

Photometric Test Report

Relevant Standards

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

Prepared For RAB Lighting Inc.

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Report Number

DLF2111105-2a

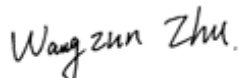
Test Date

2021/11/8

Issue Date

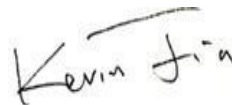
2021/11/11

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		36971
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	138.1
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		267.7
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	1.76%
		20.00%	277V	4.21%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	120V	0.999
		0.9	277V	0.966
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	5029±355	4976
		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		13
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
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%		0.70%
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		2.234
(Goniophotometer - Section 4.2)		Non-Worst Case		0.964
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		267.7
(Goniophotometer - Section 4.2)		Non-Worst Case		257.8

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2021/11/8	ALEDL3T	B1
2	Goniophotometer Test	2021/11/8	ALEDL3T	B1
3	THD and PF Test	2021/11/8	ALEDL3T	B1

Remark(If any)

- 1、 This report shall not be used by the client to claim product endorsement by NVLAP, NIST or any agency of the US government.
- 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.

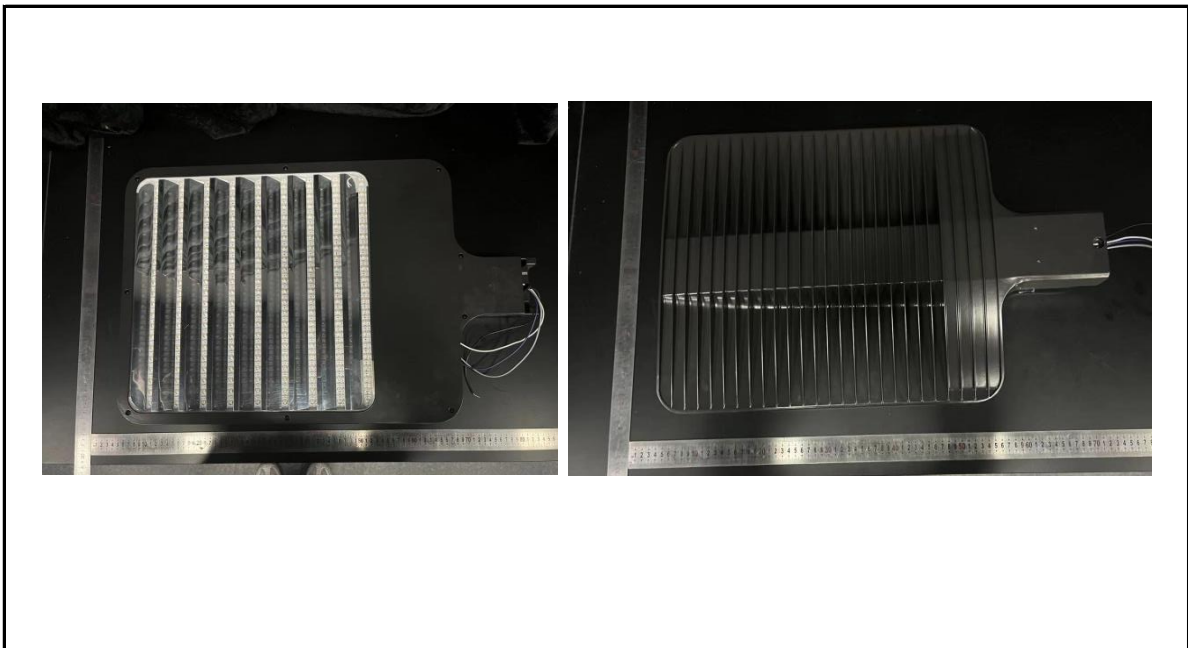
3.0 Production Description

Luminaire Description: ALEDL3T

Description: 260W/36,000 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.	ALEDL3T	Sample ID.	B1
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
120.08	60	2.221	266.5	0.999
277.02	60	0.961	257.1	0.966

