

Photometric Test Report

Relevant Standards

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

Prepared For

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2021/11/29

Issue Date

2021/12/3

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		7905
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	149.2
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		53.0
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	4.05%
		20.00%	277V	7.76%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	120V	0.997
		0.9	277V	0.918
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	3985±275	3932
		4 step	3985±154	
Minimum CRI (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥70		83
Minimum R9 (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥-40		8
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		96
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%		0.59%
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		0.443
(Goniophotometer - Section 4.2)		Non-Worst Case		0.205
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		53.0
(Goniophotometer - Section 4.2)		Non-Worst Case		52.2

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2021/11/29	ALEDS5TN	F1
2	Goniophotometer Test	2021/11/29	ALEDS5TN	F1
3	THD and PF Test	2021/11/29	ALEDS5TN	F1

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.

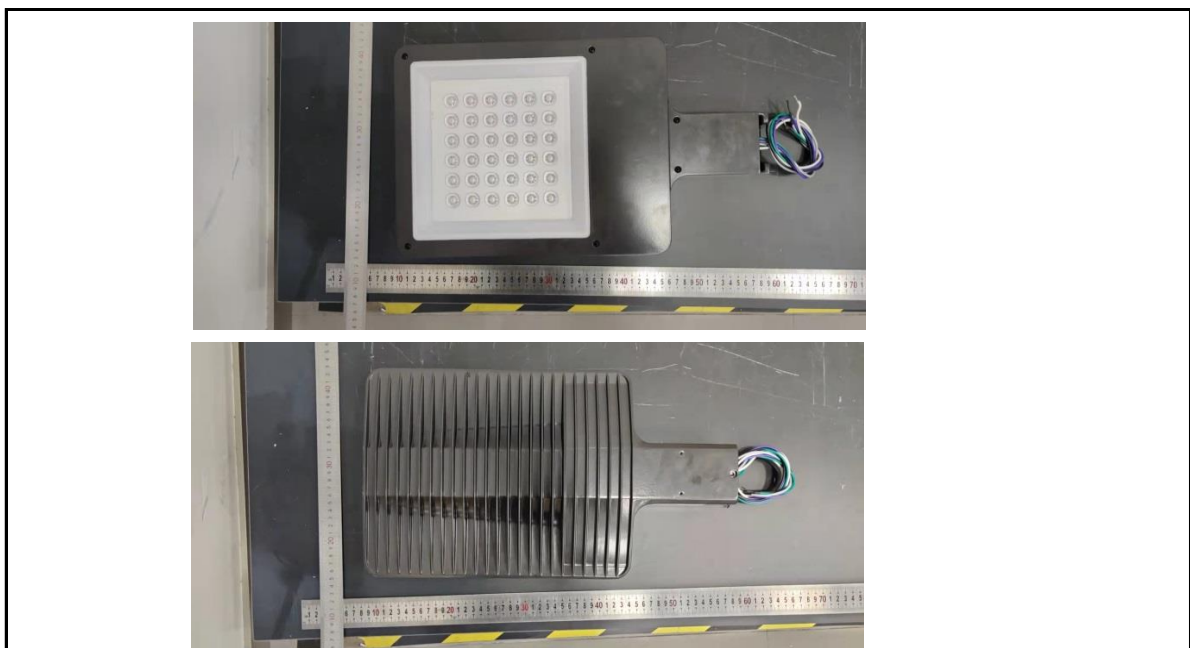
3.0 Production Description

Luminaire Description: ALEDS5TN

Description: 50W/6,500 lm @ 4000K

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.	ALEDS5TN	Sample ID.	F1
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
120.05	60	0.445	53.3	0.997
277.05	60	0.206	52.5	0.918

