

## Photometric Test Report

### Relevant Standards

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

Prepared For

**RAB Lighting Inc.**

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Prepared By

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Date: 2025-08-21

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Issue Date: 2025-08-21

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		1153
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	104.8
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		11.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002	N/A	120V	8.57
		ANSI C82-77-10:2020		277V	32.33
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002	N/A	120V	0.989
		ANSI C82-77-10:2020		277V	0.846
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	2725±145	2769
			4 steps	2725±83	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		93.4
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		63
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		91
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		96
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-4%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		26.6%
Backlight, Uplight and Glare (BUG) Ratings (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019 IES TM-15-11	N/A		B0-U3-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		0.047
(Goniophotometer – Section 4.2)			Non-Worst Case		0.085
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		11.0
(Goniophotometer – Section 4.2)			Non-Worst Case		10.1

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-07	V1-24 @10W2700K	-	250728007-S1
2	Goniophotometer Test	2025-08-07	V1-24 @10W2700K	-	250728007-S1
3	THD and PF Test	2025-08-07	V1-24 @10W2700K	-	250728007-S1

### Remark (If any):

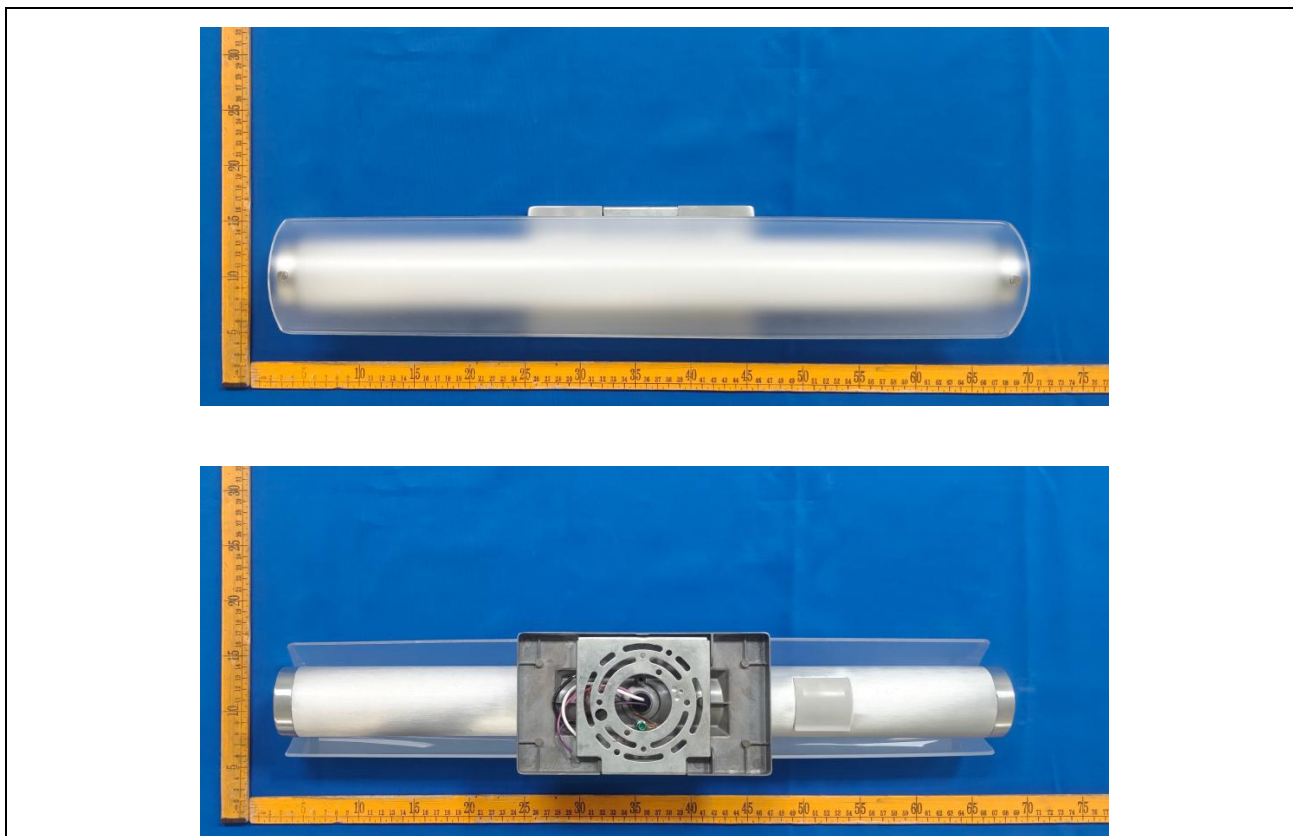
1. The results contained in this report pertain only to the tested samples.
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

### 3.0 Product Description

Luminaire Description: Model No. V1-24 @10W2700K, 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

<b>Model No.</b>	V1-24 @10W2700K	<b>Sample ID</b>	250728007-S1
<b>Operate time (Min.)</b>	10	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

