

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

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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		979
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	115.2
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		8.5
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002	N/A	120V	7.36
		ANSI C82-77-10:2020		277V	43.90
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002	N/A	120V	0.985
		ANSI C82-77-10:2020		277V	0.800
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4021
			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		26.7%
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		0.038
(Goniophotometer – Section 4.2)			Non-Worst Case		0.069
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		8.5
(Goniophotometer – Section 4.2)			Non-Worst Case		8.1

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-10	V1-18B @8W4000K	-	250728006-S1
2	Goniophotometer Test	2025-08-10	V1-18B @8W4000K	-	250728006-S1
3	THD and PF Test	2025-08-10	V1-18B @8W4000K	-	250728006-S1

Remark (If any):

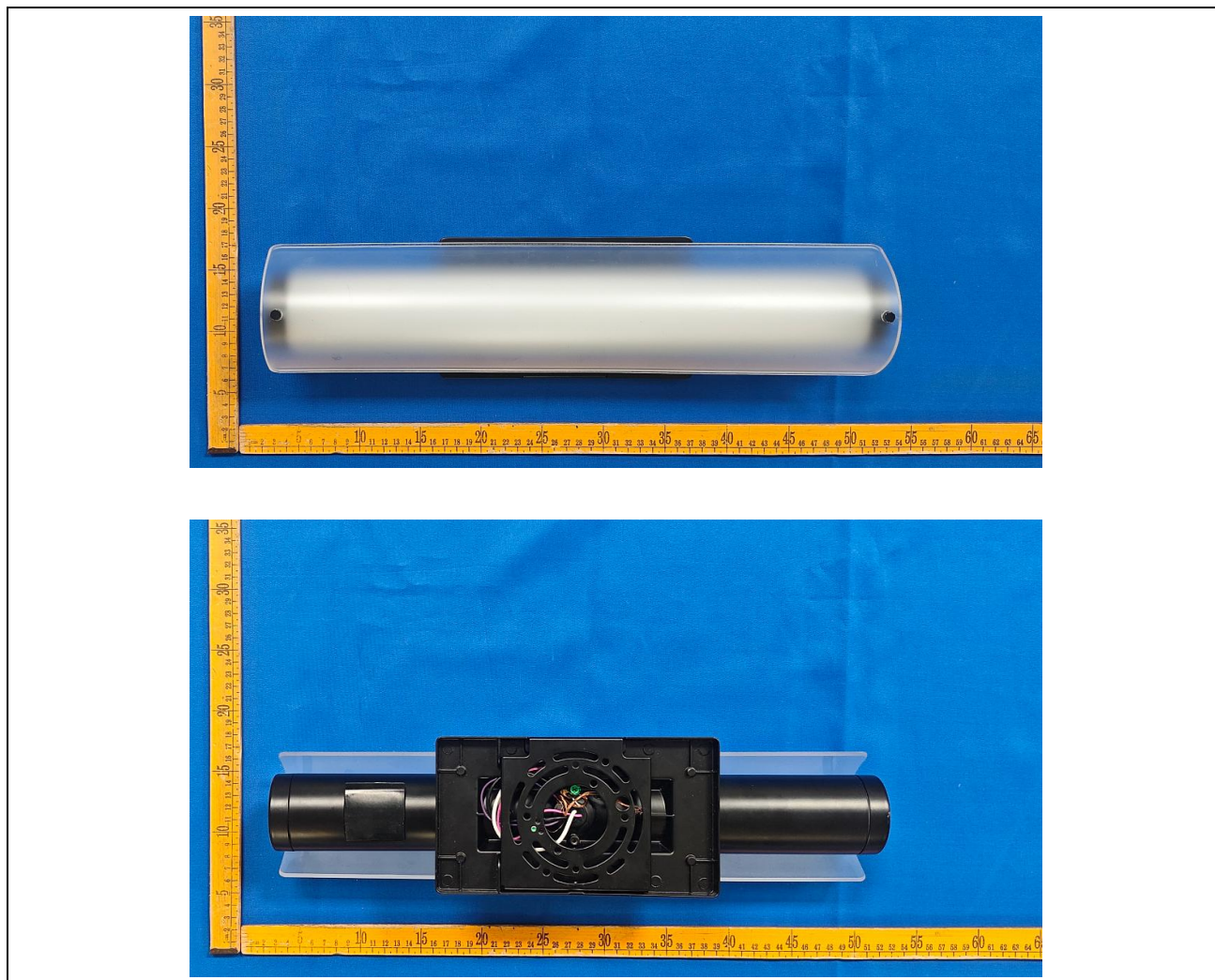
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3.0 Product Description

Luminaire Description: Model No. V1-18B @8W4000K, 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.	V1-18B @8W4000K	Sample ID	250728006-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