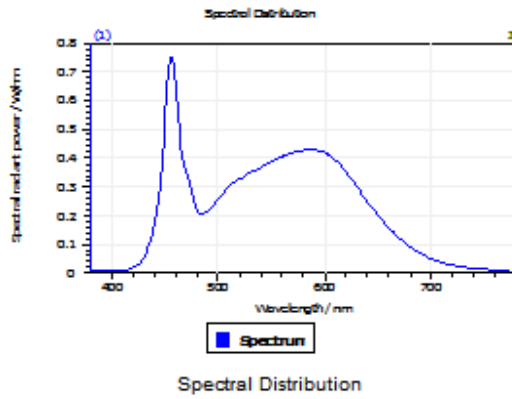
Test Result

CCT (K)	CRI	R9	Duv
4976	85	13	0.0011

Rf	Rg	IES Rcs,h1
83	93	-12%

4.1 Integrating Sphere Test

Results



Spectral values

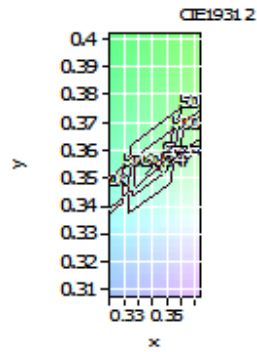
DominantWavelength 571.99 nm
Purity 0.102
PeakWavelength 456.10 nm
Radiant Power 84.3 W
Width50%:

Color Coordinates

Correlated Color Temperat 4978 K
x: 0.3460 u: 0.2109 u': 0.2109
y: 0.3545 v: 0.3241 v': 0.4862

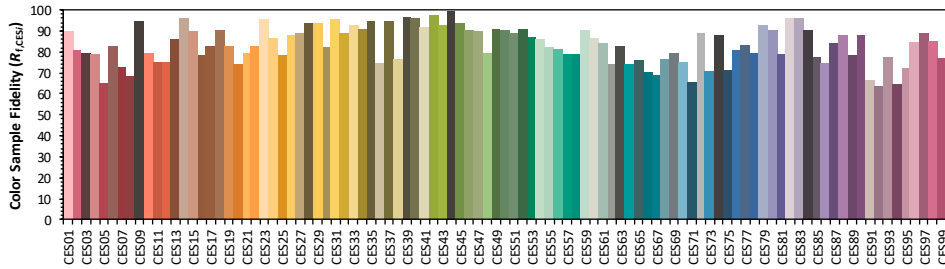
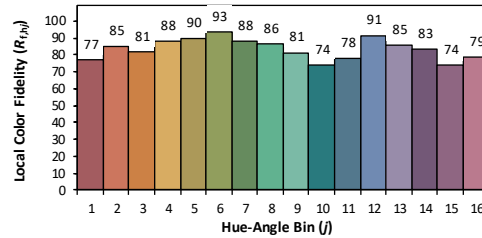
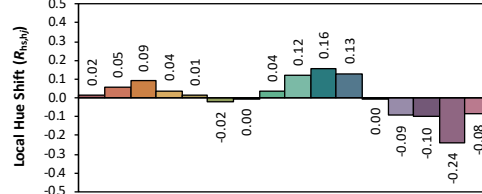
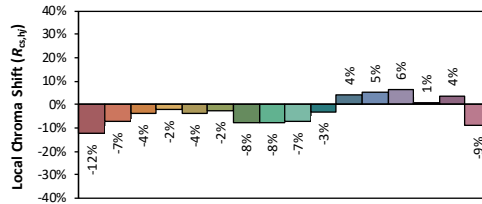
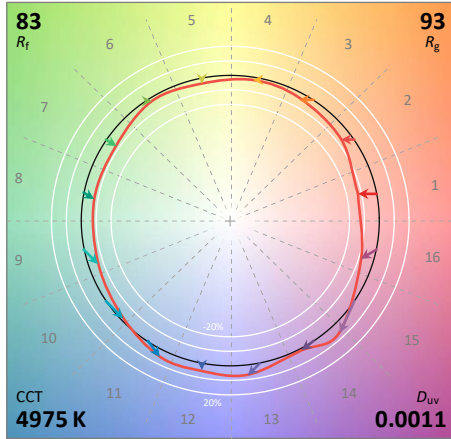
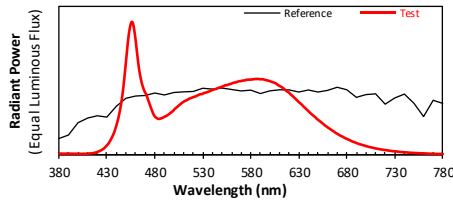
CRI01	83.5	CRI09	13.2
CRI02	92.8	CRI10	81.3
CRI03	95.0	CRI11	80.3
CRI04	81.2	CRI12	61.9
CRI05	83.4	CRI13	86.6
CRI06	87.7	CRI14	98.0
CRI07	85.3	CRI15	78.6
CRI08	66.8	CRI16	74.2

