

## 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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Technical Lead: Vincent Yuan

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		886
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	103.0
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		8.6
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	7.25
				277V	43.12
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.986
				277V	0.803
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	2725±145	2760
			4 steps	2725±83	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		93.3
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		64
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		0.039
(Goniophotometer – Section 4.2)			Non-Worst Case		0.069
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		8.6
(Goniophotometer – Section 4.2)			Non-Worst Case		8.2

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-10	V1-18B @8W2700K	-	250728006-S1
2	Goniophotometer Test	2025-08-10	V1-18B @8W2700K	-	250728006-S1
3	THD and PF Test	2025-08-10	V1-18B @8W2700K	-	250728006-S1

### Remark (If any):

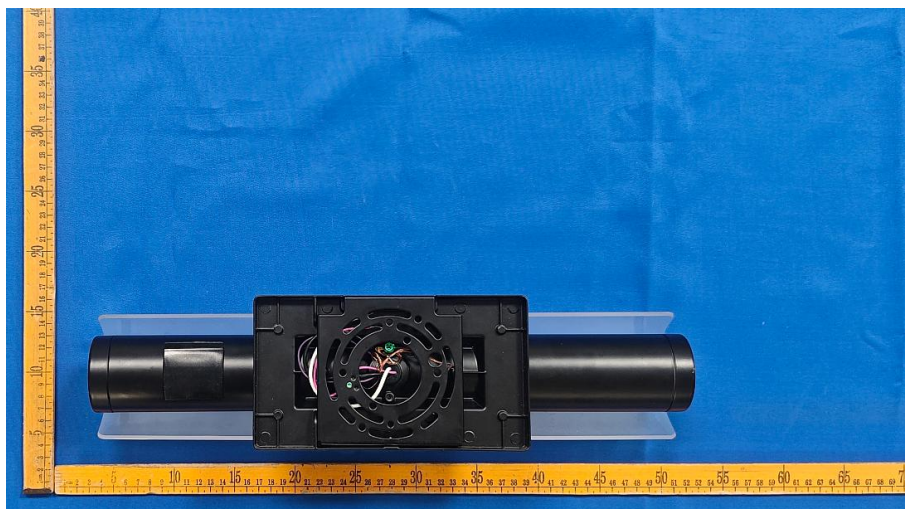
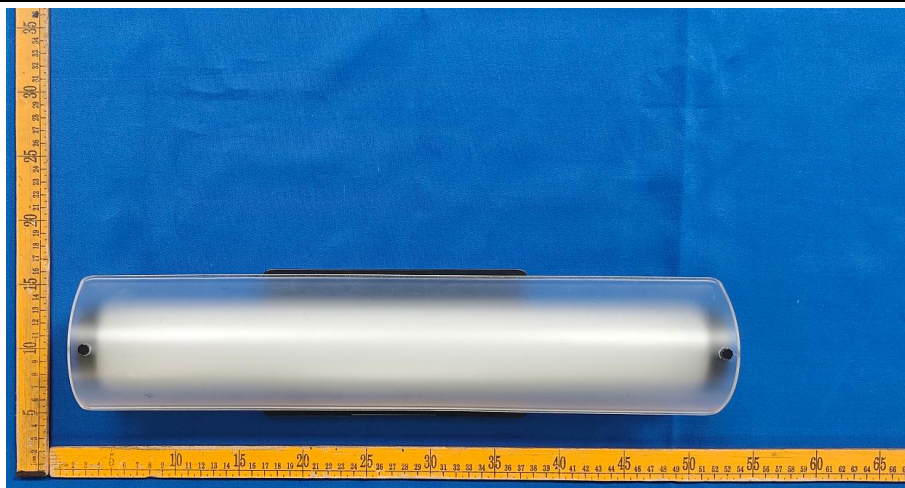
1. The results contained in this report pertain only to the tested samples.
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

### 3.0 Product Description

Luminaire Description: Model No. V1-18B @8W2700K, 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>	V1-18B @8W2700K	<b>Sample ID</b>	250728006-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

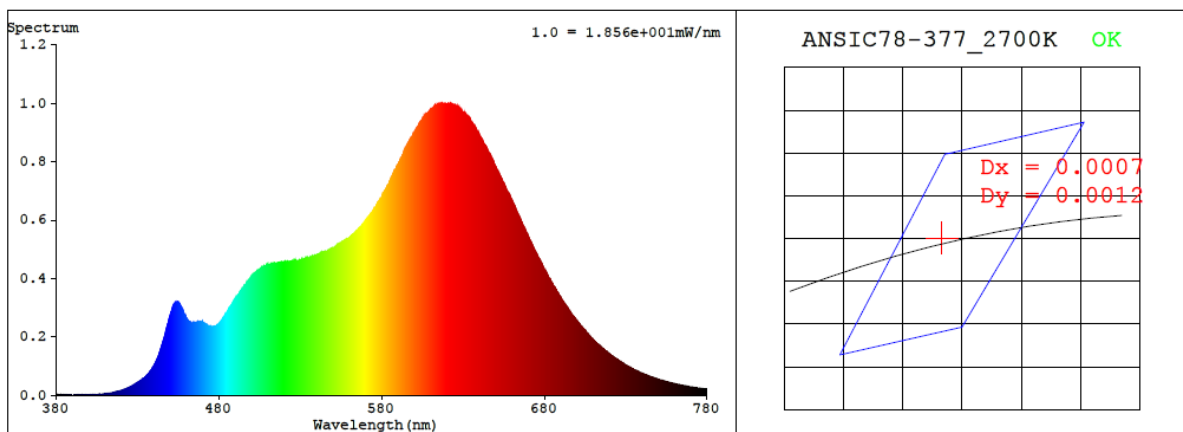
<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were 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	0.069	8.2	0.986
277.0	60	0.039	8.6	0.803