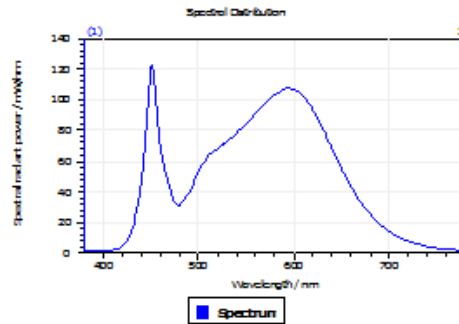
Test Result

CCT (K)	CRI	R9	Duv
3932	83	8	0.00011

Rf	Rg	IES Rcs,h1
84	96	-12%

4.1 Integrating Sphere Test

Results



Spectral values

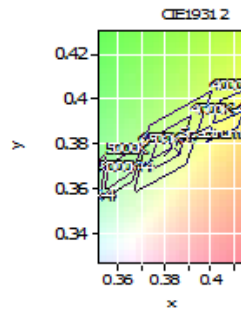
DominantWavelength	579.39 nm
Purity	0.286
PeakWavelength	451.24 nm
Radiant Power	18.67 W
Width50%:	19.44 nm

Color Coordinates

Correlated Color Temporal 3932 K

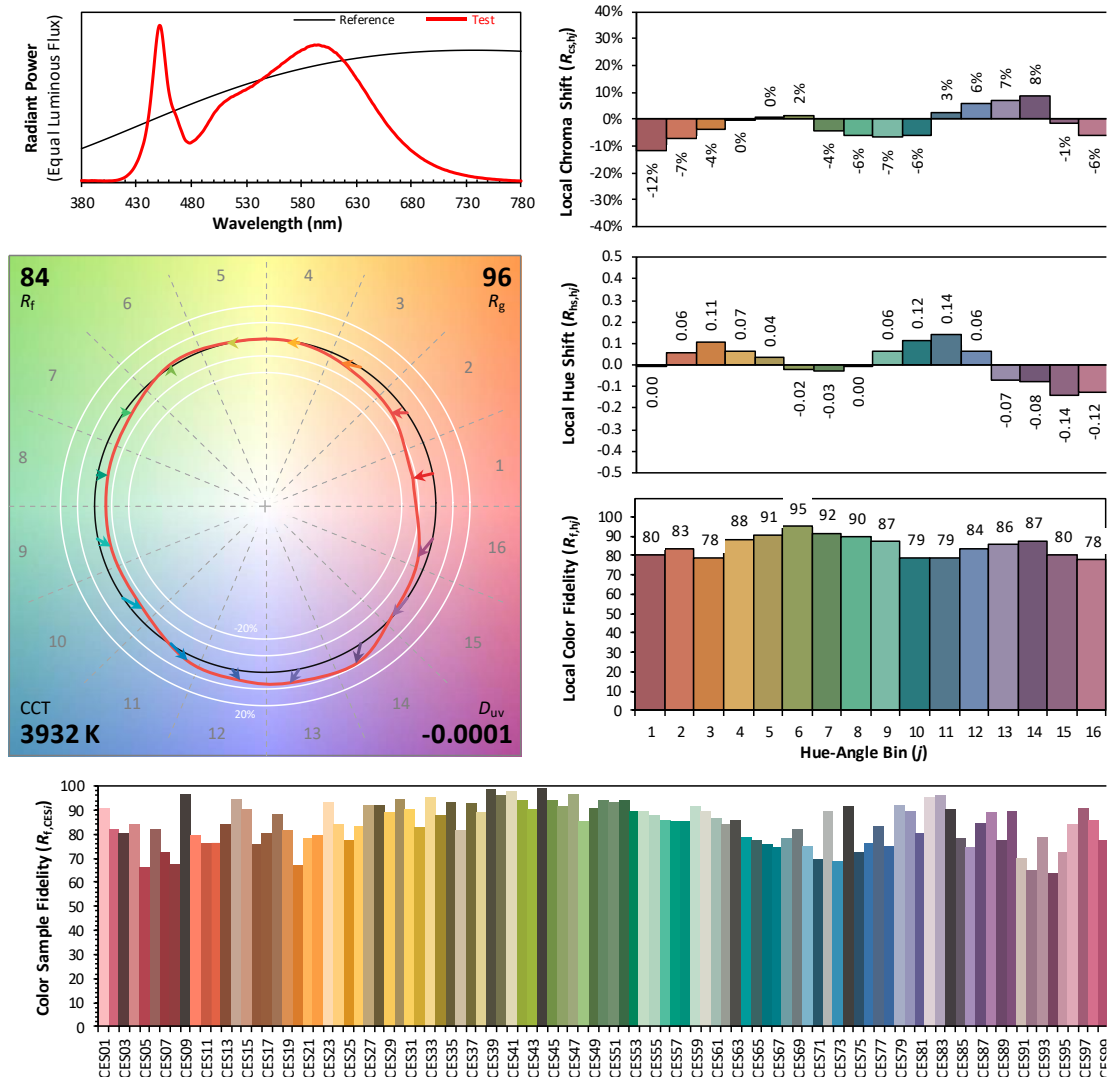
x: 0.3834 u: 0.2264 u': 0.2264
y: 0.3783 v: 0.3351 v': 0.5027

