

Photometric Test Report

Relevant Standards

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

Prepared For

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Report Number

DLF2111113-21a

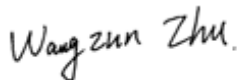
Test Date

2021/11/26

Issue Date

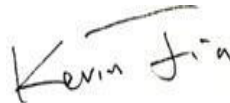
2021/12/2

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		41273
Minimum Luminaire Efficacy (lm/W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Standard 105	Premium 120	156.2
Power (Input Wattage) (W) (Goniophotometer - Section 4.2)	IES LM-79-2008	Worst Case		264.2
Total Harmonic Distortion (A%) (THD & PF - section 4.3)	ANSI C82.77:2014	20.00%		4.16%
Power Factor (THD & PF - section 4.3)	ANSI C82.77:2014	0.9		0.964
Allowable CCTs* (K) (Integrating Sphere - Section 4.1)	IES LM-79-2008	7 step	3985±275	3966
		4 step	3985±154	
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		10
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		95
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%		0.35%
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		0.572

2.0 Test List

Test Item	Test	Test Date	Model Number	Sample No.
1	Integrating Sphere Test	2021/11/26	ALEDL5TN/480	U1
2	Goniophotometer Test	2021/11/26	ALEDL5TN/480	U1
3	THD and PF Test	2021/11/26	ALEDL5TN/480	U1

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.

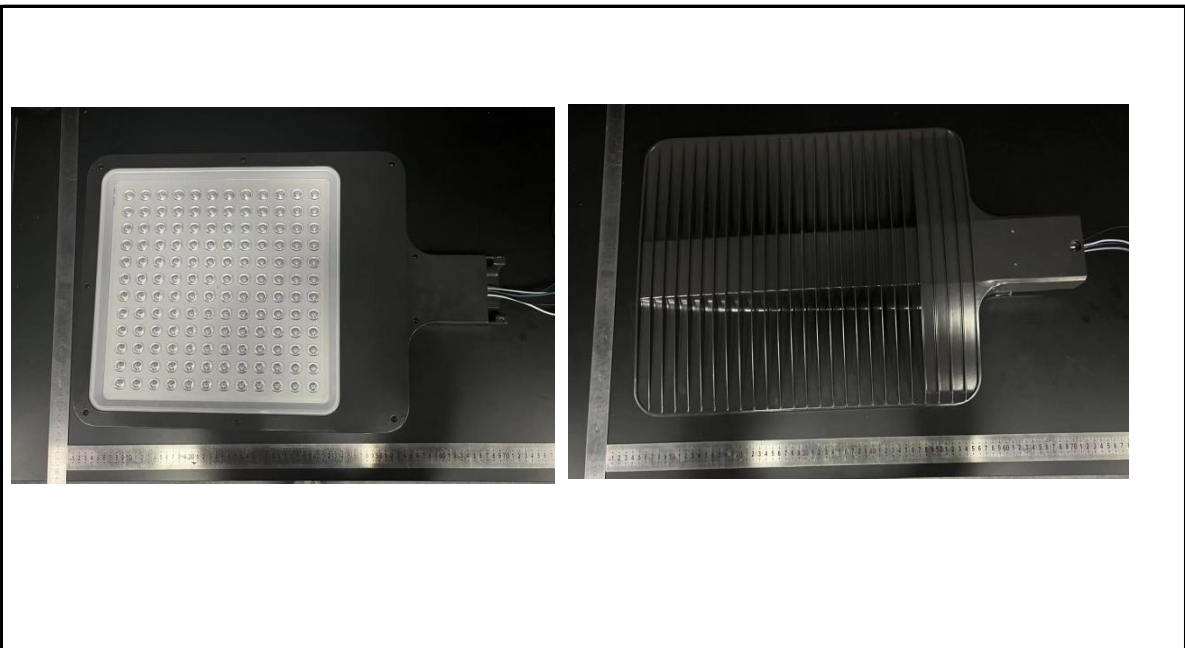
3.0 Production Description

Luminaire Description: ALEDL5TN/480

Description: 260W/36,000 lm @ 4000K

Electrical Specification: 480V,50/60HZ

Photos of Luminaire Characteristics



4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	ALEDL5TN/480	Sample ID.	U1
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
479.95	60	0.572	264.7	0.964