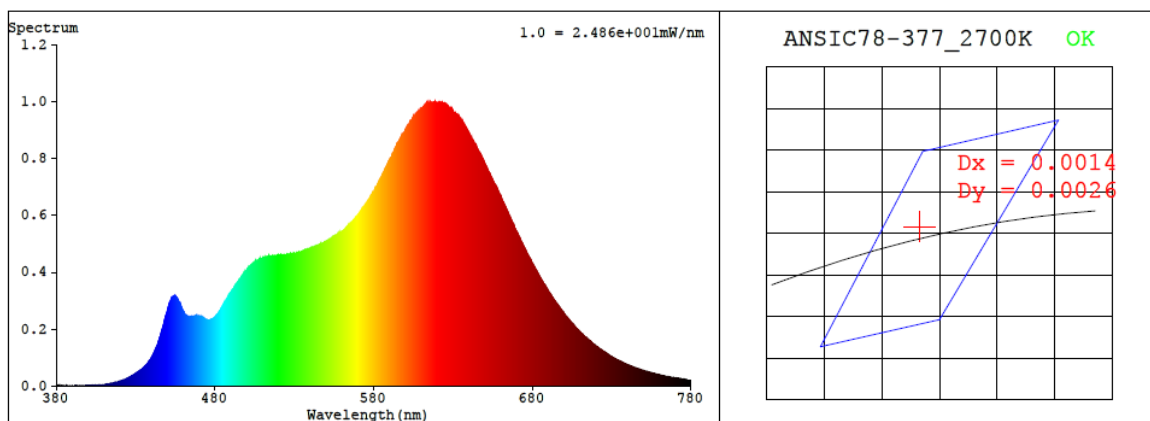
<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were 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

<b>Voltage (Vac)</b>	<b>Frequency (Hz)</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Power Factor</b>
120.0	60	0.085	10.1	0.989
277.0	60	0.047	11.0	0.846

<b>CCT (K)</b>	<b>CRI</b>	<b>R9</b>	<b>Duv</b>	<b>SDCM</b>	<b>Rf</b>	<b>Rg</b>	<b>IES Rcs,h1</b>
2769	93.4	63	0.0008	2.1	91	96	-4%

### 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4557$   $y = 0.4119$  /  $u' = 0.2592$   $v' = 0.5272$  ( $duv=8.49e-04$ )

CCT= 2769K      Prcp WL:   Ld=583.6nm      Purity=60.4%

Peak WL: Lp=619nm FWHM: =126.7nm Ratio:R=26.8% G=70.1% B=3.2%

Render Index: Ra = 93.4 AvgR = 91.5 TM30:Rf=91 Rg=96

EEI: 0.13213 A+

R1 =99    R2 =97    R3 =93    R4 =97    R5 =98    R6 =91    R7 =90

R8 =82    R9 =63    R10=93    R11=94    R12=88    R13=99    R14=97    R15=91

## 4.1 Integrating Sphere Test

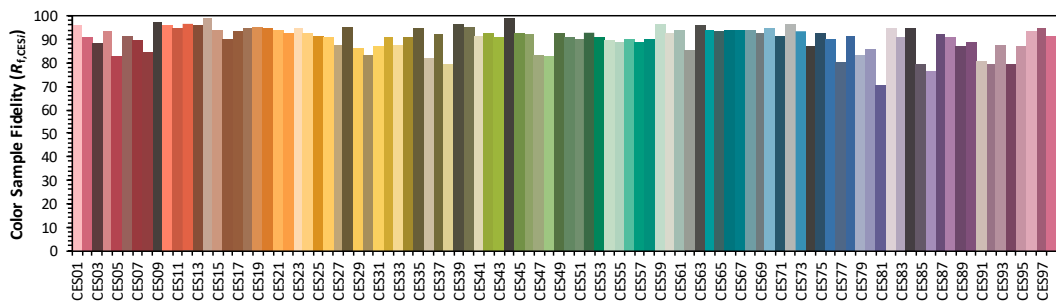
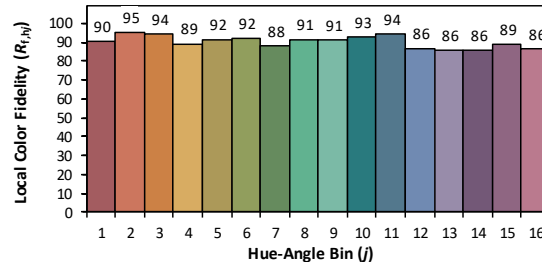
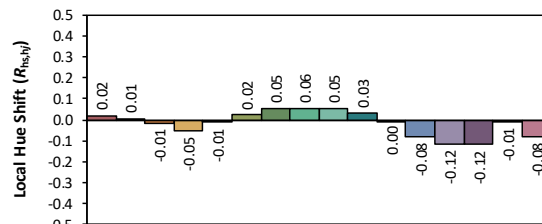
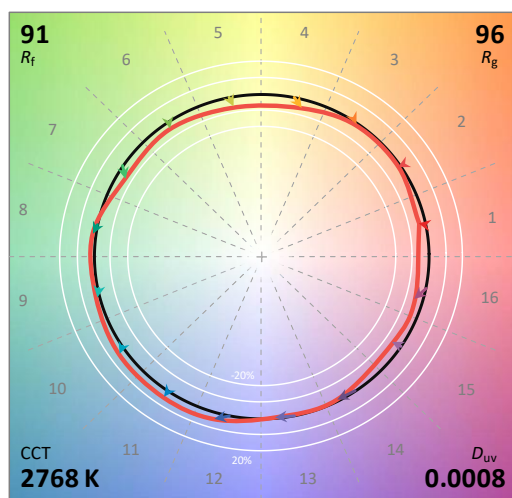
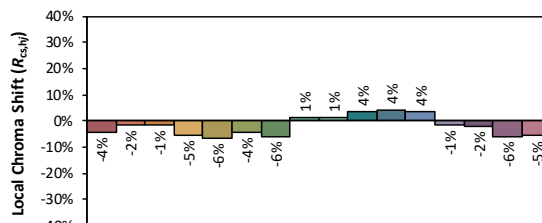
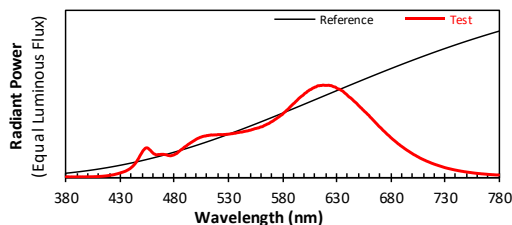
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc

