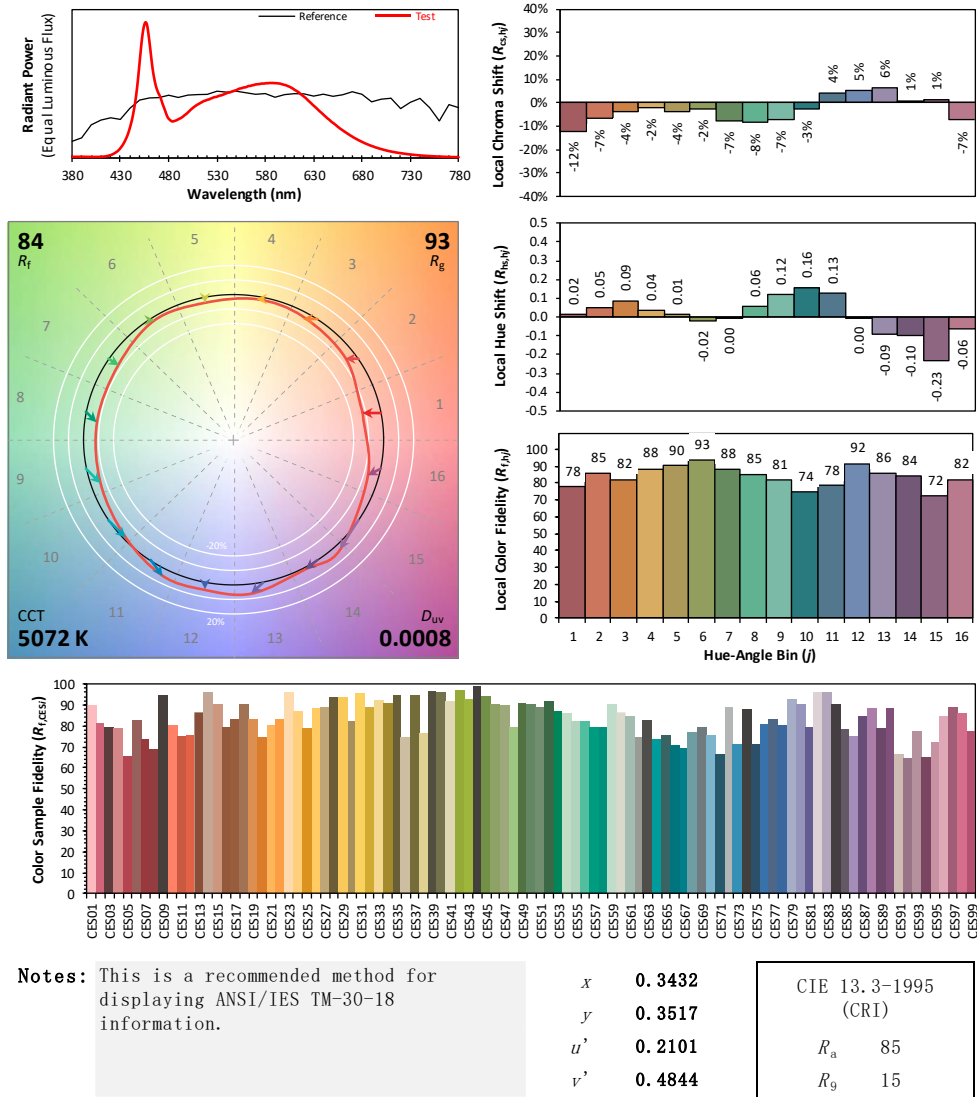
Color Coordinates

Correlated Color Temporal 5073 K
x: 0.3432 u: 0.2101 u': 0.2101
y: 0.3517 v: 0.3230 v': 0.4844
CRI01 84.5 CRI09 16.3
CRI02 93.4 CRI10 82.4
CRI03 95.0 CRI11 81.0
CRI04 81.7 CRI12 62.2
CRI05 83.9 CRI13 87.7
CRI06 87.9 CRI14 98.1
CRI07 85.9 CRI15 79.8
CRI08 68.2 CRI16 75.1
ResultsCRI 85.1