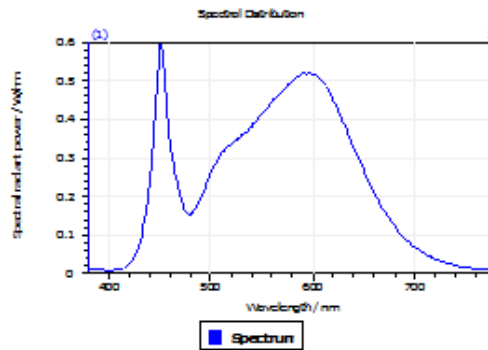
Test Result

CCT (K)	CRI	R9	Duv
3966	84	10	0.00019

Rf	Rg	IES Rcs,h1
84	95	-12%

4.1 Integrating Sphere Test

Results



Spectral values

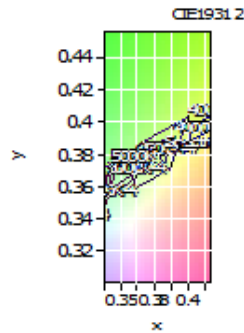
DominantWavelength	579.10 nm
Purity	0.282
PeakWavelength	451.27 nm
Radiant Power	90.9 W
Width50%:	19.83 nm

Color Coordinates

Correlated Color Temperat 3966 K

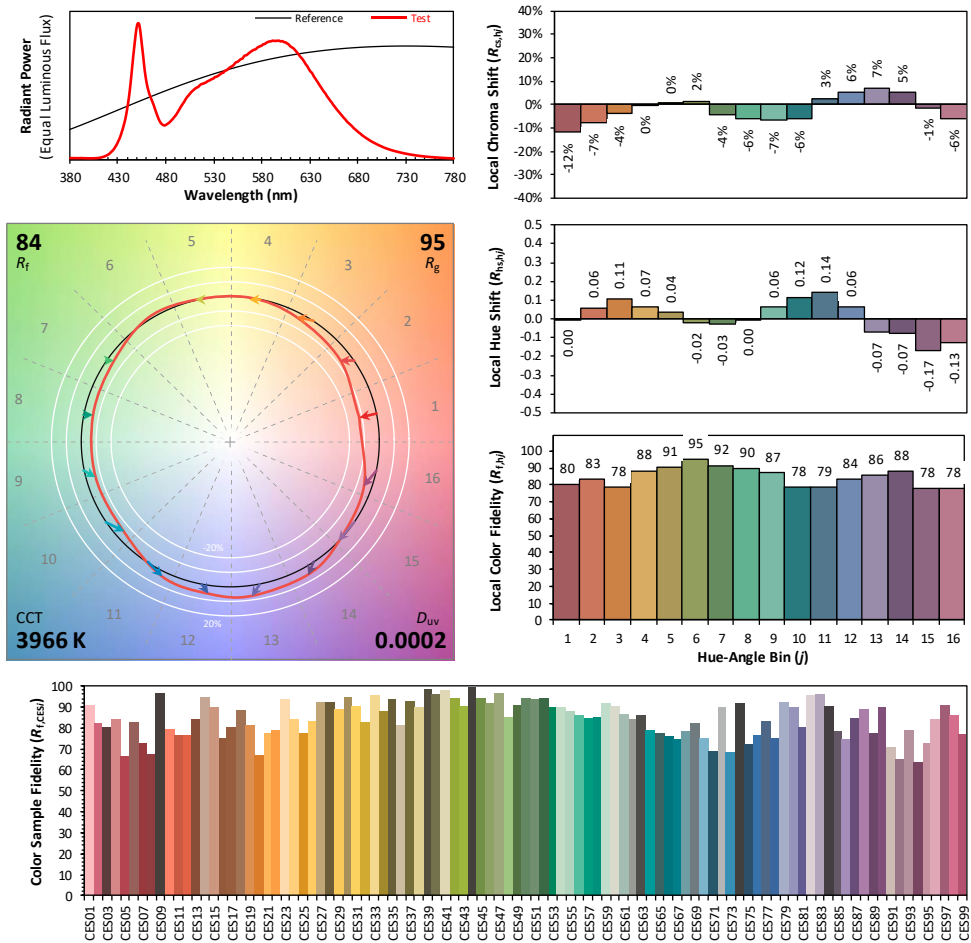
x: 0.3821 u: 0.2256 u': 0.2256
y: 0.3782 v: 0.3350 v': 0.5025

