

Photometric Test Report

Relevant Standards

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

Prepared For

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2023/1/10

Issue Date

2023/1/14

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		11010
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	135.4
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		81.3
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	1.94%
		20.00%	277V	6.65%
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	3045±175	2901
		4 step	3045±100	
Minimum CRI (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥70		82
Minimum R9 (Integrating Sphere - Section 4.1)	IES LM-79-2008 CIE 13.3-1995	≥-40		3
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		94
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%		0.42%
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		0.678
(Goniophotometer - Section 4.2)		Non-Worst Case		0.297
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		81.3
(Goniophotometer - Section 4.2)		Non-Worst Case		79.6

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2023/1/10	ALEDS5TY	F1
2	Goniophotometer Test	2023/1/10	ALEDS5TY	F1
3	THD and PF Test	2023/1/10	ALEDS5TY	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.

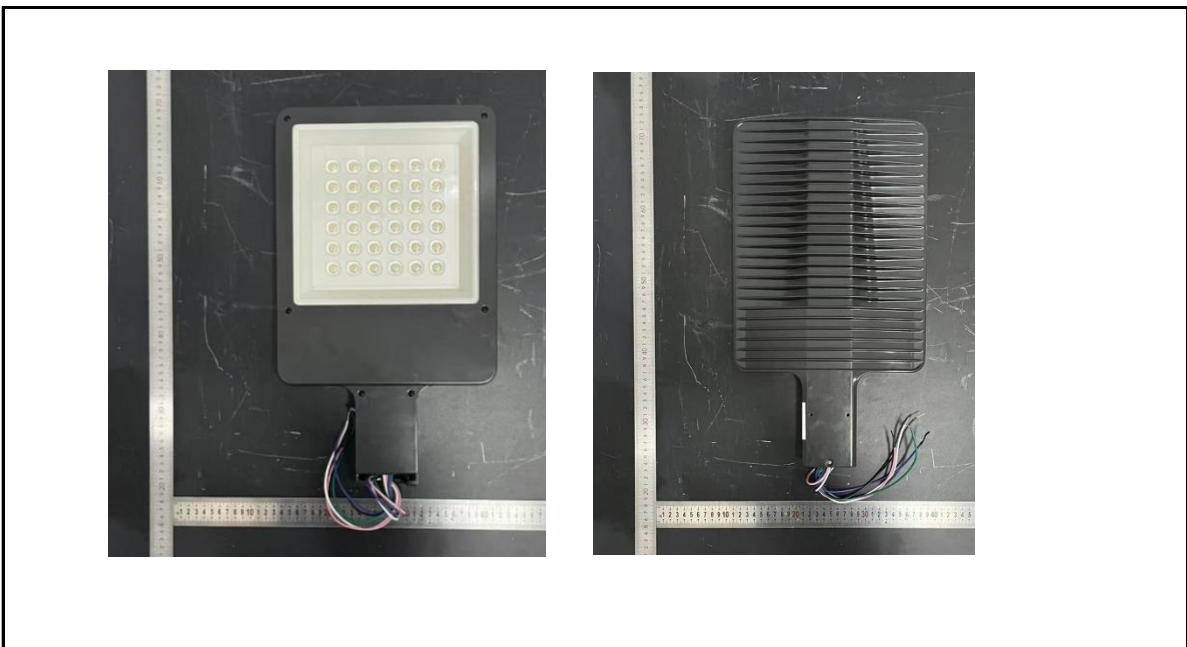
3.0 Production Description

Luminaire Description: ALEDS5TY

Description: 80W @ 3000K

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.	ALEDS5TY	Sample ID.	F1
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
120.02	60	0.679	81.4	0.999
277.00	60	0.296	79.2	0.966

