

Photometric Test Report

Relevant Standards

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

Prepared For RAB Lighting Inc.

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Project Number

DLF2301106

Report Number

DLF2301106-5a

Test Date

2023/1/10

Issue Date

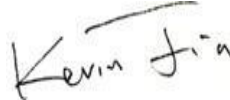
2023/1/14

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		8136
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	142.0
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		57.3
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%	120V	3.14%
		20.00%	277V	6.98%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9	120V	0.998
		0.9	277V	0.926
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	3045±175	2889
		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		5
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		0.478
(Goniophotometer - Section 4.2)		Non-Worst Case		0.220
Power (Input Wattage - W)				
(Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		57.3
(Goniophotometer - Section 4.2)		Non-Worst Case		56.4

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2023/1/10	ALEDS5TY	E1
2	Goniophotometer Test	2023/1/10	ALEDS5TY	E1
3	THD and PF Test	2023/1/10	ALEDS5TY	E1

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.

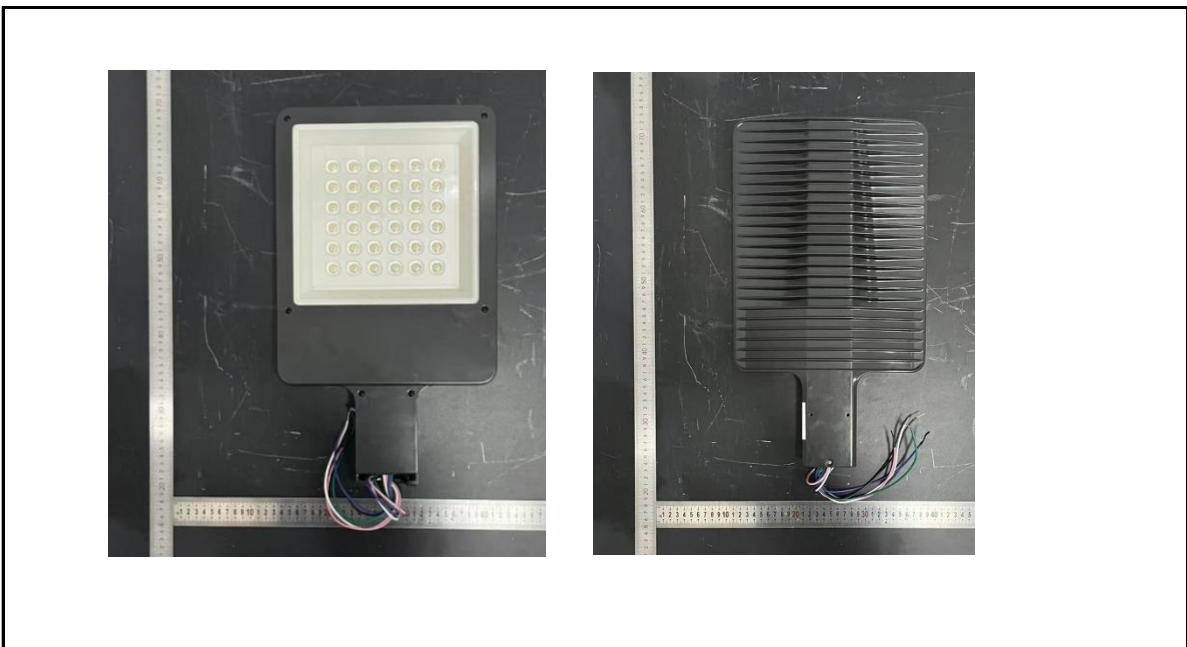
3.0 Production Description

Luminaire Description: ALEDS5TY

Description: 60W @ 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.	E1
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
120.04	60	0.471	56.4	0.998
277.01	60	0.216	55.4	0.926

