

## 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: 2025-08-20

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Issue Date: 2025-08-20

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		1305
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	107.0
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		12.2
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	6.01
				277V	24.80
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.991
				277V	0.890
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	2725±145	2771
			4 steps	2725±83	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		93.5
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		62
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		26.9%
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		0.049
(Goniophotometer – Section 4.2)			Non-Worst Case		0.100
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		12.2
(Goniophotometer – Section 4.2)			Non-Worst Case		11.9

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-06	V1-18 @12W2700K	-	250728005-S1
2	Goniophotometer Test	2025-08-06	V1-18 @12W2700K	-	250728005-S1
3	THD and PF Test	2025-08-06	V1-18 @12W2700K	-	250728005-S1

### Remark (If any):

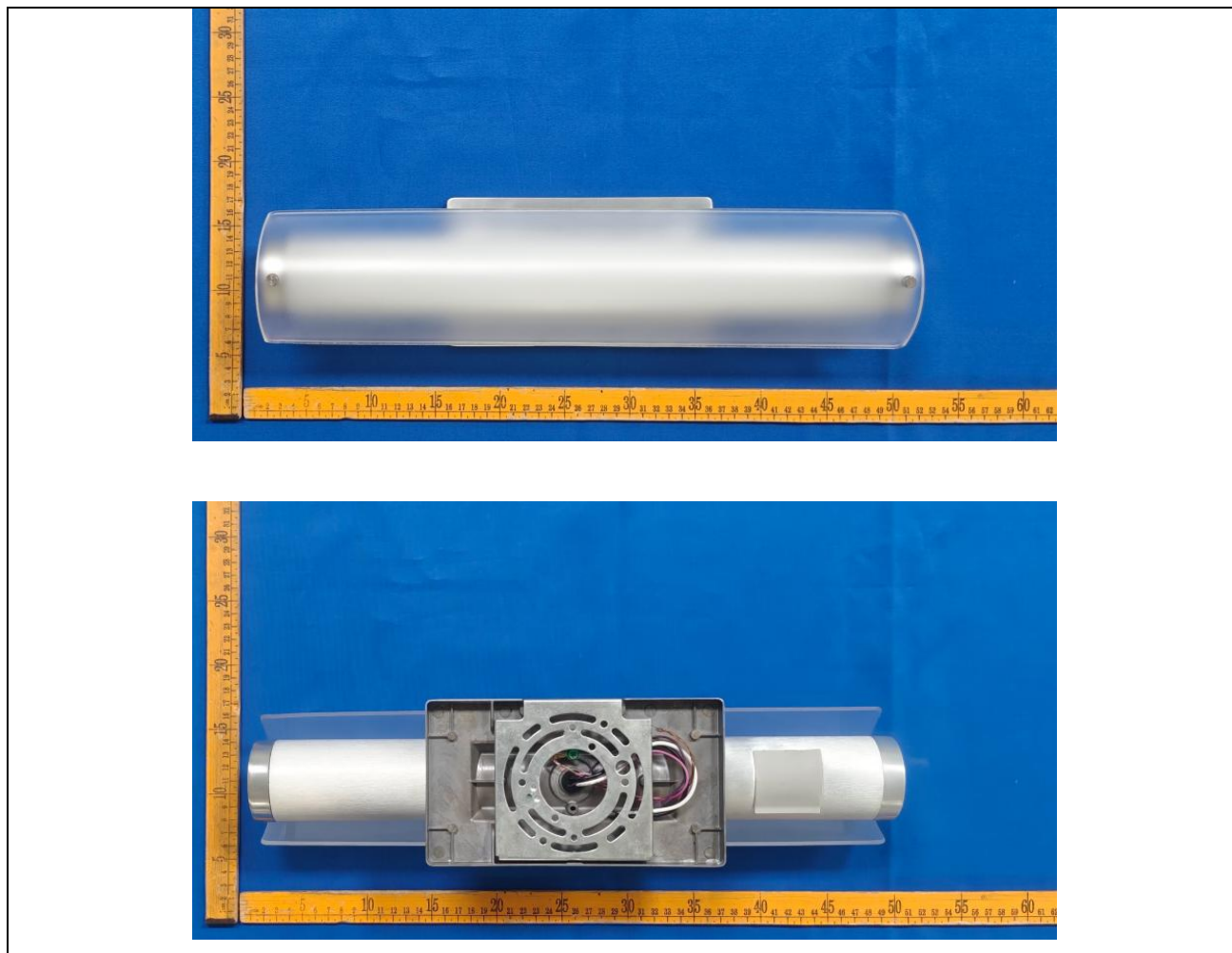
1. The results contained in this report pertain only to the tested samples.
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

### 3.0 Product Description

Luminaire Description: Model No. V1-18 @12W2700K, 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>	V1-18 @12W2700K	<b>Sample ID</b>	250728005-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