PlanckDistance 8.0E-004

4.1 Integrating Sphere Test



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.	ALEDXL5T	Sample ID.	N1
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	119.93	60	3.100	371.4	0.999
NON-WORST CASE	277.04	60	1.368	365.3	0.964

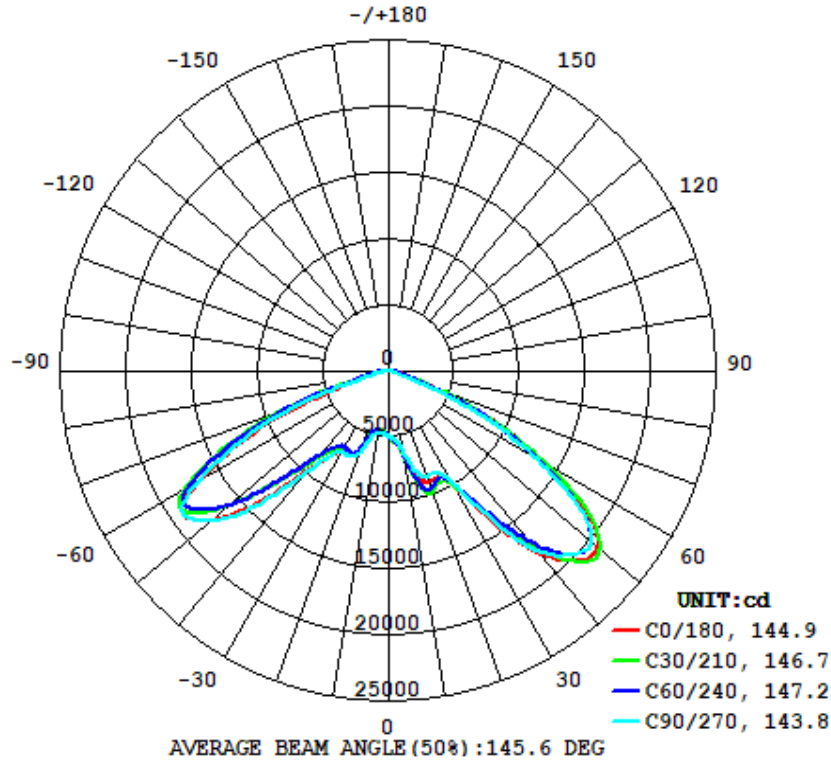
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
54644	164.6	154.1	144.9	143.8	147.1

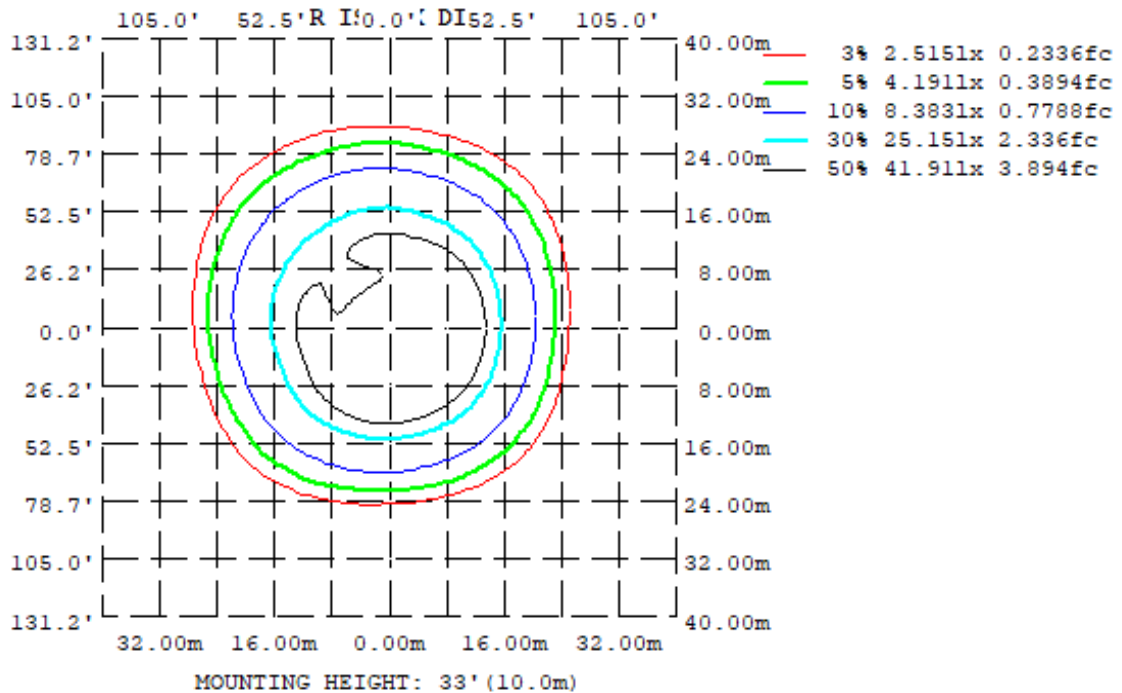
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.62%	B5-U0-G3