Date: 2025/8/21

Model: V1-24 @10W2700K



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

$x$  0.4558  
 $y$  0.4118  
 $u'$  0.2593  
 $v'$  0.5272

CIE 13.3-1995  
(CRI)  
 $R_a$  93  
 $R_g$  63

## 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	2.30E-06	447	2.05E-04	514	4.58E-04	581	6.95E-04	648	8.07E-04	715	1.65E-04
381	2.40E-06	448	2.28E-04	515	4.56E-04	582	7.04E-04	649	7.96E-04	716	1.60E-04
382	2.20E-06	449	2.47E-04	516	4.57E-04	583	7.14E-04	650	7.81E-04	717	1.55E-04
383	7.00E-07	450	2.66E-04	517	4.57E-04	584	7.26E-04	651	7.70E-04	718	1.50E-04
384	9.00E-07	451	2.86E-04	518	4.58E-04	585	7.35E-04	652	7.58E-04	719	1.46E-04
385	1.50E-06	452	2.99E-04	519	4.57E-04	586	7.48E-04	653	7.48E-04	720	1.41E-04
386	8.00E-07	453	3.12E-04	520	4.61E-04	587	7.61E-04	654	7.35E-04	721	1.37E-04
387	1.20E-06	454	3.16E-04	521	4.61E-04	588	7.72E-04	655	7.24E-04	722	1.33E-04
388	6.00E-07	455	3.16E-04	522	4.61E-04	589	7.84E-04	656	7.12E-04	723	1.30E-04
389	1.30E-06	456	3.09E-04	523	4.61E-04	590	7.95E-04	657	7.02E-04	724	1.26E-04
390	1.80E-06	457	2.98E-04	524	4.60E-04	591	8.04E-04	658	6.91E-04	725	1.22E-04
391	9.00E-07	458	2.88E-04	525	4.61E-04	592	8.17E-04	659	6.78E-04	726	1.18E-04
392	1.80E-06	459	2.74E-04	526	4.62E-04	593	8.27E-04	660	6.69E-04	727	1.14E-04
393	2.00E-06	460	2.63E-04	527	4.62E-04	594	8.39E-04	661	6.53E-04	728	1.11E-04
394	1.10E-06	461	2.52E-04	528	4.64E-04	595	8.52E-04	662	6.43E-04	729	1.07E-04
395	1.90E-06	462	2.48E-04	529	4.65E-04	596	8.62E-04	663	6.30E-04	730	1.03E-04
396	1.10E-06	463	2.42E-04	530	4.66E-04	597	8.72E-04	664	6.17E-04	731	9.95E-05
397	1.50E-06	464	2.41E-04	531	4.67E-04	598	8.81E-04	665	6.05E-04	732	9.67E-05
398	1.70E-06	465	2.44E-04	532	4.69E-04	599	8.88E-04	666	5.92E-04	733	9.36E-05
399	2.40E-06	466	2.44E-04	533	4.71E-04	600	9.01E-04	667	5.80E-04	734	9.10E-05
400	1.80E-06	467	2.43E-04	534	4.71E-04	601	9.12E-04	668	5.68E-04	735	8.82E-05
401	2.10E-06	468	2.46E-04	535	4.75E-04	602	9.17E-04	669	5.54E-04	736	8.57E-05
402	2.40E-06	469	2.47E-04	536	4.75E-04	603	9.30E-04	670	5.43E-04	737	8.27E-05
403	2.40E-06	470	2.46E-04	537	4.78E-04	604	9.36E-04	671	5.33E-04	738	8.02E-05
404	2.70E-06	471	2.44E-04	538	4.81E-04	605	9.46E-04	672	5.21E-04	739	7.76E-05
405	2.80E-06	472	2.42E-04	539	4.82E-04	606	9.50E-04	673	5.08E-04	740	7.51E-05
406	3.60E-06	473	2.39E-04	540	4.85E-04	607	9.57E-04	674	4.98E-04	741	7.30E-05
407	3.60E-06	474	2.35E-04	541	4.88E-04	608	9.66E-04	675	4.87E-04	742	7.06E-05
408	4.40E-06	475	2.33E-04	542	4.88E-04	609	9.70E-04	676	4.75E-04	743	6.80E-05
409	4.70E-06	476	2.31E-04	543	4.90E-04	610	9.77E-04	677	4.63E-04	744	6.65E-05
410	5.20E-06	477	2.31E-04	544	4.93E-04	611	9.79E-04	678	4.54E-04	745	6.40E-05
411	6.30E-06	478	2.35E-04	545	4.95E-04	612	9.87E-04	679	4.43E-04	746	6.21E-05
