

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

Room 6A33, No.1388, Wuzhong road, Shanghai, China

Xiao Xiang, 15921313292, Gary.Xiao@rabweb.com

Prepared By

Deliver Co., Ltd.

Block 11, 78 Keling Road, SSTP, Suzhou, China

0512-66801950, kevin.jia@szdeliver.com

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2022/1/12

Issue Date

2022/1/13

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		11546
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	155.7
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		74.2
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%		22.44%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9		0.861
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	5029±355	4947
		4 step	5029±220	
Minimum CRI (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥70		84
Minimum R9 (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥-40		17
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%		0.66%
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		0.181

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2022/1/12	ALEDM5T/480	C1
2	Goniophotometer Test	2022/1/12	ALEDM5T/480	C1
3	THD and PF Test	2022/1/12	ALEDM5T/480	C1

Remark(If any)

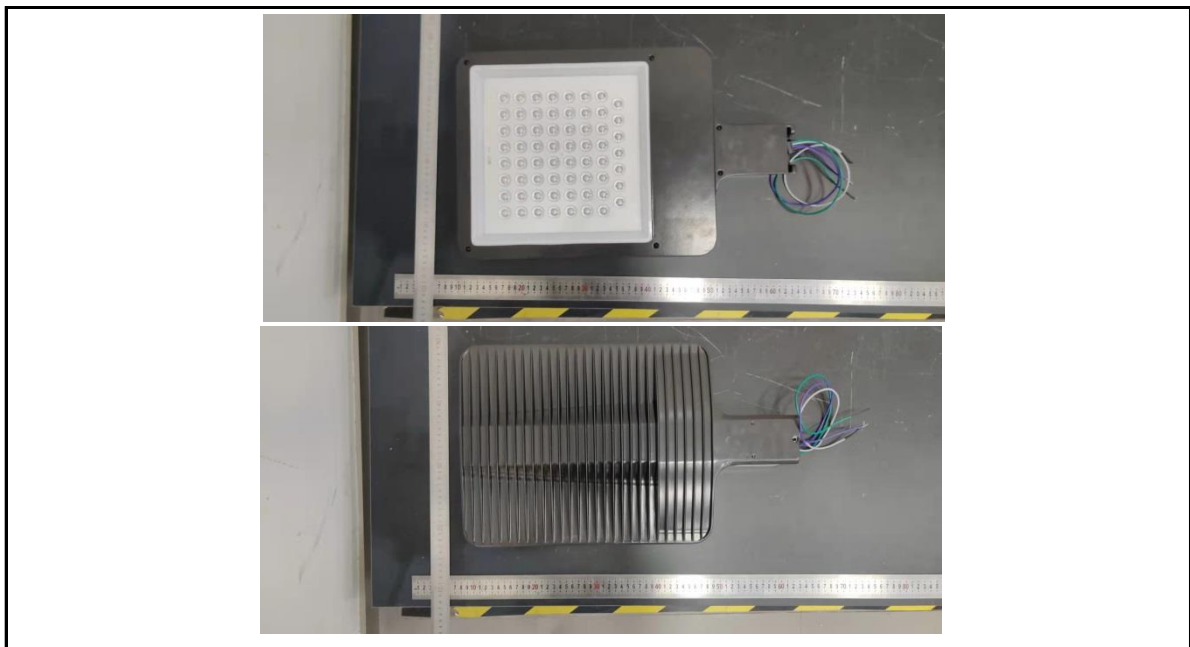
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3.0 Production Description

Luminaire Description: 78W/10,000 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.	ALEDM5T/480	Sample ID.	C1
Opreate 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 paramters 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
479.95	60	0.180	74.3	0.861

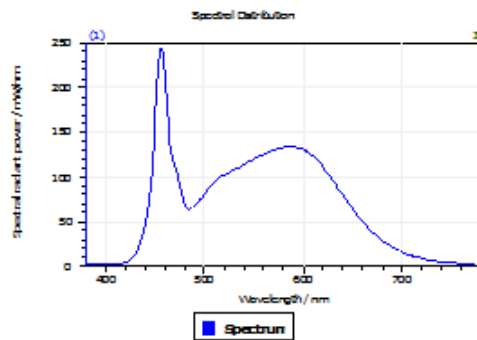
Test Result

CCT (K)	CRI	R9	Duv
4947	84	17	0.00077

Rf	Rg	IES Rcs,h1
83	93	-12%

4.1 Integrating Sphere Test

Results



Spectral values

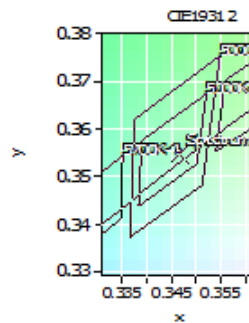
DominantWavelength	572.65 nm
Purity	0.104
PeakWavelength	456.38 nm
Radiant Power	26.34 W
Width50%	19.65 nm