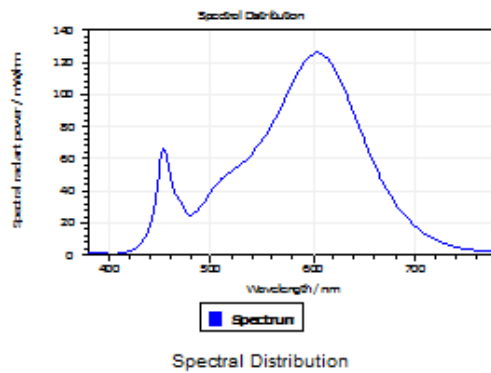
Test Result

CCT (K)	CRI	R9	Duv
2889	82	5	0.0011

Rf	Rg	IES Rcs,h1
84	94	-12%

4.1 Integrating Sphere Test

Results

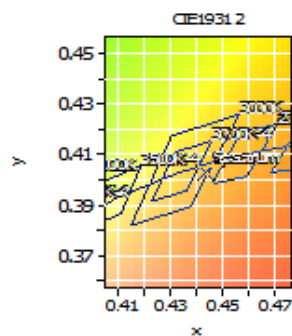


Spectral values

DominantWavelength 583.69 nm
Purity 0.542
PeakWavelength 604.20 nm
Radiant Power 18.04 W
Width50%:

Color Coordinates

Correlated Color Temperat 2889 K
x: 0.4434 u: 0.2550 u': 0.2550
y: 0.4034 v: 0.3481 v': 0.5221
CRI01 81.2 CRI09 5.3
CRI02 92.8 CRI10 83.7
CRI03 93.7 CRI11 78.5
CRI04 79.0 CRI12 73.9
CRI05 81.5 CRI13 84.1
CRI06 91.4 CRI14 97.2
CRI07 80.8 CRI15 73.6
CRI08 56.9 CRI16 70.3
ResultsCRI 82.2



PlanckDistance 1.1E-003

4.1 Integrating Sphere Test

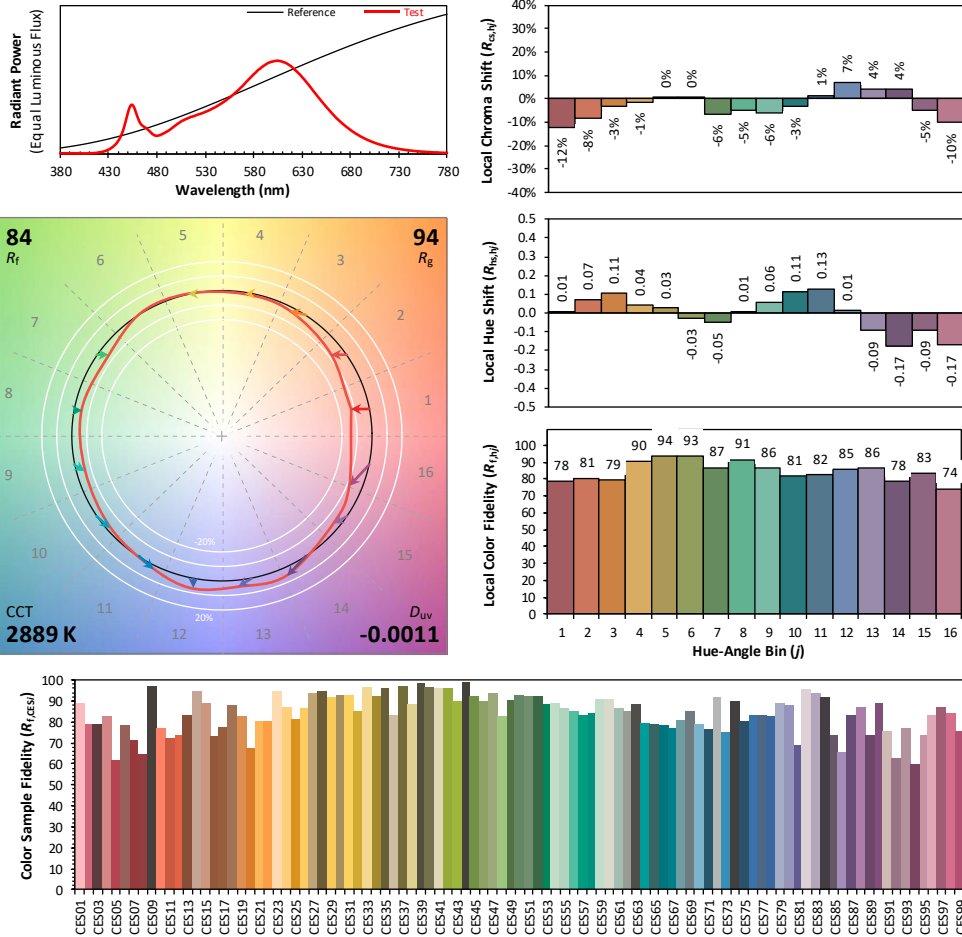
IES TM-30-18 Color Rendition Report

Source: DLF2301106-5a

Manufacturer: RAB Lighting Inc.

