

Photometric Test Report

Relevant Standards

- ☒ ANSI/IES LM-79-2019
- ☒ ANSI C82.77-2017

Prepared For

RAB Lighting Inc.

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Date: 2025-08-22

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Issue Date: 2025-08-22

Revised Date: N/A

1.0 Test Summary

Wall mount Luminaire					
Requirement Category		Test Method	Requirements		Test Value
Luminaire Output (lm) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		1275
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	120.3
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.6
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	6.61
				277V	32.71
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.991
				277V	0.855
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4041
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		91.8
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		83
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		87
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	-12%≤IES Rcs,h1≤+23%		-3%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		26.5%
Backlight, Uplight and Glare (BUG) Ratings (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019 IES TM-15-11	N/A		B0-U4-G1
Input Voltage (V)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Cast		277.0
(Goniophotometer – Section 4.2)			Non-Worst Case		120.0
Input Current (A)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		0.045
(Goniophotometer – Section 4.2)			Non-Worst Case		0.087
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.6
(Goniophotometer – Section 4.2)			Non-Worst Case		10.3

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-07	V1-24B @10W4000K	-	250728008-S1
2	Goniophotometer Test	2025-08-07	V1-24B @10W4000K	-	250728008-S1
3	THD and PF Test	2025-08-07	V1-24B @10W4000K	-	250728008-S1

Remark (If any):

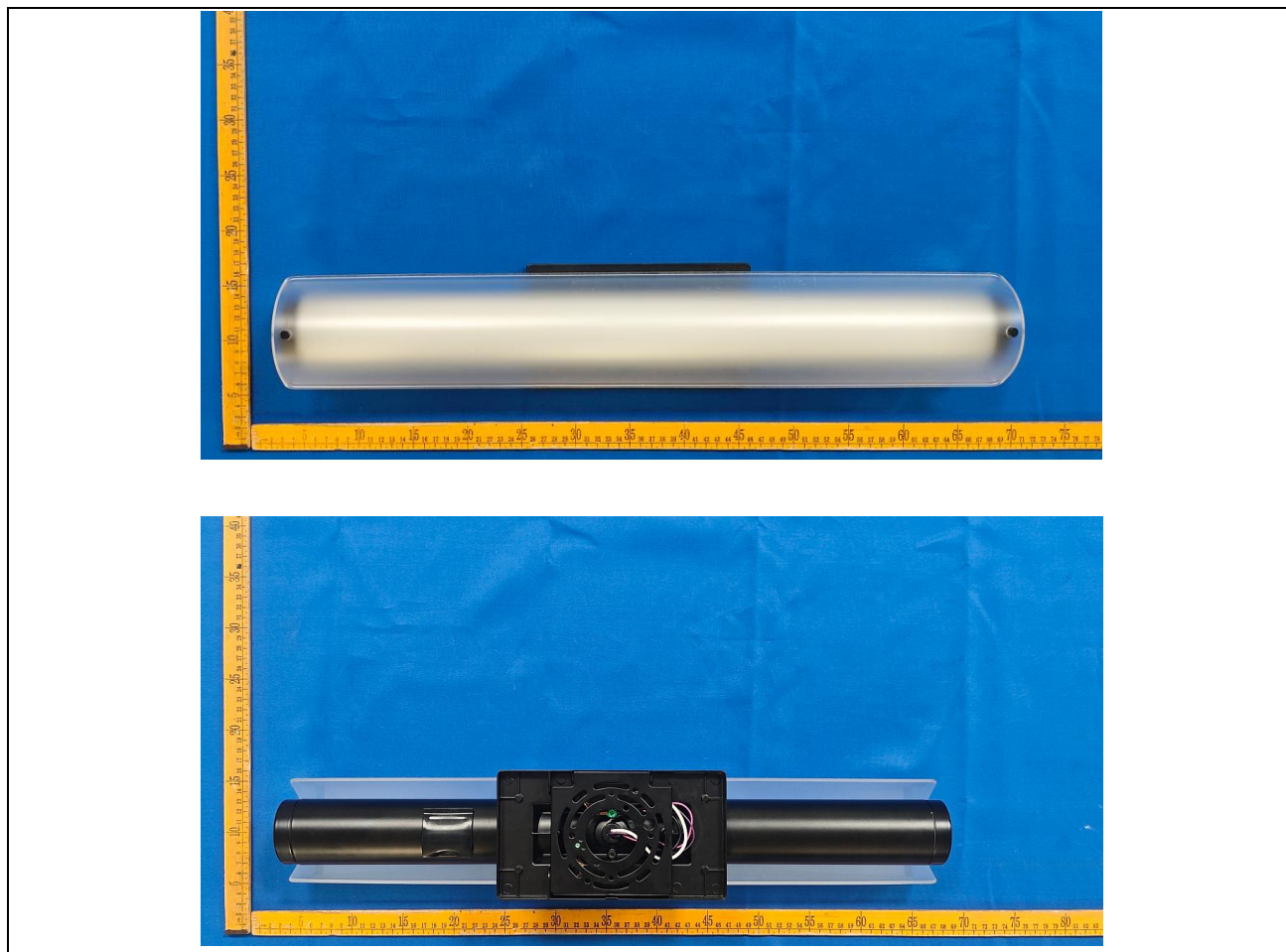
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. V1-24B @10W4000K, color tunable from 2700K, 3000K, 3500K, 4000K and 5000K.