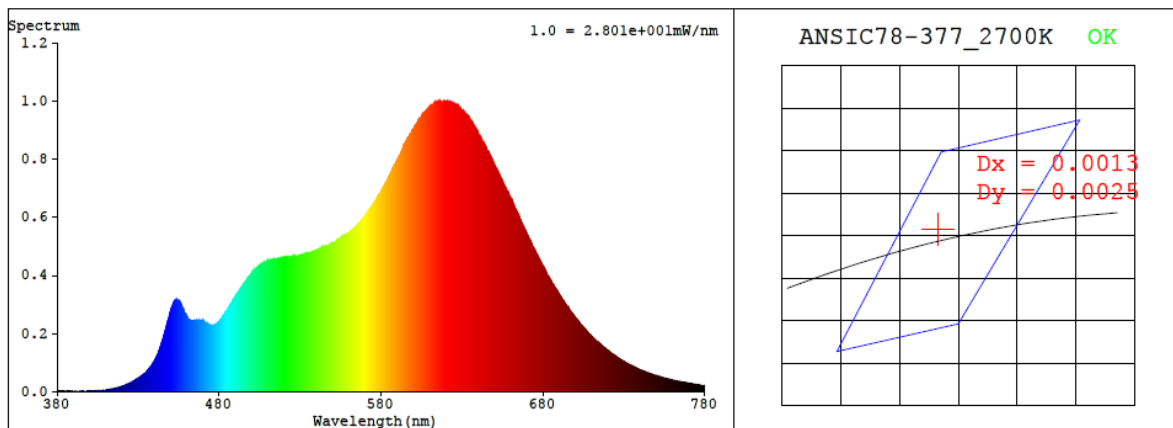
<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at <math>25\pm1^{\circ}\text{C}</math>.</p> <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 <math>\pm 0.2</math> percent under load.</p> <p>The sample was measured using <math>4\pi</math> 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	0.100	11.9	0.991
277.0	60	0.049	12.2	0.890

<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>
2771	93.5	62	0.0008	2.1	91	96	-4%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4555$   $y = 0.4117$  /  $u' = 0.2592$   $v' = 0.5271$  ( $duv=8.02e-04$ )

CCT= 2771K Prcp WL:  $L_d=583.6nm$  Purity=60.3%

Peak WL:  $L_p=619nm$  FWHM:  $=127.3nm$  Ratio:R=26.7% G=70.1% B=3.1%

Render Index:  $R_a = 93.5$  AvgR = 91.6 TM30:Rf=91 Rg=96

EEL: 0.13201 A+

R1 =98 R2 =98 R3 =94 R4 =97 R5 =98 R6 =91 R7 =89

R8 =82 R9 =62 R10=94 R11=95 R12=88 R13=99 R14=97 R15=91

## 4.1 Integrating Sphere Test

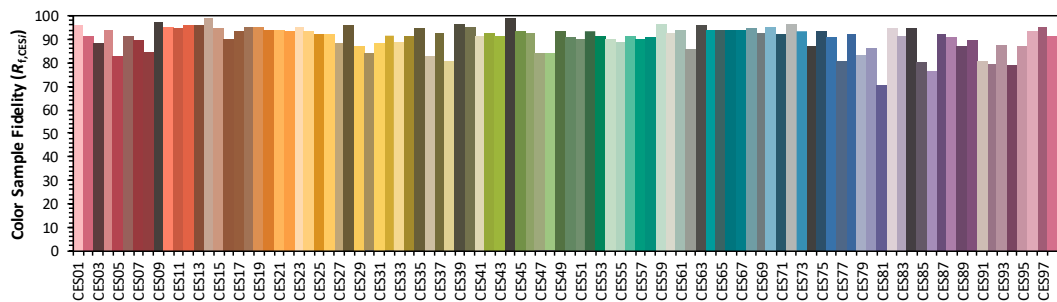
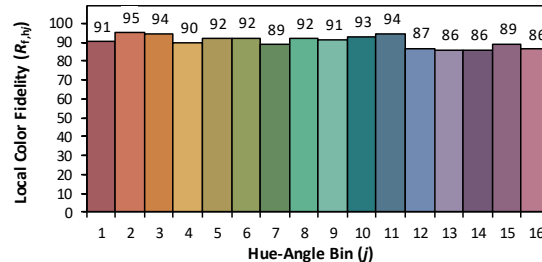
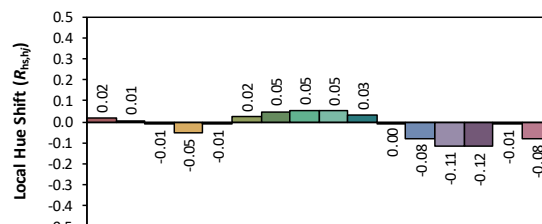
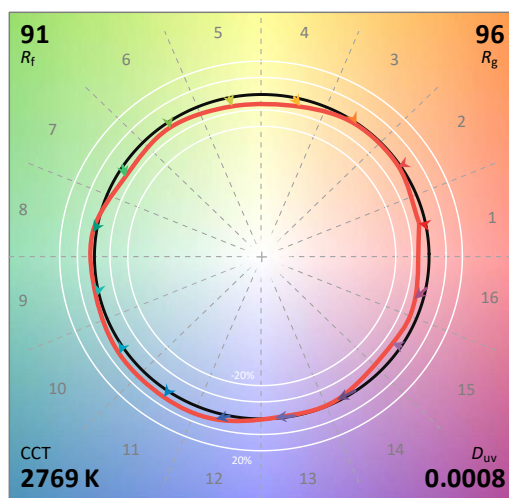
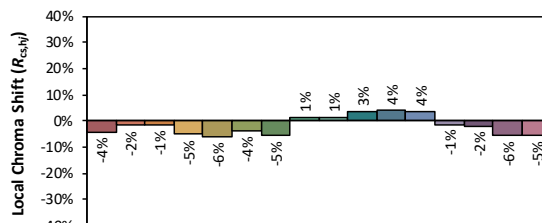
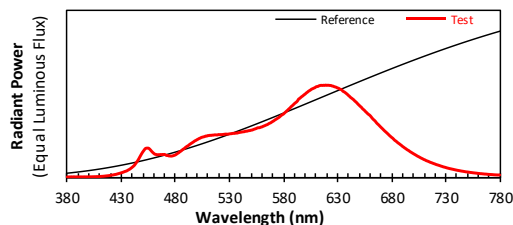
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc

Date: 2025/8/20

Model: V1-18 @12W2700K



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

$x$  0.4556  
 $y$  0.4117  
 $u'$  0.2593  
 $v'$  0.5271

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	1.30E-06	447	2.17E-04	514	4.56E-04	581	6.97E-04	648	8.06E-04	715	1.65E-04
381	1.00E-06	448	2.38E-04	515	4.56E-04	582	7.08E-04	649	7.92E-04	716	1.60E-04
382	1.40E-06	449	2.58E-04	516	4.58E-04	583	7.19E-04	650	7.81E-04	717	1.56E-04
383	1.40E-06	450	2.76E-04	517	4.59E-04	584	7.29E-04	651	7.69E-04	718	1.51E-04
384	2.20E-06	451	2.92E-04	518	4.58E-04	585	7.41E-04	652	7.60E-04	719	1.46E-04
385	1.00E-06	452	3.08E-04	519	4.58E-04	586	7.51E-04	653	7.45E-04	720	1.43E-04
386	2.60E-06	453	3.14E-04	520	4.62E-04	587	7.65E-04	654	7.35E-04	721	1.37E-04
387	1.50E-06	454	3.14E-04	521	4.61E-04	588	7.74E-04	655	7.24E-04	722	1.34E-04
388	1.30E-06	455	3.14E-04	522	4.62E-04	589	7.85E-04	656	7.11E-04	723	1.30E-04
389	1.80E-06	456	3.06E-04	523	4.62E-04	590	7.97E-04	657	7.00E-04	724	1.26E-04
390	1.50E-06	457	2.94E-04	524	4.63E-04	591	8.07E-04	658	6.88E-04	725	1.22E-04
391	1.40E-06	458	2.80E-04	525	4.65E-04	592	8.16E-04	659	6.79E-04	726	1.18E-04
392	1.90E-06	459	2.68E-04	526	4.67E-04	593	8.29E-04	660	6.70E-04	727	1.15E-04
393	1.70E-06	460	2.58E-04	527	4.67E-04	594	8.48E-04	661	6.57E-04	728	1.10E-04
394	1.40E-06	461	2.49E-04	528	4.66E-04	595	8.56E-04	662	6.42E-04	729	1.08E-04
395	1.60E-06	462	2.46E-04	529	4.67E-04	596	8.66E-04	663	6.28E-04	730	1.04E-04
396	2.30E-06	463	2.42E-04	530	4.69E-04	597	8.76E-04	664	6.18E-04	731	1.00E-04
397	1.60E-06	464	2.43E-04	531	4.71E-04	598	8.84E-04	665	6.06E-04	732	9.72E-05
398	2.10E-06	465	2.43E-04	532	4.72E-04	599	8.95E-04	666	5.91E-04	733	9.42E-05
399	2.10E-06	466	2.45E-04	533	4.75E-04	600	9.02E-04	667	5.79E-04	734	9.12E-05
400	2.30E-06	467	2.44E-04	534	4.75E-04	601	9.14E-04	668	5.68E-04	735	8.88E-05
401	2.60E-06	468	2.46E-04	535	4.76E-04	602	9.22E-04	669	5.55E-04	736	8.60E-05
402	2.40E-06	469	2.45E-04	536	4.79E-04	603	9.32E-04	670	5.43E-04	737	8.37E-05
403	3.00E-06	470	2.46E-04	537	4.78E-04	604	9.40E-04	671	5.32E-04	738	8.07E-05
404	3.00E-06	471	2.40E-04	538	4.82E-04	605	9.47E-04	672	5.21E-04	739	7.81E-05
405	3.80E-06	472	2.34E-04	539	4.84E-04	606	9.56E-04	673	5.08E-04	740	7.55E-05
406	3.60E-06	473	2.34E-04	540	4.87E-04	607	9.61E-04	674	4.97E-04	741	7.31E-05
407	4.50E-06	474	2.30E-04	541	4.89E-04	608	9.67E-04	675	4.87E-04	742	7.09E-05
408	4.70E-06	475	2.29E-04	542	4.91E-04	609	9.72E-04	676	4.76E-04	743	6.90E-05
409	5.20E-06	476	2.28E-04	543	4.92E-04	610	9.80E-04	677	4.65E-04	744	6.64E-05
410	5.70E-06	477	2.29E-04	544	4.94E-04	611	9.84E-04	678	4.53E-04	745	6.43E-05
411	6.70E-06	478	2.32E-04	545	4.99E-04	612	9.87E-04	679	4.42E-04	746	6.27E-05
412	7.70E-06	479	2.36E-04	546	4.98E-04	613	9.93E-04	680	4.32E-04	747	6.05E-05
413	8.10E-06	480	2.41E-04	547	5.02E-04	614	9.96E-04	681	4.23E-04	748	5.84E-05
414	9.60E-06	481	2.48E-04	548	5.05E-04	615	9.98E-04	682	4.11E-04	749	5.62E-05
415	1.07E-05	482	2.57E-04	549	5.06E-04	616	9.96E-04	683	3.99E-04	750	5.54E-05
416	1.23E-05	483	2.64E-04	550	5.10E-04	617	9.98E-04	684	3.91E-04	751	5.36E-05
417	1.35E-05	484	2.74E-04	551	5.11E-04	618	9.97E-04	685	3.81E-04	752	5.19E-05
418	1.49E-05	485	2.82E-04	552	5.16E-04	619	1.00E-03	686	3.71E-04	753	4.98E-05
419	1.64E-05	486	2.91E-04	553	5.21E-04	620	9.97E-04	687	3.63E-04	754	4.86E-05
420	1.86E-05	487	3.02E-04	554	5.25E-04	621	9.99E-04	688	3.54E-04	755	4.70E-05
421	2.06E-05	488	3.08E-04	555	5.29E-04	622	9.98E-04	689	3.45E-04	756	4.54E-05
422	2.22E-05	489	3.19E-04	556	5.35E-04	623	9.96E-04	690	3.35E-04	757	4.41E-05
423	2.45E-05	490	3.28E-04	557	5.36E-04	624	9.96E-04	691	3.27E-04	758	4.27E-05
424	2.72E-05	491	3.36E-04	558	5.37E-04	625	9.90E-04	692	3.18E-04	759	4.16E-05
425	2.89E-05	492	3.43E-04	559	5.43E-04	626	9.89E-04	693	3.10E-04	760	3.95E-05
426	3.26E-05	493	3.53E-04	560	5.45E-04	627	9.83E-04	694	3.01E-04	761	3.90E-05
427	3.60E-05	494	3.61E-04	561	5.51E-04	628	9.80E-04	695	2.93E-04	762	3.69E-05
428	3.93E-05	495	3.69E-04	562	5.56E-04	629	9.75E-04	696	2.87E-04	763	3.65E-05
429	4.26E-05	496	3.77E-04	563	5.61E-04	630	9.69E-04	697	2.77E-04	764	3.51E-05
430	4.64E-05	497	3.85E-04	564	5.66E-04	631	9.66E-04	698	2.70E-04	765	3.41E-05
431	5.01E-05	498	3.93E-04	565	5.70E-04	632	9.57E-04	699	2.63E-04	766	3.26E-05
432	5.40E-05	499	3.99E-04	566	5.77E-04	633	9.53E-04	700	2.56E-04	767	3.21E-05
433	5.93E-05	500	4.06E-04	567	5.85E-04	634	9.47E-04	701	2.49E-04	768	3.10E-05
434	6.28E-05	501	4.12E-04	568	5.89E-04	635	9.34E-04	702	2.42E-04	769	2.98E-05
435	6.72E-05	502	4.19E-04	569	5.97E-04	636	9.27E-04	703	2.35E-04	770	2.87E-05
436	7.41E-05	503	4.24E-04	570	6.05E-04	637	9.20E-04	704	2.27E-04	771	2.81E-05
437	8.06E-05	504	4.31E-04	571	6.11E-04	638	9.10E-04	705	2.22E-04	772	2.71E-05
438	8.78E-05	505	4.34E-04	572	6.21E-04	639	9.01E-04	706	2.15E-04	773	2.68E-05
439	9.68E-05	506	4.37E-04	573	6.28E-04	640	8.89E-04	707	2.08E-04	774	2.55E-05
440	1.06E-04	507	4.40E-04	574	6.35E-04	641	8.79E-04	708	2.03E-04	775	2.46E-05
441	1.16E-04	508	4.46E-04	575	6.43E-04	642	8.67E-04	709	1.97E-04	776	2.38E-05
442	1.27E-04	509	4.45E-04	576	6.50E-04	643	8.58E-04	710	1.90E-04	777	2.32E-05
443	1.43E-04	510	4.51E-04	577	6.61E-04	644	8.49E-04	711	1.86E-04	778	2.26E-05
444	1.59E-04	511	4.51E-04	578	6.71E-04	645	8.40E-04	712	1.79E-04	779	2.26E-05
445	1.76E-04	512	4.54E-04	579	6.79E-04	646	8.27E-04	713	1.75E-04	780	2.26E-05
446	1.95E-04	513	4.53E-04	580	6.86E-04	647	8.17E-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>	V1-18 @12W2700K	<b>Sample ID</b>	250728005-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	0.049	12.2	0.890
<b>NON-WORST CASE</b>	120.0	60	0.100	11.9	0.991