<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>
2760	93.3	64	0.0004	1.8	91	96	-4%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4557$   $y = 0.4107$  /  $u' = 0.2598$   $v' = 0.5268$  ( $duv=4.04e-04$ )

CCT= 2760K Prcp WL:  $L_d=583.8nm$  Purity=60.1%

Peak WL:  $L_p=617nm$  FWHM:  $=125.0nm$  Ratio:R=26.9% G=69.9% B=3.2%

Render Index:  $R_a = 93.3$  AvgR = 91.4 TM30:Rf=91 Rg=97

EEL: 0.13145 A+

R1 =99 R2 =97 R3 =93 R4 =97 R5 =98 R6 =91 R7 =89

R8 =82 R9 =64 R10=93 R11=94 R12=87 R13=99 R14=97 R15=92



## 4.1 Integrating Sphere Test

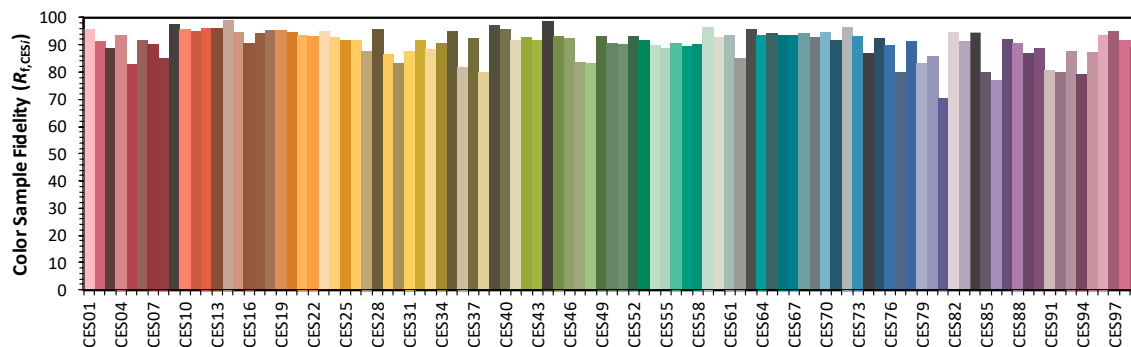
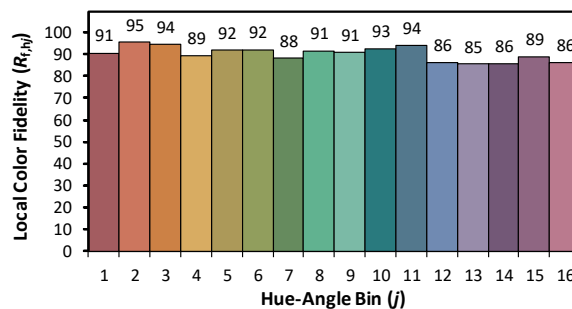
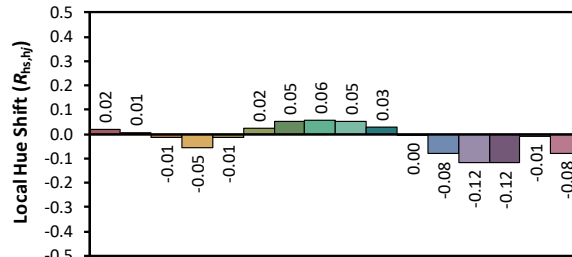
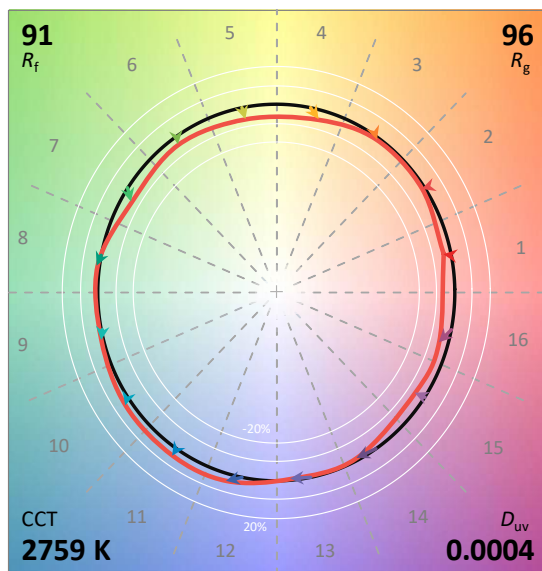
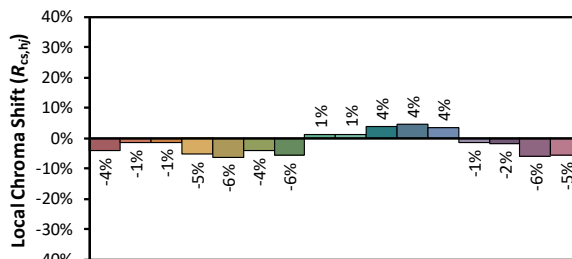
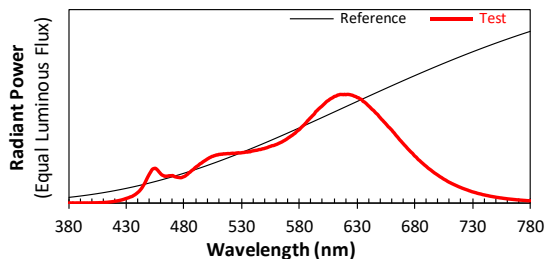
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/8/21