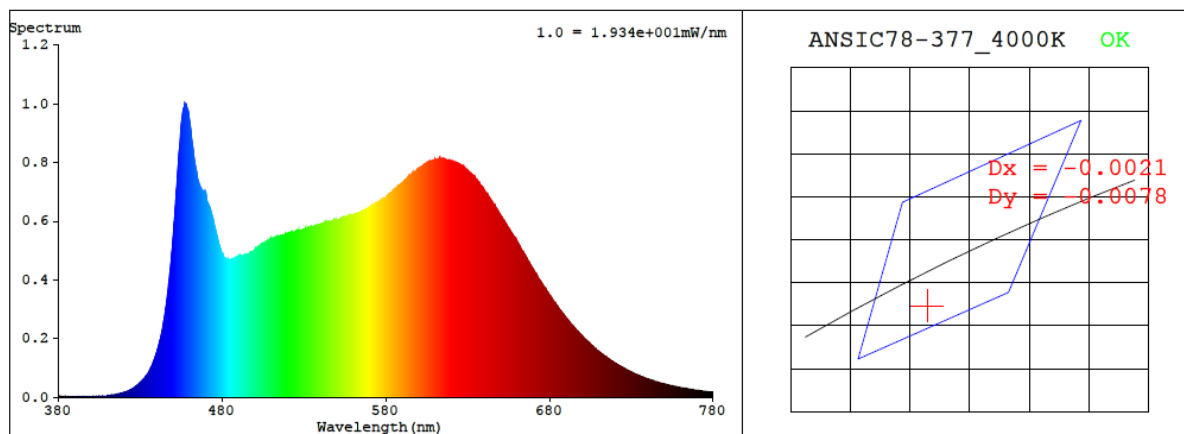
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.069	8.1	0.985
277.0	60	0.038	8.5	0.800

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4021	91.8	83	-0.0031	4.4	87	95	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3774$ $y = 0.3684$ / $u' = 0.2265$ $v' = 0.4974$ ($duv = -3.10 \times 10^{-3}$)

CCT= 4021K Prcp WL: Ld=580.9nm Purity=23.8%

Peak WL: $\lambda_p=457\text{nm}$ FWHM: $=30.1\text{nm}$ Ratio: R=20.9% G=73.6% B=5.5%

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

EEI: 0.11955 A+

R1 =96 R2 =94 R3 =92 R4 =91 R5 =94 R6 =90 R7 =88

R8 =88 R9 =83 R10=89 R11=96 R12=74 R13=95 R14=96 R15=95

4.1 Integrating Sphere Test

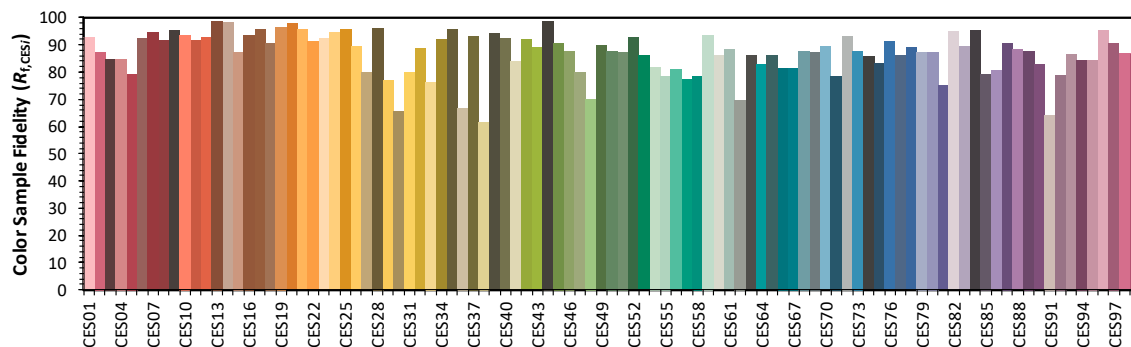
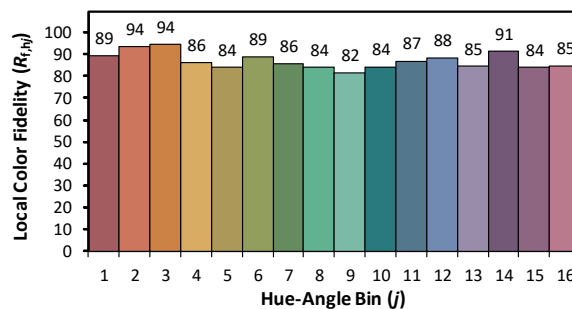
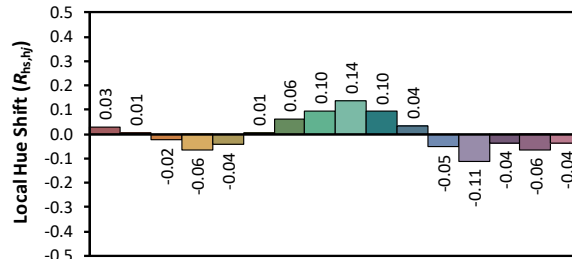
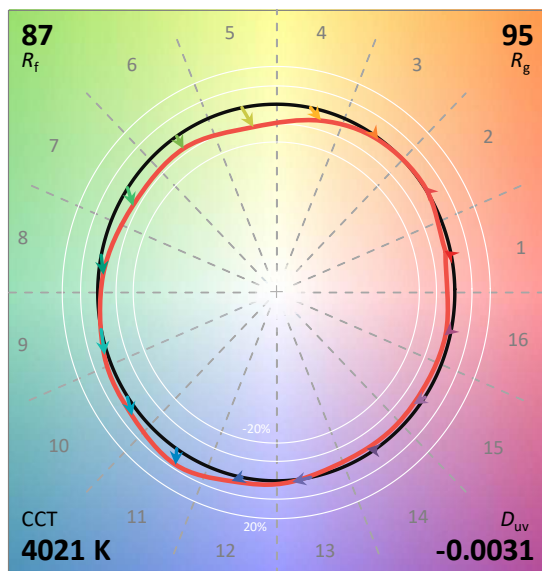
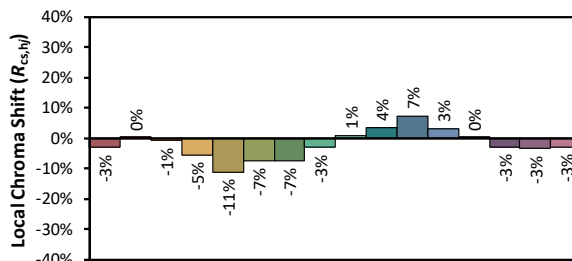
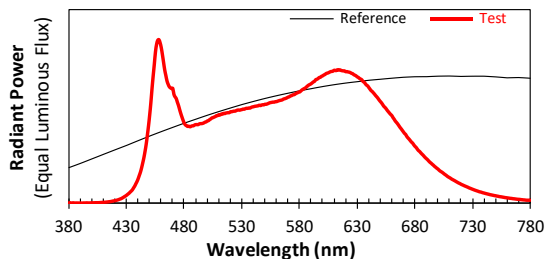
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/8/21