Color Coordinates

Correlated Color Temperat 4947 K

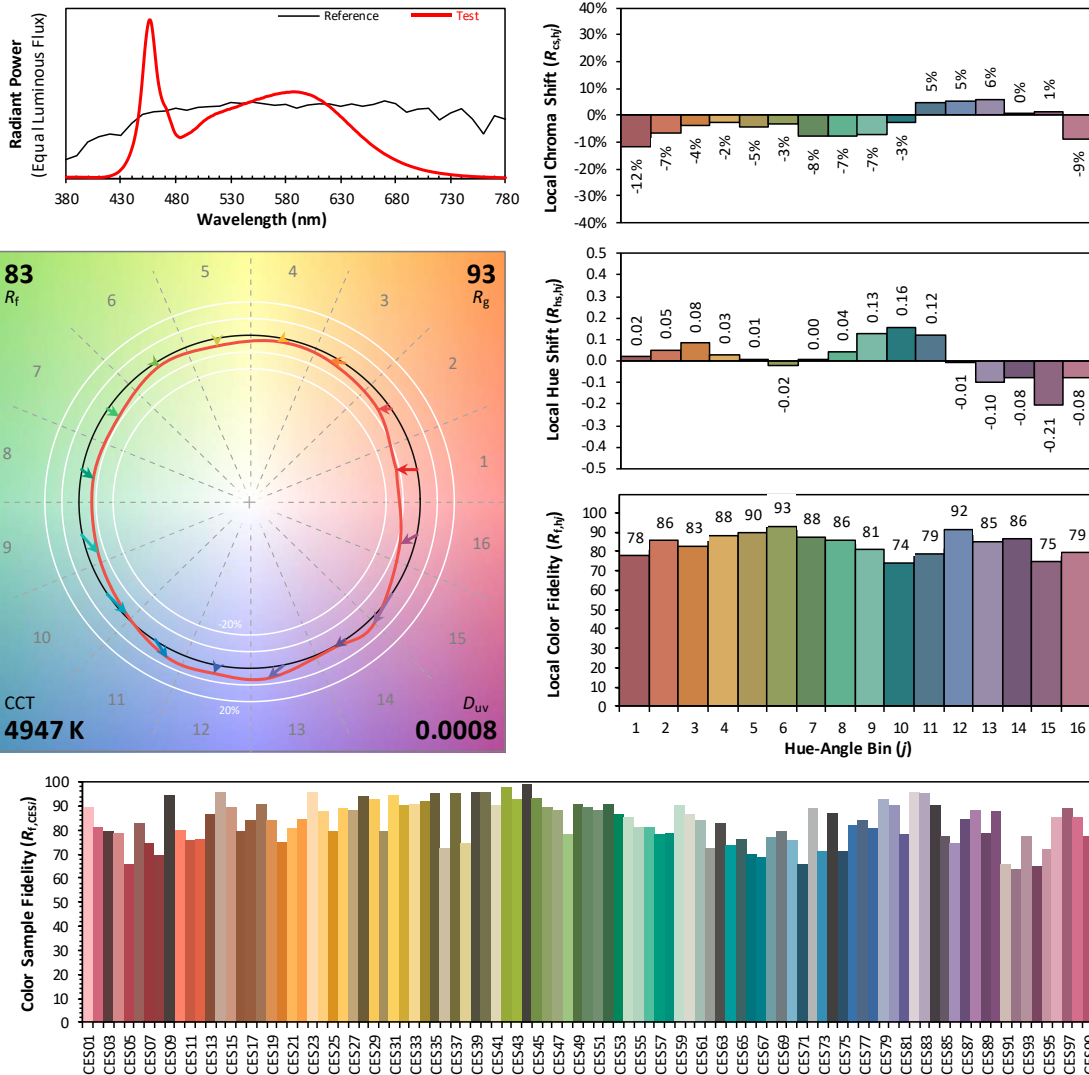
x: 0.3468 u: 0.2114 u': 0.2114
y: 0.3545 v: 0.3242 v': 0.4863