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

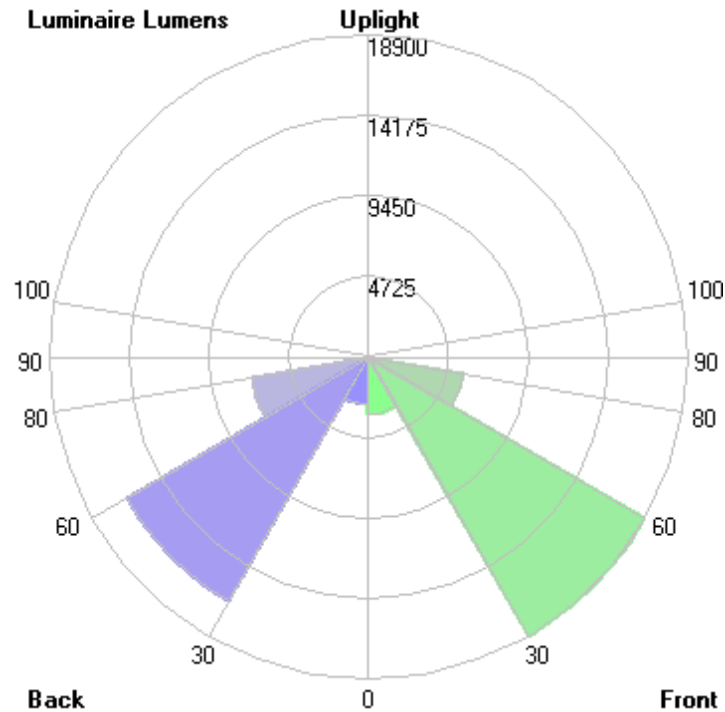
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	607.9	627.7	593.3	519.5	466.4	455.1	481.1	541.1
20	897.3	985.5	856.5	831.4	651.5	605.9	655.8	842.4
30	991.3	994.2	968.1	804.5	707.6	689.0	713.6	830.0
40	1798	1683	1782	1217	1003	820.8	1028	1242
50	2081	2120	2023	1912	1751	1480	1761	1939
60	1333	1384	1263	1595	1686	1830	1698	1658
70	327.2	433.9	256.0	587.2	585.9	887.4	655.9	677.4
80	67.88	73.81	27.35	81.40	86.12	113.3	39.83	99.45
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	490.17	0 - 10	490.17	0.90%
10-20	1911.70	0 - 20	2401.87	4.40%
20-30	3759.96	0 - 30	6161.83	11.28%
30-40	6607.02	0 - 40	12768.85	23.37%
40-50	12694.88	0 - 50	25463.73	46.60%
50-60	16133.57	0 - 60	41597.30	76.12%
60-70	10356.59	0 - 70	51953.89	95.08%
70-80	2350.02	0 - 80	54303.91	99.38%
80-90	340.33	0 - 90	54644.24	100.00%
90-100	0.00	0 - 100	54644.24	100.00%
100-110	0.00	0 - 110	54644.24	100.00%
110-120	0.00	0 - 120	54644.24	100.00%
120-130	0.00	0 - 130	54644.24	100.00%
130-140	0.00	0 - 140	54644.24	100.00%
140-150	0.00	0 - 150	54644.24	100.00%
150-160	0.00	0 - 160	54644.24	100.00%
160-170	0.00	0 - 170	54644.24	100.00%
170-180	0.00	0 - 180	54644.24	100.00%