ResultsCRICRI01	81.9	ResultsCRICRI09	10.4
ResultsCRICRI02	89.7	ResultsCRICRI10	75.6
ResultsCRICRI03	95.4	ResultsCRICRI11	81.6
ResultsCRICRI04	82.6	ResultsCRICRI12	62.8
ResultsCRICRI05	82.1	ResultsCRICRI13	83.8
ResultsCRICRI06	85.5	ResultsCRICRI14	97.7
ResultsCRICRI07	86.4	ResultsCRICRI15	75.9
ResultsCRICRI08	65.3	ResultsCRICRI16	73.5
ResultsCRI	83.6		



PlanckDistance 1.9E-004

4.1 Integrating Sphere Test



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

x 0.3821
 y 0.3782
 u' 0.2256
 v' 0.5025

CIE 13.3-1995
(CRI)

R_a 83
 R_9 9

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.	ALEDL5TN/480	Sample ID.	U1
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	480.03	60	0.572	264.2	0.962

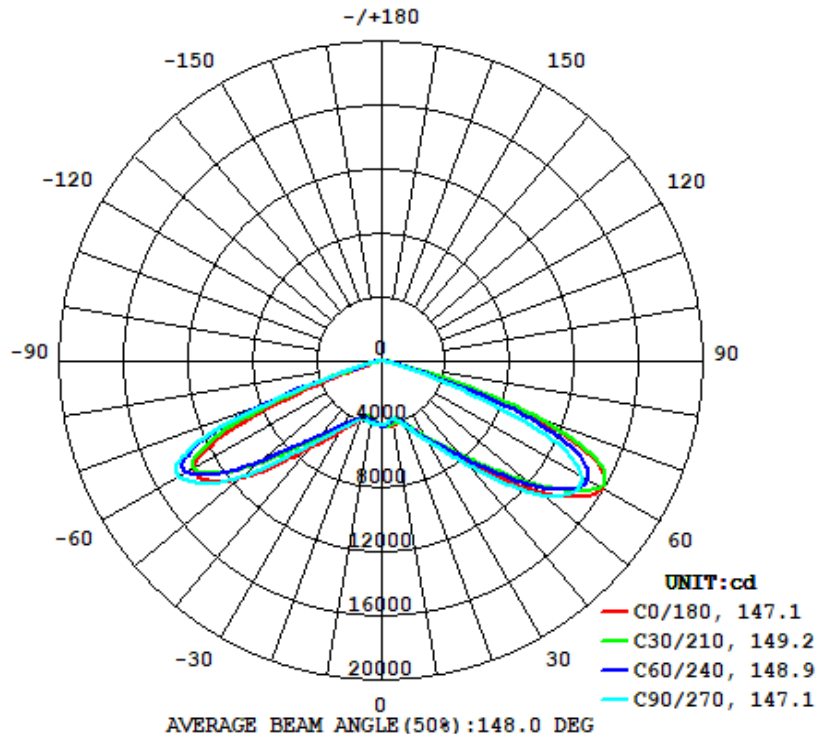
Test Result

Flux (lm)	Field Angle(10%)		Beam Angle(50%)		Luminous Efficacy (lm/W)
	C0-180	C90-270	C0-180	C90-270	
41273	154.5	154.2	147.1	147.1	156.2