ResultsCRICRI01	83.9	ResultsCRICRI09	16.9
ResultsCRICRI02	94.0	ResultsCRICRI10	83.9
ResultsCRICRI03	94.6	ResultsCRICRI11	78.6
ResultsCRICRI04	79.3	ResultsCRICRI12	57.3
ResultsCRICRI05	82.9	ResultsCRICRI13	87.5
ResultsCRICRI06	89.0	ResultsCRICRI14	97.8
ResultsCRICRI07	84.8	ResultsCRICRI15	78.4
ResultsCRICRI08	67.2	ResultsCRICRI16	72.1
ResultsCRI	84.4		



PlanckDistance 7.7E-004

4.1 Integrating Sphere Test



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

x 0.3468
 y 0.3545
 u' 0.2114
 v' 0.4863

CIE 13.3-1995
 (CRI)

R_a 85
 R_g 18

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.	ALEDM5T/480	Sample ID.	C1
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	479.96	60	0.181	74.2	0.856

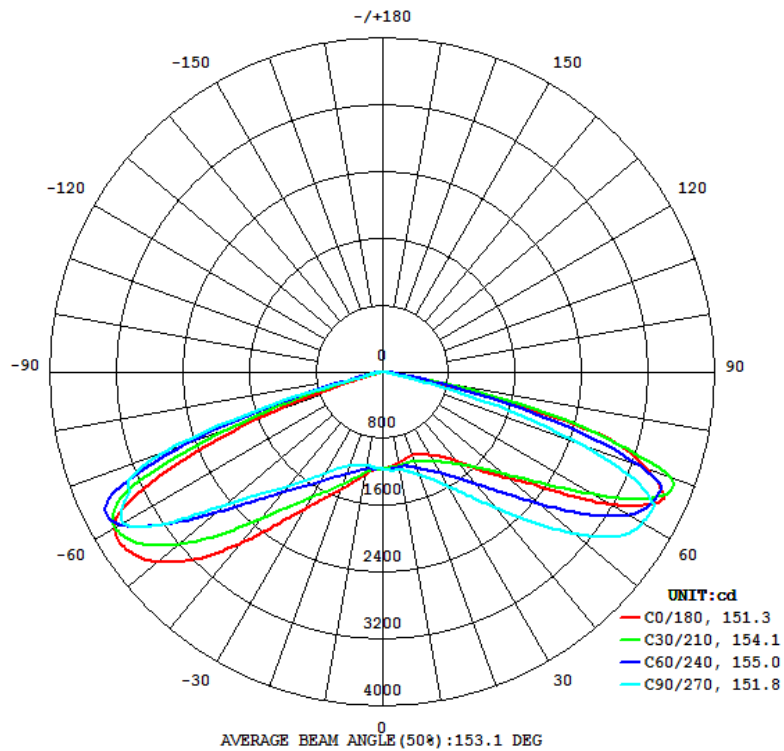
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
11546	159.1	159.5	151.3	151.8	155.7

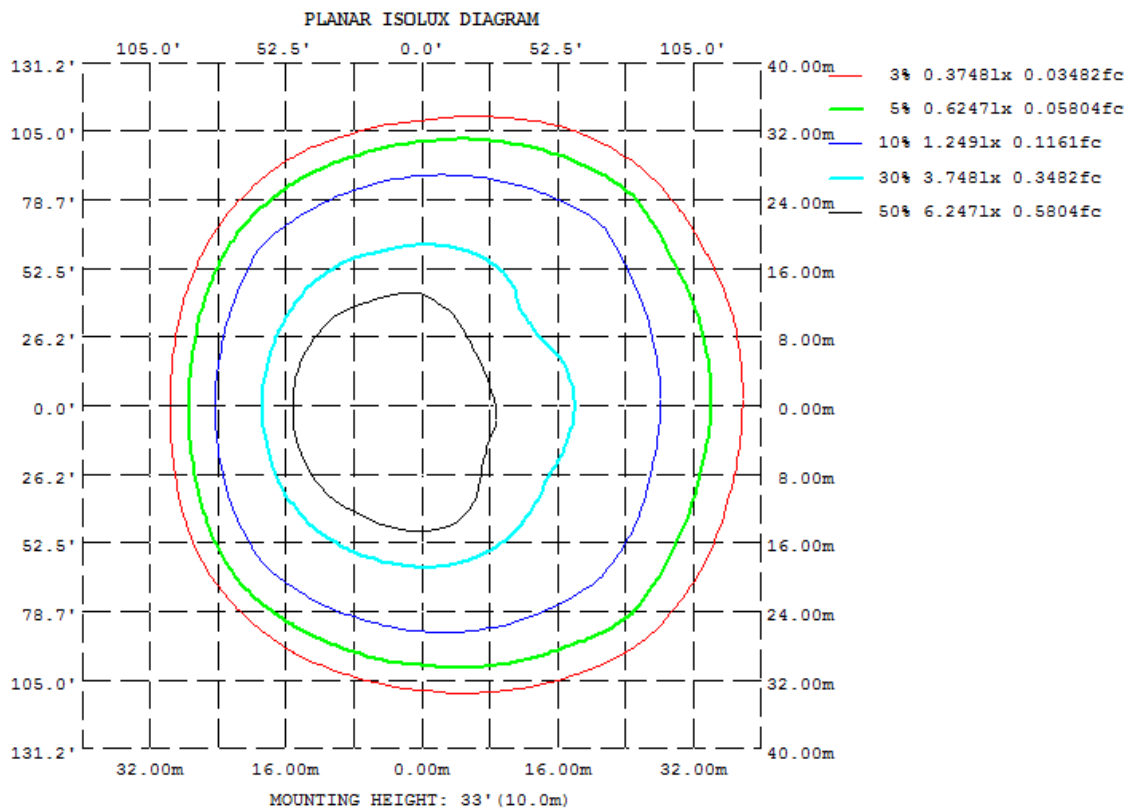
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.66%	B3-U0-G2