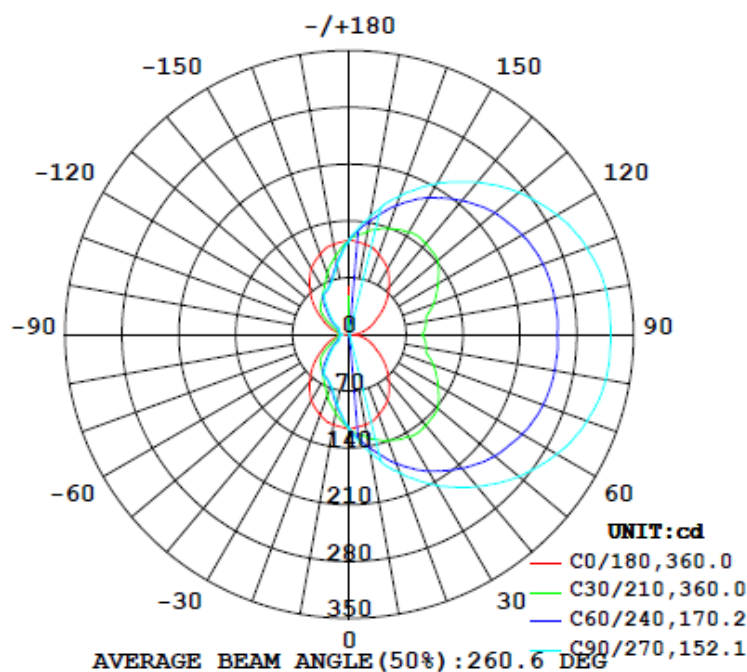
### Test Result

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°)	
1305	92.6	156.1	180.0	96.5	107.0	26.9%	B0-U4-G1

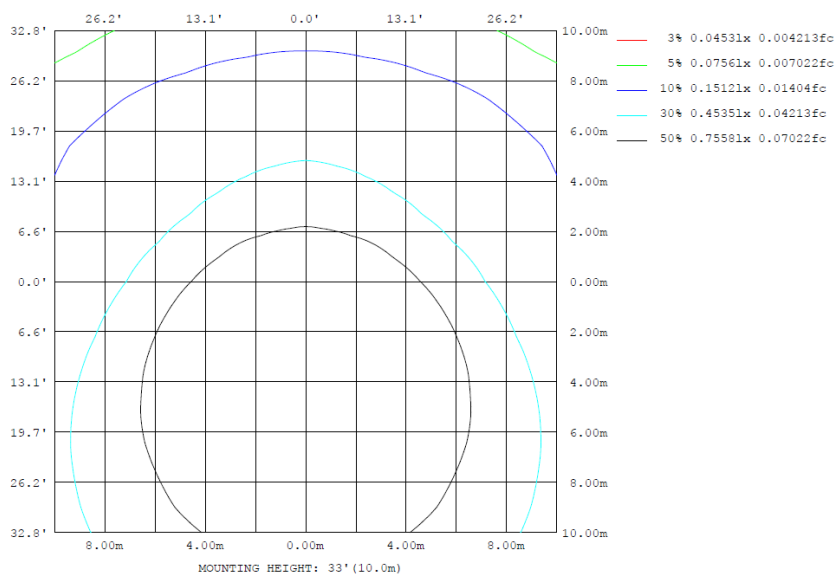
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