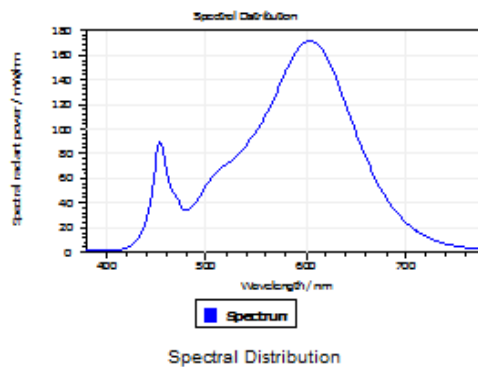
Test Result

CCT (K)	CRI	R9	Duv
2901	82	3	0.001

Rf	Rg	IES Rcs,h1
84	94	-12%

4.1 Integrating Sphere Test

Results



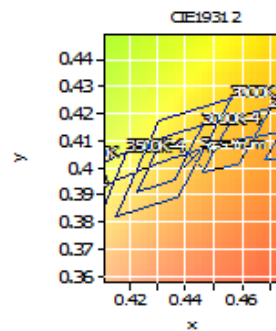
Spectral values

DominantWavelength 583.61 nm
Purity 0.539
PeakWavelength 603.84 nm
Radiant Power 24.69 W
Width50%:

Color Coordinates

Correlated Color Temporal 2901 K
x: 0.4428 u: 0.2545 u': 0.2545
y: 0.4033 v: 0.3480 v': 0.5219

CRI01	80.7	CRI09	3.4
CRI02	92.5	CRI10	83.3
CRI03	93.5	CRI11	77.8
CRI04	78.4	CRI12	74.0
CRI05	81.0	CRI13	83.7
CRI06	91.2	CRI14	97.1
CRI07	80.4	CRI15	72.9
CRI08	55.9	CRI16	69.6
ResultsCRI	81.7		



PlanckDistance 1.0E-003

4.1 Integrating Sphere Test

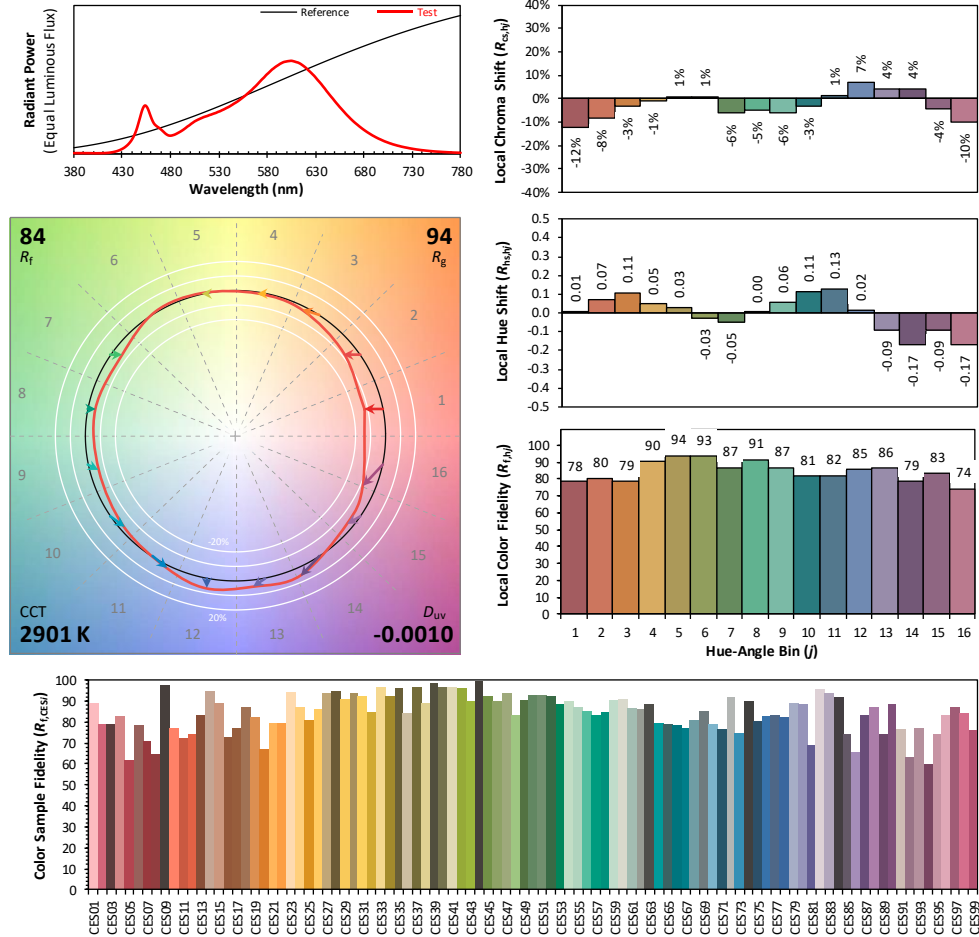
IES TM-30-18 Color Rendition Report

Source: DLF2301106-6a

Manufacturer: RAB Lighting Inc.