ResultsCRI 84.5



PlanckDistance 1.1E-003

4.1 Integrating Sphere Test



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

x 0.3460
 y 0.3545
 u' 0.2109
 v' 0.4862

CIE 13.3-1995 (CRI)	
R_a	84
R_g	14

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.	ALEDL3T	Sample ID.	B1
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	119.99	60	2.234	267.7	0.999
NON-WROST CASE	277.04	60	0.964	257.8	0.965

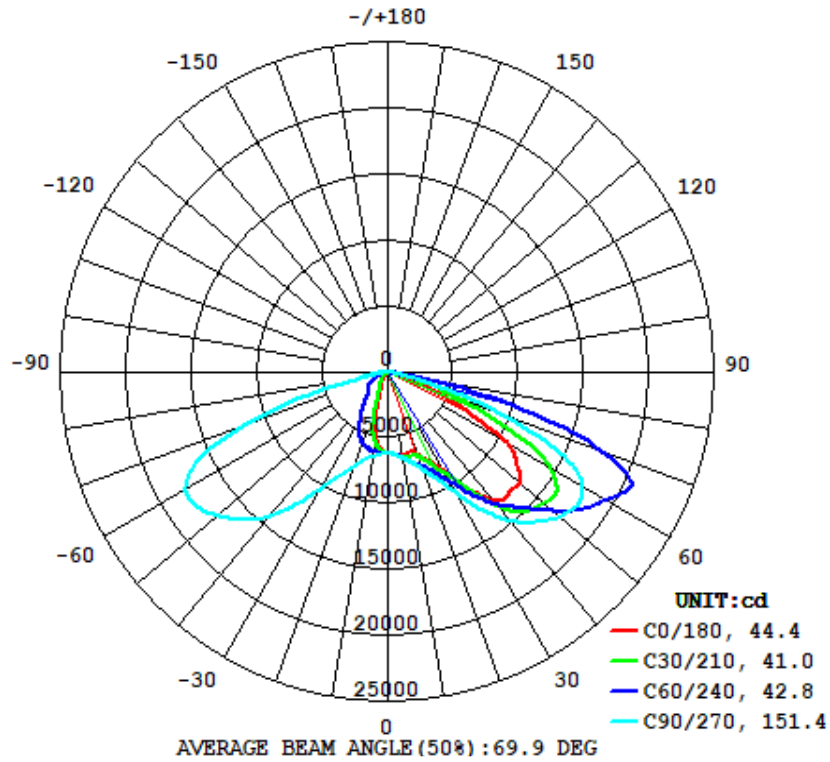
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
36971	97.6	161.5	44.4	151.4	138.1

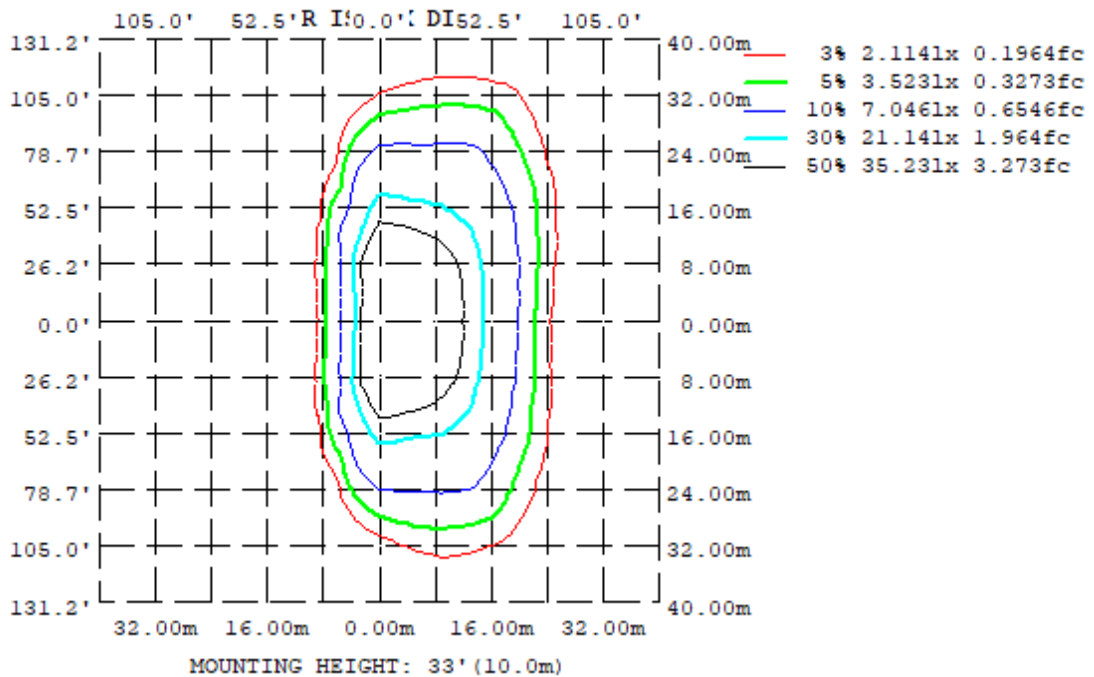
Zonal Lumen Requirement (0°-90°)	Zonal Lumen Requirement (80°-90°)	BUG rating
100.00%	0.70%	B3-U0-G4