412	7.10E-06	479	2.38E-04	546	4.98E-04	613	9.92E-04	680	4.31E-04	747	6.05E-05
413	7.70E-06	480	2.43E-04	547	5.00E-04	614	9.91E-04	681	4.21E-04	748	5.81E-05
414	8.80E-06	481	2.50E-04	548	5.02E-04	615	9.95E-04	682	4.10E-04	749	5.64E-05
415	9.90E-06	482	2.54E-04	549	5.06E-04	616	9.94E-04	683	4.01E-04	750	5.48E-05
416	1.10E-05	483	2.64E-04	550	5.08E-04	617	9.98E-04	684	3.91E-04	751	5.30E-05
417	1.24E-05	484	2.75E-04	551	5.11E-04	618	9.98E-04	685	3.81E-04	752	5.15E-05
418	1.41E-05	485	2.85E-04	552	5.16E-04	619	9.96E-04	686	3.72E-04	753	4.98E-05
419	1.56E-05	486	2.94E-04	553	5.19E-04	620	9.96E-04	687	3.61E-04	754	4.84E-05
420	1.75E-05	487	3.03E-04	554	5.24E-04	621	9.96E-04	688	3.53E-04	755	4.67E-05
421	1.91E-05	488	3.10E-04	555	5.27E-04	622	9.96E-04	689	3.43E-04	756	4.49E-05
422	2.12E-05	489	3.23E-04	556	5.29E-04	623	9.98E-04	690	3.35E-04	757	4.36E-05
423	2.30E-05	490	3.30E-04	557	5.33E-04	624	9.93E-04	691	3.26E-04	758	4.19E-05
424	2.54E-05	491	3.37E-04	558	5.34E-04	625	9.94E-04	692	3.18E-04	759	4.07E-05
425	2.82E-05	492	3.47E-04	559	5.40E-04	626	9.88E-04	693	3.09E-04	760	3.96E-05
426	3.13E-05	493	3.56E-04	560	5.44E-04	627	9.83E-04	694	3.01E-04	761	3.83E-05
427	3.41E-05	494	3.63E-04	561	5.46E-04	628	9.79E-04	695	2.93E-04	762	3.70E-05
428	3.74E-05	495	3.72E-04	562	5.51E-04	629	9.77E-04	696	2.85E-04	763	3.62E-05
429	4.10E-05	496	3.79E-04	563	5.59E-04	630	9.67E-04	697	2.78E-04	764	3.45E-05
430	4.45E-05	497	3.87E-04	564	5.64E-04	631	9.60E-04	698	2.70E-04	765	3.38E-05
431	4.87E-05	498	3.94E-04	565	5.69E-04	632	9.56E-04	699	2.63E-04	766	3.29E-05
432	5.19E-05	499	4.01E-04	566	5.76E-04	633	9.52E-04	700	2.55E-04	767	3.18E-05
433	5.60E-05	500	4.09E-04	567	5.79E-04	634	9.45E-04	701	2.47E-04	768	3.09E-05
434	6.01E-05	501	4.15E-04	568	5.86E-04	635	9.38E-04	702	2.41E-04	769	2.99E-05
435	6.44E-05	502	4.21E-04	569	5.95E-04	636	9.31E-04	703	2.35E-04	770	2.87E-05
436	7.14E-05	503	4.26E-04	570	6.01E-04	637	9.19E-04	704	2.28E-04	771	2.77E-05
437	7.72E-05	504	4.32E-04	571	6.07E-04	638	9.09E-04	705	2.21E-04	772	2.69E-05
438	8.44E-05	505	4.34E-04	572	6.15E-04	639	9.01E-04	706	2.15E-04	773	2.63E-05
439	9.14E-05	506	4.40E-04	573	6.25E-04	640	8.89E-04	707	2.08E-04	774	2.52E-05
440	1.02E-04	507	4.42E-04	574	6.31E-04	641	8.77E-04	708	2.02E-04	775	2.49E-05
441	1.12E-04	508	4.45E-04	575	6.40E-04	642	8.67E-04	709	1.96E-04	776	2.39E-05
442	1.23E-04	509	4.45E-04	576	6.48E-04	643	8.60E-04	710	1.91E-04	777	2.31E-05
443	1.36E-04	510	4.51E-04	577	6.55E-04	644	8.50E-04	711	1.85E-04	778	2.23E-05
444	1.50E-04	511	4.50E-04	578	6.66E-04	645	8.39E-04	712	1.81E-04	779	2.24E-05
445	1.67E-04	512	4.54E-04	579	6.73E-04	646	8.26E-04	713	1.74E-04	780	2.24E-05
446	1.86E-04	513	4.54E-04	580	6.81E-04	647	8.16E-04	714	1.70E-04	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