Electrical Specification: 120-277Vac, 50/60Hz

Photos of Luminaire Characteristics



4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	V1-24B @10W4000K	Sample ID	250728008-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

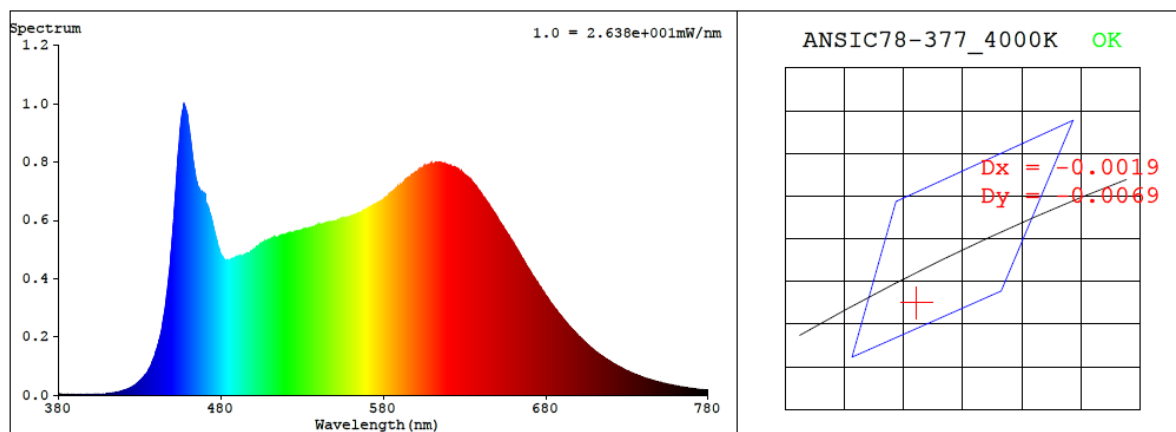
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere.</p> <p>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.</p> <p>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 780nm.</p>

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.0	60	0.087	10.3	0.991
277.0	60	0.045	10.6	0.855

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4041	91.8	83	-0.0027	4.2	87	95	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3768$ $y = 0.3687$ / $u' = 0.2259$ $v' = 0.4975$ ($duv = -2.74e-03$)

CCT= 4041K Prcp WL: Ld=580.6nm Purity=23.7%

Peak WL: Lp=457nm FWHM: =30.0nm Ratio:R=20.8% G=73.7% B=5.5%

Render Index: Ra = 91.8 AvgR = 90.8 TM30:Rf=89 Rg=97

EEL: 0.11686 A+

R1 =96 R2 =94 R3 =92 R4 =91 R5 =94 R6 =91 R7 =88

R8 =88 R9 =83 R10=89 R11=95 R12=73 R13=96 R14=97 R15=95

4.1 Integrating Sphere Test

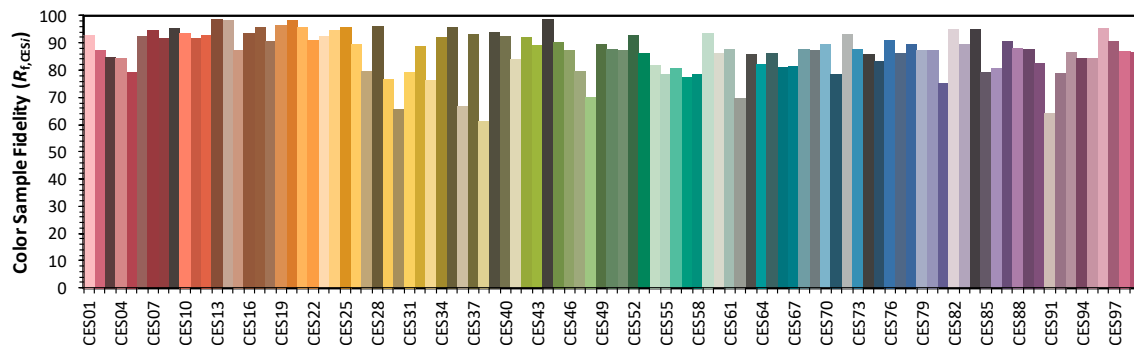
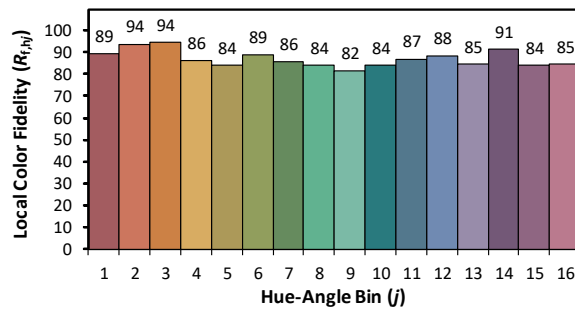
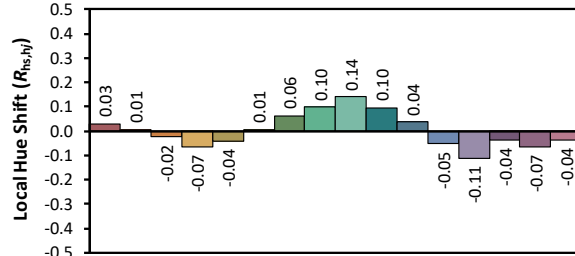
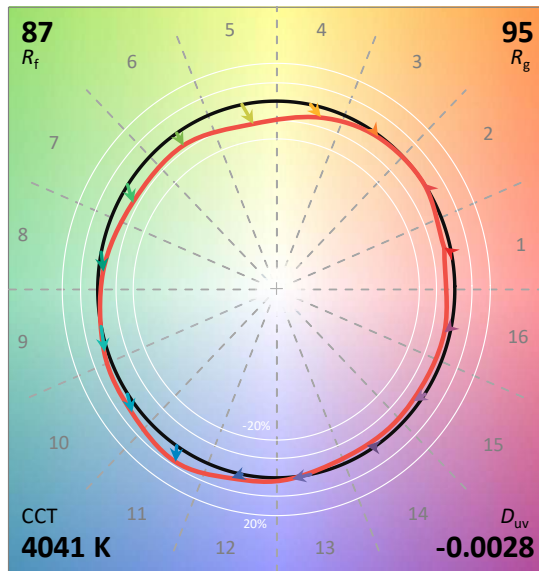
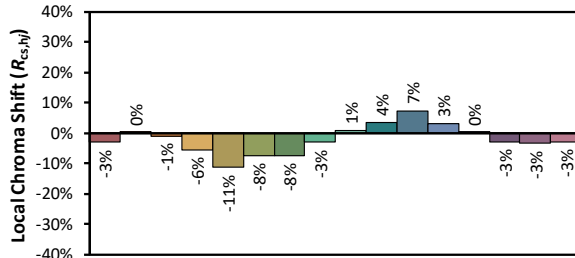
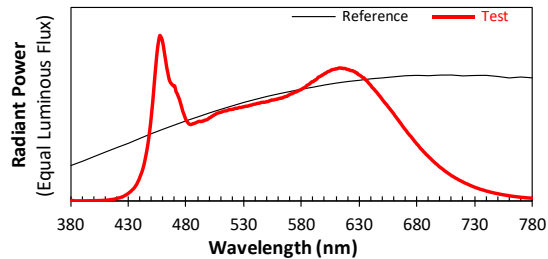
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/8/22