Date: 2023/1/10

Model: ALED5TY



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

x 0.4434

y 0.4034

u' 0.2550

v' 0.5221

CIE 13.3-1995
(CRI)

R_a 82

R_g 4

lors 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.	E1
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	120.03	60	0.478	57.3	0.998
NON-WROST CASE	277.00	60	0.220	56.4	0.926

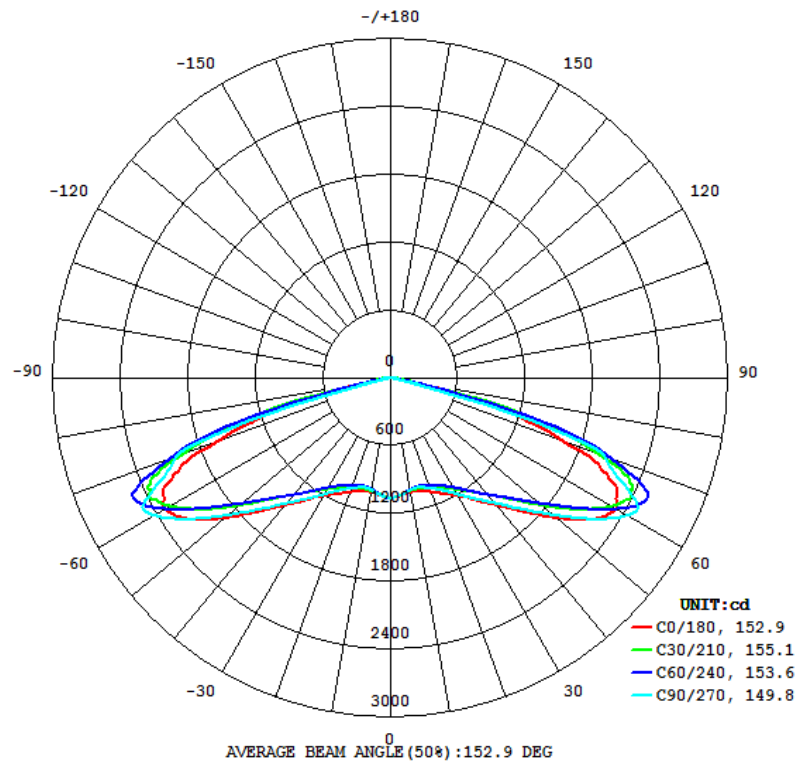
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
8136	158.8	155.6	152.9	149.8	142.0

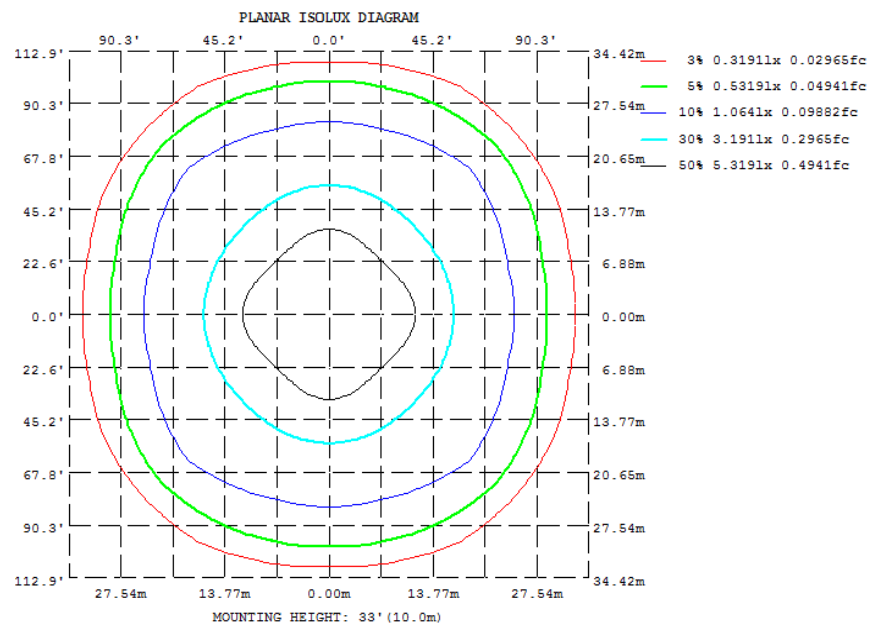
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.42%	B3-U0-G1