Model: V1-18B @8W4000K



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

x 0.3774
 y 0.3682
 u' 0.2265
 v' 0.4973

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	2.80E-06	447	3.62E-04	514	5.49E-04	581	6.85E-04	648	6.40E-04	715	1.36E-04
381	3.50E-06	448	4.17E-04	515	5.47E-04	582	6.91E-04	649	6.30E-04	716	1.32E-04
382	1.60E-06	449	4.74E-04	516	5.51E-04	583	6.96E-04	650	6.21E-04	717	1.28E-04
383	2.60E-06	450	5.40E-04	517	5.52E-04	584	7.00E-04	651	6.13E-04	718	1.24E-04
384	2.90E-06	451	6.13E-04	518	5.53E-04	585	7.04E-04	652	6.03E-04	719	1.21E-04
385	1.80E-06	452	6.99E-04	519	5.53E-04	586	7.10E-04	653	5.92E-04	720	1.16E-04
386	2.00E-06	453	7.76E-04	520	5.58E-04	587	7.16E-04	654	5.85E-04	721	1.13E-04
387	2.00E-06	454	8.48E-04	521	5.59E-04	588	7.22E-04	655	5.77E-04	722	1.10E-04
388	1.90E-06	455	9.23E-04	522	5.60E-04	589	7.25E-04	656	5.67E-04	723	1.07E-04
389	1.70E-06	456	9.71E-04	523	5.62E-04	590	7.29E-04	657	5.59E-04	724	1.04E-04
390	2.00E-06	457	9.95E-04	524	5.62E-04	591	7.35E-04	658	5.50E-04	725	1.01E-04
391	1.50E-06	458	9.98E-04	525	5.65E-04	592	7.41E-04	659	5.42E-04	726	9.78E-05
392	1.80E-06	459	9.80E-04	526	5.68E-04	593	7.45E-04	660	5.35E-04	727	9.42E-05
393	2.30E-06	460	9.50E-04	527	5.69E-04	594	7.54E-04	661	5.23E-04	728	9.16E-05
394	2.00E-06	461	9.08E-04	528	5.68E-04	595	7.57E-04	662	5.13E-04	729	8.87E-05
395	2.80E-06	462	8.61E-04	529	5.70E-04	596	7.61E-04	663	5.02E-04	730	8.58E-05
396	2.60E-06	463	8.14E-04	530	5.72E-04	597	7.67E-04	664	4.94E-04	731	8.31E-05
397	2.20E-06	464	7.80E-04	531	5.75E-04	598	7.69E-04	665	4.85E-04	732	8.04E-05
398	2.30E-06	465	7.47E-04	532	5.74E-04	599	7.75E-04	666	4.75E-04	733	7.79E-05
399	2.90E-06	466	7.26E-04	533	5.78E-04	600	7.78E-04	667	4.64E-04	734	7.55E-05
400	3.00E-06	467	7.11E-04	534	5.80E-04	601	7.83E-04	668	4.55E-04	735	7.31E-05
401	3.10E-06	468	7.04E-04	535	5.79E-04	602	7.86E-04	669	4.46E-04	736	7.04E-05
402	3.40E-06	469	7.00E-04	536	5.81E-04	603	7.92E-04	670	4.36E-04	737	6.90E-05
403	3.70E-06	470	7.01E-04	537	5.81E-04	604	7.94E-04	671	4.27E-04	738	6.67E-05
404	3.80E-06	471	6.65E-04	538	5.85E-04	605	7.96E-04	672	4.20E-04	739	6.43E-05
405	3.70E-06	472	6.50E-04	539	5.88E-04	606	8.00E-04	673	4.08E-04	740	6.27E-05
406	4.00E-06	473	6.39E-04	540	5.89E-04	607	8.03E-04	674	3.99E-04	741	6.05E-05
407	4.50E-06	474	6.17E-04	541	5.91E-04	608	8.05E-04	675	3.91E-04	742	5.88E-05
408	5.10E-06	475	5.96E-04	542	5.92E-04	609	8.06E-04	676	3.83E-04	743	5.70E-05
409	5.50E-06	476	5.71E-04	543	5.94E-04	610	8.12E-04	677	3.74E-04	744	5.53E-05
410	6.10E-06	477	5.47E-04	544	5.95E-04	611	8.10E-04	678	3.67E-04	745	5.32E-05
411	6.70E-06	478	5.26E-04	545	5.99E-04	612	8.10E-04	679	3.57E-04	746	5.18E-05
412	7.10E-06	479	5.06E-04	546	5.96E-04	613	8.16E-04	680	3.48E-04	747	5.03E-05
413	8.00E-06	480	4.89E-04	547	5.99E-04	614	8.12E-04	681	3.41E-04	748	4.87E-05