Date: 2023/1/10

Model: ALED55TY



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

x 0.4426

y 0.4033

u' 0.2545

v' 0.5219

CIE 13.3-1995
(CRI)

R_a 82

R_g 3

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.	ALEDS5TY	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	120.02	60	0.678	81.3	0.999
NON-WROST CASE	277.04	60	0.297	79.6	0.966

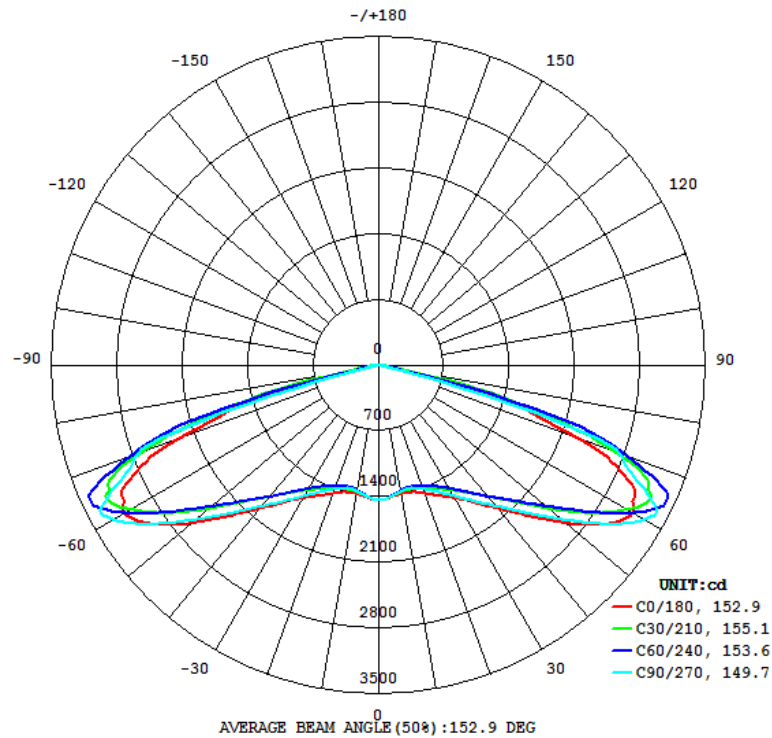
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
11010	159.4	155.3	152.9	149.7	135.4

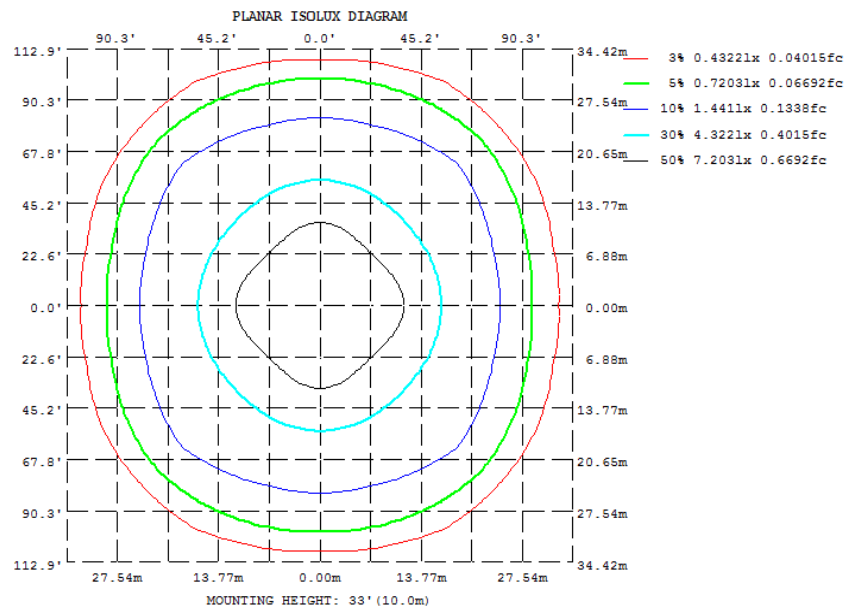
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.42%	B3-U0-G2