<b>Model No.</b>	V1-24 @10W2700K	<b>Sample ID</b>	250728007-S1
<b>Operate time (Min.)</b>	30	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	24.9	<b>Humidity (%RH)</b>	42.1

<b>Test Method</b>
<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 <math>25 \pm 1^\circ\text{C}</math>, 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 <math>\pm 0.2</math> 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 <math>1.0^\circ</math> vertical intervals and <math>15^\circ</math> horizontal intervals.</p>

### Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
<b>WORST CASE</b>	277.0	60	0.047	11.0	0.846
<b>NON-WORST CASE</b>	120.0	60	0.085	10.1	0.989

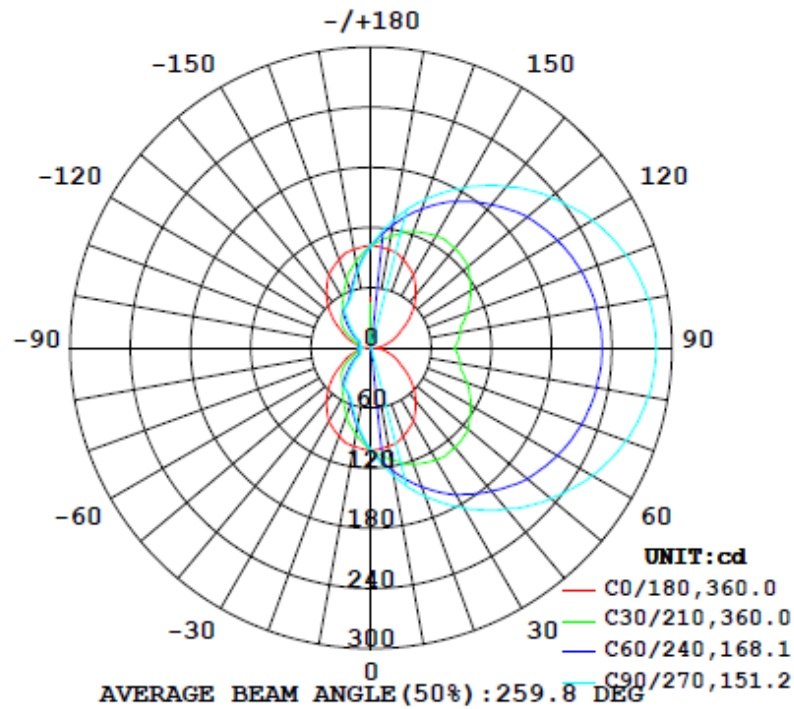
### Test Result

Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement	BUG
	C0-180	C90-270	C0-180	C90-270		( $0^\circ$ - $60^\circ$ )	
1153	91.1	155.5	180.0	98.1	104.8	26.6%	B0-U3-G1

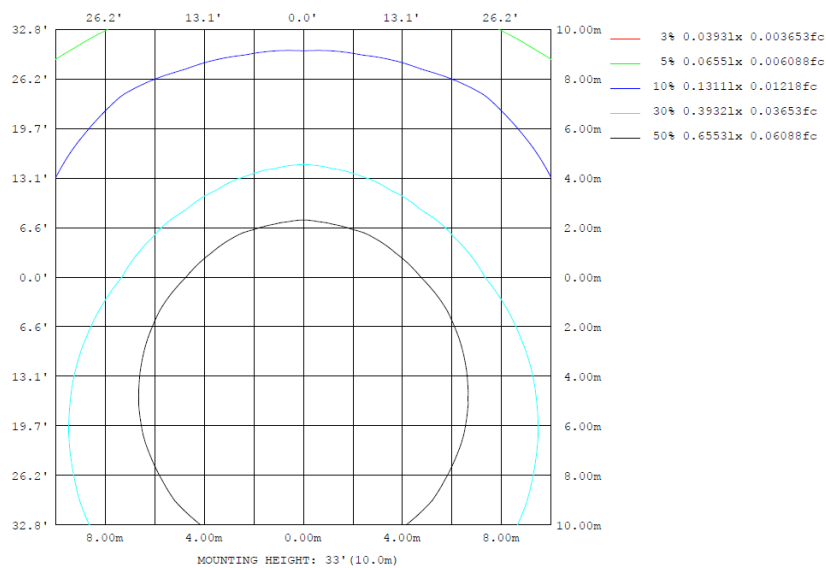
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