Model: V1-24B @10W4000K



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

x 0.3768
 y 0.3686
 u' 0.2260
 v' 0.4974

CIE 13.3-1995
(CRI)

R_a 92
 R_g 83

4.1 Integrating Sphere Test

Spectral Distribution over Visible Wavelength											
WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)
380	2.20E-06	447	3.56E-04	514	5.41E-04	581	6.76E-04	648	6.28E-04	715	1.33E-04
381	4.00E-06	448	4.08E-04	515	5.42E-04	582	6.79E-04	649	6.19E-04	716	1.29E-04
382	3.20E-06	449	4.64E-04	516	5.45E-04	583	6.82E-04	650	6.09E-04	717	1.25E-04
383	1.90E-06	450	5.33E-04	517	5.48E-04	584	6.89E-04	651	6.00E-04	718	1.22E-04
384	2.40E-06	451	6.03E-04	518	5.49E-04	585	6.95E-04	652	5.92E-04	719	1.18E-04
385	1.20E-06	452	6.87E-04	519	5.49E-04	586	6.99E-04	653	5.84E-04	720	1.15E-04
386	2.00E-06	453	7.68E-04	520	5.51E-04	587	7.03E-04	654	5.76E-04	721	1.11E-04
387	1.80E-06	454	8.45E-04	521	5.52E-04	588	7.10E-04	655	5.66E-04	722	1.08E-04
388	2.00E-06	455	9.12E-04	522	5.55E-04	589	7.16E-04	656	5.58E-04	723	1.05E-04
389	1.60E-06	456	9.59E-04	523	5.57E-04	590	7.16E-04	657	5.49E-04	724	1.02E-04
390	2.00E-06	457	9.92E-04	524	5.56E-04	591	7.23E-04	658	5.40E-04	725	9.84E-05
391	1.80E-06	458	9.85E-04	525	5.59E-04	592	7.26E-04	659	5.32E-04	726	9.50E-05
392	2.10E-06	459	9.68E-04	526	5.62E-04	593	7.31E-04	660	5.23E-04	727	9.27E-05
393	1.80E-06	460	9.35E-04	527	5.62E-04	594	7.39E-04	661	5.12E-04	728	8.95E-05
394	2.20E-06	461	8.90E-04	528	5.62E-04	595	7.45E-04	662	5.03E-04	729	8.66E-05
395	2.00E-06	462	8.48E-04	529	5.64E-04	596	7.47E-04	663	4.93E-04	730	8.39E-05
396	2.30E-06	463	8.04E-04	530	5.66E-04	597	7.51E-04	664	4.85E-04	731	8.09E-05
397	2.40E-06	464	7.69E-04	531	5.68E-04	598	7.56E-04	665	4.75E-04	732	7.87E-05
398	2.50E-06	465	7.34E-04	532	5.70E-04	599	7.59E-04	666	4.66E-04	733	7.65E-05
399	2.40E-06	466	7.15E-04	533	5.69E-04	600	7.65E-04	667	4.56E-04	734	7.36E-05
400	2.70E-06	467	7.05E-04	534	5.71E-04	601	7.67E-04	668	4.46E-04	735	7.15E-05
401	2.80E-06	468	6.97E-04	535	5.74E-04	602	7.73E-04	669	4.37E-04	736	6.97E-05
402	2.90E-06	469	6.90E-04	536	5.76E-04	603	7.77E-04	670	4.29E-04	737	6.73E-05
403	3.10E-06	470	6.90E-04	537	5.77E-04	604	7.79E-04	671	4.20E-04	738	6.58E-05
404	3.80E-06	471	6.58E-04	538	5.80E-04	605	7.82E-04	672	4.10E-04	739	6.33E-05
405	3.70E-06	472	6.46E-04	539	5.81E-04	606	7.87E-04	673	4.02E-04	740	6.09E-05
406	3.90E-06	473	6.28E-04	540	5.82E-04	607	7.88E-04	674	3.93E-04	741	5.93E-05
407	3.90E-06	474	6.11E-04	541	5.85E-04	608	7.91E-04	675	3.86E-04	742	5.78E-05
408	4.90E-06	475	5.87E-04	542	5.86E-04	609	7.91E-04	676	3.76E-04	743	5.56E-05
409	5.10E-06	476	5.64E-04	543	5.87E-04	610	7.94E-04	677	3.69E-04	744	5.36E-05
410	5.70E-06	477	5.38E-04	544	5.89E-04	611	7.93E-04	678	3.58E-04	745	5.21E-05
411	6.20E-06	478	5.20E-04	545	5.92E-04	612	7.97E-04	679	3.51E-04	746	5.08E-05
412	6.90E-06	479	5.01E-04	546	5.92E-04	613	7.99E-04	680	3.42E-04	747	4.88E-05
413	7.40E-06	480	4.83E-04	547	5.93E-04	614	7.97E-04	681	3.36E-04	748	4.74E-05
414	8.60E-06	481	4.74E-04	548	5.93E-04	615	7.98E-04	682	3.27E-04	749	4.61E-05
415	9.60E-06	482	4.65E-04	549	5.95E-04	616	7.95E-04	683	3.17E-04	750	4.49E-05