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

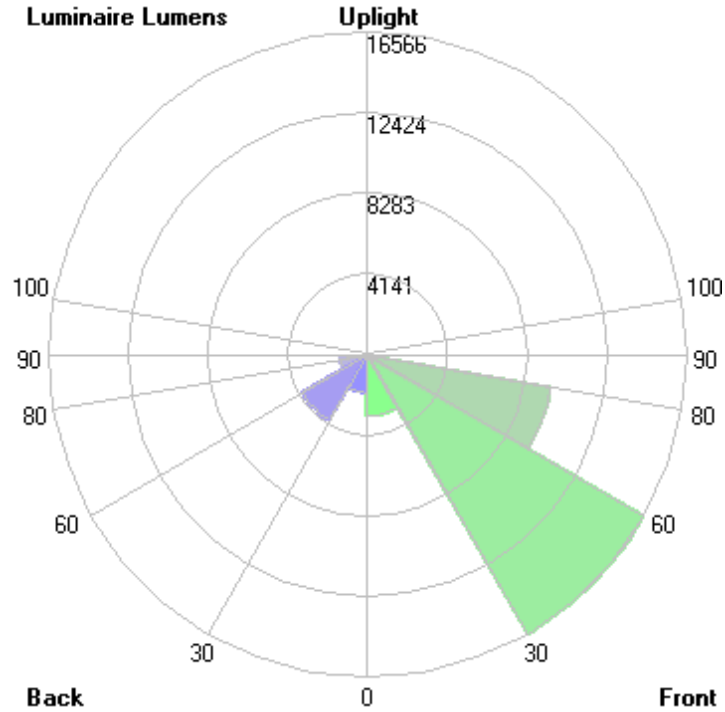
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	645.3	661.0	663.1	596.4	523.3	585.8	650.8	650.5
20	665.4	716.2	785.9	427.6	207.3	412.5	761.6	697.6
30	869.9	918.9	1064	202.0	95.72	192.4	1014	884.3
40	1276	1308	1480	134.2	53.82	129.6	1437	1254
50	1322	1726	1715	99.13	24.79	95.71	1703	1763
60	1030	1880	1720	48.45	16.11	46.41	1786	1967
70	272.2	1045	923.0	25.09	4.863	27.07	1144	1309
80	17.28	91.36	60.66	4.135	1.659	4.758	93.50	219.1
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	594.70	0 - 10	594.70 1.61%
10-20	1706.00	0 - 20	2300.70 6.22%
20-30	2825.29	0 - 30	5125.99 13.86%
30-40	4757.42	0 - 40	9883.41 26.73%
40-50	7105.10	0 - 50	16988.51 45.95%
50-60	8611.73	0 - 60	25600.24 69.24%
60-70	7714.36	0 - 70	33314.60 90.11%
70-80	3396.91	0 - 80	36711.51 99.30%
80-90	259.37	0 - 90	36970.88 100.00%
90-100	0.00	0 - 100	36970.88 100.00%
100-110	0.00	0 - 110	36970.88 100.00%
110-120	0.00	0 - 120	36970.88 100.00%
120-130	0.00	0 - 130	36970.88 100.00%
130-140	0.00	0 - 140	36970.88 100.00%
140-150	0.00	0 - 150	36970.88 100.00%
150-160	0.00	0 - 160	36970.88 100.00%
160-170	0.00	0 - 170	36970.88 100.00%
170-180	0.00	0 - 180	36970.88 100.00%