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

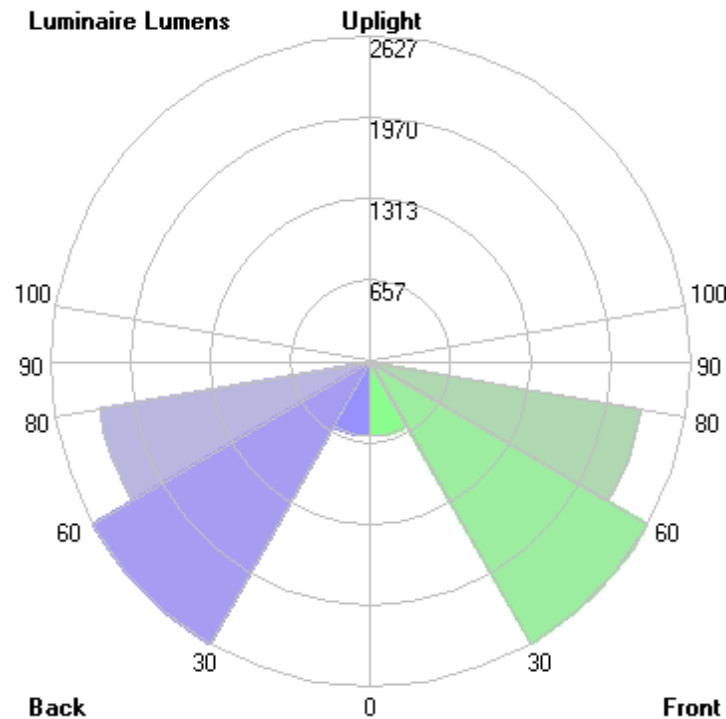
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	1394	1364	1365	1364	1394	1364	1365	1364
20	1459	1374	1409	1374	1459	1374	1409	1374
30	1635	1511	1611	1511	1635	1511	1611	1511
40	1997	1799	1963	1799	1997	1799	1963	1799
50	2614	2284	2556	2284	2614	2284	2556	2284
60	3145	3099	3289	3099	3145	3099	3289	3099
70	2278	3225	2745	3225	2278	3225	2745	3225
80	122.0	221.8	81.19	221.8	122.0	221.8	81.19	221.8
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	133.40	0 - 10	133.40	1.21%
10-20	389.36	0 - 20	522.76	4.75%
20-30	683.44	0 - 30	1206.20	10.96%
30-40	1076.70	0 - 40	2282.90	20.73%
40-50	1657.82	0 - 50	3940.72	35.79%
50-60	2518.62	0 - 60	6459.34	58.67%
60-70	3096.40	0 - 70	9555.74	86.79%
70-80	1407.93	0 - 80	10963.67	99.58%
80-90	46.55	0 - 90	11010.22	100.00%
90-100	0.00	0 - 100	11010.22	100.00%
100-110	0.00	0 - 110	11010.22	100.00%
110-120	0.00	0 - 120	11010.22	100.00%
120-130	0.00	0 - 130	11010.22	100.00%
130-140	0.00	0 - 140	11010.22	100.00%
140-150	0.00	0 - 150	11010.22	100.00%
150-160	0.00	0 - 160	11010.22	100.00%
160-170	0.00	0 - 170	11010.22	100.00%
170-180	0.00	0 - 180	11010.22	100.00%