416	1.04E-05	483	4.61E-04	550	5.96E-04	617	7.96E-04	684	3.11E-04	751	4.34E-05
417	1.15E-05	484	4.60E-04	551	5.97E-04	618	7.95E-04	685	3.03E-04	752	4.16E-05
418	1.29E-05	485	4.61E-04	552	6.01E-04	619	7.91E-04	686	2.95E-04	753	4.07E-05
419	1.46E-05	486	4.65E-04	553	6.03E-04	620	7.90E-04	687	2.89E-04	754	3.92E-05
420	1.62E-05	487	4.66E-04	554	6.06E-04	621	7.88E-04	688	2.81E-04	755	3.80E-05
421	1.85E-05	488	4.69E-04	555	6.06E-04	622	7.84E-04	689	2.75E-04	756	3.70E-05
422	1.97E-05	489	4.72E-04	556	6.07E-04	623	7.82E-04	690	2.68E-04	757	3.58E-05
423	2.20E-05	490	4.76E-04	557	6.09E-04	624	7.82E-04	691	2.60E-04	758	3.46E-05
424	2.43E-05	491	4.78E-04	558	6.11E-04	625	7.79E-04	692	2.55E-04	759	3.35E-05
425	2.71E-05	492	4.78E-04	559	6.11E-04	626	7.76E-04	693	2.47E-04	760	3.26E-05
426	3.06E-05	493	4.77E-04	560	6.14E-04	627	7.69E-04	694	2.41E-04	761	3.10E-05
427	3.43E-05	494	4.80E-04	561	6.16E-04	628	7.69E-04	695	2.34E-04	762	3.04E-05
428	3.86E-05	495	4.80E-04	562	6.18E-04	629	7.60E-04	696	2.28E-04	763	2.93E-05
429	4.31E-05	496	4.86E-04	563	6.17E-04	630	7.56E-04	697	2.22E-04	764	2.84E-05
430	4.84E-05	497	4.87E-04	564	6.22E-04	631	7.53E-04	698	2.16E-04	765	2.77E-05
431	5.38E-05	498	4.89E-04	565	6.24E-04	632	7.47E-04	699	2.09E-04	766	2.67E-05
432	5.94E-05	499	4.93E-04	566	6.27E-04	633	7.41E-04	700	2.04E-04	767	2.59E-05
433	6.69E-05	500	4.99E-04	567	6.28E-04	634	7.39E-04	701	1.99E-04	768	2.51E-05
434	7.25E-05	501	5.01E-04	568	6.32E-04	635	7.31E-04	702	1.94E-04	769	2.44E-05
435	8.07E-05	502	5.08E-04	569	6.37E-04	636	7.24E-04	703	1.88E-04	770	2.35E-05
436	9.10E-05	503	5.11E-04	570	6.40E-04	637	7.18E-04	704	1.83E-04	771	2.27E-05
437	1.01E-04	504	5.17E-04	571	6.43E-04	638	7.09E-04	705	1.77E-04	772	2.22E-05
438	1.16E-04	505	5.19E-04	572	6.45E-04	639	7.01E-04	706	1.73E-04	773	2.14E-05
439	1.30E-04	506	5.24E-04	573	6.49E-04	640	6.94E-04	707	1.68E-04	774	2.07E-05
440	1.49E-04	507	5.27E-04	574	6.53E-04	641	6.83E-04	708	1.63E-04	775	1.98E-05
441	1.65E-04	508	5.29E-04	575	6.54E-04	642	6.77E-04	709	1.58E-04	776	1.96E-05
442	1.86E-04	509	5.32E-04	576	6.57E-04	643	6.70E-04	710	1.53E-04	777	1.89E-05
443	2.10E-04	510	5.32E-04	577	6.61E-04	644	6.61E-04	711	1.49E-04	778	1.83E-05
444	2.41E-04	511	5.36E-04	578	6.65E-04	645	6.54E-04	712	1.45E-04	779	1.83E-05
445	2.75E-04	512	5.38E-04	579	6.67E-04	646	6.45E-04	713	1.41E-04	780	1.83E-05
446	3.12E-04	513	5.41E-04	580	6.70E-04	647	6.36E-04	714	1.36E-04	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	V1-24B @10W4000K	Sample ID	250728008-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.9	Humidity (%RH)	42.6

Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using a type C goniophotometer and software.</p> <p>The ambient temperature shall be maintained at $25 \pm 1^\circ\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample.</p> <p>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.</p> <p>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 1.0° vertical intervals and 15° horizontal intervals.</p>

Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	277.0	60	0.045	10.6	0.855
NON-WORST CASE	120.0	60	0.087	10.3	0.991