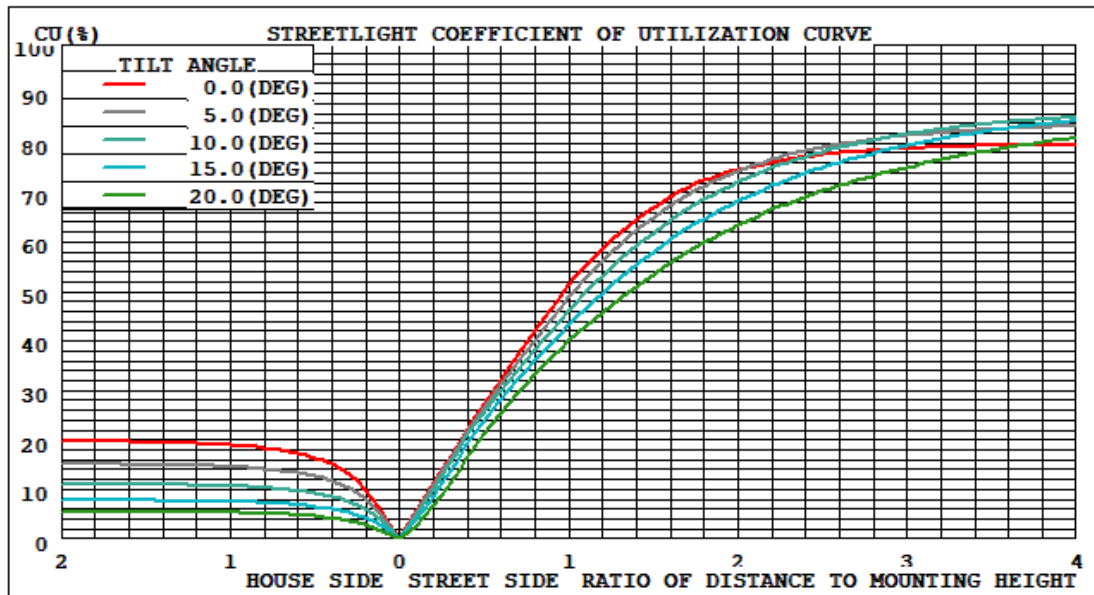
4.2 Goniophotometer Test

LCS/BUG

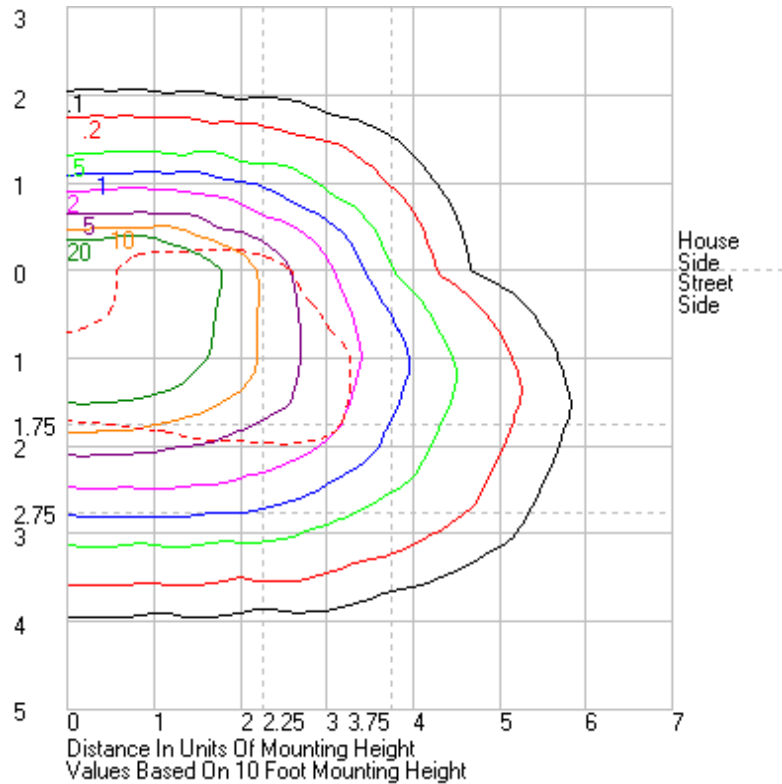


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	3156.2	N.A.	8.5
FM - Front-Medium (30-60)	16565.5	N.A.	44.8
FH - Front-High (60-80)	9655.2	N.A.	26.1
FVH - Front-Very High (80-90)	226.4	N.A.	0.6
BL - Back-Low (0-30)	1969.8	N.A.	5.3
BM - Back-Medium (30-60)	3908.7	N.A.	10.6
BH - Back-High (60-80)	1456.0	N.A.	3.9
BVH - Back-Very High (80-90)	32.9	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	36970.7	N.A.	100.0
BUG Rating	B3-U0-G4		