ResultsCRICRI01	81.2	ResultsCRICRI09	8.0
ResultsCRICRI02	90.1	ResultsCRICRI10	76.8
ResultsCRICRI03	95.5	ResultsCRICRI11	80.5
ResultsCRICRI04	81.4	ResultsCRICRI12	64.6
ResultsCRICRI05	81.8	ResultsCRICRI13	83.4
ResultsCRICRI06	86.6	ResultsCRICRI14	97.9
ResultsCRICRI07	85.0	ResultsCRICRI15	74.7
ResultsCRICRI08	63.3	ResultsCRICRI16	72.3
ResultsCRI	83.1		



PlanckDistance 1.1E-004

4.1 Integrating Sphere Test



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

x	0.3834
y	0.3783
u'	0.2264
v'	0.5027

CIE 13.3-1995
(CRI)

R_a	83
R_9	10

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	ALEDS5TN	Sample ID.	F1
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	119.93	60	0.443	53.0	0.996
NON-WROST CASE	277.04	60	0.205	52.2	0.917

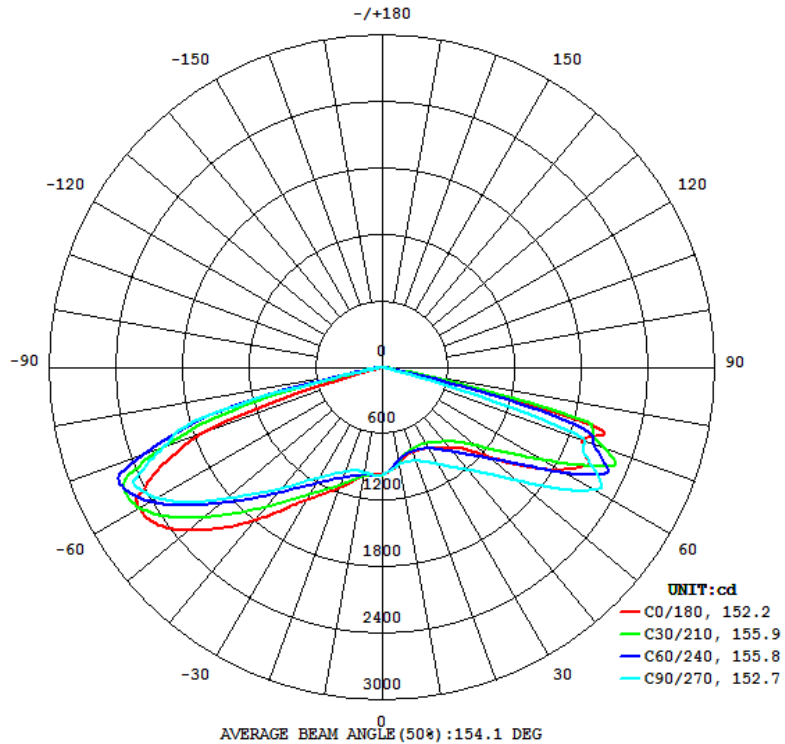
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
7905	157.7	157.6	152.2	152.7	149.2