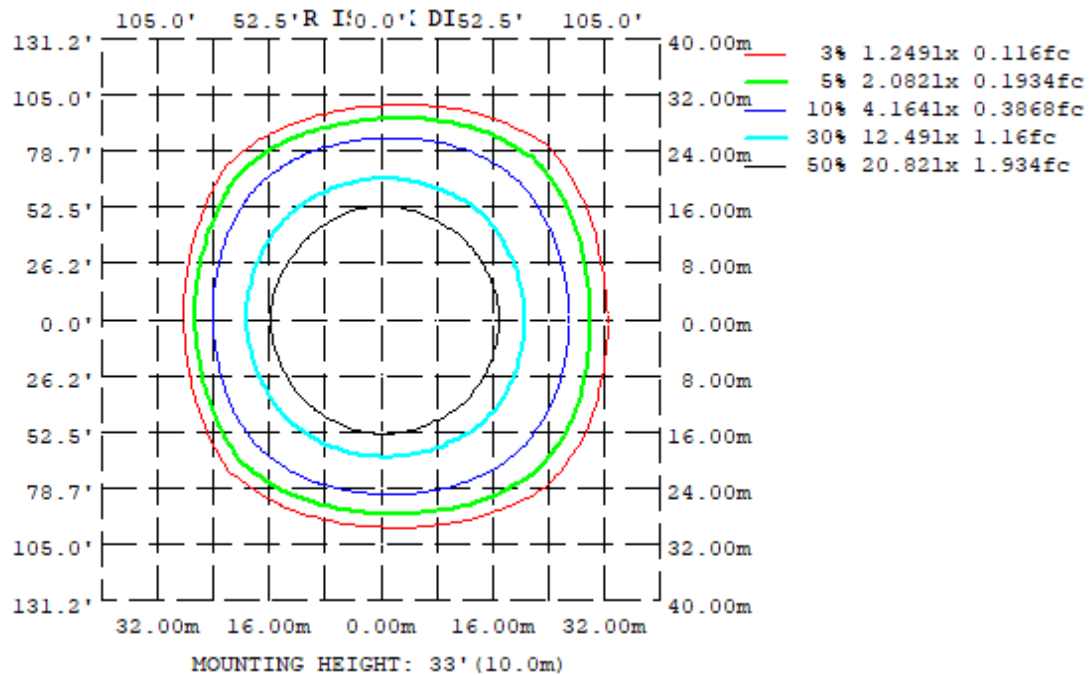
Zonal Lumen Requirement (0° - 90°)	Zonal Lumen Requirement (80° - 90°)	BUG rating
100.00%	0.35%	B5-U0-G5

4.2 Goniophotometer Test

Light Distrubtion Curve



Isolux Plot



4.2 Goniophotometer Test

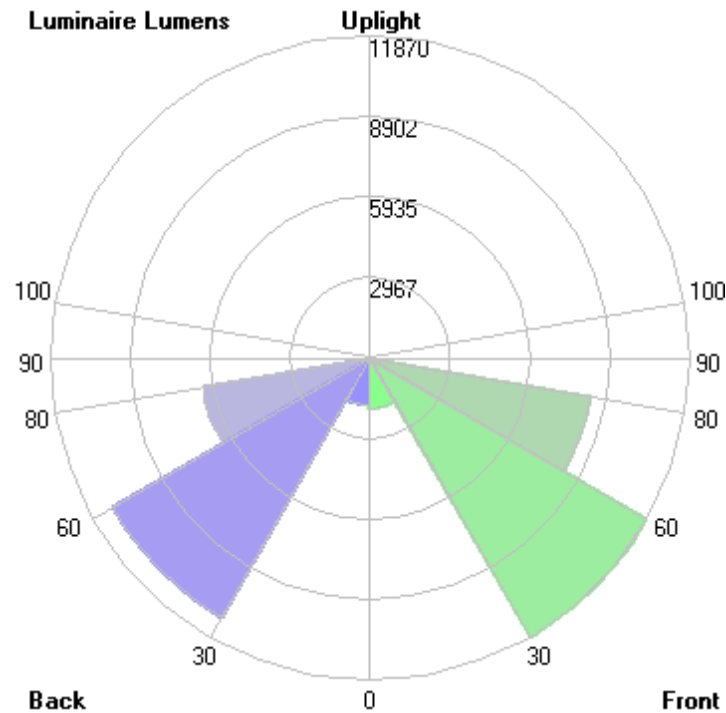
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315
10	417.1	397.2	373.6	369.9	365.9	378.5	400.1	412.1
20	426.7	421.0	430.6	395.1	392.1	374.3	394.4	409.1
30	566.0	555.6	585.2	504.5	505.9	446.9	487.5	494.2
40	819.6	759.6	865.6	697.2	725.4	600.4	689.4	647.3
50	1285	1156	1321	1074	1146	926.3	1120	1005
60	1585	1574	1436	1388	1343	1412	1453	1530
70	901.9	983.1	531.6	640.2	377.8	727.7	664.9	1106
80	24.62	46.81	20.10	29.53	16.30	27.36	18.88	47.99
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	380.16	0 - 10	380.16	0.92%
10-20	1105.5	0 - 20	1485.66	3.60%
20-30	2128.21	0 - 30	3613.87	8.76%
30-40	3855.89	0 - 40	7469.76	18.10%
40-50	7100.28	0 - 50	14570.04	35.30%
50-60	11938.65	0 - 60	26508.69	64.23%
60-70	12014.88	0 - 70	38523.57	93.34%
70-80	2603.68	0 - 80	41127.25	99.65%
80-90	145.34	0 - 90	41272.59	100.00%
90-100	0.00	0 - 100	41272.59	100.00%
100-110	0.00	0 - 110	41272.59	100.00%
110-120	0.00	0 - 120	41272.59	100.00%
120-130	0.00	0 - 130	41272.59	100.00%
130-140	0.00	0 - 140	41272.59	100.00%
140-150	0.00	0 - 150	41272.59	100.00%
150-160	0.00	0 - 160	41272.59	100.00%
160-170	0.00	0 - 170	41272.59	100.00%
170-180	0.00	0 - 180	41272.59	100.00%