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	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42	6235.42
1	6247.93	6245.97	6243.42	6242.27	6238.4	6234.38	6228.71	6221.1	6214.18	6205.19	6195.94	6188.84	6215.04	6210.86	6209.51	6212.14	6214.13	6216.65	6218.53	6218.82	6220.82	6221.05	6219.56	6219.23	6247.93
2	6258.79	6258.49	6257.89	6258.31	6257.14	6253.07	6244.56	6232.81	6216.35	6197.8	6177.21	6160.98	6180.6	6178.9	6182.4	6193.02	6205.67	6216.22	6223.79	6227.73	6229.12	6230.21	6229.47	6229.62	6258.79
3	6271.33	6273.27	6275.06	6278.99	6279.97	6278.49	6269.35	6251.42	6222.38	6186.21	6153.98	6129.83	6142.37	6141.27	6151.46	6172.21	6198.11	6221.84	6236.9	6243.1	6243.37	6243.25	6241.4	6241.39	6271.33
4	6284.83	6290.03	6296.3	6303.58	6310.09	6310.69	6300.19	6275.53	6230.34	6178.37	6133.27	6096.4	6098.79	6100.74	6121.1	6152.84	6191.91	6230.86	6254.41	6262.12	6264.12	6261.28	6257.22	6256.91	6284.83
5	6308.65	6315.27	6324.87	6337.81	6346.96	6350.27	6339.79	6306.83	6243.91	6176.27	6100.07	6033.02	6017.8	6027.67	6075.32	6133.1	6188.25	6240.73	6278.05	6287.88	6288.34	6285.54	6279.22	6278.41	6308.65
6	6343.17	6351.93	6364.68	6377.99	6389.15	6394.06	6384.64	6341.89	6259.49	6158.69	6037.04	5940.4	5914.97	5931.44	6002.57	6105.32	6191.19	6265.61	6311.79	6321.29	6320.27	6314.32	6310.42	6309.74	6343.17
7	6381.58	6395.24	6413.07	6423.92	6435.47	6445.47	6434.95	6379.91	6279.98	6129.12	5960.97	5826.3	5784.64	5813.08	5916.28	6058.51	6196.24	6289.78	6347.91	6359.55	6358.31	6350.72	6348.32	6345.81	6381.58
8	6416.94	6439.05	6464.79	6480.97	6490.41	6502.89	6495.61	6427.72	6299.09	6088.84	5862.02	5687.48	5624.32	5665.84	5807.35	6004.81	6199.7	6322.21	6395.76	6407.88	6403.72	6395.41	6390.8	6380.88	6416.94
9	6442.3	6474.83	6519.32	6543.02	6552.82	6565.14	6559.57	6477.49	6305.91	6028.43	5739.87	5518.42	5440.34	5495.98	5678.98	5940.32	6196.41	6362.82	6448.37	6462.31	6455.3	6449.72	6434.02	6411.91	6442.3
10	6453.44	6497.37	6563.22	6610.04	6623.46	6634.73	6630.86	6538.06	6312.82	5963.52	5597.4	5327.41	5232.84	5300.88	5527.35	5857.52	6186.1	6407.86	6507.89	6520.18	6514.54	6504.74	6471.99	6430.44	6453.44
11	6451.28	6505.44	6602.71	6677.49	6703.3	6713.4	6715.3	6602.78	6312.19	5870.05	5427.91	5113.19	5001.72	5091.52	5359.56	5761.81	6174.92	6458.42	6551.75	6580.9	6561.39	6564.52	6503.87	6438.07	6451.28
12	6436.45	6502.56	6630.95	6742	6784.92	6796.52	6798.67	6670.49	6304.71	5762.97	5243.3	4878.15	4742.37	4858.32	5180.52	5651.96	6158.61	6512.07	6576.98	6641.62	6592.1	6611.65	6526.23	6433.49	6436.45
13	6416.01	6492.79	6647.85	6805.29	6879.54	6895.4	6900.56	6752.31	6292.56	5646.45	5042.98	4593.82	4427.95	4574.84	4980.39	5529.58	6131.47	6571.08	6695.73	6708.79	6696.27	6658.77	6540.37	6422.66	6416.01