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

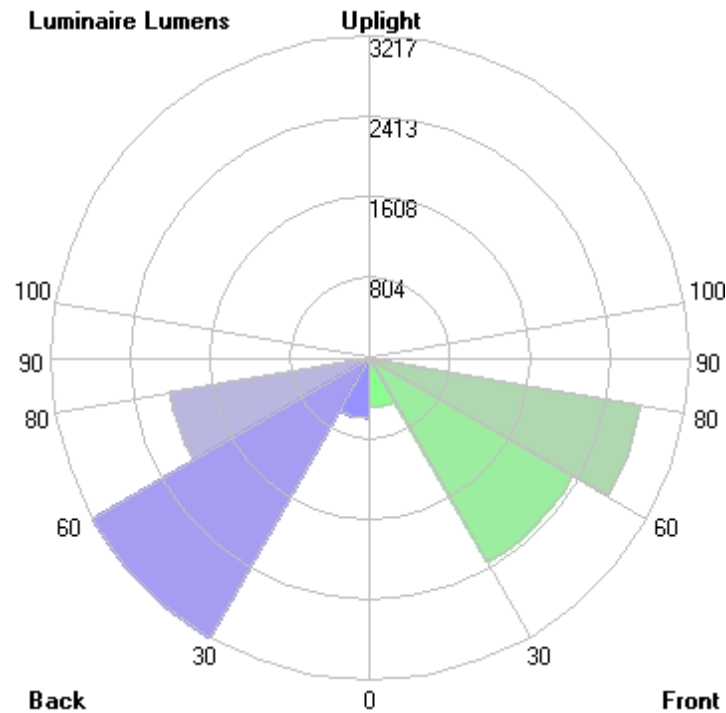
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	1108	1153	1195	1246	1245	1201	1142	1113
20	1064	1187	1318	1473	1495	1368	1198	1126
30	1155	1300	1587	1787	1898	1604	1400	1229
40	1402	1551	2125	2326	2680	2034	1786	1436
50	1981	2076	3012	3203	3541	2864	2468	1820
60	3178	3111	3611	3822	3728	3780	3603	2864
70	3361	3719	2560	2507	1511	2598	2789	4141
80	314.2	541.7	98.52	136.7	71.66	113.7	121.0	450.7
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	111.61	0 - 10	111.61	0.97%
10-20	347.00	0 - 20	458.61	3.97%
20-30	640.01	0 - 30	1098.62	9.52%
30-40	1066.66	0 - 40	2165.28	18.75%
40-50	1756.63	0 - 50	3921.91	33.97%
50-60	2747.10	0 - 60	6669.01	57.76%
60-70	3345.33	0 - 70	10014.34	86.73%
70-80	1454.94	0 - 80	11469.28	99.34%
80-90	76.68	0 - 90	11545.96	100.00%
90-100	0.00	0 - 100	11545.96	100.00%
100-110	0.00	0 - 110	11545.96	100.00%
110-120	0.00	0 - 120	11545.96	100.00%
120-130	0.00	0 - 130	11545.96	100.00%
130-140	0.00	0 - 140	11545.96	100.00%
140-150	0.00	0 - 150	11545.96	100.00%
150-160	0.00	0 - 160	11545.96	100.00%
160-170	0.00	0 - 170	11545.96	100.00%
170-180	0.00	0 - 180	11545.96	100.00%