414	8.80E-06	481	4.78E-04	548	6.01E-04	615	8.14E-04	682	3.32E-04	749	4.72E-05
415	9.90E-06	482	4.73E-04	549	6.01E-04	616	8.11E-04	683	3.23E-04	750	4.60E-05
416	1.07E-05	483	4.69E-04	550	6.04E-04	617	8.09E-04	684	3.17E-04	751	4.44E-05
417	1.21E-05	484	4.71E-04	551	6.04E-04	618	8.08E-04	685	3.09E-04	752	4.32E-05
418	1.38E-05	485	4.66E-04	552	6.07E-04	619	8.08E-04	686	3.01E-04	753	4.15E-05
419	1.50E-05	486	4.70E-04	553	6.10E-04	620	8.03E-04	687	2.95E-04	754	4.03E-05
420	1.65E-05	487	4.73E-04	554	6.13E-04	621	8.03E-04	688	2.86E-04	755	3.94E-05
421	1.81E-05	488	4.73E-04	555	6.15E-04	622	8.01E-04	689	2.79E-04	756	3.80E-05
422	2.03E-05	489	4.78E-04	556	6.16E-04	623	8.00E-04	690	2.72E-04	757	3.68E-05
423	2.23E-05	490	4.80E-04	557	6.17E-04	624	7.97E-04	691	2.66E-04	758	3.53E-05
424	2.55E-05	491	4.80E-04	558	6.17E-04	625	7.93E-04	692	2.58E-04	759	3.44E-05
425	2.78E-05	492	4.80E-04	559	6.20E-04	626	7.91E-04	693	2.51E-04	760	3.33E-05
426	3.15E-05	493	4.84E-04	560	6.20E-04	627	7.85E-04	694	2.45E-04	761	3.24E-05
427	3.57E-05	494	4.86E-04	561	6.23E-04	628	7.81E-04	695	2.39E-04	762	3.12E-05
428	4.03E-05	495	4.86E-04	562	6.26E-04	629	7.77E-04	696	2.33E-04	763	3.03E-05
429	4.47E-05	496	4.88E-04	563	6.28E-04	630	7.71E-04	697	2.26E-04	764	2.96E-05
430	4.96E-05	497	4.91E-04	564	6.29E-04	631	7.68E-04	698	2.20E-04	765	2.82E-05
431	5.56E-05	498	4.95E-04	565	6.31E-04	632	7.62E-04	699	2.14E-04	766	2.76E-05
432	6.10E-05	499	4.97E-04	566	6.36E-04	633	7.58E-04	700	2.09E-04	767	2.67E-05
433	6.81E-05	500	5.02E-04	567	6.38E-04	634	7.53E-04	701	2.02E-04	768	2.56E-05
434	7.48E-05	501	5.04E-04	568	6.40E-04	635	7.43E-04	702	1.96E-04	769	2.48E-05
435	8.24E-05	502	5.11E-04	569	6.43E-04	636	7.39E-04	703	1.92E-04	770	2.42E-05
436	9.39E-05	503	5.15E-04	570	6.48E-04	637	7.30E-04	704	1.87E-04	771	2.38E-05
437	1.05E-04	504	5.21E-04	571	6.50E-04	638	7.21E-04	705	1.82E-04	772	2.26E-05
438	1.19E-04	505	5.23E-04	572	6.55E-04	639	7.16E-04	706	1.76E-04	773	2.20E-05
439	1.33E-04	506	5.27E-04	573	6.57E-04	640	7.07E-04	707	1.72E-04	774	2.10E-05
440	1.50E-04	507	5.30E-04	574	6.61E-04	641	6.97E-04	708	1.66E-04	775	2.06E-05
441	1.71E-04	508	5.35E-04	575	6.62E-04	642	6.88E-04	709	1.61E-04	776	1.97E-05
442	1.91E-04	509	5.35E-04	576	6.66E-04	643	6.82E-04	710	1.57E-04	777	1.90E-05
443	2.17E-04	510	5.41E-04	577	6.71E-04	644	6.74E-04	711	1.53E-04	778	1.90E-05
444	2.48E-04	511	5.39E-04	578	6.73E-04	645	6.66E-04	712	1.47E-04	779	1.90E-05
445	2.80E-04	512	5.45E-04	579	6.78E-04	646	6.57E-04	713	1.44E-04	780	1.90E-05
446	3.19E-04	513	5.43E-04	580	6.79E-04	647	6.49E-04	714	1.40E-04	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	V1-18B @8W4000K	Sample ID	250728006-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 $25\pm1^{\circ}\text{C}$, 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	0.038	8.5	0.800
NON-WORST CASE	120.0	60	0.069	8.1	0.985