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

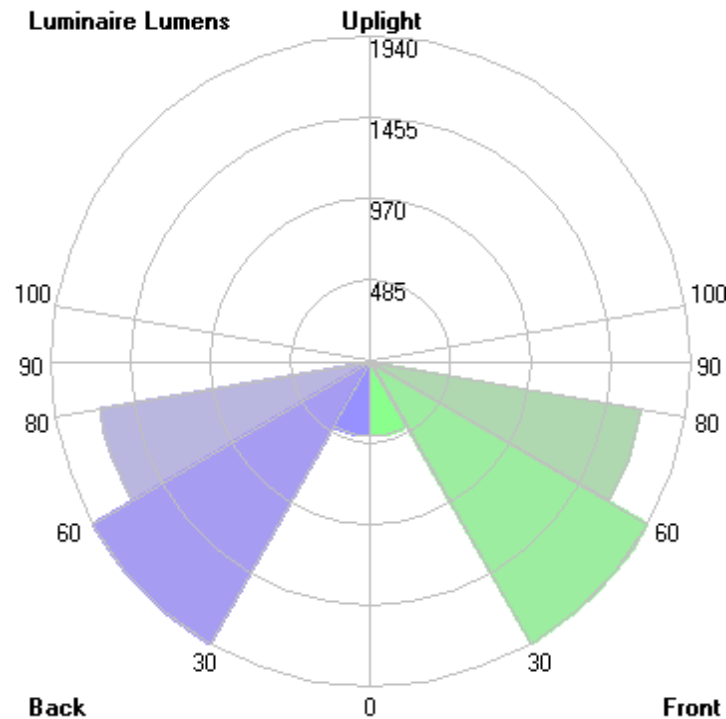
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	1030	1010	1010	1010	1030	1010	1010	1010
20	1078	1017	1041	1017	1078	1017	1041	1017
30	1208	1117	1190	1117	1208	1117	1190	1117
40	1474	1329	1452	1329	1474	1329	1452	1329
50	1929	1688	1889	1688	1929	1688	1889	1688
60	2321	2290	2431	2290	2321	2290	2431	2290
70	1635	2384	2030	2384	1635	2384	2030	2384
80	88.82	177.0	60.53	177.0	88.82	177.0	60.53	177.0
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	98.72	0 - 10	98.72	1.21%
10-20	288.09	0 - 20	386.81	4.75%
20-30	505.38	0 - 30	892.19	10.97%
30-40	795.90	0 - 40	1688.09	20.75%
40-50	1224.77	0 - 50	2912.86	35.80%
50-60	1860.07	0 - 60	4772.93	58.66%
60-70	2285.45	0 - 70	7058.38	86.75%
70-80	1043.81	0 - 80	8102.19	99.58%
80-90	34.04	0 - 90	8136.23	100.00%
90-100	0.00	0 - 100	8136.23	100.00%
100-110	0.00	0 - 110	8136.23	100.00%
110-120	0.00	0 - 120	8136.23	100.00%
120-130	0.00	0 - 130	8136.23	100.00%
130-140	0.00	0 - 140	8136.23	100.00%
140-150	0.00	0 - 150	8136.23	100.00%
150-160	0.00	0 - 160	8136.23	100.00%
160-170	0.00	0 - 170	8136.23	100.00%
170-180	0.00	0 - 180	8136.23	100.00%