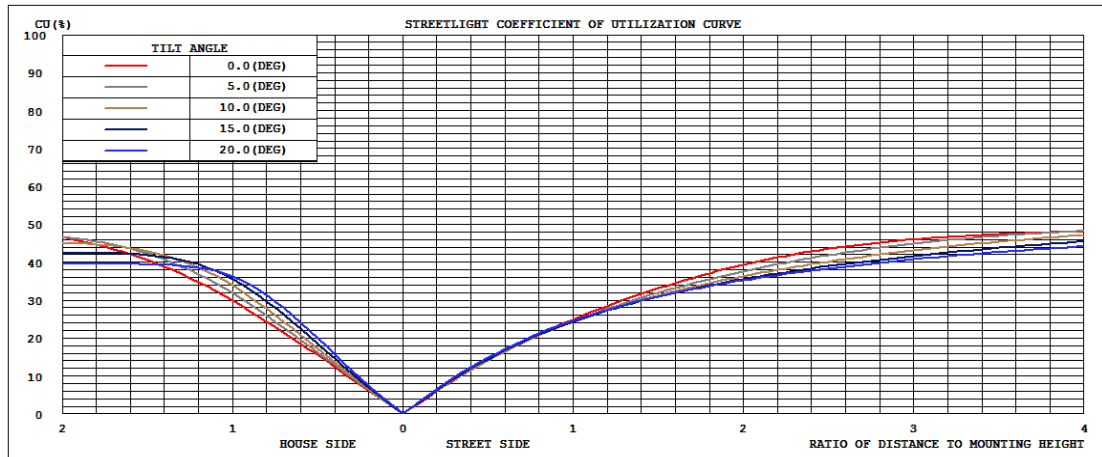
4.2 Goniophotometer Test

LCS/BUG

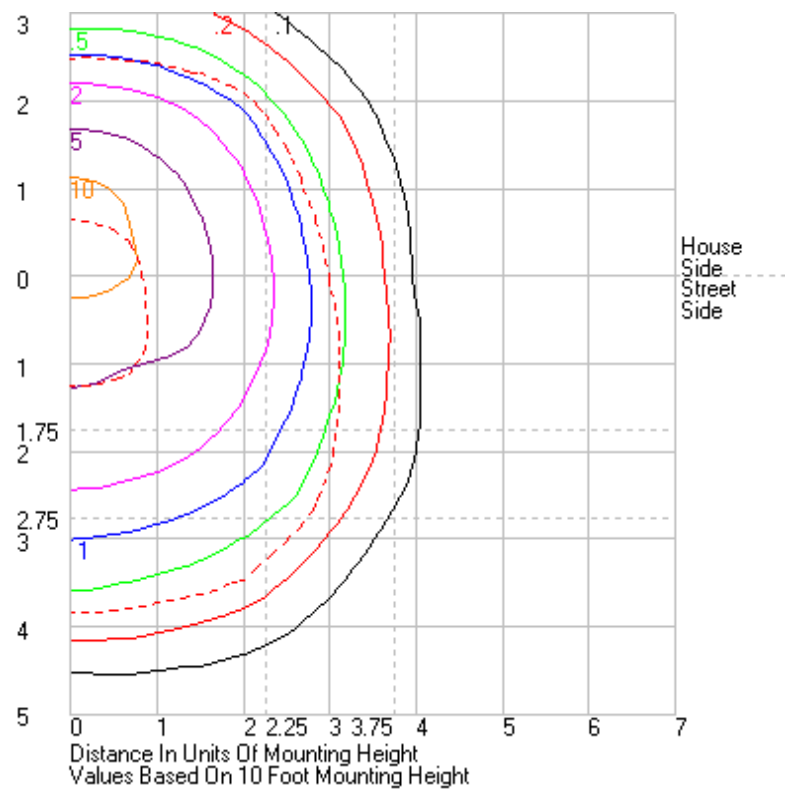


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	496.9	N.A.	4.3
FM - Front-Medium (30-60)	2353.5	N.A.	20.4
FH - Front-High (60-80)	2759.7	N.A.	23.9
FVH - Front-Very High (80-90)	53.3	N.A.	0.5
BL - Back-Low (0-30)	601.7	N.A.	5.2
BM - Back-Medium (30-60)	3216.9	N.A.	27.9
BH - Back-High (60-80)	2040.6	N.A.	17.7
BVH - Back-Very High (80-90)	23.4	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	11546.0	N.A.	100.0
BUG Rating	B3-U0-G2		