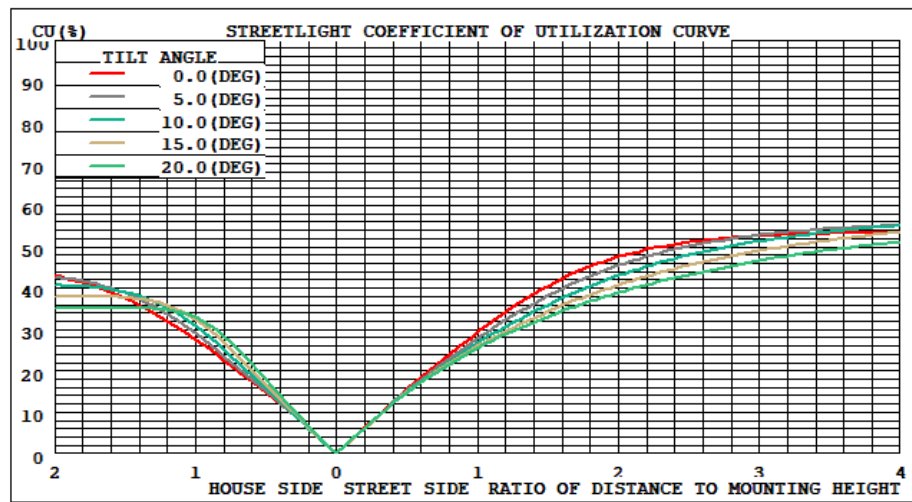
4.2 Goniophotometer Test

LCS/BUG

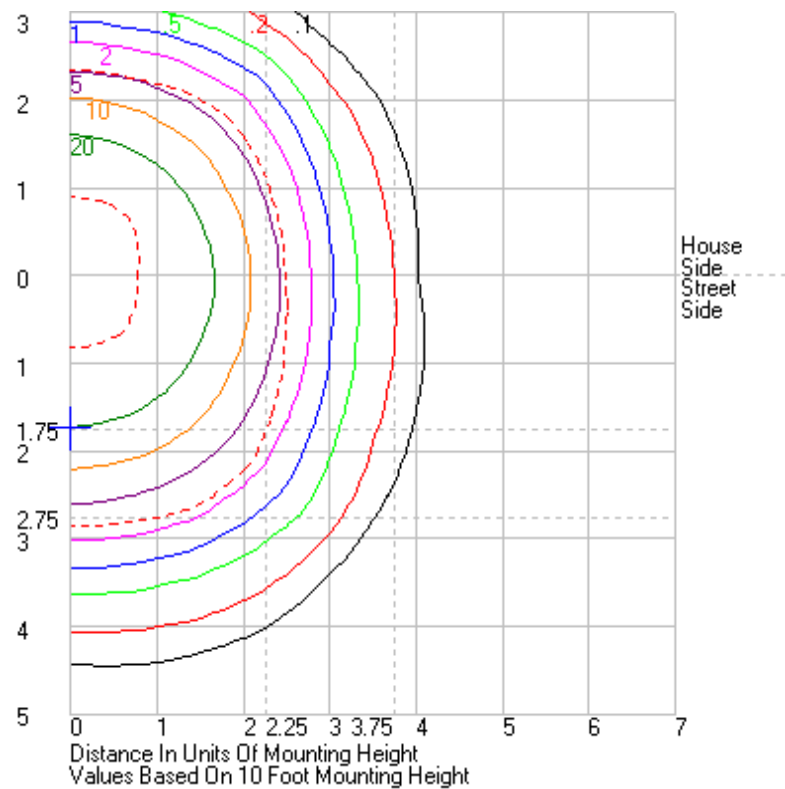


	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	1865.6	N.A.	4.5
FM - Front-Medium (30-60)	11869.7	N.A.	28.8
FH - Front-High (60-80)	8332.0	N.A.	20.2
FVH - Front-Very High (80-90)	90.5	N.A.	0.2
BL - Back-Low (0-30)	1748.3	N.A.	4.2
BM - Back-Medium (30-60)	11025.2	N.A.	26.7
BH - Back-High (60-80)	6286.6	N.A.	15.2
BVH - Back-Very High (80-90)	54.9	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	41272.8	N.A.	100.0
BUG Rating	B5-U0-G5		