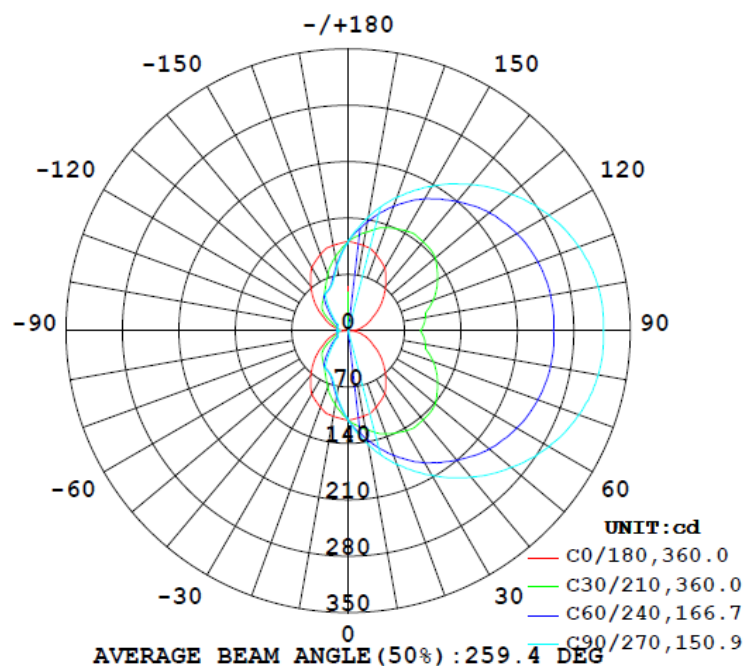
Test Result

Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement	BUG
	C0-180	C90-270	C0-180	C90-270		(0°-60°)	
1275	86.8	154.9	180.0	97.6	120.3	26.5%	B0-U4-G1

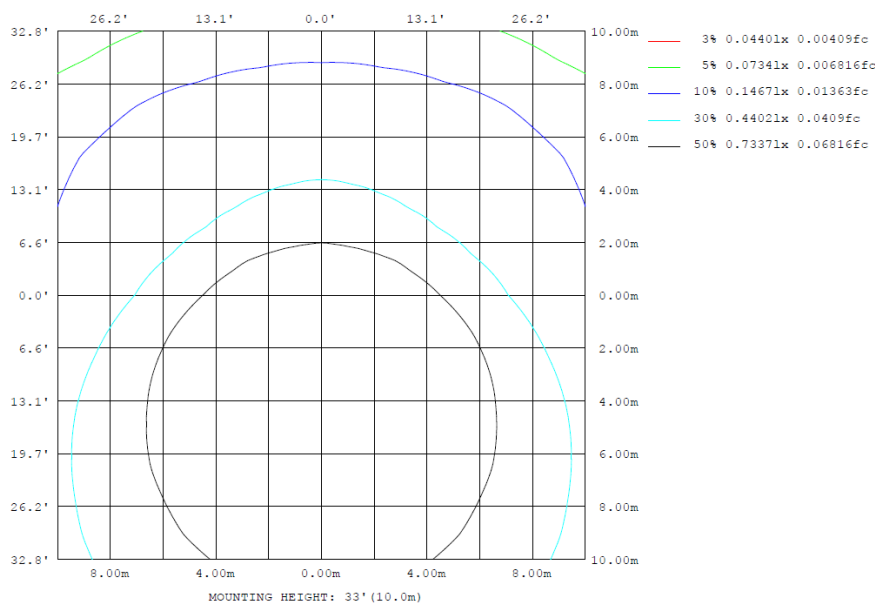
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