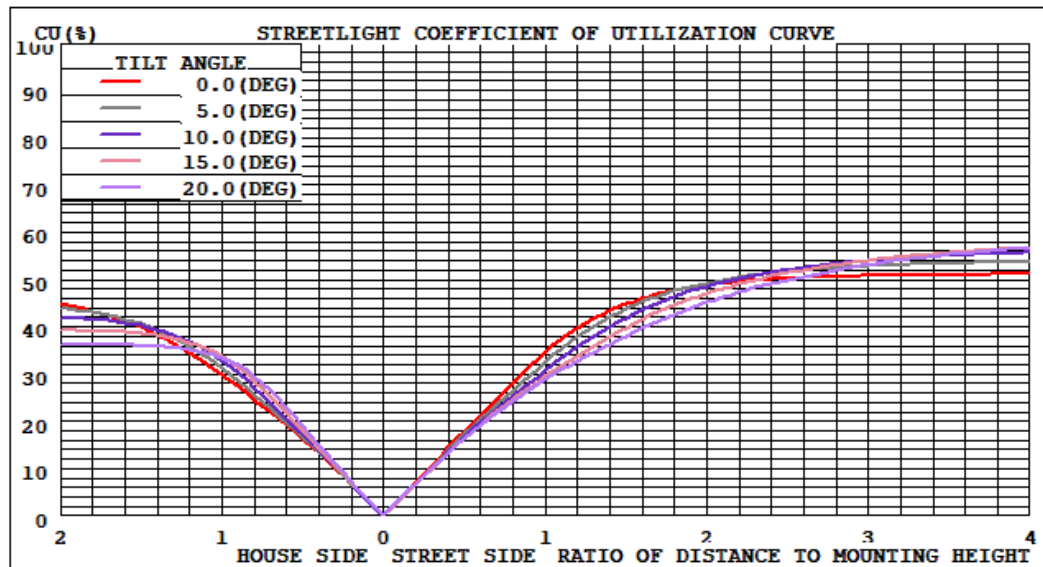
4.2 Goniophotometer Test

LCS/BUG

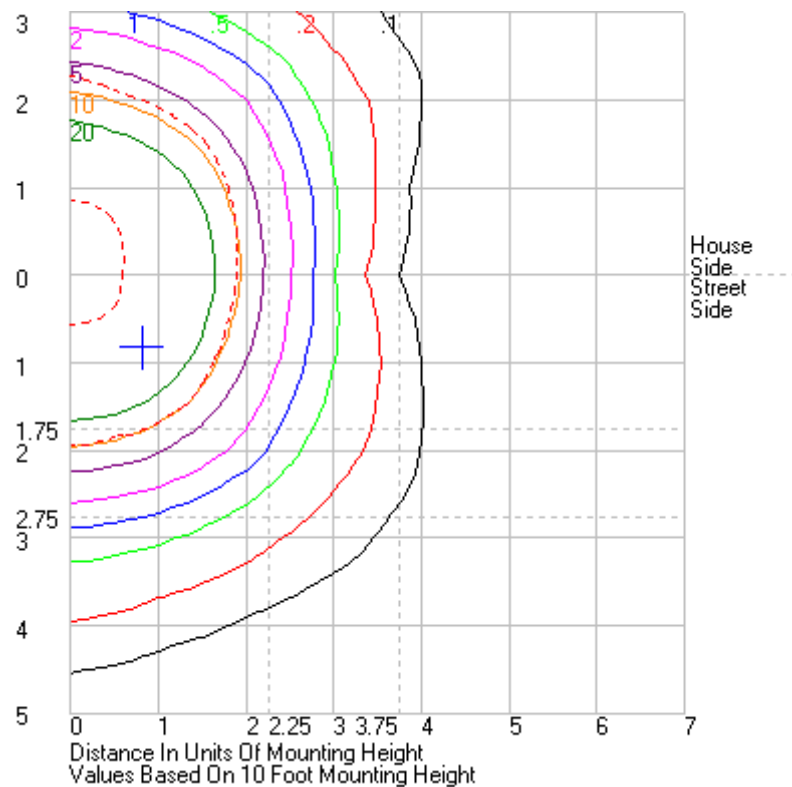


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	3369.8	N.A.	6.2
FM - Front-Medium (30-60)	18899.5	N.A.	34.6
FH - Front-High (60-80)	5701.8	N.A.	10.4
FVH - Front-Very High (80-90)	147.9	N.A.	0.3
BL - Back-Low (0-30)	2792.1	N.A.	5.1
BM - Back-Medium (30-60)	16535.9	N.A.	30.3
BH - Back-High (60-80)	7004.8	N.A.	12.8
BVH - Back-Very High (80-90)	192.4	N.A.	0.4
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	54644.2	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	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27	4982.27
1	5035	5040.58	5041.62	5039.08	5033.54	5024.17	5009.98	4994.46	4978.35	4961.35	4943.03	4931.04	4932.78	4926.69	4924.11	4926.2	4931.53	4941.24	4951.97	4964.78	4978.22	4991.24	5003.17	5013.63	5035
2	5099.85	5111.47	5114.19	5108.77	5095.57	5079.12	5053.98	5024.38	4988.67	4953.73	4920.58	4893.02	4886.05	4873.82	4867.64	4872.28	4884.63	4905.04	4927.18	4954.68	4984.71	5015.19	5042.51	5068.28	5099.85
3	5171.67	5190	5194.47	5185.53	5166.34	5137.49	5102.04	5058.2	5009.07	4955.02	4904.21	4861.77	4843.74	4824.08	4814.98	4819.31	4838.17	4869.92	4906.31	4949.93	4996.97	5044.66	5090.51	5127.78	5171.67
4	5246.48	5270.99	5281.3	5271.1	5244.87	5204.72	5156.81	5099.72	5032.71	4965.16	4893.85	4836.29	4806.47	4778.14	4763.9	4771	4793.59	4833.81	4884.33	4946.83	5014.53	5080.9	5142.44	5193.82	5246.48
5	5325.47	5359.13	5367.98	5358.25	5328.98	5279.21	5219.36	5149.18	5066.85	4978.33	4891.28	4813.97	4773.86	4739.31	4718.82	4723.62	4749.57	4797.05	4859.62	4939.71	5031.44	5120.15	5195.36	5262.99	5325.47
6	5411.11	5451.47	5466.25	5458.99	5426.3	5366.52	5290.03	5204.48	5107.55	4999.93	4892.36	4796.94	4746.23	4705.27	4677	4677.77	4707.11	4765.12	4839.98	4936.63	5049.28	5159.69	5251.94	5338.08	5411.11
7	5505.51	5563.89	5586.99	5576.51	5538.83	5472.39	5389.24	5280.27	5153.29	5029.32	4893.93	4779.15	4716.44	4667.77	4636.38	4638	4670.01	4738.16	4826.16	4937.33	5069.09	5199.58	5318.6	5427.33	5505.51