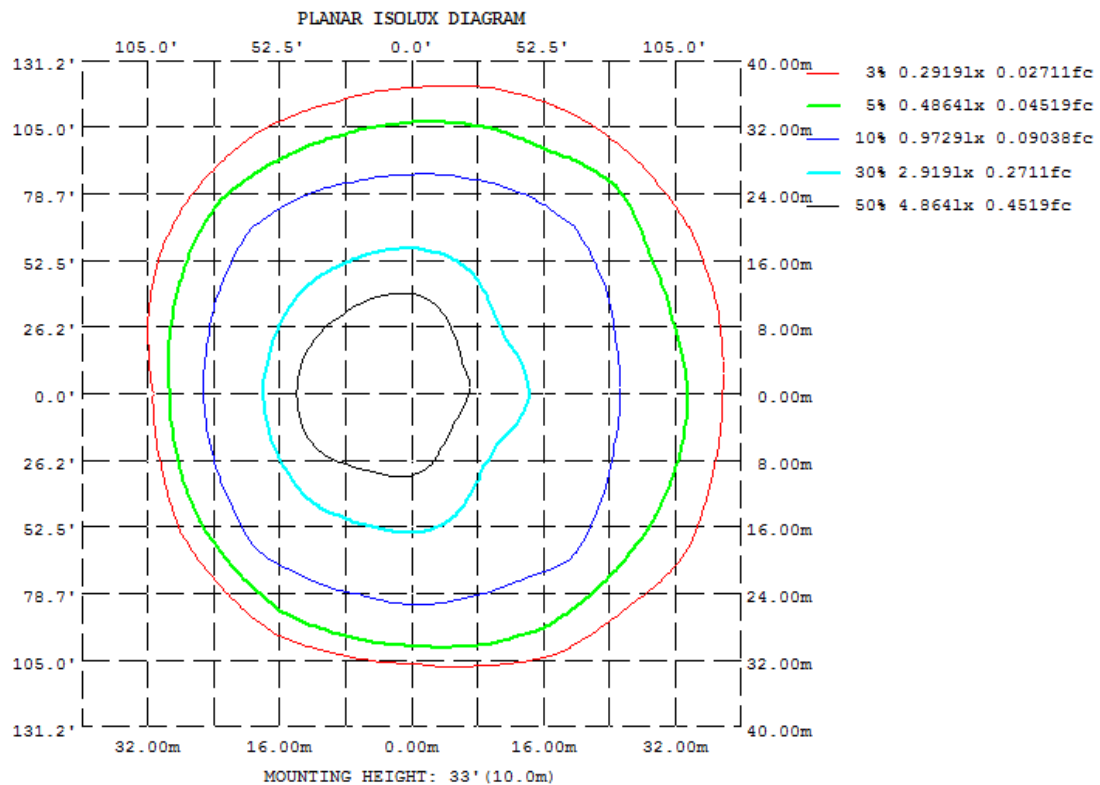
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.59%	B3-U0-G3

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

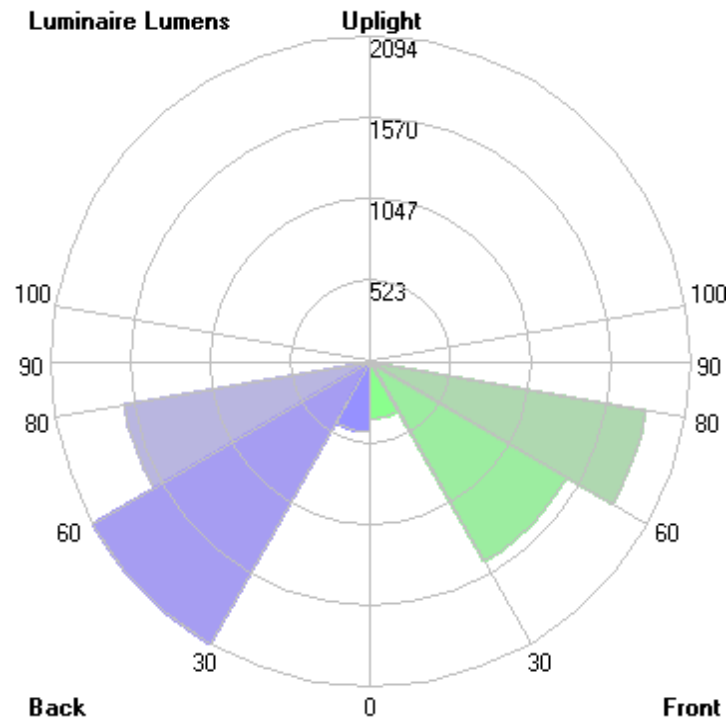
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	888.8	857.2	892.8	950.7	992.8	997.3	967.2	919.4
20	816.1	784.8	901.6	1015	1157	1091	1005	868.8
30	843.8	807.0	1011	1157	1378	1256	1151	900.0
40	947.3	918.7	1209	1393	1798	1545	1425	1051
50	1256	1137	1592	1817	2288	1973	1845	1295
60	1852	1670	2207	2457	2532	2525	2356	1804
70	1922	2511	1949	2028	1740	2529	2104	2576
80	153.0	147.9	42.38	49.70	48.55	173.3	141.1	705.4
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	90.40	0 - 10	90.40	1.14%
10-20	265.15	0 - 20	355.55	4.50%
20-30	464.87	0 - 30	820.42	10.38%
30-40	732.40	0 - 40	1552.82	19.64%
40-50	1126.65	0 - 50	2679.47	33.90%
50-60	1717.83	0 - 60	4397.30	55.63%
60-70	2219.96	0 - 70	6617.26	83.71%
70-80	1240.65	0 - 80	7857.91	99.41%
80-90	46.69	0 - 90	7904.60	100.00%
90-100	0.00	0 - 100	7904.60	100.00%
100-110	0.00	0 - 110	7904.60	100.00%
110-120	0.00	0 - 120	7904.60	100.00%
120-130	0.00	0 - 130	7904.60	100.00%
130-140	0.00	0 - 140	7904.60	100.00%
140-150	0.00	0 - 150	7904.60	100.00%
150-160	0.00	0 - 160	7904.60	100.00%
160-170	0.00	0 - 170	7904.60	100.00%
170-180	0.00	0 - 180	7904.60	100.00%