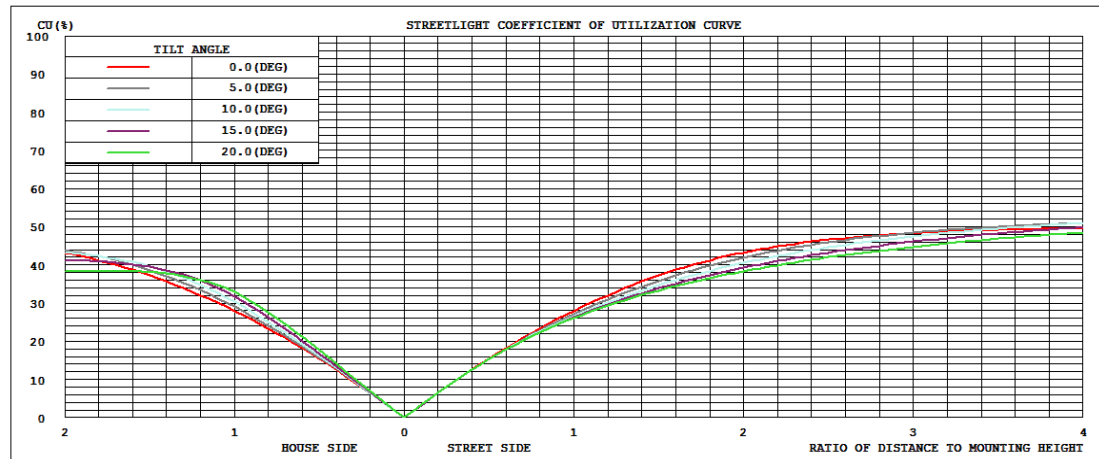
4.2 Goniophotometer Test

LCS/BUG

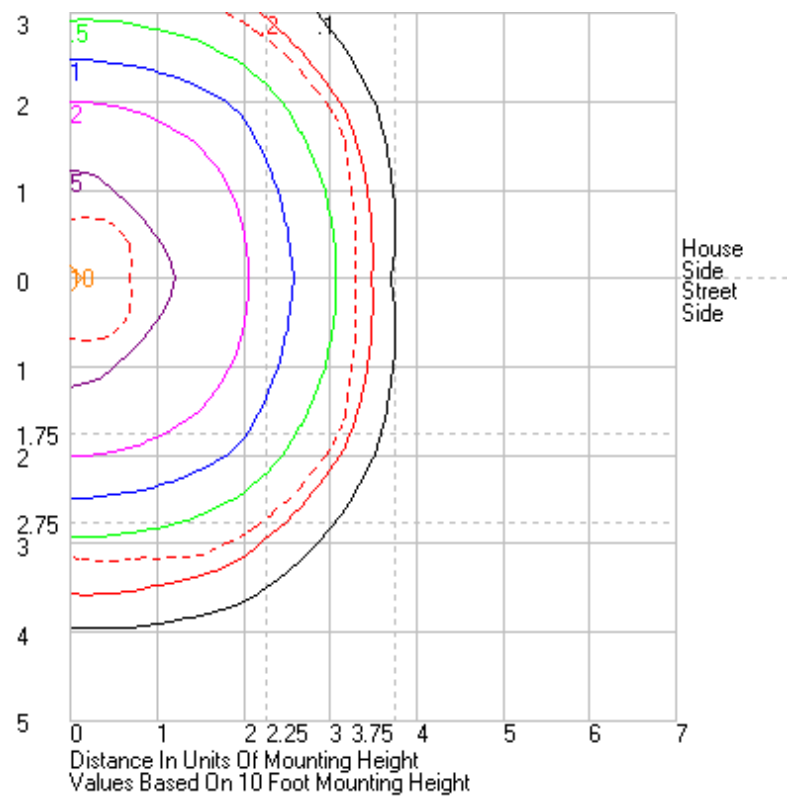


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	446.1	N.A.	5.5
FM - Front-Medium (30-60)	1940.4	N.A.	23.8
FH - Front-High (60-80)	1664.6	N.A.	20.5
FVH - Front-Very High (80-90)	17.0	N.A.	0.2
BL - Back-Low (0-30)	446.1	N.A.	5.5
BM - Back-Medium (30-60)	1940.4	N.A.	23.8
BH - Back-High (60-80)	1664.6	N.A.	20.5
BVH - Back-Very High (80-90)	17.0	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	8136.2	N.A.	100.0
BUG Rating	B3-U0-G1		