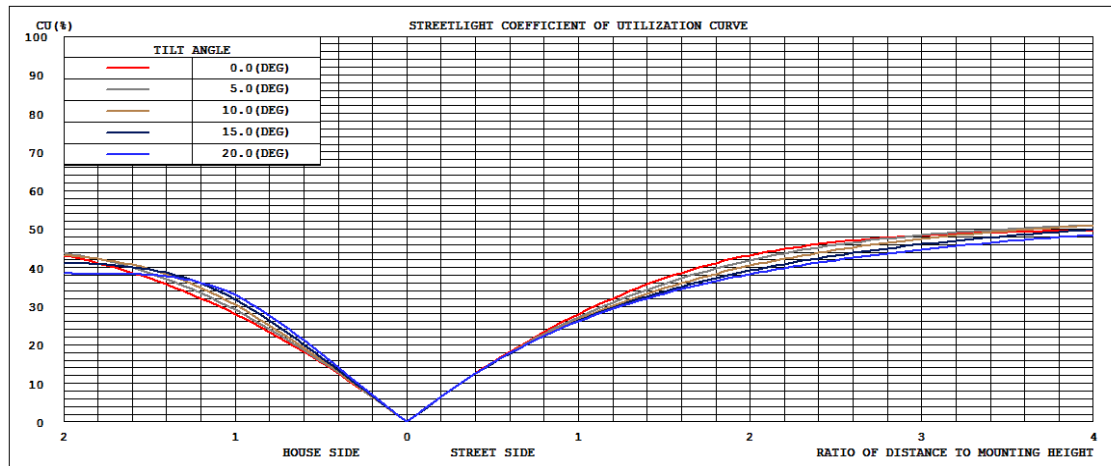
4.2 Goniophotometer Test

LCS/BUG

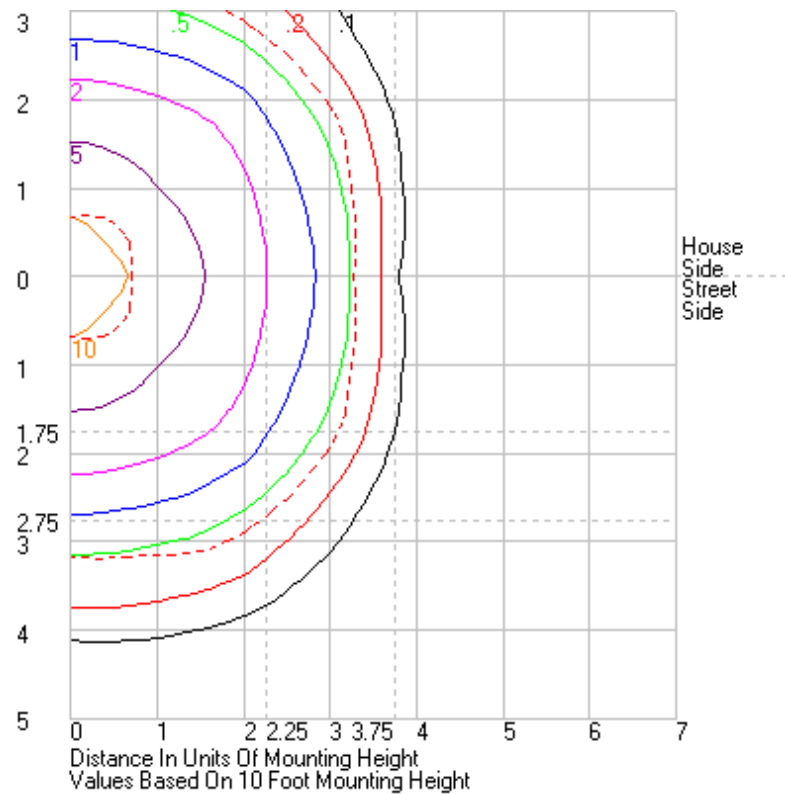


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	603.1	N.A.	5.5
FM - Front-Medium (30-60)	2626.6	N.A.	23.9
FH - Front-High (60-80)	2252.2	N.A.	20.5
FVH - Front-Very High (80-90)	23.3	N.A.	0.2
BL - Back-Low (0-30)	603.1	N.A.	5.5
BM - Back-Medium (30-60)	2626.6	N.A.	23.9
BH - Back-High (60-80)	2252.2	N.A.	20.5
BVH - Back-Very High (80-90)	23.3	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	11010.4	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	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69	1440.69
1	1439.33	1439.32	1439.44	1439.56	1440.18	1439.74	1439.28	1439.74	1440.18	1439.56	1439.44	1439.32	1439.33	1439.32	1439.44	1439.56	1440.18	1439.74	1439.28	1439.74	1440.18	1439.56	1439.44	1439.32	1439.33
2	1436.16	1435.86	1436.09	1435.85	1436.03	1436.38	1435.02	1436.38	1436.03	1435.85	1436.09	1435.86	1436.16	1435.86	1436.09	1435.85	1436.03	1436.38	1435.02	1436.38	1436.03	1435.85	1436.09	1435.86	1436.16
3	1431.55	1431.59	1431.12	1429.37	1428.27	1428.92	1427.84	1428.92	1428.27	1429.37	1431.12	1431.59	1431.55	1431.59	1431.12	1429.37	1428.27	1428.92	1427.84	1428.92	1428.27	1429.37	1431.12	1431.59	1431.55
4	1425.37	1424.53	1422.51	1421.23	1419.55	1419.45	1419.22	1419.45	1419.55	1421.23	1422.51	1424.53	1425.37	1424.53	1422.51	1421.23	1419.55	1419.45	1419.22	1419.55	1421.23	1422.51	1424.53	1425.37	1425.37
5	1418.55	1417.07	1414.09	1410.18	1409.85	1411.17	1410.78	1411.17	1409.85	1410.78	1414.09	1417.07	1418.55	1417.07	1414.09	1410.18	1409.85	1411.17	1410.78	1411.17	1409.85	1410.18	1414.09	1417.07	1418.55
6	1410.89	1408.51	1404.36	1400.99	1398.96	1400.71	1401.38	1400.71	1398.96	1400.99	1404.36	1408.51	1410.89	1408.51	1404.36	1400.99	1398.96	1400.71	1401.38	1400.71	1398.96	1400.99	1404.36	1408.51	1410.89
7	1404.65	1401.24	1394.91	1389.33	1387.39	1390.28	1391.93	1390.28	1387.39	1389.33	1394.91	1401.24	1404.65	1401.24	1394.91	1389.33	1387.39	1390.28	1391.93	1390.28	1387.39	1389.33	1394.91	1401.24	1404.65
8	1400.28	1395.19	1386.7	1379.75	1377.31	1380.08	1382.58	1380.08	1377.31	1379.75	1386.7	1395.19	1400.28	1395.19	1386.7	1379.75	1377.31	1380.08	1382.58	1380.08	1377.31	1379.75	1386.7	1395.19	1400.28
9	1397.08	1391.05	1380.04	1371.5	1366.99	1369.51	1373.34	1369.51	1366.99	1371.5	1380.04	1391.05	1397.08	1391.05	1380.04	1371.5	1366.99	1369.51	1373.34	1369.51	1366.99	1371.5	1380.04	1391.05	1397.08
10	1393.68	1386.99	1374.61	1364.45	1356.9	1360.76	1364.81	1360.76	1356.9	1364.45	1374.61	1386.99	1393.68	1386.99	1374.61	1364.45	1356.9	1360.76	1364.81	1360.76	1356.9	1364.45	1374.61	1386.99	1393.68