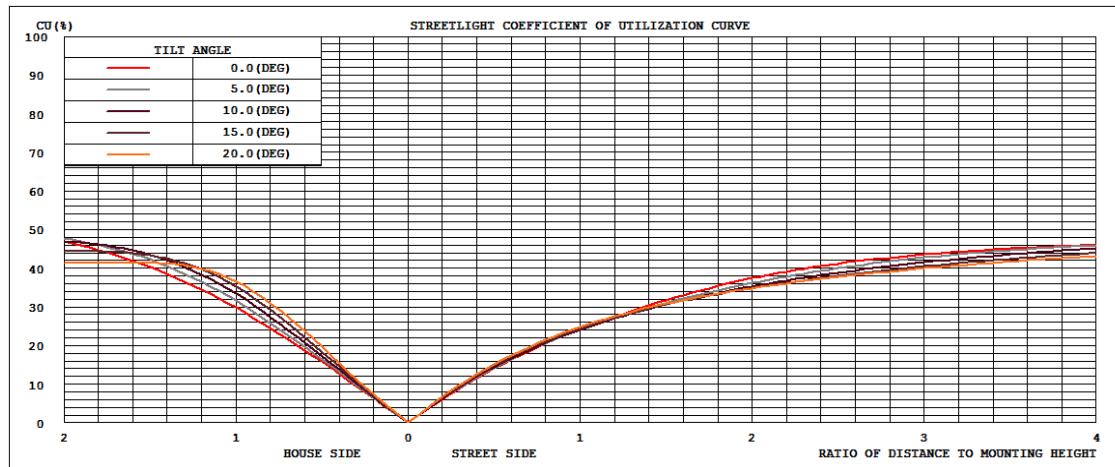
4.2 Goniophotometer Test

LCS/BUG

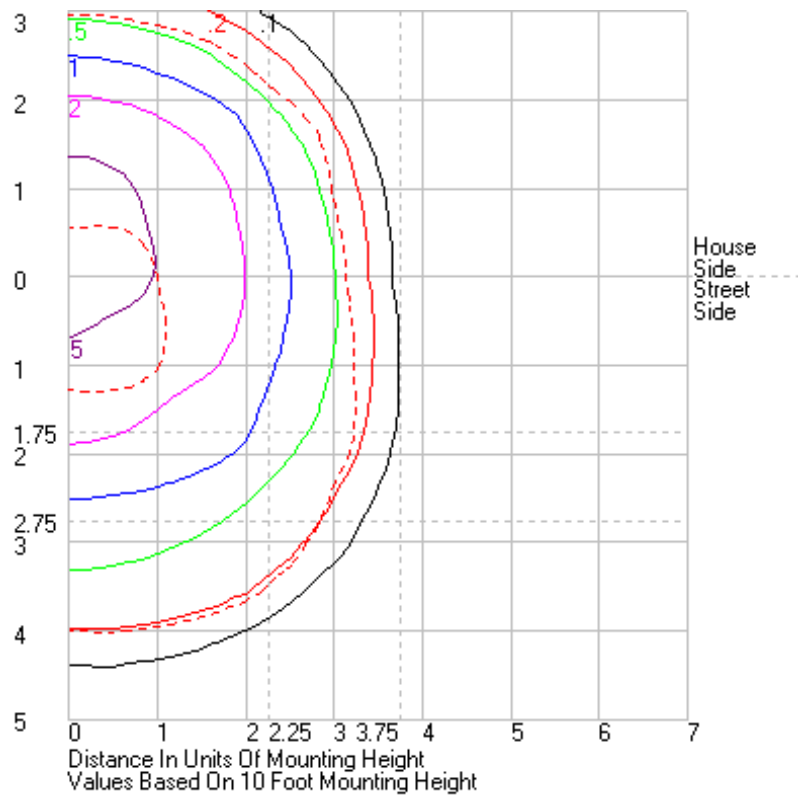


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	367.1	N.A.	4.6
FM - Front-Medium (30-60)	1483.1	N.A.	18.8
FH - Front-High (60-80)	1825.9	N.A.	23.1
FVH - Front-Very High (80-90)	32.6	N.A.	0.4
BL - Back-Low (0-30)	453.3	N.A.	5.7
BM - Back-Medium (30-60)	2093.8	N.A.	26.5
BH - Back-High (60-80)	1634.7	N.A.	20.7
BVH - Back-Very High (80-90)	14.1	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	7904.6	N.A.	100.0
BUG Rating	B3-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	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	970.397	
1	967.5	967.21	965.22	965.25	964.77	964.44	964.13	965.33	966.76	969.23	971.03	972.53	974.45	975.12	975.61	974.95	974.7	974.28	974.21	973.78	972.87	971.69	970.7	969.53	967.5
2	962.35	959.87	957.83	955.95	955.86	956.86	956.87	959.9	963.16	965.87	968.61	971.05	974.36	975.74	978.44	980.26	979.89	977.8	977.43	976.46	973.51	970.55	968.19	965.12	962.35
3	954.61	950.71	947.43	946.67	946.79	949.23	949.93	954.12	957.33	960.3	964.64	968.88	972.8	974.91	977.38	980.96	983.91	982.8	981.2	979.38	975.09	969.64	963.76	959.94	954.61
4	944.89	939.16	934.54	933.95	937.77	939.33	942.09	947.58	952.37	955.75	961.39	968.33	973.62	976.3	979.16	981.24	983.66	983.92	982.32	978.03	972.81	967.34	957.93	951.77	944.89
5	935.98	927.51	921.56	920.86	923.79	929.25	934.14	940.25	946.43	952.98	960.19	969.2	974.43	978.56	980.41	982.59	982.33	983.88	981.71	977.34	970.18	960.12	951	942.58	935.98
6	928.42	917.6	909.58	906.49	909.31	918.3	924.6	933.88	940.92	950.72	961.3	971.45	977.8	981.66	984.25	983.69	981.14	980.05	975.72	970.57	962.5	952.46	945.46	936.56	928.42
7	919.82	907.72	898.27	893.12	894.62	904.89	915.8	925.45	936.1	949.6	962.66	974.1	980.08	985.3	988.04	985.73	979.16	978.25	973.42	964.97	951.73	943.94	937.23	930.07	919.82
8	910.68	897.09	887.45	880.22	880.08	890.99	906.31	918.25	932.31	950.26	964.48	975.7	982.35	988.66	991.82	987.08	980.74	977.71	971.45	959.88	944.26	935.25	929.31	922.92	910.68