8	5641.49	5723.49	5754.39	5742.24	5696.99	5614.72	5511.06	5378.44	5223.05	5061.99	4906.31	4768.17	4692.45	4634.5	4600.91	4603.79	4639.13	4716.52	4813.54	4942.07	5093.12	5247.66	5402.25	5547.94	5641.49
9	5830.84	5931.82	5985.07	5974.82	5922.72	5821.09	5685.39	5512.36	5322.7	5112.1	4926.46	4763.97	4673.64	4602.57	4570.46	4573.52	4613.09	4697.97	4808.21	4954.78	5127.02	5314.62	5522.01	5725.6	5830.84
10	6079.41	6209.8	6275.95	6276.56	6220.86	6090.26	5933.16	5705.63	5446.43	5194.85	4953.1	4773.53	4663.63	4578.21	4545.8	4550.9	4596.49	4683.13	4810.83	4977.51	5175.4	5411.37	5690.51	5958.66	6079.41
11	6392.31	6563.88	6655.32	6669.82	6605.1	6440.21	6245.68	5978.44	5652.83	5313.97	5013.47	4809.72	4674.17	4573.77	4526.2	4538.27	4584.92	4676.38	4821.43	5013.87	5247.8	5546.54	5913.69	6252.47	6392.31
12	6744.27	6965.08	7107.14	7145.11	7054.4	6839.17	6608.76	6303.11	5920.03	5495.65	5121.08	4882.2	4705.29	4587.01	4526.23	4532.83	4580.49	4683.01	4845.94	5070.71	5355.29	5737.88	6187.1	6546.29	6744.27
13	7116.68	7387.46	7606.22	7673.05	7535.6	7254.11	6989.35	6661.57	6230.5	5751	5305.39	5001.82	4761.29	4621.86	4547.69	4535.92	4591.84	4713.57	4905.07	5165.03	5509.7	5988.42	6476.65	6862.97	7116.68
14	7505.97	7849.44	8124.68	8217.74	8035.65	7686.48	7360.59	7034.96	6615.98	6071.95	5574.08	5191	4858.43	4686.25	4591.32	4557.59	4633.6	4785.43	5012.08	5320.47	5725.69	6262.07	6798.42	7233.67	7505.97
15	7905.53	8312.16	8647.8	8731.54	8513.28	8083.06	7695.9	7356.29	6988.35	6476.84	5905.07	5455.76	5018.61	4808.73	4674.64	4623.44	4723.46	4907.89	5174.65	5533.58	6065.57	6541.38	7167.2	7599.32	7905.53
16	8286.78	8761.07	9132.54	9226.66	8945.55	8455.67	8007.93	7679.98	7356.16	6920.95	6327.68	5802.93	5257.25	5011.43	4827.3	4756.57	4870.68	5086.39	5397.39	5824.39	6457.47	6984.32	7547.63	7958.29	8286.78
17	8615.99	9128.28	9516.43	9591.16	9280.82	8753.08	8260.9	7954.67	7720.62	7358.93	6803.58	6200.86	5551.28	5269.4	5062.78	4962.51	5081.82	5317.24	5673.32	6175.46	6751.91	7403.57	7910.33	8266.1	8615.99
18	8843.79	9373.15	9762.39	9815.7	9496.31	8960.58	8437.38	8150.16	8007.44	7773.89	7273.27	6625.26	5898.75	5583.81	5379.41	5261.64	5361.71	5598.45	5992.73	6526.53	7189.41	7806.71	8208.98	8487.66	8843.79