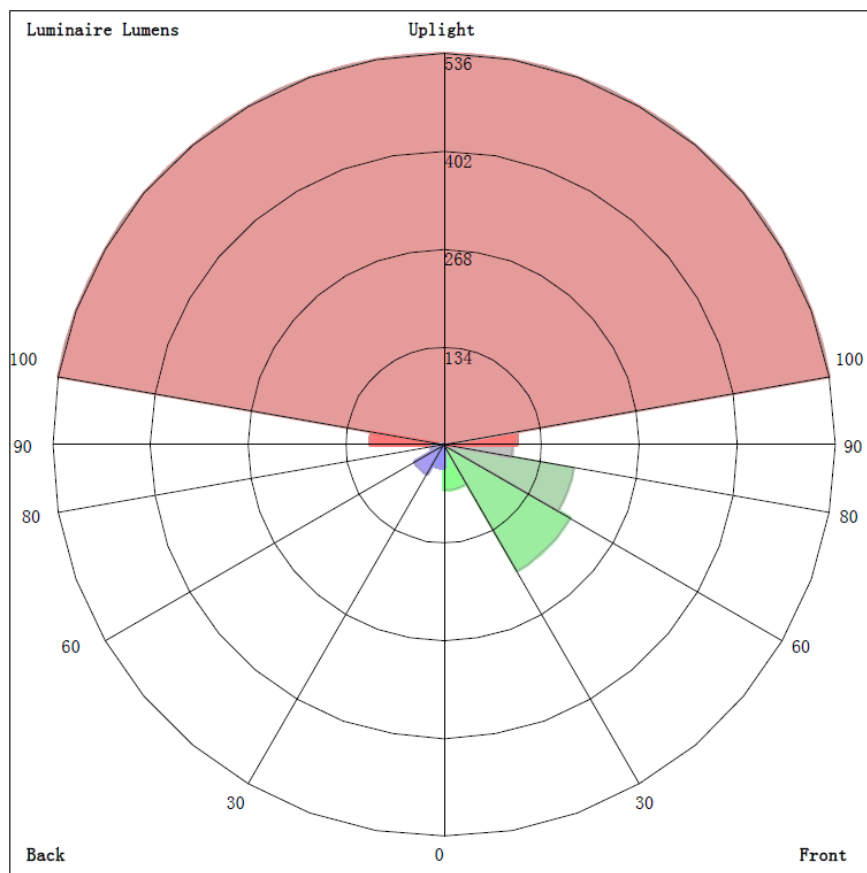
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	107.8	131.4	143.6	131.4	107.8	87.01	80.99	87.01	0- 10	10.50	10.50	0.82,0.82
20	101.0	152.5	176.4	152.5	101.0	67.10	60.38	67.10	10- 20	31.06	41.56	3.26,3.26
30	90.78	167.9	207.0	167.9	90.78	54.52	55.31	54.52	20- 30	50.93	92.49	7.25,7.25
40	72.29	180.9	237.0	180.9	72.29	50.44	37.21	50.44	30- 40	69.60	162.1	12.7,12.7
50	54.11	187.5	263.8	187.5	54.11	33.14	22.99	33.14	40- 50	83.54	245.6	19.3,19.3
60	36.22	190.5	287.7	190.5	36.22	20.70	14.47	20.70	50- 60	92.60	338.2	26.5,26.5
70	24.26	188.9	304.5	188.9	24.26	14.80	13.97	14.80	60- 70	97.88	436.1	34.2,34.2
80	13.00	183.3	315.0	183.3	13.00	14.51	13.84	14.51	70- 80	100.3	536.5	42.1,42.1
90	2.438	179.2	316.6	179.2	2.438	14.84	14.42	14.84	80- 90	101.1	637.6	50,50
100	13.00	183.3	315.0	183.3	13.00	14.51	13.84	14.51	90-100	101.1	738.7	57.9,57.9
110	24.26	188.9	304.5	188.9	24.26	14.80	13.97	14.80	100-110	100.3	839.0	65.8,65.8
120	36.22	190.5	287.7	190.5	36.22	20.70	14.47	20.70	110-120	97.88	936.9	73.5,73.5
130	54.11	187.5	263.8	187.5	54.11	33.14	22.99	33.14	120-130	92.60	1029	80.7,80.7
140	72.29	180.9	237.0	180.9	72.29	50.44	37.21	50.44	130-140	83.54	1113	87.3,87.3
150	90.78	167.9	207.0	167.9	90.78	54.52	55.31	54.52	140-150	69.60	1183	92.7,92.7
160	101.0	152.5	176.4	152.5	101.0	67.10	60.38	67.10	150-160	50.93	1234	96.7,96.7
170	107.8	131.4	143.6	131.4	107.8	87.01	80.99	87.01	160-170	31.06	1265	99.2,99.2
180	111.1	111.1	111.1	111.1	111.1	111.1	111.1	111.1	170-180	10.50	1275	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	10.50	0-10	10.50	0.83%
10-20	31.06	0-20	41.56	3.29%
20-30	50.93	0-30	92.49	7.31%
30-40	69.60	0-40	162.09	12.82%
40-50	83.54	0-50	245.63	19.42%
50-60	92.60	0-60	338.23	26.75%
60-70	97.88	0-70	436.11	34.49%
70-80	100.33	0-80	536.44	42.42%
80-90	101.11	0-90	637.55	50.42%
90-100	101.11	0-100	738.66	58.41%
100-110	100.33	0-110	838.99	66.34%
110-120	97.88	0-120	936.87	74.08%
120-130	92.60	0-130	1029.47	81.41%
130-140	83.54	0-140	1113.01	88.01%
140-150	69.60	0-150	1182.61	93.52%
150-160	50.93	0-160	1233.54	97.54%
160-170	31.06	0-170	1264.60	100.00%
170-180	10.50	0-180	1275.10	100.83%

4.2 Goniophotometer Test

LCS/BUG

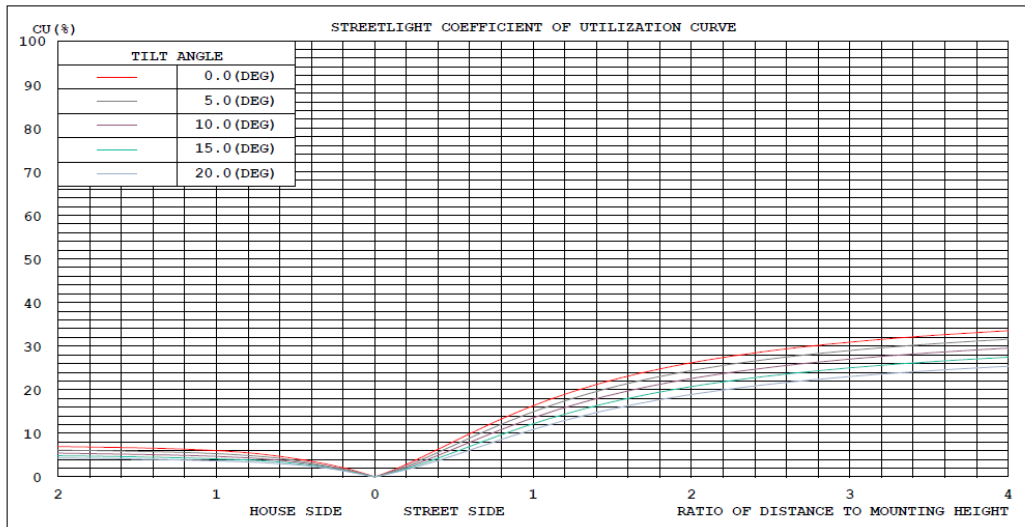


LUMINAIRE CLASSIFICATION SYSTEM (LCS)