9	900.25	886.06	876.26	869.16	866.27	878.25	899.06	912.8	930.88	950.06	966.66	979.08	986.57	993.04	995.64	991.39	983.05	977.17	969.84	953.33	937.14	925.77	920.91	914.47	900.25
10	888.84	874.3	865.35	857.21	854.38	867.8	892.81	907.76	930.86	950.72	969.39	983.87	992.85	999.15	999.96	997.3	985.94	976.89	967.18	946.6	930.45	919.44	914.08	904.44	888.84
11	876.99	862.91	853.66	847.69	844.51	858.39	886.48	904.67	930.84	953.13	972.55	990.82	1001.88	1006.71	1005.12	1002.66	990.92	976.68	964.45	940.95	924.47	912.3	904.18	894	876.99
12	864.25	851.46	842.79	838.56	835.35	849.61	882.16	902.4	932.17	955.64	979.3	1001.54	1014.29	1016.83	1012.92	1008.81	996.35	977.11	961.76	934.5	919.5	906.79	894.59	883.19	864.25
13	851.02	839.98	831.83	829.59	827.11	843.53	879.44	901.96	934.65	961.65	987.23	1014.1	1028.37	1030.56	1022.44	1015.27	1001.74	977.81	960.88	928.91	914.52	901.4	884.76	871.53	851.02
14	837.74	827.38	822.46	821.58	820.68	840.62	880.28	904.21	936.27	967.61	997.24	1030.7	1045.98	1045.62	1034.78	1024.16	1007.94	981.06	961.1	925.14	910.05	895.02	877.16	858.22	837.74
15	829.44	817.93	812.47	813.68	815.77	839.44	882.93	907.54	939.8	974.21	1008.79	1045.13	1063.16	1063.41	1050.27	1033.13	1014.17	986.02	963.84	923.19	906.19	888.95	869.1	848.53	829.44
16	823.68	811.12	803.5	806.69	812.16	839.21	885.18	912.79	944.71	980.7	1020.43	1061.62	1082.03	1081.16	1066.3	1042.61	1022.42	992.5	967.91	923.94	903.74	884.02	861.33	841.66	823.68
17	819.45	805.09	798.04	800.79	810.18	839.88	888.62	918.93	949.45	987.93	1033.23	1078.06	1100.62	1098.35	1081.98	1054.56	1031.68	1001.2	974.52	927.32	903.07	879.35	856.3	837.14	819.45
18	817.56	800.62	793.49	794.86	809.42	840.99	892.85	926.1	954.76	996.11	1044.56	1095.64	1120.34	1116.07	1098.8	1065.7	1040.47	1013.17	983.8	932.99	902.21	874.41	853.84	833.78	817.56
19	816.65	797.24	789.33	789.18	809.41	842.97	896.44	934.18	962.12	1005.09	1058.23	1112.09	1137.95	1134.39	1114.58	1078.44	1050.54	1026.16	994.59	940.48	902.67	870.35	851.51	832.14	816.65