19	8947.88	9488.52	9848.39	9887.48	9579.29	9074.03	8539.93	8259.41	8190.94	8105.35	7685.29	7013.22	6206.98	5966.28	5761.44	5643.69	5866.56	5911.31	6275.17	6904.58	7619.34	8164.18	8412.01	8595.32	8947.88
20	8973.48	9511.46	9818.05	9854.7	9560.23	9094.33	8564.71	8305.53	8286.44	8313.51	7970.08	7312.54	6515.21	6259.29	6144.92	6059.31	6036.7	6193.61	6557.61	7275.2	8001.24	8423.65	8522.27	8621.13	8973.48
21	8962.45	9470.36	9726.56	9747.3	9467.01	9041.83	8532.21	8295.14	8323.88	8391.49	8130.58	7519.73	6762.15	6552.29	6528.39	6474.94	6319.85	6409.15	6809.31	7570.43	8289.96	8583.08	8565	8618.46	8962.45
22	8926.95	9400.38	9599.95	9599.88	9344.96	8965.11	8487.62	8258.6	8313.83	8370.67	8187.63	7632.82	6898.55	6783.59	6853.57	6851.98	6602.25	6589.88	6986.05	7778.3	8456.78	8659.44	8576.01	8598.04	8926.95
23	8890.08	9315.7	9465.43	9447.51	9214.86	8900.64	8471.93	8230.25	8254.03	8291.48	8152.57	7678.11	6983.54	6889.02	7058.6	7104.54	6804.77	6696.29	7108.9	7905.65	8513.03	8657.67	8560.35	8573.69	8890.08
24	8879.09	9256.79	9369.23	9316.71	9112.21	8866.56	8490.56	8229.23	8178.94	8192.76	8049.4	7652.21	7012.04	6935.79	7165.61	7239.29	6906.29	6780.43	7178.98	7958.31	8484.87	8589.41	8531.13	8565.07	8879.09
25	8908.07	9227.98	9310.48	9227.83	9057.14	8864.97	8550.97	8267.29	8120.95	8099.05	7920.97	7583.6	7016.02	6953.26	7198.42	7255.88	6944.57	6618.72	7209.67	7959.33	8393.65	8490.22	8492.46	8587.35	8908.07
26	8976.93	9247.27	9297.91	9198.3	9048.71	8908.74	8649.18	8353.73	8108.09	8013.39	7808.32	7497.34	6995.06	6933.09	7166.62	7200.85	6937.13	6816.1	7212.05	7915.73	8266.54	8390.78	8470.46	8645.83	8976.93
27	9084.62	9325.21	9351.67	9234.74	9099.11	9008.99	8797.21	8479.2	8146.45	7951.2	7721.42	7408.14	6964.53	6899.15	7099.91	7107.43	6894.14	6809.45	7209.34	7835.97	8133.23	8314.73	8480.45	8731.25	9084.62
28	9254.31	9483.53	9501.9	9360.59	9235.15	9185.42	9010.49	8660.08	8235.21	7935.95	7663.21	7346.14	6965.53	6872.49	7028.98	7018.74	6833.77	6802.56	7178.99	7726.75	8030.88	8272.31	8526.94	8858.13	9254.31
29	9506.36	9772.2	9770.19	9600.12	9491.92	9475.48	9295.59	8895.84	8366.2	7971.2	7634.86	7330.1	7003.18	6880.06	6981.84	6942.01	6774.27	6794.03	7141.91	7634.16	7969.24	8268.29	8608.68	9045.71	9506.36