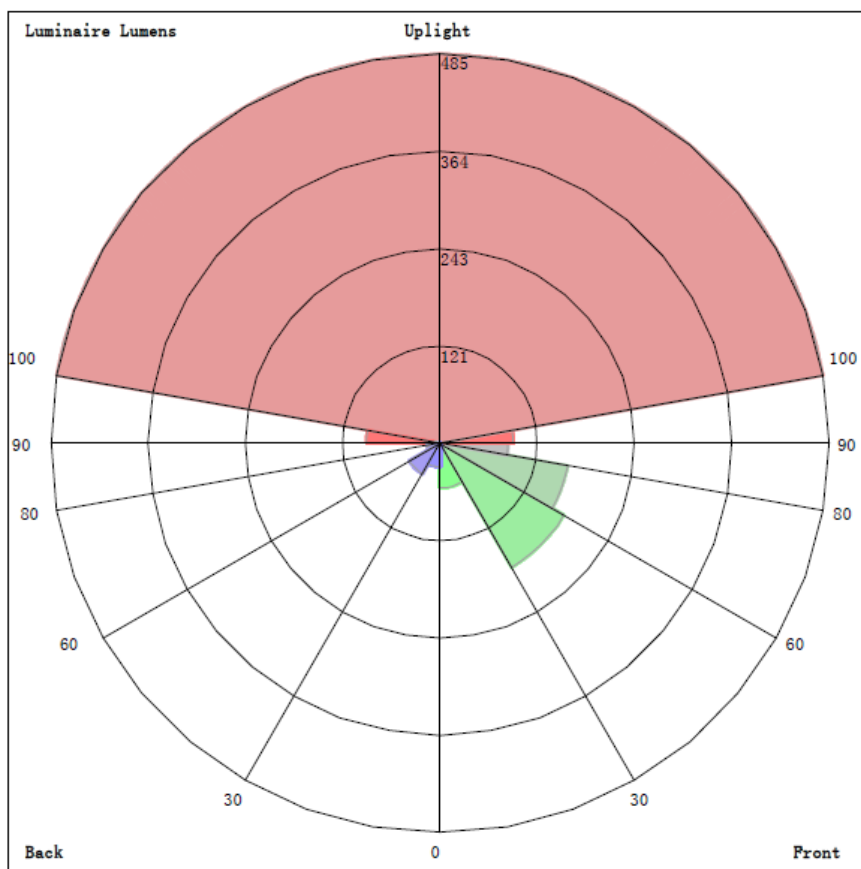
### Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total	lum, lamp
10	99.67	119.1	129.4	119.1	99.67	82.88	77.87	82.88	0- 10	9.693	9.693	0.84,0.84
20	93.69	137.4	157.4	137.4	93.69	65.01	57.16	65.01	10- 20	28.64	38.33	3.32,3.32
30	84.62	150.4	184.2	150.4	84.62	50.73	49.40	50.73	20- 30	46.49	84.83	7.36,7.36
40	69.09	161.6	210.3	161.6	69.09	45.16	36.42	45.16	30- 40	63.13	148.0	12.8,12.8
50	52.38	166.9	233.6	166.9	52.38	32.86	22.70	32.86	40- 50	75.76	223.7	19.4,19.4
60	34.50	169.5	254.5	169.5	34.50	20.57	12.70	20.57	50- 60	83.47	307.2	26.6,26.6
70	22.78	169.5	270.5	169.5	22.78	13.22	12.01	13.22	60- 70	87.78	395.0	34.3,34.3
80	12.14	165.9	280.7	165.9	12.14	12.77	11.40	12.77	70- 80	90.12	485.1	42.1,42.1
90	2.593	163.8	284.0	163.8	2.593	13.94	13.19	13.94	80- 90	91.40	576.5	50,50
100	12.14	165.9	280.7	165.9	12.14	12.77	11.40	12.77	90-100	91.40	667.9	57.9,57.9
110	22.78	169.5	270.5	169.5	22.78	13.22	12.01	13.22	100-110	90.12	758.0	65.7,65.7
120	34.50	169.5	254.5	169.5	34.50	20.57	12.70	20.57	110-120	87.78	845.8	73.4,73.4
130	52.38	166.9	233.6	166.9	52.38	32.86	22.70	32.86	120-130	83.47	929.2	80.6,80.6
140	69.09	161.6	210.3	161.6	69.09	45.16	36.42	45.16	130-140	75.76	1005	87.2,87.2
150	84.62	150.4	184.2	150.4	84.62	50.73	49.40	50.73	140-150	63.13	1068	92.6,92.6
160	93.69	137.4	157.4	137.4	93.69	65.01	57.16	65.01	150-160	46.49	1115	96.7,96.7
170	99.67	119.1	129.4	119.1	99.67	82.88	77.87	82.88	160-170	28.64	1143	99.2,99.2
180	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.6	170-180	9.693	1153	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	9.69	0-10	9.69	0.85%
10-20	28.64	0-20	38.33	3.35%
20-30	46.49	0-30	84.82	7.42%
30-40	63.13	0-40	147.95	12.94%
40-50	75.76	0-50	223.71	19.57%
50-60	83.47	0-60	307.18	26.87%
60-70	87.78	0-70	394.96	34.55%
70-80	90.12	0-80	485.08	42.43%
80-90	91.40	0-90	576.48	50.42%
90-100	91.40	0-100	667.88	58.42%
100-110	90.12	0-110	758.00	66.30%
110-120	87.78	0-120	845.78	73.98%
120-130	83.47	0-130	929.25	81.28%
130-140	75.76	0-140	1005.01	87.91%
140-150	63.13	0-150	1068.14	93.43%
150-160	46.49	0-160	1114.63	97.49%
160-170	28.64	0-170	1143.27	100.00%
170-180	9.69	0-180	1152.96	100.85%