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	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71	1063.71
1	1062.93	1064.19	1064.92	1065.24	1064.85	1064.91	1064.4	1064.91	1064.85	1065.24	1064.92	1064.19	1062.93	1064.19	1064.92	1065.24	1064.85	1064.91	1064.4	1064.91	1064.85	1065.24	1064.92	1064.19	1062.93
2	1060.56	1061.45	1061.87	1061.75	1062.2	1062.13	1060.24	1062.13	1062.2	1061.75	1061.87	1061.45	1060.56	1061.45	1061.87	1061.75	1062.2	1062.13	1060.24	1062.13	1061.75	1061.87	1061.45	1060.56	1060.56
3	1057.46	1058.97	1058.75	1057.47	1056.41	1056.97	1054.43	1056.97	1056.41	1057.47	1058.75	1058.97	1057.46	1058.97	1058.75	1057.47	1056.41	1056.97	1054.43	1056.97	1056.41	1057.47	1058.75	1058.97	1057.46
4	1053.25	1053.89	1052.53	1051.51	1050.27	1050.1	1049.84	1050.1	1050.27	1051.51	1052.53	1053.89	1053.25	1053.89	1052.53	1051.51	1050.27	1050.1	1049.84	1050.1	1050.27	1051.51	1052.53	1053.89	1053.25
5	1047.78	1048.44	1046.6	1043.93	1043.41	1044.31	1044.42	1044.31	1043.41	1043.93	1046.6	1048.44	1047.78	1048.44	1046.6	1043.93	1043.41	1044.31	1044.42	1044.31	1043.41	1043.93	1046.6	1048.44	1047.78
6	1042.55	1042.63	1039.61	1036.98	1035.53	1037.06	1037.15	1037.06	1035.53	1036.98	1039.61	1042.63	1042.55	1042.63	1039.61	1036.98	1035.53	1037.06	1037.15	1037.06	1035.53	1036.98	1039.61	1042.63	1042.55
7	1038.03	1037.13	1032.24	1028.87	1027.24	1029.24	1030.38	1029.24	1027.24	1028.87	1032.24	1037.13	1038.03	1037.13	1032.24	1028.87	1027.24	1029.24	1030.38	1029.24	1027.24	1028.87	1032.24	1037.13	1038.03
8	1034.54	1032.95	1026.73	1021.53	1019.68	1021.5	1023.15	1021.5	1019.68	1021.53	1026.73	1032.95	1034.54	1032.95	1026.73	1021.53	1019.68	1021.5	1023.15	1021.5	1019.68	1021.53	1026.73	1032.95	1034.54
9	1032.25	1029.15	1022.04	1015.31	1012.46	1013.6	1016.51	1013.6	1012.46	1015.31	1022.04	1029.15	1032.25	1029.15	1022.04	1015.31	1012.46	1013.6	1016.51	1013.6	1012.46	1015.31	1022.04	1029.15	1032.25
10	1030.23	1026.38	1017.95	1010.17	1005.02	1006.87	1010.12	1006.87	1005.02	1010.17	1017.95	1026.38	1030.23	1026.38	1017.95	1010.17	1005.02	1006.87	1010.12	1006.87	1005.02	1010.17	1017.95	1026.38	1030.23
11	1029.76	1024.38	1014.18	1006.53	999.41	1001.14	1004.71	1001.14	999.41	1006.53	1014.18	1024.38	1029.76	1024.38	1014.18	1006.53	999.41	1001.14	1004.71	1001.14	999.41	1006.53	1014.18	1024.38	1029.76
12	1030.3	1023.79	1012.79	1003.94	995.33	996.56	1001.53	996.56	995.33	1003.94	1012.79	1023.79	1030.3	1023.79	1012.79	1003.94	995.33	996.56	1001.53	996.56	995.33	1003.94	1012.79	1023.79	1030.3
13	1031.99	1024.57	1012.21	1002.52	993.1	994.57	1000.64	994.57	993.1	1002.52	1012.21	1024.57	1031.99	1024.57	1012.21	1002.52	993.1	994.57	1000.64	994.57	993.1	1002.52	1012.21	1024.57	1031.99