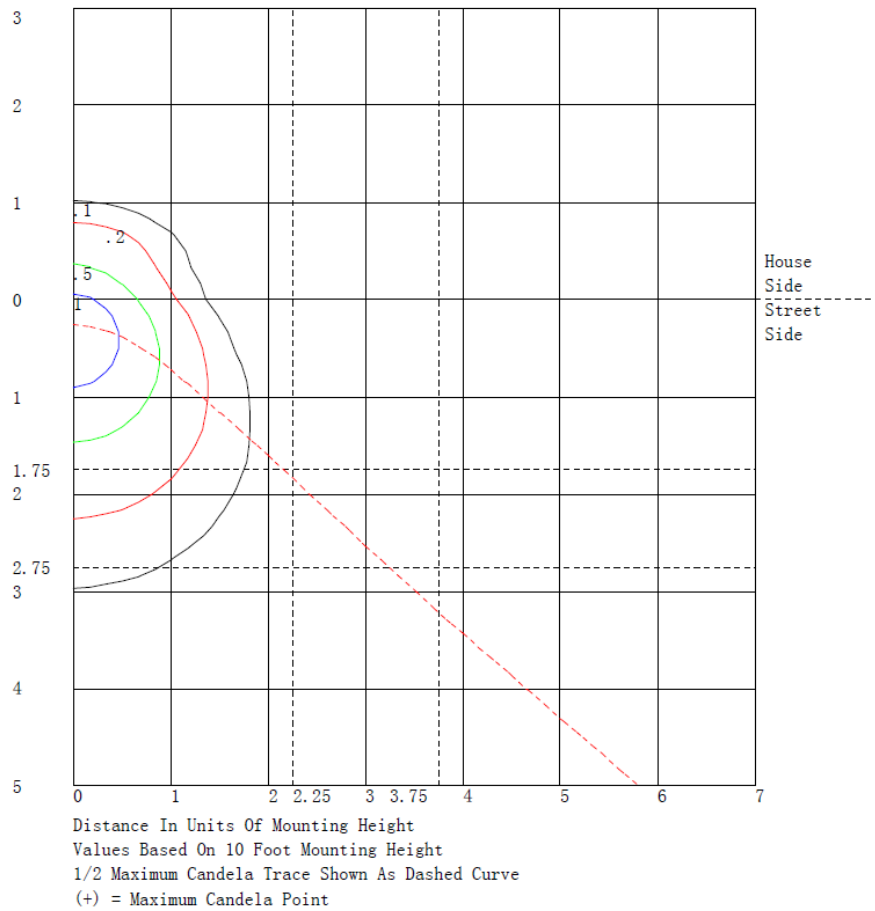
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	61.5	N.A.	4.8
FM - Front-Medium (30-60)	199.9	N.A.	15.7
FH - Front-High (60-80)	180.6	N.A.	14.2
FVH - Front-Very High (80-90)	94.0	N.A.	7.4
BL - Back-Low (0-30)	31.0	N.A.	2.4
BM - Back-Medium (30-60)	45.8	N.A.	3.6
BH - Back-High (60-80)	17.6	N.A.	1.4
BVH - Back-Very High (80-90)	7.1	N.A.	0.6
UL - Uplight-Low (90-100)	101.1	N.A.	7.9
UH - Uplight-High (100-180)	536.5	N.A.	42.1
Total	1275.1	N.A.	100.0
BUG Rating	B0-U4-G1		