14	6390.52	6475.13	6656.63	6858.04	6970.08	6999.3	7010.43	6828	6263.54	5501.52	4805.82	4271.73	4068.66	4251.86	4743.01	5394.89	6098.76	6637.52	6791.98	6803.61	6784.5	6692.92	6549.66	6405.98	6390.52
15	6366.34	6456.73	6659.29	6907.83	7069.97	7111.77	7125.03	6911.67	6234.74	5361.34	4537.02	3914.97	3688.87	3885.81	4471.01	5247.08	6057.52	6706.61	6894.17	6902.41	6876.56	6738.31	6556.03	6388.31	6366.34
16	6353.16	6440.63	6659.06	6954.38	7183.67	7242.11	7265.25	7006.44	6194.7	5187.69	4221.42	3539.86	3319.25	3521.57	4161.11	5078.25	6007.67	6784.4	7016.04	7018.42	6978.6	6781.34	6561.38	6374.66	6353.16
17	6373.02	6452.88	6666.95	6998.36	7285.55	7368.49	7392.41	7089.82	6142.02	5000.16	3890.03	3190.57	2964.76	3166.74	3822.82	4881.57	5952.77	6866.73	7146.95	7142.44	7083.65	6825.41	6567.27	6382.66	6373.02
18	6438.3	6506.31	6690.93	7045.39	7404.48	7515.86	7544.6	7195.18	6094.66	4788.23	3553.28	2853.68	2636.79	2833.9	3490.38	4657	5890.79	6955.23	7295.58	7286.98	7191.61	6868.84	6592.34	6430.62	6438.3
19	6534.74	6593.75	6746.59	7097.03	7521.27	7667.43	7701.85	7290.39	6028.37	4539.91	3230.05	2541.41	2344.32	2533.39	3176.39	4403.04	5826.33	7042.31	7449.99	7437.86	7305.81	6920.27	6631.52	6508.86	6534.74
20	6654.19	6704.42	6839.82	7161.78	7637.38	7821.35	7858.77	7389.1	5965.35	4275.76	2930.79	2268.91	2073.44	2253.85	2873.48	4125.01	5752.88	7133.91	7615.54	7600.77	7424.79	6976.39	6671.15	6590.53	6654.19
21	6801.32	6846.38	6956.63	7245.2	7766.61	8009.67	8058.46	7507.26	5891.24	3997.1	2645.52	2022.74	1836.33	2001.27	2593.72	3838.25	5673.75	7229.25	7794.77	7781.42	7552.68	7046.91	6771.73	6720.59	6801.32
22	6972.12	7015.54	7100.1	7355.23	7884.92	8196.44	8245.56	7606.64	5800.79	3735.47	2395	1798.17	1627.9	1777.8	2341.54	3570.38	5581.01	7323.16	7981.57	7963.35	7685.45	7132.15	6902.05	6885.96	6972.12
23	7142.57	7191.7	7277.67	7506.94	8034.04	8431.46	8473.28	7737.6	5714.45	3469.24	2163.57	1605.65	1476.19	1588.1	2110.46	3313.84	5476.01	7423.27	8185.41	8164.84	7826.31	7248.74	7064.14	7064.59	7142.57
24	7318.58	7370.74	7483.1	7672.38	8192.88	8682.74	8716.8	7860.23	5607.84	3213.39	1954.84	1450.86	1350.84	1446.5	1904.34	3066.57	5356.3	7520.88	8396.08	8383.37	7978.98	7404.9	7260.93	7243.33	7318.58
25	7511.79	7568.96	7703.46	7868.74	8366.63	8943.75	8954.95	7989.63	5800.79	3735.47	2395	1798.17	1627.9	1777.8	2341.54	3570.38	5581.01	7323.16	7981.57	7963.35	7685.45	7132.15	6902.05	6885.96	6972.12
26	7704.65	7778.31	7930.39	8099.24	8590.63	9263.83	9268.28	8146.18	5355.98	2757.09	1617.15	1228.81	1151.49	1225.98	1569.92	2631.23	5056.78	7726.86	8892.55	8882.75	8310.96	7793.2	7686.69	7641.99	7704.65