14	1033.37	1026.11	1013.05	1002.07	992.33	995.11	1001.1	995.11	992.33	1002.07	1013.05	1026.11	1033.37	1026.11	1013.05	1002.07	992.33	995.11	1001.1	995.11	992.33	1002.07	1013.05	1026.11	1033.37
15	1035.86	1027.3	1014.97	1002.68	993.73	997.4	1004.94	997.4	993.73	1002.68	1014.97	1027.3	1035.86	1027.3	1014.97	1002.68	993.73	997.4	1004.94	997.4	993.73	1002.68	1014.97	1027.3	1035.86
16	1040.95	1030.55	1016.14	1004.59	996.73	1002.37	1010.58	1002.37	996.73	1004.59	1016.14	1030.55	1040.95	1030.55	1016.14	1004.59	996.73	1002.37	1010.58	1002.37	996.73	1004.59	1016.14	1030.55	1040.95
17	1047.73	1036.12	1018.82	1006.5	1000.38	1008.5	1017.66	1008.5	1000.38	1006.5	1018.82	1036.12	1047.73	1036.12	1018.82	1006.5	1000.38	1008.5	1017.66	1008.5	1000.38	1006.5	1018.82	1036.12	1047.73
18	1057.31	1042.54	1023.2	1009.67	1005.32	1015.49	1025.19	1015.49	1005.32	1009.67	1023.2	1042.54	1057.31	1042.54	1023.2	1009.67	1005.32	1015.49	1025.19	1015.49	1005.32	1009.67	1023.2	1042.54	1057.31
19	1066.62	1050.36	1028.84	1013.23	1010.66	1022.99	1033.11	1022.99	1010.66	1013.23	1028.84	1050.36	1066.62	1050.36	1028.84	1013.23	1010.66	1022.99	1033.11	1022.99	1010.66	1013.23	1028.84	1050.36	1066.62
20	1077.52	1059.99	1035.42	1016.55	1016.12	1031.19	1041.48	1031.19	1016.12	1016.55	1035.42	1059.99	1077.52	1059.99	1035.42	1016.55	1016.12	1031.19	1041.48	1031.19	1016.12	1016.55	1035.42	1059.99	1077.52
21	1088.7	1069.53	1042.49	1021.43	1022.61	1039.72	1050.47	1039.72	1022.61	1021.43	1042.49	1069.53	1088.7	1069.53	1042.49	1021.43	1022.61	1039.72	1050.47	1039.72	1022.61	1021.43	1042.49	1069.53	1088.7
22	1099.49	1080.43	1050.44	1028.17	1029.75	1049.72	1061.12	1049.72	1029.75	1028.17	1050.44	1080.43	1099.49	1080.43	1050.44	1028.17	1029.75	1049.72	1061.12	1049.72	1029.75	1028.17	1050.44	1080.43	1099.49
23	1111.12	1090.96	1059.17	1036.19	1037.67	1061.22	1073.5	1061.22	1037.67	1036.19	1059.17	1090.96	1111.12	1090.96	1059.17	1036.19	1037.67	1061.22	1073.5	1061.22	1037.67	1036.19	1059.17	1090.96	1111.12
24	1122.79	1102.17	1068.68	1044.94	1046.29	1073.03	1086.92	1073.03	1046.29	1044.94	1068.68	1102.17	1122.79	1102.17	1068.68	1044.94	1046.29	1073.03	1086.92	1073.03	1046.29	1044.94	1068.68	1102.17	1122.79
25	1134.91	1114.1	1078.53	1054.51	1055.82	1086.54	1101.18	1086.54	1055.82	1054.51	1078.53	1114.1	1134.91	1114.1	1078.53	1054.51	1055.82	1086.54	1101.18	1086.54	1055.82	1054.51	1078.53	1114.1	1134.91
26	1147.33	1125.62	1088.95	1064.57	1066.8	1101.09	1117.14	1101.09	1066.8	1064.57	1088.95	1125.62	1147.33	1125.62	1088.95	1064.57	1066.8	1101.09	1117.14	1101.09	1066.8	1064.57	1088.95	1125.62	1147.33