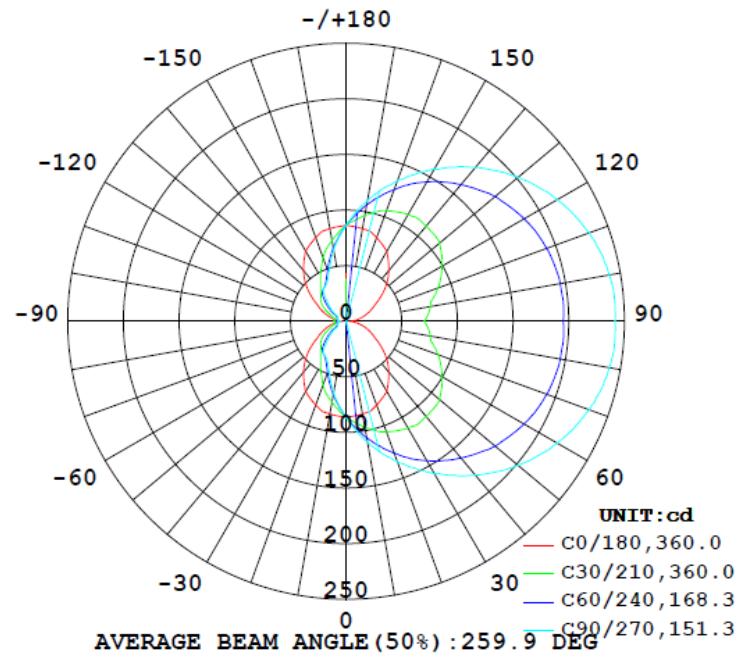
Test Result

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°)	
979	88.9	156.6	180.0	98.3	115.2	26.7%	B0-U3-G1

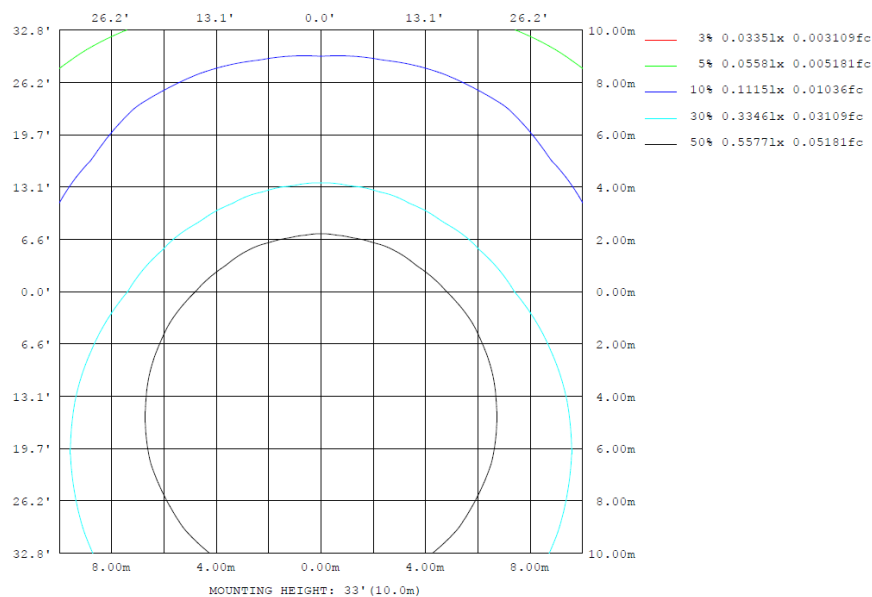
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