27	7900.99	7994.93	8174.11	8349	8802.46	9554.84	9550.71	8275.41	5184.98	2554.07	1490.59	1159.9	1092.56	1158.48	1460.57	2433.91	4881.35	7838.86	9165.45	9162.4	8506.66	8023.37	7924.28	7851.59	7900.99
28	8123.55	8232.13	8434.67	8627.29	9072.53	9893.32	9898.03	8450.38	5019.87	2365.85	1387.79	1103.22	1043.42	1110.4	1373.67	2247.32	4693.73	7959.53	9463.06	9476.31	8726.08	8286.39	8171.77	8067.24	8123.55
29	8386.16	8498.27	8692.14	8900.14	9363.03	10253.9	10280.6	8621.15	4839.56	2184.76	1313.53	1057.21	999.48	1057.05	1287.28	2080.58	4505.72	8079.47	9789.65	9804.46	8977.31	8556.42	8432.68	8311.3	8386.16
30	8698.57	8803.48	8971.28	9188.56	9650.34	10592.7	10636.6	8760.67	4650.86	2020.26	1253	1014.42	957.18	1014.76	1232.6	1923.82	4312.93	8209.09	10139.1	10157.3	9257.54	8842.99	8700.25	8596.39	8698.57
31	9081.94	9166.62	9260.32	9491.04	9991.44	11005.3	11090.9	8960.26	4473.5	1877.74	1207.42	975.09	915.62	974.89	1187.97	1788.95	4125.05	8343.75	10524.2	10516	9557.5	9136.39	8978.43	8927.27	9081.94
32	9494.36	9592.38	9590.67	9796.66	10310	11388.3	11506	9104.07	4282.81	1745.96	1166.37	934.13	872.21	934.08	1148.47	1673.89	3943.05	8467.93	10908.8	10885.9	9881.09	9446.59	9285.72	9326.68	9494.36
33	9922.39	10027.1	9975.67	10120.8	10668.9	11808.6	11950.3	9271.59	4105.22	1643.73	1128.69	893.73	828.42	891.86	1111.46	1578.25	3771.63	8598.78	11329.3	11292	10231.5	9777.05	9642.06	9755.52	9922.39
34	10379.6	10494.7	10415.7	10448.6	11044.4	12235.8	12435.3	9439.67	3934.14	1560.93	1092.55	850.2	783.08	849.21	1075.75	1504.09	3602.8	8716.83	11745.3	11701.2	10594.7	10111.5	10039.6	10211.5	10379.6
35	10853.1	10988.3	10890.3	10791.7	11401.1	12626.2	12851.2	9542.27	3750.55	1498.27	1054.86	806.65	738.59	806.5	1039	1449.27	3436.47	8820.83	12178.1	12117.3	10973.7	10449	10488.2	10684.8	10853.1
36	11309.2	11479.6	11394.2	11162.7	11802.8	13059.5	13284.1	9684.13	3587.23	1451.56	1017.57	763.74	695.72	762.41	1000.93	1404.18	3277.98	8919.67	12629.6	12544.2	11358.4	10809.3	10968.1	11178.4	11309.2
37	11754.9	11964.2	11920.8	1161.3	12158	13440.7	13693	9770.25	3417.18	1413.07	976.09	720.18	655.62	720.79	960.82	1373.37	3111.8	9001.1	13075.8	12949.9	11754.1	11190.7	11476.3	11662.5	11754.9
38	12145.6	12403.3	12455.3	12022	12518.5	13778.6	14101.8	9829.85	3242.56	1388.87	934.1	682.21	617.1												



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.	ALEDL3T	Sample ID.	B1
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
120.08	60	2.221	266.5	0.999	1.76%
277.02	60	0.961	257.1	0.966	4.21%

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*****