20	816.14	793.89	786.01	784.82	808.74	845.07	901.58	941.7	969.67	1015.34	1071.75	1129.87	1156.71	1151.64	1130.13	1091.01	1061.82	1038.09	1005.29	950.2	905.42	868.78	848.41	830.61	816.14
21	816.03	791.84	783.27	783.22	809.61	848.9	907.89	951.45	978.02	1025.12	1086.16	1147.66	1175.01	1170.08	1146.26	1102.97	1072.25	1050.87	1016.25	958.72	908.55	867.88	846.63	829.28	816.03
22	815.92	791.57	781.23	783.23	810.29	853.76	916.15	961.97	986.56	1035.5	1101.33	1166.11	1194.77	1190.02	1162.19	1113.92	1084.22	1063.43	1027.27	968.08	913.06	868.13	845.06	828.38	815.92
23	817.26	791.13	778.96	784.07	811.88	861.05	924.88	971.88	996.82	1047.78	1118.07	1185.84	1214.81	1209.42	1179.02	1127.24	1094.87	1077.46	1037.01	977.63	916.78	869.95	843.96	828.64	817.26
24	818.43	792.03	778.26	785.04	814.76	868.53	934.51	983.33	1006.72	1061.02	1134.1	1205.38	1235.93	1231.13	1196.8	1141.9	1107.82	1092.41	1050.26	988.17	920.82	872.22	844.2	829.52	818.43
25	820.15	793.16	778.03	786.38	817.73	877.69	945.79	994.95	1018.15	1074.49	1151.25	1224.02	1257.25	1253.9	1216.54	1156.83	1121.64	1107.85	1063.52	1000.05	925.78	874.97	845.6	831.33	820.15
26	822.83	794.52	778.49	788.39	821.15	887.59	956.88	1006.28	1029.23	1090.41	1169.17	1244.39	1278.6	1277.92	1236.37	1173.21	1137.27	1123.38	1078.93	1013.49	931.83	878.27	847.57	833.69	822.83
27	826.64	797.17	780.49	791.56	823.86	898.18	968.88	1018.25	1041.73	1106.55	1187.75	1265.04	1301.63	1302.27	1256.95	1191.77	1154.02	1141.95	1095.28	1028.2	939.84	881.32	850.11	837.23	826.64
28	831.63	799.91	782.95	795.99	829.78	910.84	981.66	1030.37	1054.6	1123.02	1207.67	1285.39	1325.8	1329.52	1277.75	1211.72	1172.61	1159.71	1112.72	1042.97	951.44	886.26	853.44	842.41	831.63
29	837.17	802.8	786.99	801.12	836.93	921.75	994.47	1042.83	1068.34	1139.38	1225.16	1307.71	1350.96	1357.5	1299.38	1232.95	1191.95	1179.84	1132.05	1060.05	964.47	892.35	856.43	848.15	837.17
30	843.78	807.05	791.07	807.01	845.26	935.65	1010.51	1057.35	1083.53	1156.98	1245.01	1332.88	1378.37	1386.65	1321.22	1255.7	1211.46	1199.55	1151.22	1078.02	978.96	900.02	860.1	854.39	843.78
31	851.2	810.94	796.19	813.91	855.38	951.42	1028.59	1074.17	1100.13	1176.11	1266.03	1358.95	1408.14	1416.36	1344.8	1277.44	1231.39	1220.03	1169.3	1094.59	994.54	909.3	864.56	861.35	851.2