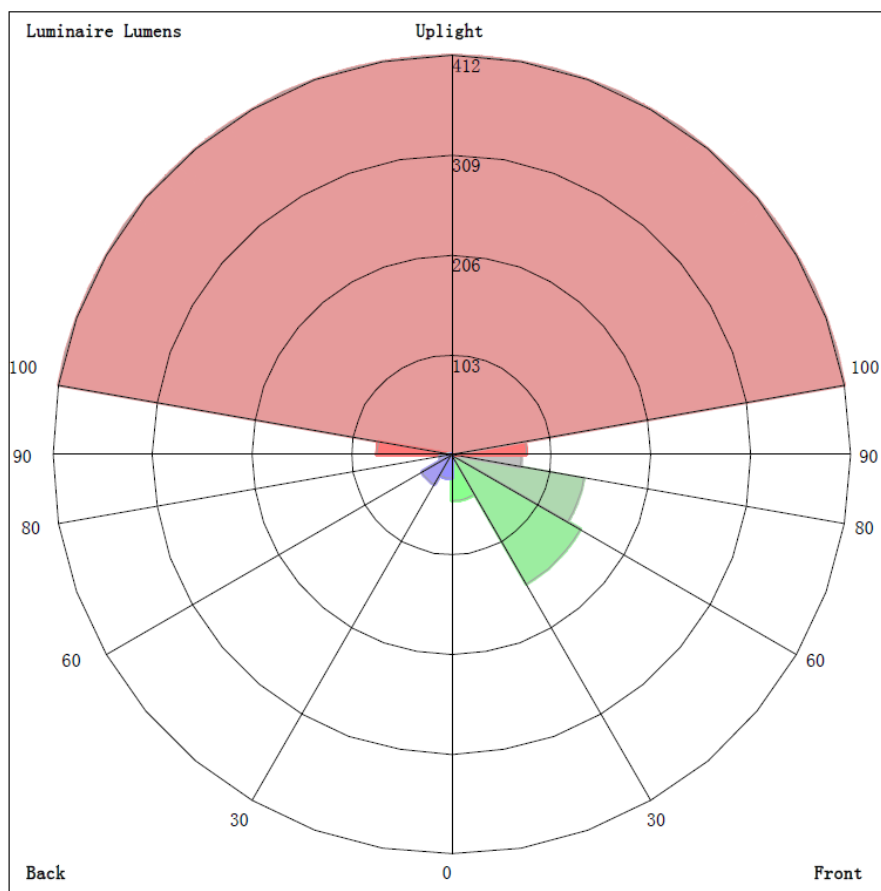
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	84.66	102.0	110.0	102.0	84.66	69.98	65.04	69.98	0- 10	8.220	8.220	0.84,0.84
20	80.21	118.0	134.4	118.0	80.21	54.34	46.14	54.34	10- 20	24.33	32.55	3.32,3.32
30	72.99	129.1	158.4	129.1	72.99	39.98	37.07	39.98	20- 30	39.33	71.88	7.34,7.34
40	59.61	138.8	180.6	138.8	59.61	33.99	30.27	33.99	30- 40	53.36	125.2	12.8,12.8
50	45.23	144.0	201.3	144.0	45.23	27.05	18.09	27.05	40- 50	64.50	189.7	19.4,19.4
60	29.86	146.2	218.8	146.2	29.86	16.32	8.680	16.32	50- 60	71.33	261.1	26.7,26.7
70	20.07	145.3	232.3	145.3	20.07	9.356	7.965	9.356	60- 70	74.85	335.9	34.3,34.3
80	11.11	141.8	239.9	141.8	11.11	9.237	6.895	9.237	70- 80	76.58	412.5	42.1,42.1
90	2.996	137.9	241.3	137.9	2.996	9.989	7.711	9.989	80- 90	77.24	489.7	50,50
100	11.11	141.8	239.9	141.8	11.11	9.237	6.895	9.237	90-100	77.24	567.0	57.9,57.9
110	20.07	145.3	232.3	145.3	20.07	9.356	7.965	9.356	100-110	76.58	643.5	65.7,65.7
120	29.86	146.2	218.8	146.2	29.86	16.32	8.680	16.32	110-120	74.85	718.4	73.3,73.3
130	45.23	144.0	201.3	144.0	45.23	27.05	18.09	27.05	120-130	71.33	789.7	80.6,80.6
140	59.61	138.8	180.6	138.8	59.61	33.99	30.27	33.99	130-140	64.50	854.2	87.2,87.2
150	72.99	129.1	158.4	129.1	72.99	39.98	37.07	39.98	140-150	53.36	907.6	92.7,92.7
160	80.21	118.0	134.4	118.0	80.21	54.34	46.14	54.34	150-160	39.33	946.9	96.7,96.7
170	84.66	102.0	110.0	102.0	84.66	69.98	65.04	69.98	160-170	24.33	971.2	99.2,99.2
180	86.34	86.34	86.34	86.34	86.34	86.34	86.34	86.34	170-180	8.220	979.5	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	8.22	0-10	8.22	0.85%
10-20	24.33	0-20	32.55	3.35%
20-30	39.33	0-30	71.88	7.40%
30-40	53.36	0-40	125.24	12.89%
40-50	64.50	0-50	189.74	19.54%
50-60	71.33	0-60	261.07	26.88%
60-70	74.85	0-70	335.92	34.59%
70-80	76.58	0-80	412.50	42.47%
80-90	77.24	0-90	489.74	50.42%
90-100	77.24	0-100	566.98	58.38%
100-110	76.58	0-110	643.56	66.26%
110-120	74.85	0-120	718.41	73.97%
120-130	71.33	0-130	789.74	81.31%
130-140	64.50	0-140	854.24	87.95%
140-150	53.36	0-150	907.60	93.45%
150-160	39.33	0-160	946.93	97.50%
160-170	24.33	0-170	971.26	100.00%
170-180	8.22	0-180	979.48	100.85%

4.2 Goniophotometer Test

LCS/BUG

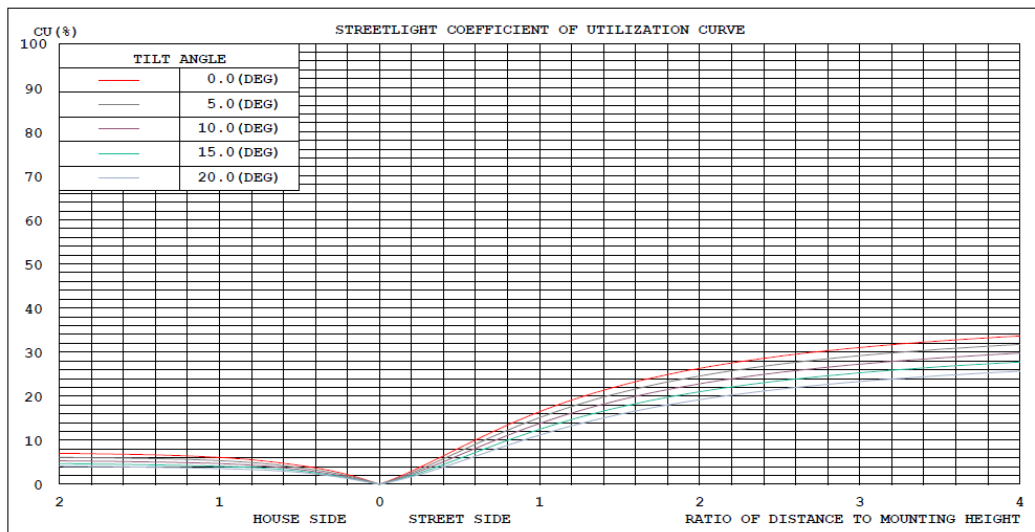


LUMINAIRE CLASSIFICATION SYSTEM (LCS)