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	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61	1166.61
1	1161.86	1162.31	1163.42	1165.37	1167.17	1168.93	1169.81	1170.29	1170.55	1170.97	1171.44	1171.23	1169.06	1168.33	1167.41	1166.54	1165.6	1164.67	1163.78	1163.27	1163.1	1162.84	1162.79	1163.09	1161.86
2	1155.63	1157.29	1160.92	1164.69	1168.5	1171.85	1174.32	1175.01	1176.13	1176.55	1176.64	1176.05	1173.5	1172.15	1170.14	1168.1	1166.07	1164.01	1162.61	1161.04	1159.73	1158.37	1157.38	1157.62	1155.63
3	1148.11	1150.4	1155.95	1162.7	1169.86	1174.39	1178.75	1180.59	1182.86	1183.9	1182.46	1179.36	1175.76	1174.18	1173.3	1171.29	1167.19	1163.44	1160.38	1158.09	1155.87	1152.27	1149.72	1149.08	1148.11
4	1142.33	1145.43	1151.43	1159.8	1169.89	1177.99	1183.59	1186.44	1189.46	1188.96	1185.2	1180.92	1176.72	1174.9	1174.17	1173.05	1168.81	1162.85	1159.03	1154.97	1150.32	1145.89	1144.04	1143.32	1142.33
5	1139.67	1143.93	1149.36	1158.15	1169.88	1180.68	1188.06	1193.01	1195.71	1194.2	1189.74	1184.77	1179.6	1177.21	1175.36	1173.29	1171.32	1162.27	1156.74	1151	1144.79	1141.56	1140.05	1139.18	1139.67
6	1134.52	1141.51	1150.42	1159.24	1169.44	1181.17	1190.81	1198.21	1203.04	1200.05	1196.57	1192.26	1186.38	1182.91	1178.75	1175.12	1173.28	1161.27	1152.55	1144.59	1138.73	1136.62	1137.15	1134.98	1134.52
7	1126.88	1135.57	1149.38	1160.4	1168.99	1179.66	1191.33	1202.05	1209.52	1209.05	1207.52	1203.47	1196.6	1192.53	1185.02	1178.77	1173.58	1158.57	1147.51	1135.91	1131.66	1132.5	1132.34	1127.71	1126.88
8	1121.36	1131.35	1146.02	1160.2	1165.68	1176.08	1192.2	1205.73	1216.97	1219.56	1221.22	1218.19	1209.19	1203.23	1194.73	1184.03	1173.88	1157.04	1143.89	1129.44	1123.71	1126.85	1125.91	1121.46	1121.36
9	1114.65	1126.93	1144.18	1157.94	1161.64	1172.61	1193.07	1210.71	1224.91	1231.6	1236.29	1235.32	1226.56	1217.93	1205.8	1191.82	1175.54	1158.86	1142.34	1124.51	1117.19	1120.18	1119.75	1115.85	1114.65
10	1107.88	1121.37	1142.6	1152.97	1158.41	1171.93	1195.09	1217.55	1235.45	1246.13	1254.2	1255.13	1245.11	1235.66	1220.4	1200.54	1180.76	1162.96	1142.35	1122.03	1111.82	1113.47	1115.01	1109.27	1107.88
11	1102.47	1117.3	1138.74	1148.29	1157.25	1173.46	1200.25	1225.47	1246.88	1262.38	1272.52	1276.52	1266.55	1254.54	1236.96	1211.86	1188.9	1169.01	1143.94	1121.76	1109.13	1107.48	1109.94	1104.72	1102.47
12	1097.04	1113.33	1135.61	1145.57	1158.37	1177.02	1207.23	1235.54	1260.43	1280.55	1293.23	1298.3	1289.9	1276.33	1253.51	1225.41	1198.53	1174.69	1145.08	1121.5	1107.81	1104.16	1105.55	1100.23	1097.04
13	1089.75	1109.41	1133.38	1145.48	1161	1183.45	1216.74	1248.16	1274.66	1302.16	1316.28	1321.99	1312.56	1297.04	1273.32	1240.15	1209.16	1180.46	1147.33	1121.66	1108.04	1102.17	1102.09	1095.07	1089.75
14	1083.61	1104.76	1131.97	1147.71	1165.88	1192.1	1227.77	1262.64	1291.69	1323.8	1337.81	1345.51	1337.36	1319.06	1292.34	1258.02	1220.45	1187.97	1151.43	1124.74	1108.27	1102.67	1098.33	1090.14	1083.61
15	1077.64	1101.31	1131.07	1150.66	1172.97	1201.92	1239.35	1277.48	1310.88	1346.93	1362.18	1369.08	1361.46	1342.42	1313.25	1275.05	1232.72	1197.25	1157.19	1129.78	1110.77	1105.85	1095.34	1085.8	1077.64
16	1072.47	1098.63	1131.04	1156.11	1181.36	1213.53	1252.32	1294.01	1331.85	1371	1387.04	1394.84	1385.68	1364.06	1334.24	1292.75	1246.69	1205.49	1162.32	1134.93	1114.91	1109.28	1093.34	1081.98	1072.47
17	1068.2	1096.77	1132.59	1163.27	1191.32	1226.26	1265.96	1311.28	1353.79	1394.78	1412.93	1419.65	1411.19	1388.13	1355.49	1310.59	1260.59	1214.01	1168.65	1140.24	1121.49	1112.83	1091.34	1078.65	1068.2
18	1064.57	1095.2	1134.87	1170.39	1201.84	1240.14	1282.14	1330.19	1376.36	1420.64	1442.21	1447.56	1437.32	1412.22	1379.46	1328.67	1273.94	1223.28	1176.2	1145.78	1127.8	1115.59	1090.9	1075.71	1064.57
19	1062.7	1094.28	1138.21	1178.61	1213.44	1255.43	1299.55	1350.21	1398.84	1446.68	1470.88	1476	1465.4	1437.66	1403.14	1348.43	1287.96	1233.89	1185.6	1153.25	1134.94	1120.13	1092.54	1072.82	1062.7