30	9913.01	10201.9	10138.1	9941.55	9857.19	9879.31	9681.03	9189.8	8540.19	8045.13	7642.95	7347.03	7075.56	6936.3	6958	6890.18	6730.55	6807.43	7135.94	7593.88	7947	8300.27	8740.73	9315.93	9913.01
31	10512.7	10772.6	10598.9	10354.8	10290.6	10411.8	10272	9601.37	8777.72	8155.59	7694.7	7403.43	7177.18	7021.74	6974.23	6870.35	6717.68	6848.17	7177.65	7606.35	7965.99	8373.4	8950.79	9722.8	10512.7
32	11279.4	11482.5	11168.4	10852.3	10834.8	11060.4	10967.7	10148.2	9098.29	8317.59	7795.05	7501.82	7302.18	7141.49	7033.93	6882.3	6745.45	6928.29	7270.65	7673.15	8026.5	8502.64	9265.53	10321.8	11279.4
33	12124.3	12272.5	11819.5	11426.6	11440.2	11804.3	11772.5	10842.6	9501.81	8541.59	7939.78	7642.95	7466.88	7286.61	7118.24	6928.1	6809.31	7050.25	7415.17	7791.75	8139.59	8703.04	9674.88	11070.6	12124.3
34	13036.1	13128.8	12544.4	12060.7	12128.8	12614.8	12670.8	11642.4	10020.7	8834.12	8124.17	7832.29	7671.02	7465.34	7237.82	7005.4	6907.13	7220.19	7614.87	7968.77	8316.05	8987.79	10190.4	11915.2	13036.1
35	13954.3	13998.8	13330.1	12767.7	12908.1	13499.5	13598.6	12524.1	10654.7	9216.92	8385	8069.85	7914.6	7679.12	7394.15	7117.39	7048.19	7424.56	7867.56	8203.64	8568.97	9359.09	10829.9	12842.4	13954.3
36	14872.8	14868.9	14139	13525.3	13704.2	14384.8	14526.4	13450.8	11359.3	9652.29	8714.87	8364.65	8189.71	7933.08	7574.05	7268	7225.85	7677.28	8178.49	8525.16	8904.42	9831.48	11574.4	13775.7	14872.8
37	15721.2	15725.2	14965.5	14283	14501.2	15251.1	15450.8	14378.6	12191.4	10173	9117.33	8743.04	8519.13	8205.62	7793.81	7448.03	7437.58	7974.69	8561.59	8916.06	9317.32	10375.7	12388.8	14704.4	15721.2
38	16528.9	16526.7	15788.9	15074.1	15340.7	16113.9	16329.5	15300	13051	10783.3	9573.58	9196.34	8910.29	8528.63											

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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.	ALEDXL5T	Sample ID.	N1
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
120.00	60	3.084	369.9	0.999	3.01%
277.07	60	1.361	364.6	0.967	9.45%

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*****