11	1393.56	1384.53	1369.97	1359.15	1349.91	1352.39	1358.08	1352.39	1349.91	1359.15	1369.97	1384.53	1393.56	1384.53	1369.97	1359.15	1349.91	1352.39	1358.08	1352.39	1349.91	1359.15	1369.97	1384.53	1393.56
12	1394.5	1384.57	1367.68	1356.23	1344.6	1346.89	1353.5	1346.89	1344.6	1356.23	1367.68	1384.57	1394.5	1384.57	1367.68	1356.23	1344.6	1346.89	1353.5	1346.89	1344.6	1356.23	1367.68	1384.57	1394.5
13	1396.06	1384.87	1367.19	1354.42	1341.39	1343.82	1352.2	1343.82	1341.39	1354.42	1367.19	1384.87	1396.06	1384.87	1367.19	1354.42	1341.39	1343.82	1352.2	1343.82	1341.39	1354.42	1367.19	1384.87	1396.06
14	1398.67	1387.26	1368.18	1353.67	1340.05	1344.42	1353.27	1344.42	1340.05	1353.67	1368.18	1387.26	1398.67	1387.26	1368.18	1353.67	1340.05	1344.42	1353.27	1344.42	1340.05	1353.67	1368.18	1387.26	1398.67
15	1401.67	1388.89	1371.12	1354.36	1342.82	1347.39	1358.26	1347.39	1342.82	1354.36	1371.12	1388.89	1401.67	1388.89	1371.12	1354.36	1342.82	1347.39	1358.26	1347.39	1342.82	1354.36	1371.12	1388.89	1401.67
16	1409.2	1393.49	1373.37	1356.34	1346.33	1354.01	1366.47	1354.01	1346.33	1356.34	1373.37	1393.49	1409.2	1393.49	1373.37	1356.34	1346.33	1354.01	1366.47	1354.01	1346.33	1356.34	1373.37	1393.49	1409.2
17	1418.95	1401.16	1376.98	1359.88	1351.6	1362.25	1375.88	1362.25	1351.6	1359.88	1376.98	1401.16	1418.95	1401.16	1376.98	1359.88	1351.6	1362.25	1375.88	1362.25	1351.6	1359.88	1376.98	1401.16	1418.95
18	1430.7	1409.98	1382.99	1364.71	1358.06	1372.27	1385.62	1372.27	1358.06	1364.71	1382.99	1409.98	1430.7	1409.98	1382.99	1364.71	1358.06	1372.27	1385.62	1372.27	1358.06	1364.71	1382.99	1409.98	1430.7
19	1444.18	1420.98	1390.72	1369.5	1365.83	1382.77	1396.48	1382.77	1365.83	1369.5	1390.72	1420.98	1444.18	1420.98	1390.72	1369.5	1365.83	1382.77	1396.48	1382.77	1365.83	1369.5	1390.72	1420.98	1444.18
20	1458.69	1433.16	1399.75	1373.9	1373.23	1393.39	1408.54	1393.39	1373.23	1373.9	1399.75	1433.16	1458.69	1433.16	1399.75	1373.9	1373.23	1393.39	1408.54	1393.39	1373.23	1373.9	1399.75	1433.16	1458.69
21	1474.29	1446.43	1409.49	1380.55	1381.96	1405.37	1421.32	1405.37	1381.96	1380.55	1409.49	1446.43	1474.29	1446.43	1409.49	1380.55	1381.96	1405.37	1421.32	1405.37	1381.96	1380.55	1409.49	1446.43	1474.29
22	1488.85	1460.75	1420.24	1389.8	1391.7	1418.41	1436.23	1418.41	1391.7	1389.8	1420.24	1460.75	1488.85	1460.75	1420.24	1389.8	1391.7	1418.41	1436.23	1418.41	1391.7	1389.8	1420.24	1460.75	1488.85
23	1504.38	1475.81	1431.78	1400.83	1402.41	1433.56	1452.24	1433.56	1402.41	1400.83	1431.78	1475.81	1504.38	1475.81	1431.78	1400.83	1402.41	1433.56	1452.24	1433.56	1402.41	1400.83	1431.78	1475.81	1504.38
24	1520.52	1491.41	1445.49	1412.49	1414.14	1450.34	1469.77	1450.34	1414.14	1412.49	1445.49	1491.41	1520.52	1491.41	1445.49	1412.49	1414.14	1450.34	1469.77	1450.34	1414.14	1412.49	1445.49	1491.41	1520.52