## 4.2 Goniophotometer Test

LCS/BUG

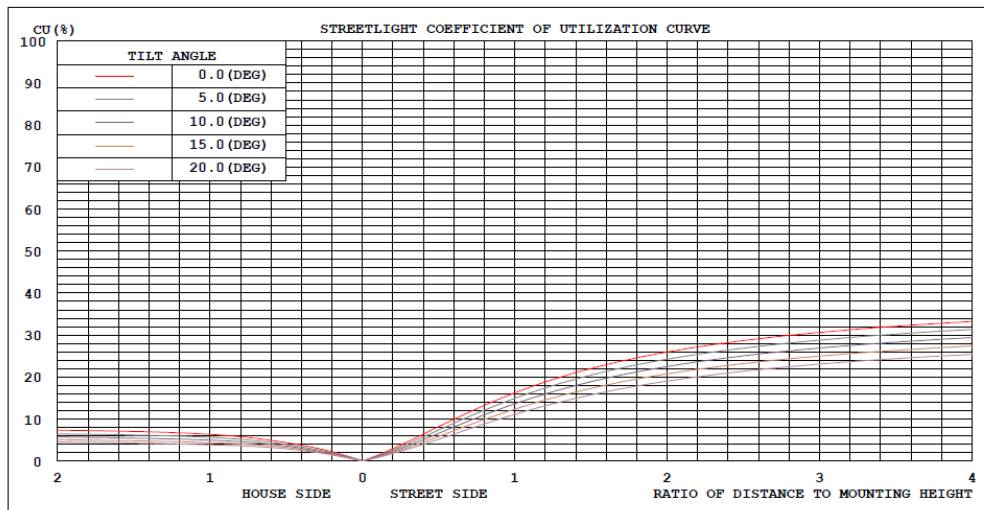


### LUMINAIRE CLASSIFICATION SYSTEM (LCS)

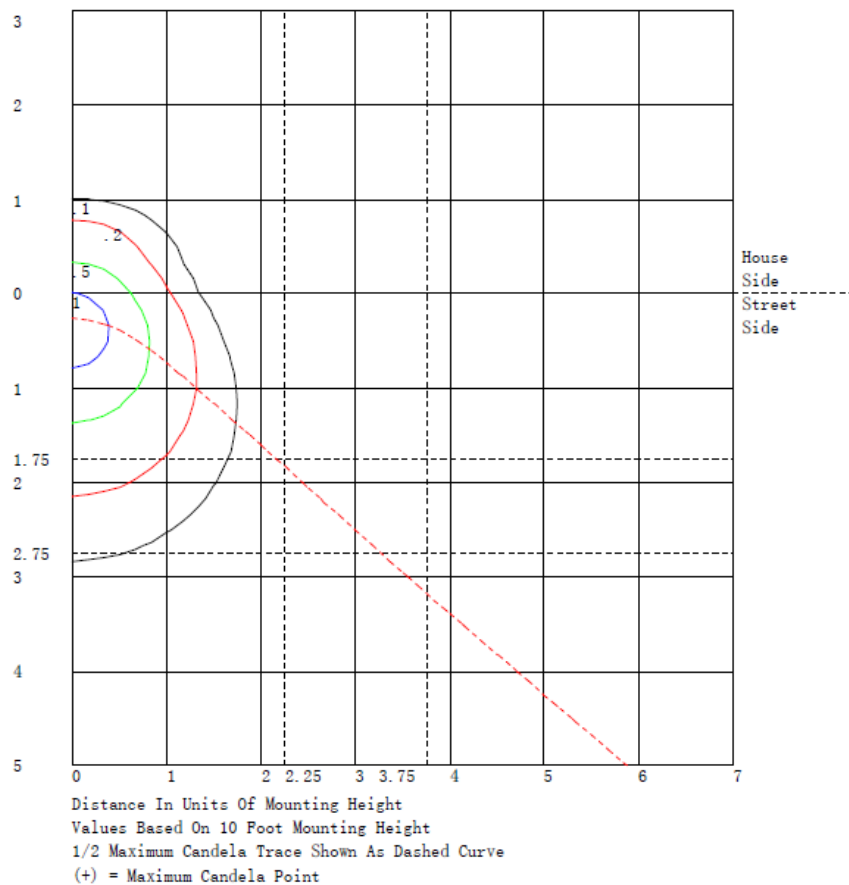
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	55.5	N.A.	4.8
FM - Front-Medium (30-60)	178.7	N.A.	15.5
FH - Front-High (60-80)	161.6	N.A.	14.0
FVH - Front-Very High (80-90)	84.8	N.A.	7.4
BL - Back-Low (0-30)	29.4	N.A.	2.5
BM - Back-Medium (30-60)	43.7	N.A.	3.8
BH - Back-High (60-80)	16.3	N.A.	1.4
BVH - Back-Very High (80-90)	6.6	N.A.	0.6
UL - Uplight-Low (90-100)	91.4	N.A.	7.9
UH - Uplight-High (100-180)	485.1	N.A.	42.1
Total	1153.1	N.A.	100.0
BUG Rating	B0-U3-G1		