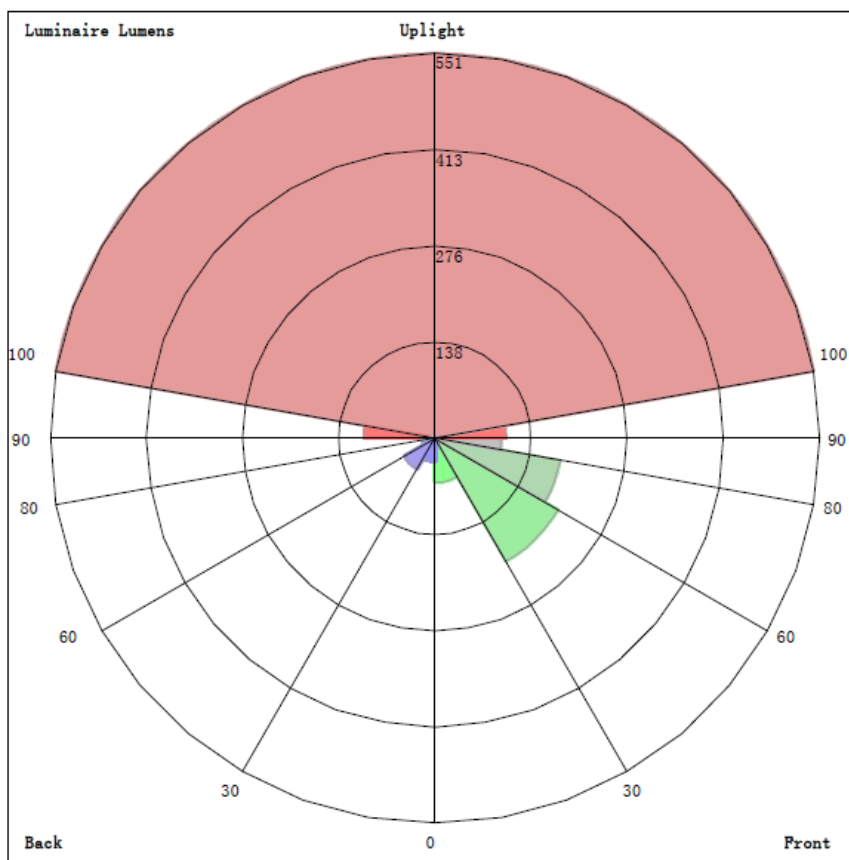
### Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	φ zone	φ total	%lum, lamp
10	112.9	135.6	147.6	135.6	112.9	92.79	86.83	92.79	0- 10	11.01	11.01	0.84,0.84
20	105.5	156.5	181.5	156.5	105.5	72.75	66.98	72.75	10- 20	32.45	43.47	3.33,3.33
30	94.38	171.8	214.7	171.8	94.38	60.03	61.24	60.03	20- 30	53.18	96.65	7.41,7.41
40	76.10	185.5	245.0	185.5	76.10	54.63	42.75	54.63	30- 40	72.43	169.1	13,13
50	57.63	190.6	272.4	190.6	57.63	36.69	27.12	36.69	40- 50	86.55	255.6	19.6,19.6
60	38.96	191.4	294.9	191.4	38.96	22.49	14.69	22.49	50- 60	95.10	350.7	26.9,26.9
70	26.53	188.6	311.4	188.6	26.53	14.50	13.64	14.50	60- 70	99.35	450.1	34.5,34.5
80	14.60	183.3	320.6	183.3	14.60	13.43	11.20	13.43	70- 80	101.2	551.3	42.2,42.2
90	3.152	178.1	321.6	178.1	3.152	12.91	11.71	12.91	80- 90	101.3	652.6	50,50
100	14.60	183.3	320.6	183.3	14.60	13.43	11.20	13.43	90-100	101.3	753.9	57.8,57.8
110	26.53	188.6	311.4	188.6	26.53	14.50	13.64	14.50	100-110	101.2	855.1	65.5,65.5
120	38.96	191.4	294.9	191.4	38.96	22.49	14.69	22.49	110-120	99.35	954.4	73.1,73.1
130	57.63	190.6	272.4	190.6	57.63	36.69	27.12	36.69	120-130	95.10	1050	80.4,80.4
140	76.10	185.5	245.0	185.5	76.10	54.63	42.75	54.63	130-140	86.55	1136	87,87
150	94.38	171.8	214.7	171.8	94.38	60.03	61.24	60.03	140-150	72.43	1209	92.6,92.6
160	105.5	156.5	181.5	156.5	105.5	72.75	66.98	72.75	150-160	53.18	1262	96.7,96.7
170	112.9	135.6	147.6	135.6	112.9	92.79	86.83	92.79	160-170	32.45	1294	99.2,99.2
180	116.6	116.6	116.6	116.6	116.6	116.6	116.6	116.6	170-180	11.01	1305	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	11.01	0-10	11.01	0.85%
10-20	32.45	0-20	43.46	3.36%
20-30	53.18	0-30	96.64	7.47%
30-40	72.43	0-40	169.07	13.06%
40-50	86.55	0-50	255.62	19.75%
50-60	95.10	0-60	350.72	27.10%
60-70	99.35	0-70	450.07	34.78%
70-80	101.18	0-80	551.25	42.60%
80-90	101.32	0-90	652.57	50.43%
90-100	101.32	0-100	753.89	58.25%
100-110	101.18	0-110	855.07	66.07%
110-120	99.35	0-120	954.42	73.75%
120-130	95.10	0-130	1049.52	81.10%
130-140	86.55	0-140	1136.07	87.79%
140-150	72.43	0-150	1208.50	93.38%
150-160	53.18	0-160	1261.68	97.49%
160-170	32.45	0-170	1294.13	100.00%
170-180	11.01	0-180	1305.14	100.85%