25	1536.41	1506.47	1458.83	1425.41	1427.65	1469.06	1490.72	1469.06	1427.65	1425.41	1458.83	1506.47	1536.41	1506.47	1458.83	1425.41	1427.65	1469.06	1490.72	1469.06	1427.65	1425.41	1458.83	1506.47	1536.41
26	1553.68	1522.54	1472.51	1439.36	1442.55	1488.55	1511.66	1488.55	1442.55	1439.36	1472.51	1522.54	1553.68	1522.54	1472.51	1439.36	1442.55	1488.55	1511.66	1488.55	1442.55	1439.36	1472.51	1522.54	1553.68
27	1571.74	1539.71	1487.49	1454.63	1458.86	1509.35	1533.97	1509.35	1458.86	1454.63	1487.49	1539.71	1571.74	1539.71	1487.49	1454.63	1458.86	1509.35	1533.97	1509.35	1458.86	1454.63	1487.49	1539.71	1571.74
28	1591.16	1558.67	1503.58	1471.95	1476.49	1531.97	1558.17	1531.97	1476.49	1471.95	1503.58	1558.67	1591.16	1558.67	1503.58	1471.95	1476.49	1531.97	1558.17	1531.97	1476.49	1471.95	1503.58	1558.67	1591.16
29	1612.06	1578.96	1521.54	1490.27	1495.6	1555.78	1583.62	1555.78	1495.6	1490.27	1521.54	1578.96	1612.06	1578.96	1521.54	1490.27	1495.6	1555.78	1583.62	1555.78	1495.6	1490.27	1521.54	1578.96	1612.06
30	1635.33	1600.89	1540.62	1510.93	1516.99	1580.64	1611.01	1580.64	1516.99	1510.93	1540.62	1600.89	1635.33	1600.89	1540.62	1510.93	1516.99	1580.64	1611.01	1580.64	1516.99	1510.93	1540.62	1600.89	1635.33
31	1660.12	1623.98	1561.71	1532.71	1540.49	1607.31	1639.54	1607.31	1540.49	1532.71	1561.71	1623.98	1660.12	1623.98	1561.71	1532.71	1540.49	1607.31	1639.54	1607.31	1540.49	1532.71	1561.71	1623.98	1660.12
32	1687.37	1648.78	1584.03	1556.28	1565.65	1635.83	1670.77	1635.83	1565.65	1556.28	1584.03	1648.78	1687.37	1648.78	1584.03	1556.28	1565.65	1635.83	1670.77	1635.83	1565.65	1556.28	1584.03	1648.78	1687.37
33	1715.29	1675.41	1608	1581.66	1593.91	1665.95	1703.31	1665.95	1593.91	1581.66	1608	1675.41	1715.29	1675.41	1608	1581.66	1593.91	1665.95	1703.31	1665.95	1593.91	1581.66	1608	1675.41	1715.29
34	1748.23	1704.42	1633.55	1608.14	1622.84	1697.6	1734.57	1697.6	1622.84	1608.14	1633.55	1704.42	1748.23	1704.42	1633.55	1608.14	1622.84	1697.6	1734.57	1697.6	1622.84	1608.14	1633.55	1704.42	1748.23
35	1785.77	1736.37	1661.39	1637	1654.79	1730.43	1769.77	1730.43	1654.79	1637	1661.39	1736.37	1785.77	1736.37	1661.39	1637	1654.79	1730.43	1769.77	1730.43	1654.79	1637	1661.39	1736.37	1785.77
36	1825.18	1772.1	1691.06	1667.46	1687.23	1764.91	1805.07	1764.91	1687.23	1667.46	1691.06	1772.1	1825.18	1772.1	1691.06	1667.46	1687.23	1764.91	1805.07	1764.91	1687.23	1667.46	1691.06	1772.1	1825.18
37	1865.55	1810.6	1723.01	1699.03	1719.93	1801.1	1840.71	1801.1	1719.93	1699.03	1723.01	1810.6	1865.55	1810.6	1723.01	1699.03	1719.93	1801.1	1840.71	1801.1	1719.93	1699.03	1723.01	1810.6	1865.55
38	1907.63	1850.28	1756.86	1731.41	1755.18	1839.09	1878.79	1839.09	1755.18	1731.41	1756.86	1850.28	1907.												