20	1063.97	1094.7	1142.23	1187.26	1227.13	1271.72	1318.41	1371.89	1424.49	1473.31	1501.7	1505.51	1495.29	1466.51	1428.97	1367.57	1302.24	1246.37	1197.74	1163.46	1143.49	1126.02	1095.43	1070.8	1063.97
21	1067.55	1097.37	1146.29	1196.75	1242.66	1288.51	1337.66	1394.12	1450.04	1501.45	1534.48	1538.29	1524.88	1493.26	1455.69	1387.15	1319.1	1258.88	1210.43	1175.18	1153.47	1132.45	1099.03	1071.73	1067.55
22	1072.22	1101.37	1151.91	1206.15	1259.35	1304.77	1356.72	1416.46	1476.21	1527.35	1565.42	1569.08	1557.62	1523.15	1481	1407.69	1336.13	1272.85	1224.08	1188.53	1165.63	1138.62	1102.94	1074.56	1072.22
23	1077.54	1106.94	1159.46	1215.68	1275.34	1321.66	1378.11	1440.65	1503.23	1557.46	1599.73	1604	1590.46	1553.55	1509.15	1427.41	1354.47	1286.77	1237.86	1201.41	1179.65	1144.77	1108.91	1078.75	1077.54
24	1083.33	1112.7	1169.18	1225.18	1291.12	1340.37	1400.7	1465.9	1529.91	1587.69	1633.97	1639.88	1626.01	1583.72	1537.36	1450.67	1374.32	1302.16	1254.54	1214.84	1194.69	1151.42	1116.15	1083.72	1083.33
25	1092.22	1120.4	1179.76	1236.14	1306.56	1360.64	1426.34	1492.46	1558.4	1618.49	1666.89	1676.78	1664.96	1621.49	1565.81	1473.82	1392.85	1321.32	1273.38	1231.88	1208.83	1159.93	1125.32	1091.17	1092.22
26	1101.93	1130.23	1190.07	1247.16	1323.37	1383.25	1454.29	1521	1587.8	1652.36	1703.53	1719.33	1704.79	1656.86	1596.42	1499.23	1414.61	1341.47	1294.27	1251.21	1222.04	1169.82	1135.26	1100.87	1101.93
27	1113.12	1141.59	1200.71	1259.43	1340.85	1407.72	1483.95	1550.33	1619.29	1684.15	1737.67	1759.84	1748.45	1698.59	1626.47	1525.64	1437.95	1363.8	1317.52	1271.57	1237.67	1183.12	1147.78	1111.02	1113.12
28	1126.3	1154.63	1212.84	1271.01	1360.43	1435.87	1516.16	1583.4	1652.76	1719.03	1778.79	1807.24	1794.35	1742.62	1661.64	1551.38	1463.77	1388.4	1342.66	1294.87	1255.54	1197.99	1160.9	1122.56	1126.3
29	1140.31	1168.83	1226.41	1284.5	1380.56	1465.39	1550.18	1617.26	1686.69	1752.73	1820.66	1858.04	1843.42	1786.91	1695.73	1579.05	1490.22	1415.36	1369.88	1319.56	1273.78	1215.11	1175.89	1135.27	1140.31
30	1155.18	1185.38	1240.4	1300.02	1403.35	1497.04	1587.44	1653.99	1723.76	1787.48	1862.43	1909.24	1897.89	1839.82	1731.77	1604.14	1517.56	1443.67	1399.67	1347.12	1293.6	1229.27	1191.17	1149.87	1155.18
31	1171	1203.03	1255.45	1316.22	1428.64	1532.36	1626.5	1694.2	1761.94	1827.7	1912.24	1968.32	1952.89	1890.1	1772.63	1633.19	1547.72	1474.17	1431.14	1375.43	1313.72	1242.64	1205.89	1166.13	1171
32	1187.35	1221.93	1270.3	1333.78	1455.98	1568.89	1668.57	1735.06	1801.99	1867.69	1960.6	2027.13	2013.98	1948.64	1814.09	1666.06	1578.08	1506.43	1465.03	1406.44	1335.06	1257.87	1221.43	1183.54	1187.35
33	1206.07	1242.05	1288.02	1354.94	1486.29	1610.25	1713.95	1782.22	1844.4	1914.47	2016.5	2092.28	2080.53	2012.32	1862.87	1699.05	1610.34	1541.1	1499.73	1439.08	1357.92	1275.84	1237.75	1202.34	1206.07
34	1226.04	1263.5	1307.74	1377.09	1515.99	1652.44	1761.36	1829.3	1888.99	1961.71	2076.15	2165.4	2151.03	2074.54	1911.13	1736.41	1643.76	1577.28	1536.06	1473.69	1381.41	1295.05	1255.24	1221.17	1226.04
35	1247.46	1286.12	1328.62	1400.98	1548.32	1700.27	1813.43	1881.85	1937.82	2012.81	2133.23	2235.97	2230.92	2148.61	1964.03	1776.63	1678.3	1615.12	1574.25	1510.38	1407.72	1315.88	1273.87	1241.93	1247.46
36	1271.77	1311.76	1351.13	1427.55	1583.58	1750.13	1868.46	1937.87	1988.95	2069.93	2201.03	2319.16	2310.95	2220.59	2022.76	1820.74	1714.96	1655.2	1613.44	1548.21	1435.67	1336.7	1293.32	1264.69	1271.77
37	1297.8	1339.71	1373.41	1455.2	1621.55	1804.21	1926.24	1996.19	2041.88	2127.69	2267.07	2401.53	2398.75	2300.83	2080.41	1869.48	1752.37	1697.32	1653.64	1588.52	1465.05	1358.08	1314.73	1288.82	1297.8
38	1327.48	1371.02	1396.55	1485.01	1663.67	1861.85	1989.44	2060.96	2097.71	2189.87	2341.48	2485.61	2489.31	2391.51											