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	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71	4103.71
1	4148.99	4148.34	4143.33	4136.33	4126.59	4114.56	4102.21	4089.93	4078.58	4069.56	4061.84	4054.36	4080.96	4076.76	4076.03	4077.23	4080.71	4085.97	4093.41	4101.27	4107.35	4114.18	4118.25	4120.39	4148.99
2	4173.06	4170.78	4163.41	4150.62	4132.84	4111.19	4087.98	4067.62	4052	4040.51	4032.63	4026.01	4049.84	4044.16	4042.55	4045.27	4052.86	4065.86	4083.42	4100.69	4115.29	4127.57	4137.38	4143.74	4173.06
3	4188.28	4183.07	4169.4	4149.84	4124	4094.77	4061.22	4035.38	4019.48	4009.34	4000.63	3992.61	4016.41	4009.68	4012.52	4017.63	4024.12	4041.33	4066.79	4092.43	4113.13	4136.47	4151.62	4159.25	4188.28
4	4199.06	4190.58	4166.85	4138.07	4103.14	4065.97	4029.12	3997.81	3983.78	3972.96	3959.25	3946.78	3969.74	3963.52	3972.55	3986.35	3998.83	4023.19	4056.05	4085.62	4111.4	4136.68	4158.01	4170.34	4199.06
5	4205.53	4194.66	4159.1	4116.22	4076.18	4035.13	3990.28	3956.47	3944.15	3930.68	3914.15	3897.63	3914.78	3912.17	3928.99	3951.47	3980.95	4009.39	4048.8	4081.61	4111.4	4135.09	4162.42	4177.16	4205.53
6	4208.18	4190.43	4148.35	4094.07	4041.46	3993.94	3943.3	3912.1	3897.23	3885.68	3863.46	3837.93	3852.98	3854.24	3879.59	3917.88	3961.23	3995.99	4042.55	4079.59	4110.96	4132.73	4158.89	4178.43	4208.18
7	4203.85	4181.27	4132.42	4067.82	3998.13	3938.19	3885.42	3859.57	3852.48	3835.1	3811.67	3780.42	3792.99	3795.31	3828.42	3886.05	3941.17	3987.56	4039.75	4079.06	4109.1	4129.45	4150.63	4174.2	4203.85
8	4192.98	4164.12	4114.97	4035.87	3947.33	3877.99	3820.69	3804.94	3801.57	3786.05	3757.06	3734.28	3740.45	3743.83	3782.5	3852	3923.64	3977.68	4031.68	4074.79	4106.49	4127.21	4139.69	4162.17	4192.98
9	4186.73	4153.83	4094.44	4006.17	3900.12	3824.82	3770.13	3749.2	3752.35	3737.89	3711.92	3691.4	3695.38	3697.14	3740.03	3818.34	3904.39	3961.22	4018.78	4067.33	4099.41	4125.17	4128.82	4151.82	4186.73
10	4171.44	4143.76	4074.56	3971.95	3861.4	3789.98	3735.56	3710.2	3708.75	3699.01	3675.55	3656.31	3658.77	3659.42	3703.04	3785.35	3883.04	3941.57	4001.32	4051.75	4091.64	4121.19	4121.95	4139.02	4171.44
11	4147.56	4129.55	4060.66	3941.47	3834.16	3773.07	3723.02	3689.41	3679.91	3666.92	3645.33	3630.82	3633.73	3634.29	3672.78	3750.54	3857.93	3915.27	3977.67	4033.64	4078.63	4115.64	4116.06	4118.13	4147.56
12	4121.8	4108.95	4047.26	3918.43	3823.19	3774.06	3727.81	3686.84	3667.14	3647.25	3626.52	3616.95	3618.39	3619.78	3649.14	3719.13	3829.2	3888.46	3955.78	4012.57	4065.33	4109.99	4109.44	4096.57	4121.8
13	4100.61	4089.97	4033.66	3910.77	3830.14	3790.34	3748.04	3699.19	3667.57	3641.48	3620.31	3615.95	3614.03	3613.26	3633.54	3695.41	3800.07	3865.5	3935.7	3993.43	4049.86	4101.78	4101.14	4077.4	4100.61