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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	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.	ALEDS5TY	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
120.02	60	0.679	81.4	0.999	1.94%
277.00	60	0.296	79.2	0.966	6.65%

5.0 Equipment Information

Test Equipment			
Equipment ID	Equipment Name	Last Calibration Date	Calibration Due Date
DLF107	Integrating Sphere System	2022/12/26	2023/12/25
DLF108	Auxiliary Lamp	2022/12/26	2023/12/25
DLF122	Measurement Standard Lamp Standard Lamp Type: 220 V, 0.4720 A, Tungsten, Omni-derectional	2022/12/26	2023/12/25
DLF116	AC Power Source	2022/12/26	2023/12/25
DLF113	Power Meter	2022/12/26	2023/12/25
DLF112	Temperature Recorder	2022/12/26	2023/12/25
DLF114	Temperature & Humidity Datalogger	2022/12/26	2023/12/25
DLF101	Goniophotometer	2022/12/26	2023/12/25
DLF125	Standard Lamp Standard Lamp Type: 76.58 V, 6.7875 A, Tungsten, Omni-derectional	2022/12/26	2023/12/25
DLF104	AC Power Source	2022/12/26	2023/12/25
DLF507	DC Power Source	2022/12/26	2023/12/25
DLF102	Power Meter	2022/12/26	2023/12/25
DLF111	Temperature & Humidity Datalogger	2022/12/26	2023/12/25
DLF119	Power Meter	2022/12/26	2023/12/25
DLF031	Temperature data logger	2022/12/26	2023/12/25
DLF022	Digital power meter	2022/12/26	2023/12/25
DLF003	Temperature & Humidity Datalogger	2022/12/26	2023/12/25

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