4.2 Goniophotometer Test

Coefficients of Utilization



Isolines



4.2 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) y (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
5	109	114	118	121	124	126	127	126	124	121	118	114	109	105	102	99.1	97.0	95.8	95.7
10	108	116	124	131	137	142	144	142	137	131	124	116	108	100	92.9	87.0	83.4	81.2	81.0
15	106	119	131	142	152	157	160	157	152	142	131	119	106	95.0	84.1	76.2	71.1	68.7	68.5
20	101	118	136	153	165	173	176	173	165	153	136	118	101	86.1	74.5	67.1	61.8	60.2	60.4
25	95.9	117	140	161	177	187	192	187	177	161	140	117	95.9	77.9	65.3	59.1	56.9	56.2	56.5
30	90.8	117	144	168	189	202	207	202	189	168	144	117	90.8	69.8	58.2	54.5	54.7	55.0	55.3
35	81.5	112	146	175	200	216	223	216	200	175	146	112	81.5	61.3	52.9	52.1	52.4	48.8	47.4
40	72.3	107	145	181	210	229	237	229	210	181	145	107	72.3	53.5	49.0	50.4	43.3	38.4	37.2
45	63.1	102	144	185	220	243	251	243	220	185	144	102	63.1	46.8	45.9	42.1	34.2	30.5	29.3
50	54.1	92.9	141	188	228	255	264	255	228	188	141	92.9	54.1	41.8	42.6	33.1	27.2	23.9	23.0
55	45.2	82.0	135	190	235	265	276	265	235	190	135	82.0	45.2	37.4	35.7	26.0	21.4	19.0	18.6
60	36.2	70.8	128	190	241	275	288	275	241	190	128	70.8	36.2	33.2	27.3	20.7	16.8	14.9	14.5
65	30.2	62.0	121	190	247	284	297	284	247	190	121	62.0	30.2	27.6	20.9	16.6	14.8	14.3	14.2
70	24.3	53.2	112	189	251	291	305	291	251	189	112	53.2	24.3	21.4	17.2	14.8	14.7	14.3	14.0
75	18.3	43.7	102	186	253	296	311	296	253	186	102	43.7	18.3	15.1	14.0	14.6	14.6	14.4	13.9
80	13.0	41.1	97.3	183	255	299	315	299	255	183	97.3	41.1	13.0	13.6	13.1	14.5	14.2	14.1	13.8
85	7.72	39.1	94.3	183	256	302	317	302	256	183	94.3	39.1	7.72	12.7	13.4	14.7	14.2	12.8	12.4
90	2.44	36.8	89.8	179	255	302	317	302	255	179	89.8	36.8	2.44	11.9	13.7	14.8	14.7	12.4	14.4
95	7.72	39.1	94.3	183	256	302	317	302	256	183	94.3	39.1	7.72	12.7	13.4	14.7	14.2	12.8	12.4
100	13.0	41.1	97.3	183	255	299	315	299	255	183	97.3	41.1	13.0	13.6	13.1	14.5	14.2	14.1	13.8
105	18.3	43.7	102	186	253	296	311	296	253	186	102	43.7	18.3	15.1	14.0	14.6	14.6	14.4	13.9
110	24.3	53.2	112	189	251	291	305	291	251	189	112	53.2	24.3	21.4	17.2	14.8	14.7	14.3	14.0
115	30.2	62.0	121	190	247	284	297	284	247	190	121	62.0	30.2	27.6	20.9	16.6	14.8	14.3	14.2
120	36.2	70.8	128	190	241	275	288	275	241	190	128	70.8	36.2	33.2	27.3	20.7	16.8	14.9	14.5
125	45.2	82.0	135	190	235	265	276	265	235	190	135	82.0	45.2	37.4	35.7	26.0	21.4	19.0	18.6
130	54.1	92.9	141	188	228	255	264	255	228	188	141	92.9	54.1	41.8	42.6	33.1	27.2	23.9	23.0
135	63.1	102	144	185	220	243	251	243	220	185	144	102	63.1	46.8	45.9	42.1	34.2	30.5	29.3
140	72.3	107	145	181	210	229	237	229	210	181	145	107	72.3	53.5	49.0	50.4	43.3	38.4	37.2
145	81.5	112	146	175	200	216	223	216	200	175	146	112	81.5	61.3	52.9	52.1	52.4	48.8	47.4
150	90.8	117	144	168	189	202	207	202	189	168	144	117	90.8	69.8	58.2	54.5	54.7	55.0	55.3
155	95.9	117	140	161	177	187	192	187	177	161	140	117	95.9	77.9	65.3	59.1	56.9	56.2	56.5
160	101	118	136	153	165	173	176	173	165	153	136	118	101	86.1	74.5	67.1	61.8	60.2	60.4
165	106	119	131	142	152	157	160	157	152	142	131	119	106	95.0	84.1	76.2	71.1	68.7	68.5
170	108	116	124	131	137	142	144	142	137	131	124	116	108	100	92.9	87.0	83.4	81.2	81.0
175	109	114	118	121	124	126	127	126	124	121	118	114	109	105	102	99.1	97.0	95.8	95.7
180	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	111	111	111	111	111														
5	95.8	97.0	99.1	102	105														
10	81.2	83.4	87.0	92.9	100														
15	68.7	71.1	76.2	84.1	95.0														
20	60.2	61.8	67.1	74.5	86.1														
25	56.2	56.9	59.1	65.3	77.9														
30	55.0	54.7	54.5	58.2	69.8														
35	48.8	52.4	52.1	52.9	61.3														
40	38.4	43.3	50.4	49.0	53.5														
45	30.5	34.2	42.1	45.9	46.8														
50	23.9	27.2	33.1	42.6	41.8														
55	19.0	21.4	26.0	35.7	37.4														
60	14.9	16.8	20.7	27.3	33.2														
65	14.3	14.8	16.6	20.9	27.6														
70	14.3	14.7	14.8	17.2	21.4														
75	14.4	14.6	14.6	14.0	15.1														
80	14.1	14.2	14.5	13.1	13.6														
85	12.8	14.2	14.7	13.4	12.7														
90	12.4	14.7	14.8	13.7	11.9														
95	12.8	14.2	14.7	13.4	12.7														
100	14.1	14.2	14.5	13.1	13.6														
105	14.4	14.6	14.6	14.0	15.1														
110	14.3	14.7	14.8	17.2	21.4														
115	14.3	14.8	16.6	20.9	27.6														
120	14.9	16.8	20.7	27.3	33.2														
125	19.0	21.4	26.0	35.7	37.4														
130	23.9	27.2	33.1	42.6	41.8														
135	30.5	34.2	42.1	45.9	46.8														
140	38.4	43.3	50.4	49.0	53.5														
145	48.8	52.4	52.1	52.9	61.3														
150	55.0	54.7	54.5	58.2	69.8														
155	56.2	56.9	59.1	65.3	77.9														
160	60.2	61.8	67.1	74.5	86.1														
165	68.7	71.1	76.2	84.1	95.0														
170	81.2	83.4	87.0	92.9	100														
175	95.8	97.0	99.1	102	105														
180	111	111	111	111	111														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	V1-24B @10W4000K	Sample ID	250728008-S1
Temperature (°C)	25.4	Humidity (%RH)	41.0

Test Method
<p>The samples were tested according to the and Ansi C82.77: 2002 and ANSI C82.77-10:2020</p> <p>The total harmonic distortion shall be measured to the 40th order.</p> <p>The ambient temperature shall be maintained at $25 \pm 1^{\circ}\text{C}$. 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 was calculated.</p>

Test Results

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	iTHD(%)
120.0	60	0.087	10.3	0.991	6.61
277.0	60	0.045	10.6	0.855	32.71

5.0 Equipment List:

Equipment ID	Equipment Name	Last Cal.	Due Cal.
NTC-F01-001	Goniophotometer System	2024-11-07	2025-11-06
NTC-F01-006	2.0 meter Integrating Sphere	2024-11-07	2025-11-06
NTC-F01-012	Standard Lamp	2024-10-28	2025-10-27
NTC-F01-013	Standard Lamp	2024-10-28	2025-10-27
NTC-F01-031	Digital Power Meter	2025-08-04	2026-08-03
NTC-F01-019	Temperature & Humidity Meter	2024-10-29	2025-10-28

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