Page 13 of 17

Page 14 of 17

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.	ALEDM5T/480	Sample ID.	C1
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
479.95	60	0.180	74.3	0.861	22.44%

5.0 Equipment Information

Test Equipment			
Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
DLF107	Integrating Sphere System	2021/12/26	2022/12/25
DLF108	Auxiliary Lamp	2021/12/26	2022/12/25
DLF122	Measurement Standard Lamp Standard Lamp Type: 220 V, 0.4720 A, Tungsten, Omni-derectional	2021/12/26	2022/12/25
DLF116	AC Power Source	2021/12/26	2022/12/25
DLF113	Power Meter	2021/12/26	2022/12/25
DLF112	Temperature Recorder	2021/12/26	2022/12/25
DLF114	Temperature & Humidity Datalogger	2021/12/26	2022/12/25
DLF101	Goniophotometer	2021/12/26	2022/12/25
DLF125	Standard Lamp Standard Lamp Type: 76.58 V, 6.7875 A, Tungsten, Omni-derectional	2021/12/26	2022/12/25
DLF104	AC Power Source	2021/12/26	2022/12/25
DLF507	DC Power Source	2021/12/26	2022/12/25
DLF102	Power Meter	2021/12/26	2022/12/25
DLF111	Temperature & Humidity Datalogger	2021/12/26	2022/12/25
DLF119	Power Meter	2021/12/26	2022/12/25
DLF031	Temperature data logger	2021/12/26	2022/12/25
DLF022	Digital power meter	2021/12/26	2022/12/25
DLF003	Temperature & Humidity Datalogger	2021/12/26	2022/12/25

***** End of Test Report*****