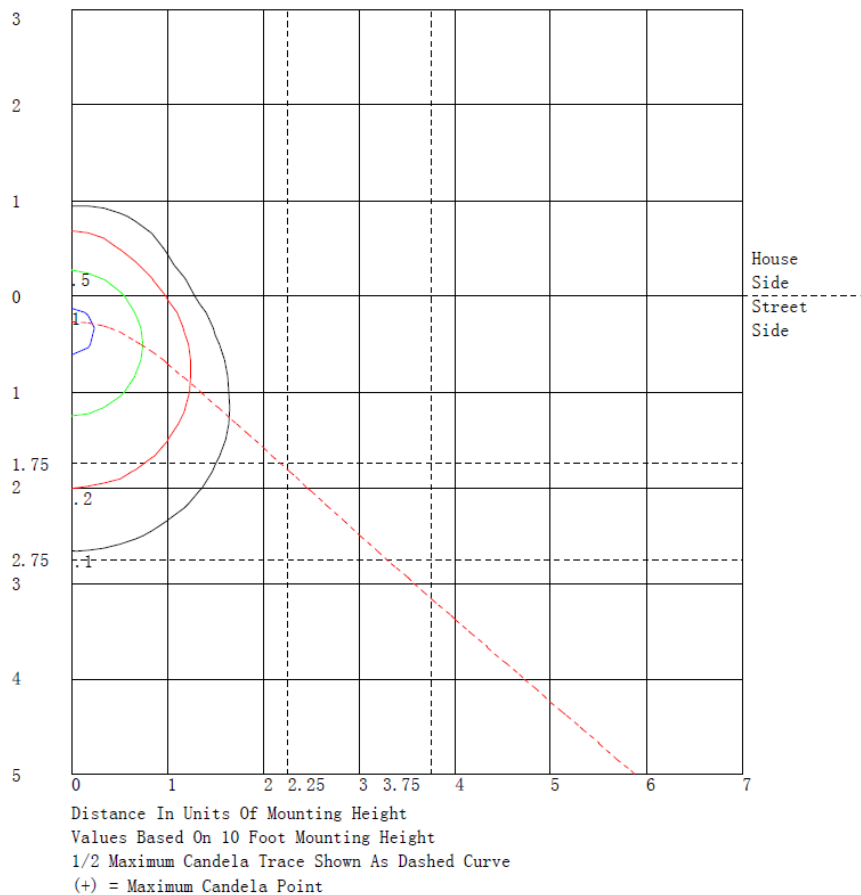
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	47.5	N.A.	4.9
FM - Front-Medium (30-60)	154.0	N.A.	15.7
FH - Front-High (60-80)	138.9	N.A.	14.2
FVH - Front-Very High (80-90)	72.3	N.A.	7.4
BL - Back-Low (0-30)	24.4	N.A.	2.5
BM - Back-Medium (30-60)	35.1	N.A.	3.6
BH - Back-High (60-80)	12.5	N.A.	1.3
BVH - Back-Very High (80-90)	4.9	N.A.	0.5
UL - Uplight-Low (90-100)	77.2	N.A.	7.9
UH - Uplight-High (100-180)	412.5	N.A.	42.1
Total	979.3	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)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
y (DEG)	0	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3
5	85.5	88.7	91.3	94.0	96.1	97.6	98.2	97.6	96.1	94.0	91.3	88.7	85.5	82.9	80.1	78.1	76.6	75.7	75.5
10	84.7	90.5	96.8	102	106	109	110	109	106	102	96.8	90.5	84.7	78.9	73.7	70.0	67.2	65.4	65.0
15	83.8	92.9	102	110	116	121	123	121	116	110	102	92.9	83.8	75.5	68.0	61.9	57.6	55.2	54.8
20	80.2	93.0	106	118	126	132	134	132	126	118	106	93.0	80.2	69.1	60.9	54.3	49.1	46.3	46.1
25	76.6	92.3	109	124	136	143	146	143	136	124	109	92.3	76.6	63.4	53.1	46.3	42.2	40.1	40.0
30	73.0	91.7	111	129	145	154	158	154	145	129	111	91.7	73.0	57.6	46.3	40.0	37.9	37.0	37.1
35	66.3	88.6	113	134	153	165	169	165	153	134	113	88.6	66.3	50.3	40.3	36.1	35.6	35.7	35.6
40	59.6	85.0	112	139	160	175	181	175	160	139	112	85.0	59.6	43.2	35.7	34.0	33.7	31.4	30.3
45	52.9	81.4	111	141	167	186	191	186	167	141	111	81.4	52.9	37.0	32.3	31.5	27.9	24.7	23.4
50	45.2	74.4	109	144	175	194	201	194	175	144	109	74.4	45.2	32.2	29.9	27.1	21.8	19.1	18.1
55	37.5	66.0	105	146	180	202	210	202	180	146	105	66.0	37.5	28.0	26.6	21.2	16.9	14.5	13.8
60	29.9	57.3	99.6	146	185	210	219	210	185	146	99.6	57.3	29.9	24.2	22.2	16.3	11.8	9.43	8.68
65	25.0	50.2	94.0	146	189	217	226	217	189	146	94.0	50.2	25.0	20.8	17.4	11.6	8.90	8.31	8.21
70	20.1	42.7	87.8	145	192	222	232	222	192	145	87.8	42.7	20.1	17.2	13.9	9.36	8.63	8.22	7.97
75	15.2	35.0	80.9	144	194	226	237	226	194	144	80.9	35.0	15.2	13.5	10.8	9.24	8.53	7.78	7.57
80	11.1	33.0	76.8	142	195	228	240	228	195	142	76.8	33.0	11.1	12.4	10.0	9.24	8.29	7.53	6.89
85	7.06	31.5	74.0	141	196	230	242	230	196	141	74.0	31.5	7.06	11.7	10.6	9.53	8.40	7.24	6.22
90	3.00	29.6	70.1	138	195	230	241	230	195	138	70.1	29.6	3.00	11.1	11.2	9.99	8.87	7.85	7.71
95	7.06	31.5	74.0	141	196	230	242	230	196	141	74.0	31.5	7.06	11.7	10.6	9.53	8.40	7.24	6.22
100	11.1	33.0	76.8	142	195	228	240	228	195	142	76.8	33.0	11.1	12.4	10.0	9.24	8.29	7.53	6.89
105	15.2	35.0	80.9	144	194	226	237	226	194	144	80.9	35.0	15.2	13.5	10.8	9.24	8.53	7.78	7.57
110	20.1	42.7	87.8	145	192	222	232	222	192	145	87.8	42.7	20.1	17.2	13.9	9.36	8.63	8.22	7.97
115	25.0	50.2	94.0	146	189	217	226	217	189	146	94.0	50.2	25.0	20.8	17.4	11.6	8.90	8.31	8.21
120	29.9	57.3	99.6	146	185	210	219	210	185	146	99.6	57.3	29.9	24.2	22.2	16.3	11.8	9.43	8.68
125	37.5	66.0	105	146	180	202	210	202	180	146	105	66.0	37.5	28.0	26.6	21.2	16.9	14.5	13.8
130	45.2	74.4	109	144	175	194	201	194	175	144	109	74.4	45.2	32.2	29.9	27.1	21.8	19.1	18.1
135	52.9	81.4	111	141	167	186	191	186	167	141	111	81.4	52.9	37.0	32.3	31.5	27.9	24.7	23.4
140	59.6	85.0	112	139	160	175	181	175	160	139	112	85.0	59.6	43.2	35.7	34.0	33.7	31.4	30.3
145	66.3	88.6	113	134	153	165	169	165	153	134	113	88.6	66.3	50.3	40.3	36.1	35.6	35.7	35.6
150	73.0	91.7	111	129	145	154	158	154	145	129	111	91.7	73.0	57.6	46.3	40.0	37.9	37.0	37.1
155	76.6	92.3	109	124	136	143	146	143	136	124	109	92.3	76.6	63.4	53.1	46.3	42.2	40.1	40.0
160	80.2	93.0	106	118	126	132	134	132	126	118	106	93.0	80.2	69.1	60.9	54.3	49.1	46.3	46.1
165	83.8	92.9	102	110	116	121	123	121	116	110	102	92.9	83.8	75.5	68.0	61.9	57.6	55.2	54.8
170	84.7	90.5	96.8	102	106	109	110	109	106	102	96.8	90.5	84.7	78.9	73.7	70.0	67.2	65.4	65.0
175	85.5	88.7	91.3	94.0	96.1	97.6	98.2	97.6	96.1	94.0	91.3	88.7	85.5	82.9	80.1	78.1	76.6	75.7	75.5
180	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3	86.3