32	858.31	815.4	801.74	822.73	866.71	967.19	1045.73	1091.1	1118.23	1196.42	1287.64	1387.24	1441.38	1449.51	1371.12	1301.61	1254.17	1239.86	1189.61	1112.65	1011.08	920.03	870	869.32	858.31
33	866.13	820.85	808.32	832.43	880.59	984.92	1064.94	1109.79	1137.93	1218.64	1313.09	1422.75	1478.9	1484.43	1399.15	1327.19	1275.58	1261.17	1211.08	1131.02	1028.05	932.02	875.45	877.07	866.13
34	875.36	826.65	815.27	843.19	894.81	1001.99	1083.58	1128.93	1158.09	1240.29	1339.93	1457.14	1518.62	1520.61	1428.11	1354.34	1299.07	1284.09	1234.64	1150.08	1045.54	944.63	882.57	886.89	875.36
35	886.25	834.38	824.87	855.18	909.73	1019.52	1103.44	1148.14	1179.65	1263.96	1367.15	1498.26	1561.1	1557.99	1460.16	1382.02	1325.56	1310.22	1262.27	1172.41	1064.26	959.44	890.95	897.09	886.25
36	897.52	843.51	835.43	868.46	925.97	1038.23	1122.67	1169.49	1201.43	1287.21	1397.62	1540.7	1606.92	1596.41	1492.96	1412.09	1353.6	1338.7	1293.17	1196.32	1083.37	975.02	901.12	909.03	897.52
37	908.63	852.66	845.93	879.88	941.9	1058.29	1142.03	1190.55	1223.93	1311.13	1428.27	1585.91	1654.5	1639.32	1528.08	1445.17	1382.72	1368.79	1324.61	1223.79	1103.83	992.08	913.27	921.71	908.63
38	920.6	861.34	856.18	892.66	959.94	1079.98	1162.61	1212.96	1246.97	1336.96	1464.18	1632.79	1701.95	1682.44	1564.8	1476.94	1415.86	1399.53	1356.19	1251.59	1126.92	1010.28	926.28	934.78	920.6
39	933.6	871.63	866.56	905.3	978	1102.94	1185.13	1237.13	1270.97	1363.44	1500	1681.61	1749.71	1728.14	1603.72	1509.86	1447.64	1432.14	1390.42	1280.8	1150.5	1030.96	940.78	948.14	933.6
40	947.28	883.79	877.61	918.73	997.47	1128.15	1209.16	1262.1	1295.57	1393.17	1540.93	1730.4	1797.54	1774.09	1641.57	1545.27	1481.48	1							

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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.	ALEDS5TN	Sample ID.	F1
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
120.05	60	0.445	53.3	0.997	4.05%
277.05	60	0.206	52.5	0.918	7.76%

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*****