## 4.2 Goniophotometer Test

LCS/BUG

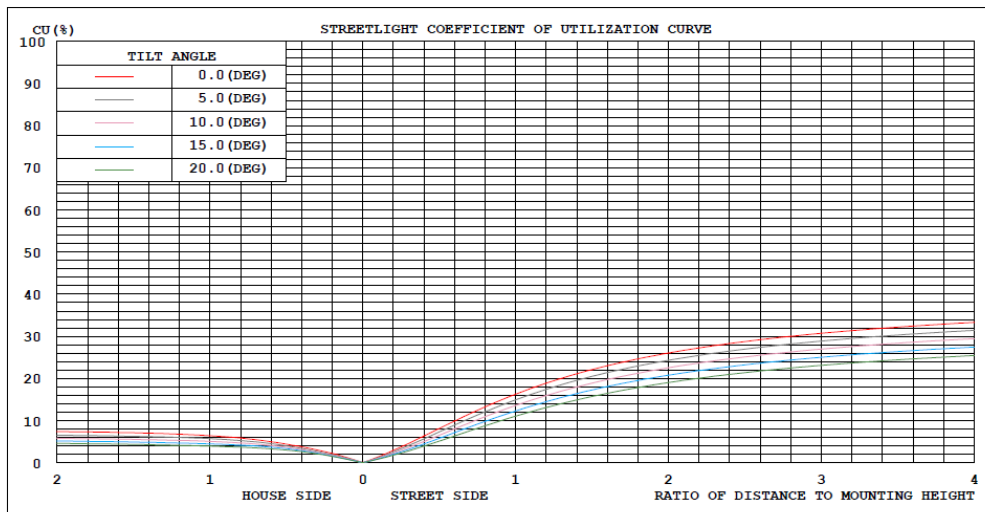


### LUMINAIRE CLASSIFICATION SYSTEM (LCS)

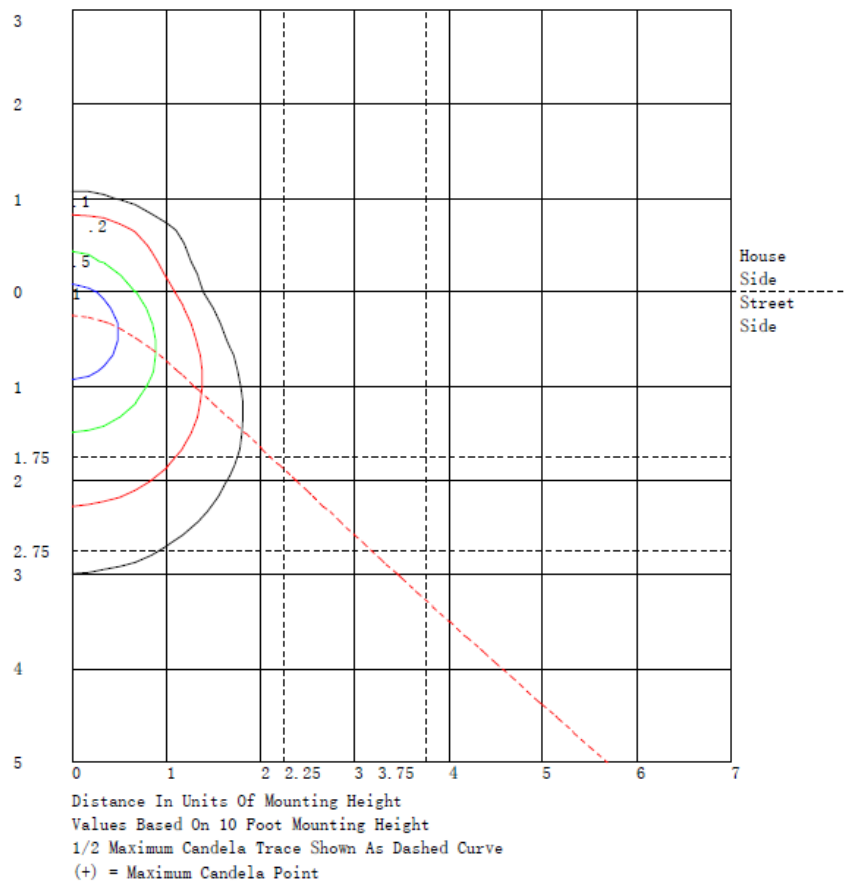
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	63.3	N.A.	4.9
FM - Front-Medium (30-60)	203.8	N.A.	15.6
FH - Front-High (60-80)	182.3	N.A.	14.0
FVH - Front-Very High (80-90)	94.8	N.A.	7.3
BL - Back-Low (0-30)	33.3	N.A.	2.6
BM - Back-Medium (30-60)	50.3	N.A.	3.9
BH - Back-High (60-80)	18.2	N.A.	1.4
BVH - Back-Very High (80-90)	6.6	N.A.	0.5
UL - Uplight-Low (90-100)	101.3	N.A.	7.8
UH - Uplight-High (100-180)	551.3	N.A.	42.2
Total	1305.2	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) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117
5	115	120	123	126	129	131	132	131	129	126	123	120	115	111	108	105	103	102	102
10	113	121	129	136	141	146	148	146	141	136	129	121	113	105	98.2	92.8	89.5	87.2	86.8
15	111	123	134	146	155	162	166	162	155	146	134	123	111	99.4	89.4	82.1	77.0	74.6	74.3
20	105	122	139	156	170	178	182	178	170	156	139	122	105	90.9	79.9	72.7	68.3	66.5	67.0
25	99.9	120	143	165	182	193	198	193	182	165	143	120	99.9	82.4	71.0	65.0	62.8	61.8	62.4
30	94.4	118	146	172	195	209	215	209	195	172	146	118	94.4	74.4	63.5	60.0	59.8	60.3	61.2
35	85.2	113	148	179	205	223	230	223	205	179	148	113	85.2	66.1	58.2	57.0	56.9	54.0	53.4
40	76.1	107	146	186	216	237	245	237	216	186	146	107	76.1	58.3	54.0	54.6	47.8	43.4	42.8
45	67.0	101	144	188	225	249	259	249	225	188	144	101	67.0	51.7	50.1	46.1	38.1	34.7	33.8
50	57.6	91.4	142	191	233	261	272	261	233	191	142	91.4	57.6	46.1	46.3	36.7	30.8	27.7	27.1
55	48.3	80.7	134	192	239	272	284	272	239	192	134	80.7	48.3	41.2	38.9	29.1	24.2	21.6	21.2
60	39.0	68.7	126	191	246	281	295	281	246	191	126	68.7	39.0	36.6	30.1	22.5	17.6	15.2	14.7
65	32.7	60.6	118	191	250	290	304	290	250	191	118	60.6	32.7	30.5	23.0	17.1	14.7	14.1	13.9
70	26.5	52.5	110	189	254	296	311	296	254	189	110	52.5	26.5	23.7	18.9	14.5	14.2	13.6	13.6