14	4090.13	4083.05	4031.96	3919.53	3854.07	3821.57	3783.48	3725.55	3682.45	3652.53	3627.81	3626.73	3621.75	3615.83	3624.99	3678.76	3774.63	3844.4	3918.13	3974.14	4036.75	4088.77	4093.5	4064.76	4090.13
15	4092.06	4086.41	4036.97	3939.78	3887.01	3868.67	3836.6	3765.62	3706.2	3673.28	3648.15	3648.1	3640.31	3625.38	3626.92	3668.27	3755.22	3826.01	3903.52	3955.5	4024.4	4075.86	4088.11	4062.79	4092.06
16	4103.28	4100.5	4053.54	3974.01	3937.08	3935.34	3908.46	3823.39	3752.67	3704.55	3678.13	3680.5	3671.28	3645.26	3637.29	3665.22	3743.81	3810.45	3891.49	3941.26	4007.12	4065.03	4085.03	4076.05	4103.28
17	4125.13	4125.56	4078.49	4016.08	3995.37	4011.54	3988.73	3891.94	3804.75	3746.57	3717.55	3719.74	3715.39	3673.46	3653.48	3670.46	3741.24	3803.82	3886.66	3935.58	3996.06	4061.51	4090.28	4097.31	4125.13
18	4158.04	4161.5	4116.34	4070.38	4068.31	4104.5	4090.08	3973.16	3873.19	3803.67	3772.2	3775.73	3771.26	3716.96	3677.73	3685.8	3747.76	3810.2	3893.67	3937.66	3990.92	4062.88	4103.83	4116.29	4158.04
19	4205.37	4205.01	4166.73	4134.68	4154.35	4208.93	4193.67	4067.93	3954.24	3869.36	3839.83	3846.87	3841.22	3772.97	3715.42	3708.2	3765.94	3827.5	3913.06	3952.07	3994.95	4073.64	4127.29	4164.45	4205.37
20	4267.46	4264.18	4231.23	4209.78	4246.11	4315.44	4305.51	4166.56	4034.13	3950.55	3924.79	3934.12	3921.26	3841.14	3767.53	3742.57	3795.34	3857.68	3944.17	3978.27	4009.34	4091.28	4160.42	4214.55	4267.46
21	4341.97	4334.1	4309.81	4299.64	4355.12	4444.76	4435.55	4283.41	4143.55	4049.42	4032.55	4043.31	4022.07	3923.74	3834.83	3792.65	3838.98	3901.85	3991.58	4017.12	4036.63	4118.49	4200.43	4275.75	4341.97
22	4433.26	4418.78	4394.32	4393.89	4466.78	4567.57	4558.46	4410.64	4261.53	4163.47	4148.42	4160.78	4131.02	4019.25	3915.31	3855.14	3898.12	3962.5	4051.77	4069.36	4076.45	4155.32	4252.3	4353.15	4433.26
23	4537.69	4517.99	4502.42	4509.29	4594.73	4709.5	4713.81	4554.54	4403.19	4292.92	4263.41	4263.4	4237.1	4118.45	4005.37	3930.73	3974.18	4040.88	4131.16	4139.4	4129.45	4204.26	4317.04	4446.25	4537.69
24	4659.34	4632.84	4619.52	4634.43	4736.2	4870.39	4871.56	4719.55	4551.04	4405.38	4365.94	4361.81	4336.94	4209.2	4090.48	4014.72	4058.2	4132.06	4226.34	4225.84	4203.75	4267.61	4399.48	4551.62	4659.34
25	4795.71	4769.57	4749.35	4767.59	4880.64	5021.09	5033.22	4862.91	4666.38	4509.03	4465.17	4440.43	4300.05	4171.91	4088.83	4148.2	4235.98	4333.14	4330.15	4297.4	4354.01	4500.25	4682.76	4795.71	
26	4954.45	4922.19	4903.39	4922.56	5053.7	5202.38	5213.17	5020.76	4804.56	4620.93	4561.81	4555.86	4542.5	4391.56	4252.78	4165.87	4226.32	4329.42	4447.42	4440.61	4407.76	4460.72	4625.6	4829.19	4954.45