27	1160.95	1138.41	1099.86	1075.55	1078.49	1116.44	1133.66	1116.44	1078.49	1075.55	1099.86	1138.41	1160.95	1138.41	1099.86	1075.55	1078.49	1116.44	1133.66	1116.44	1078.49	1075.55	1099.86	1138.41	1160.95
28	1175.39	1152.45	1111.67	1088.67	1092.15	1133.16	1151.86	1133.16	1092.15	1088.67	1111.67	1152.45	1175.39	1152.45	1111.67	1088.67	1092.15	1133.16	1151.86	1133.16	1092.15	1088.67	1111.67	1152.45	1175.39
29	1190.71	1167.61	1124.73	1101.95	1106.14	1150.69	1170.59	1150.69	1106.14	1101.95	1124.73	1167.61	1190.71	1167.61	1124.73	1101.95	1106.14	1150.69	1170.59	1150.69	1106.14	1101.95	1124.73	1167.61	1190.71
30	1208.31	1183.73	1139.15	1117	1122.06	1169.46	1190.39	1169.46	1122.06	1117	1139.15	1183.73	1208.31	1183.73	1139.15	1117	1122.06	1169.46	1190.39	1169.46	1122.06	1117	1139.15	1183.73	1208.31
31	1226.63	1200.71	1154.16	1133.42	1138.83	1188.43	1212.08	1188.43	1138.83	1133.42	1154.16	1200.71	1226.63	1200.71	1154.16	1133.42	1138.83	1188.43	1212.08	1188.43	1138.83	1133.42	1154.16	1200.71	1226.63
32	1246.23	1219.01	1171.03	1150.42	1157.11	1209.55	1235.59	1209.55	1157.11	1150.42	1171.03	1219.01	1246.23	1219.01	1171.03	1150.42	1157.11	1209.55	1235.59	1209.55	1157.11	1150.42	1171.03	1219.01	1246.23
33	1266.85	1238.15	1188.91	1169.49	1178.43	1232.53	1259.07	1232.53	1178.43	1169.49	1188.91	1238.15	1266.85	1238.15	1188.91	1169.49	1178.43	1232.53	1259.07	1232.53	1178.43	1169.49	1188.91	1238.15	1266.85
34	1291.52	1259.8	1207.38	1189.02	1200.23	1255.74	1283.78	1255.74	1200.23	1189.02	1207.38	1259.8	1291.52	1259.8	1207.38	1189.02	1200.23	1255.74	1283.78	1255.74	1200.23	1189.02	1207.38	1259.8	1291.52
35	1318.38	1283.21	1227.61	1210.54	1223.33	1280.01	1308.31	1280.01	1223.33	1210.54	1227.61	1283.21	1318.38	1283.21	1227.61	1210.54	1223.33	1280.01	1308.31	1280.01	1223.33	1210.54	1227.61	1283.21	1318.38
36	1347.53	1309.4	1249.75	1232.54	1246.95	1305.4	1334.45	1305.4	1246.95	1232.54	1249.75	1309.4	1347.53	1309.4	1249.75	1232.54	1246.95	1305.4	1334.45	1305.4	1246.95	1232.54	1249.75	1309.4	1347.53
37	1378	1337.2	1273.39	1256.03	1271.77	1332.78	1361.11	1332.78	1271.77	1256.03	1273.39	1337.2	1378	1337.2	1273.39	1256.03	1271.77	1332.78	1361.11	1332.78	1271.77	1256.03	1273.39	1337.2	1378
38	1408.12	1366.65	1298.27	1279.62	1297.56	1360.09	1389.79	1360.09	1297.56	1279.62	1298.27	1366.65	1408.12	1366.65	1298.27	1279.62	1297								

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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.	E1
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
120.04	60	0.471	56.4	0.998	3.14%
277.01	60	0.216	55.4	0.926	6.98%

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*****