75	20.3	43.8	101	186	256	300	317	300	256	186	101	43.8	20.3	16.9	15.1	13.9	13.6	13.2	13.3
80	14.6	41.9	96.0	183	257	303	321	303	257	183	96.0	41.9	14.6	14.9	13.7	13.4	12.3	11.7	11.2
85	8.87	40.7	93.7	181	257	305	322	305	257	181	93.7	40.7	8.87	13.6	13.6	13.2	11.5	10.3	9.89
90	3.15	39.2	89.9	178	256	305	322	305	256	178	89.9	39.2	3.15	12.4	13.5	12.9	11.6	10.5	11.7
95	8.87	40.7	93.7	181	257	305	322	305	257	181	93.7	40.7	8.87	13.6	13.6	13.2	11.5	10.3	9.89
100	14.6	41.9	96.0	183	257	303	321	303	257	183	96.0	41.9	14.6	14.9	13.7	13.4	12.3	11.7	11.2
105	20.3	43.8	101	186	256	300	317	300	256	186	101	43.8	20.3	16.9	15.1	13.9	13.6	13.2	13.3
110	26.5	52.5	110	189	254	296	311	296	254	189	110	52.5	26.5	23.7	18.9	14.5	14.2	13.6	13.6
115	32.7	60.6	118	191	250	290	304	290	250	191	118	60.6	32.7	30.5	23.0	17.1	14.7	14.1	13.9
120	39.0	68.7	126	191	246	281	295	281	246	191	126	68.7	39.0	36.6	30.1	22.5	17.6	15.2	14.7
125	48.3	80.7	134	192	239	272	284	272	239	192	134	80.7	48.3	41.2	38.9	29.1	24.2	21.6	21.2
130	57.6	91.4	142	191	233	261	272	261	233	191	142	91.4	57.6	46.1	46.3	36.7	30.8	27.7	27.1
135	67.0	101	144	188	225	249	259	249	225	188	144	101	67.0	51.7	50.1	46.1	38.1	34.7	33.8
140	76.1	107	146	186	216	237	245	237	216	186	146	107	76.1	58.3	54.0	54.6	47.8	43.4	42.8
145	85.2	113	148	179	205	223	230	223	205	179	148	113	85.2	66.1	58.2	57.0	56.9	54.0	53.4
150	94.4	118	146	172	195	209	215	209	195	172	146	118	94.4	74.4	63.5	60.0	59.8	60.3	61.2
155	99.9	120	143	165	182	193	198	193	182	165	143	120	99.9	82.4	71.0	65.0	62.8	61.8	62.4
160	105	122	139	156	170	178	182	178	170	156	139	122	105	90.9	79.9	72.7	68.3	66.5	67.0
165	111	123	134	146	155	162	166	162	155	146	134	123	111	99.4	89.4	82.1	77.0	74.6	74.3
170	113	121	129	136	141	146	148	146	141	136	129	121	113	105	98.2	92.8	89.5	87.2	86.8
175	115	120	123	126	129	131	132	131	129	126	123	120	115	111	108	105	103	102	102
180	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117	117