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
y (DEG)	0	86.3	86.3	86.3	86.3														
5	75.7	76.6	78.1	80.1	82.9														
10	65.4	67.2	70.0	73.7	78.9														
15	55.2	57.6	61.9	68.0	75.5														
20	46.3	49.1	54.3	60.9	69.1														
25	40.1	42.2	46.3	53.1	63.4														
30	37.0	37.9	40.0	46.3	57.6														
35	35.7	35.6	36.1	40.3	50.3														
40	31.4	33.7	34.0	35.7	43.2														
45	24.7	27.9	31.5	32.3	37.0														
50	19.1	21.8	27.1	29.9	32.2														
55	14.5	16.9	21.2	26.6	28.0														
60	9.43	11.8	16.3	22.2	24.2														
65	8.31	8.90	11.6	17.4	20.8														
70	8.22	8.63	9.36	13.9	17.2														
75	7.78	8.53	9.24	10.8	13.5														
80	7.53	8.29	9.24	10.0	12.4														
85	7.24	8.40	9.53	10.6	11.7														
90	7.85	8.87	9.99	11.2	11.1														
95	7.24	8.40	9.53	10.6	11.7														
100	7.53	8.29	9.24	10.0	12.4														
105	7.78	8.53	9.24	10.8	13.5														
110	8.22	8.63	9.36	13.9	17.2														
115	8.31	8.90	11.6	17.4	20.8														
120	9.43	11.8	16.3	22.2	24.2														
125	14.5	16.9	21.2	26.6	28.0														
130	19.1	21.8	27.1	29.9	32.2														
135	24.7	27.9	31.5	32.3	37.0														
140	31.4	33.7	34.0	35.7	43.2														
145	35.7	35.6	36.1	40.3	50.3														
150	37.0	37.9	40.0	46.3	57.6														
155	40.1	42.2	46.3	53.1	63.4														
160	46.3	49.1	54.3	60.9	69.1														
165	55.2	57.6	61.9	68.0	75.5														
170	65.4	67.2	70.0	73.7	78.9														
175	75.7	76.6	78.1	80.1	82.9														
180	86.3	86.3	86.3	86.3	86.3														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	V1-18B @8W4000K	Sample ID	250728006-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	0.069	8.1	0.985	7.36
277.0	60	0.038	8.5	0.800	43.90

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*****