## 4.2 Goniophotometer Test

### Coefficients of Utilization



### Isolines



## 4.2 Goniophotometer Test

### Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103
5	101	104	108	110	113	115	116	115	113	110	108	104	101	97.9	95.1	92.7	90.9	90.0	90.0
10	99.7	106	113	119	124	128	129	128	124	119	113	106	99.7	93.3	87.6	82.9	79.7	77.9	77.9
15	98.2	108	119	129	136	141	144	141	136	129	119	108	98.2	88.7	80.4	73.6	68.9	66.4	66.3
20	93.7	108	124	137	147	154	157	154	147	137	124	108	93.7	81.8	72.2	65.0	59.7	57.2	57.2
25	89.2	107	126	144	159	167	171	167	159	144	126	107	89.2	74.7	63.6	56.7	53.1	51.5	51.6
30	84.6	106	129	150	169	180	184	180	169	150	129	106	84.6	68.1	56.1	50.7	49.4	49.2	49.4
35	76.9	102	130	156	178	192	198	192	178	156	130	102	76.9	59.9	50.3	47.2	47.4	46.6	45.6
40	69.1	98.1	130	162	186	204	210	204	186	162	130	98.1	69.1	52.1	45.3	45.2	42.0	37.7	36.4
45	61.3	93.3	129	164	195	216	222	216	195	164	129	93.3	61.3	45.1	41.8	40.8	33.9	30.3	29.0
50	52.4	84.7	126	167	203	226	234	226	203	167	126	84.7	52.4	39.7	38.6	32.9	27.2	23.9	22.7
55	43.4	75.0	120	169	209	235	245	235	209	169	120	75.0	43.4	34.9	33.4	26.3	21.4	18.6	17.8
60	34.5	65.0	115	169	214	244	255	244	214	169	115	65.0	34.5	30.6	27.3	20.6	15.8	13.4	12.7
65	28.6	57.0	108	169	219	252	264	252	219	169	108	57.0	28.6	25.8	21.2	15.6	13.1	12.3	12.1
70	22.8	48.9	102	170	223	258	271	258	223	170	102	48.9	22.8	20.7	16.9	13.2	12.9	12.3	12.0
75	16.9	40.2	94.4	168	226	263	276	263	226	168	94.4	40.2	16.9	15.4	13.2	12.9	12.9	12.3	11.8
80	12.1	38.0	90.1	166	228	267	281	267	228	166	90.1	38.0	12.1	14.0	12.2	12.8	12.8	12.2	11.4
85	7.37	36.3	87.1	166	230	270	283	270	230	166	87.1	36.3	7.37	13.1	12.7	13.4	13.1	10.9	10.5
90	2.59	34.3	83.0	164	230	271	284	271	230	164	83.0	34.3	2.59	12.3	13.2	13.9	13.8	11.4	13.2
95	7.37	36.3	87.1	166	230	270	283	270	230	166	87.1	36.3	7.37	13.1	12.7	13.4	13.1	10.9	10.5
100	12.1	38.0	90.1	166	228	267	281	267	228	166	90.1	38.0	12.1	14.0	12.2	12.8	12.8	12.2	11.4
105	16.9	40.2	94.4	168	226	263	276	263	226	168	94.4	40.2	16.9	15.4	13.2	12.9	12.9	12.3	11.8
110	22.8	48.9	102	170	223	258	271	258	223	170	102	48.9	22.8	20.7	16.9	13.2	12.9	12.3	12.0
115	28.6	57.0	108	169	219	252	264	252	219	169	108	57.0	28.6	25.8	21.2	15.6	13.1	12.3	12.1
120	34.5	65.0	115	169	214	244	255	244	214	169	115	65.0	34.5	30.6	27.3	20.6	15.8	13.4	12.7
125	43.4	75.0	120	169	209	235	245	235	209	169	120	75.0	43.4	34.9	33.4	26.3	21.4	18.6	17.8
130	52.4	84.7	126	167	203	226	234	226	203	167	126	84.7	52.4	39.7	38.6	32.9	27.2	23.9	22.7
135	61.3	93.3	129	164	195	216	222	216	195	164	129	93.3	61.3	45.1	41.8	40.8	33.9	30.3	29.0
140	69.1	98.1	130	162	186	204	210	204	186	162	130	98.1	69.1	52.1	45.3	45.2	42.0	37.7	36.4
145	76.9	102	130	156	178	192	198	192	178	156	130	102	76.9	59.9	50.3	47.2	47.4	46.6	45.6
150	84.6	106	129	150	169	180	184	180	169	150	129	106	84.6	68.1	56.1	50.7	49.4	49.2	49.4
155	89.2	107	126	144	159	167	171	167	159	144	126	107	89.2	74.7	63.6	56.7	53.1	51.5	51.6
160	93.7	108	124	137	147	154	157	154	147	137	124	108	93.7	81.8	72.2	65.0	59.7	57.2	57.2
165	98.2	108	119	129	136	141	144	141	136	129	119	108	98.2	88.7	80.4	73.6	68.9	66.4	66.3
170	99.7	106	113	119	124	128	129	128	124	119	113	106	99.7	93.3	87.6	82.9	79.7	77.9	77.9
175	101	104	108	110	113	115	116	115	113	110	108	104	101	97.9	95.1	92.7	90.9	90.0	90.0
180	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103	103

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	103	103	103	103	103														
5	90.0	90.9	92.7	95.1	97.9														
10	77.9	79.7	82.9	87.6	93.3														
15	66.4	68.9	73.6	80.4	88.7														
20	57.2	59.7	65.0	72.2	81.8														
25	51.5	53.1	56.7	63.6	74.7														
30	49.2	49.4	50.7	56.1	68.1														
35	46.6	47.4	47.2	50.3	59.9														
40	37.7	42.0	45.2	45.3	52.1														
45	30.3	33.9	40.8	41.8	45.1														
50	23.9	27.2	32.9	38.6	39.7														
55	18.6	21.4	26.3	33.4	34.9														
60	13.4	15.8	20.6	27.3	30.6														
65	12.3	13.1	15.6	21.2	25.8														
70	12.3	12.9	13.2	16.9	20.7														
75	12.3	12.9	12.9	13.2	15.4														
80	12.2	12.8	12.8	12.2	14.0														
85	10.9	13.1	13.4	12.7	13.1														
90	11.4	13.8	13.9	12.2	12.3														
95	10.9	13.1	13.4	12.7	13.1														
100	12.2	12.8	12.8	12.2	14.0														
105	12.3	12.9	12.9	13.2	15.4														
110	12.3	12.9	13.2	16.9	20.7														
115	12.3	13.1	15.6	21.2	25.8														
120	13.4	15.8	20.6	27.3	30.6														
125	18.6	21.4	26.3	33.4	34.9														
130	23.9	27.2	32.9	38.6	39.7														
135	30.3	33.9	40.8	41.8	45.1														
140	37.7	42.0	45.2	45.3	52.1														
145	46.6	47.4	47.2	50.3	59.9														
150	49.2	49.4	50.7	56.1	68.1														
155	51.5	53.1	56.7	63.6	74.7														
160	57.2	59.7	65.0	72.2	81.8														
165	66.4	68.9	73.6	80.4	88.7														
170	77.9	79.7	82.9	87.6	93.3														
175	90.0	90.9	92.7	95.1	97.9														
180	103	103	103	103	103														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	V1-24 @10W2700K	<b>Sample ID</b>	250728007-S1
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

<b>Test Method</b>
<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 <math>25 \pm 1^{\circ}\text{C}</math>. 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	0.085	10.1	0.989	8.57
277.0	60	0.047	11.0	0.846	32.33

## 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\*\*\*\*\*