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	117	117	117	117	117														
5	102	103	105	108	111														
10	87.2	89.5	92.8	98.2	105														
15	74.6	77.0	82.1	89.4	99.4														
20	66.5	68.3	72.7	79.9	90.9														
25	61.8	62.8	65.0	71.0	82.4														
30	60.3	59.8	60.0	63.5	74.4														
35	54.0	56.9	57.0	58.2	66.1														
40	43.4	47.8	54.6	54.0	58.3														
45	34.7	38.1	46.1	50.1	51.7														
50	27.7	30.8	36.7	46.3	46.1														
55	21.6	24.2	29.1	38.9	41.2														
60	15.2	17.6	22.5	30.1	36.6														
65	14.1	14.7	17.1	23.0	30.5														
70	13.6	14.2	14.5	18.9	23.7														
75	13.2	13.6	13.9	15.1	16.9														
80	11.7	12.3	13.4	13.7	14.9														
85	10.3	11.5	13.2	13.6	13.6														
90	10.5	11.6	12.9	13.5	12.4														
95	10.3	11.5	13.2	13.6	13.6														
100	11.7	12.3	13.4	13.7	14.9														
105	13.2	13.6	13.9	15.1	16.9														
110	13.6	14.2	14.5	18.9	23.7														
115	14.1	14.7	17.1	23.0	30.5														
120	15.2	17.6	22.5	30.1	36.6														
125	21.6	24.2	29.1	38.9	41.2														
130	27.7	30.8	36.7	46.3	46.1														
135	34.7	38.1	46.1	50.1	51.7														
140	43.4	47.8	54.6	54.0	58.3														
145	54.0	56.9	57.0	58.2	66.1														
150	60.3	59.8	60.0	63.5	74.4														
155	61.8	62.8	65.0	71.0	82.4														
160	66.5	68.3	72.7	79.9	90.9														
165	74.6	77.0	82.1	89.4	99.4														
170	87.2	89.5	92.8	98.2	105														
175	102	103	105	108	111														
180	117	117	117	117	117														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	V1-18 @12W2700K	<b>Sample ID</b>	250728005-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	0.100	11.9	0.991	6.01
277.0	60	0.049	12.2	0.890	24.80



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