27	5116.72	5088.1	5056.81	5075.96	5215.92	5376.69	5368	5165.99	4923.39	4720.82	4651.72	4656.13	4648.06	4484.4	4331.32	4233.92	4302.55	4425.56	4563.27	4559.6	4523.11	4578.77	4761.26	4983.6	5116.72
28	5296.59	5263.98	5223.73	5242.12	5385.72	5540.48	5530.66	5296.07	5029.4	4814.93	4773.06	4774.3	4591.16	4412.81	4304.76	4381.02	4455.15	4618.14	4679.89	4636.31	4707.27	4903.89	5159.17	5296.59	
29	5482.91	5441.24	5396.43	5408	5560.72	5705.17	5687.98	5444.99	5151.98	4916.79	4865.52	4906.35	4909.36	4711.55	4508.45	4378.48	4455.97	4603.31	4769.65	4783.54	4758.69	4826.99	5047.45	5314.76	5482.91
30	5659.54	5627.81	5561.4	5555.84	5698.46	5855.62	5852.44	5598.81	5280.71	5044.87	4994.42	5053.26	5059.27	4846.61	4617.94	4469.28	4540.49	4703.14	4875.34	4890.4	4863.09	4942.02	5183.68	5478.14	5659.54
31	5840.17	5802.56	5722.33	5705.84	5852.02	6036.96	6061.97	5789.9	5441.4	5187.42	5135.2	5213.23	5227.48	4992.63	4735.82	4573.97	4640.62	4815.63	4996.57	4997.31	4967.28	5051.9	5311.07	5634.06	5840.17
32	6025.71	5976.98	5876.71	5846.22	6015.51	6248.93	6286.66	5996.68	5618.19	5338.23	5289.87	5389.97	5404.14	5154.61	4867.69	4691.9	4758.08	4947.03	5141.75	5120.28	5073.7	5160.61	5440.95	5794.06	6025.71
33	6227.67	6164.67	6037.38	5997.8	6195.4	6461.47	6520.15	6208.58	5795.1	5508.98	5458	5577.08	5598.29	5332.16	5011.62	4820.43	4889.64	5100.91	5307.18	5272.84	5187.4	5266.6	5575.19	5966.46	6227.67
34	6452.84	6374.36	6218.49	6180.08	6401.34	6717.24	6788.2	6454.25	6005.34	5679.69	5632.06	5778.64	5809.18	5521.37	5164.4	4959.07	5030	5265.09	5493.89	5437.46	5322.44	5391.85	5730.11	6168.24	6452.84
35	6702.12	6610.37	6419.1	6372.45	6611.8	6962.17	7046.19	6690.62	6212.13	5865.43	5826.81	6000.59	6028.8	5726.99	5335.07	5110.16	5182.71	5449.82	5698.13	5624.7	5476.1	5542.16	5907.87	6398.44	6702.12
36	6964.18	6864.52	6648.73	6590.9	6844.95	7230.28	7327.64	6952.04	6430.81	6065.37	6023.39	6224.89	6275.51	5944.83	5508.54	5267.85	5347.17	5649.51	5915.85	5836.96	5646.51	5709.56	6106.86	6628.15	6964.18
37	7252.09	7135.52	6886.55	6823.69	7105.19	7527.98	7629.44	7232.22	6671.25	6270.58	6231.83	6468.65	6542.83	6178.3	5694.13	5436.79	5519.93	5865.21	6149.63	6053.59	5840.38	5897.66	6312.47	6857.22	7252.09
38	7556.19	7419.42	7138.35	7056.54	7353.16	7806.22	7924.33	7511.25	6900.12	6485.61	6457.82	6712.8	6711.3	6414.41	5898.14										

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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.	ALEDL5TN/480	Sample ID.	U1
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	0.572	264.7	0.964	4.16%

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*****