Model: V1-18B @8W2700K



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

$x$  0.4557  
 $y$  0.4106  
 $u'$  0.2598  
 $v'$  0.5267

CIE 13.3-1995  
(CRI)

$R_a$  93  
 $R_g$  64

## 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	1.60E-06	447	2.11E-04	514	4.53E-04	581	6.90E-04	648	8.10E-04	715	1.65E-04
381	1.90E-06	448	2.33E-04	515	4.52E-04	582	7.01E-04	649	7.95E-04	716	1.60E-04
382	3.00E-07	449	2.53E-04	516	4.53E-04	583	7.11E-04	650	7.84E-04	717	1.56E-04
383	2.50E-06	450	2.72E-04	517	4.54E-04	584	7.20E-04	651	7.71E-04	718	1.51E-04
384	1.70E-06	451	2.89E-04	518	4.56E-04	585	7.32E-04	652	7.61E-04	719	1.47E-04
385	9.00E-07	452	3.07E-04	519	4.54E-04	586	7.43E-04	653	7.49E-04	720	1.42E-04
386	1.30E-06	453	3.15E-04	520	4.56E-04	587	7.57E-04	654	7.38E-04	721	1.37E-04
387	1.80E-06	454	3.18E-04	521	4.57E-04	588	7.67E-04	655	7.26E-04	722	1.34E-04
388	1.60E-06	455	3.19E-04	522	4.58E-04	589	7.80E-04	656	7.14E-04	723	1.30E-04
389	1.60E-06	456	3.12E-04	523	4.57E-04	590	7.89E-04	657	7.01E-04	724	1.26E-04
390	1.00E-06	457	3.01E-04	524	4.58E-04	591	8.01E-04	658	6.93E-04	725	1.22E-04
391	1.50E-06	458	2.88E-04	525	4.60E-04	592	8.11E-04	659	6.81E-04	726	1.19E-04
392	1.30E-06	459	2.76E-04	526	4.61E-04	593	8.23E-04	660	6.71E-04	727	1.14E-04
393	1.70E-06	460	2.65E-04	527	4.62E-04	594	8.40E-04	661	6.56E-04	728	1.11E-04
394	1.50E-06	461	2.57E-04	528	4.61E-04	595	8.49E-04	662	6.45E-04	729	1.07E-04
395	1.40E-06	462	2.52E-04	529	4.62E-04	596	8.60E-04	663	6.31E-04	730	1.03E-04
396	2.00E-06	463	2.47E-04	530	4.63E-04	597	8.70E-04	664	6.18E-04	731	1.01E-04
397	9.00E-07	464	2.48E-04	531	4.65E-04	598	8.79E-04	665	6.07E-04	732	9.75E-05
398	1.90E-06	465	2.47E-04	532	4.66E-04	599	8.88E-04	666	5.93E-04	733	9.49E-05
399	1.50E-06	466	2.50E-04	533	4.68E-04	600	8.97E-04	667	5.80E-04	734	9.10E-05
400	1.90E-06	467	2.51E-04	534	4.69E-04	601	9.08E-04	668	5.69E-04	735	8.82E-05
401	2.40E-06	468	2.52E-04	535	4.69E-04	602	9.18E-04	669	5.57E-04	736	8.57E-05
402	2.40E-06	469	2.52E-04	536	4.73E-04	603	9.29E-04	670	5.45E-04	737	8.37E-05
403	2.60E-06	470	2.53E-04	537	4.71E-04	604	9.38E-04	671	5.33E-04	738	8.07E-05
404	2.90E-06	471	2.47E-04	538	4.76E-04	605	9.43E-04	672	5.23E-04	739	7.73E-05
405	3.10E-06	472	2.42E-04	539	4.79E-04	606	9.52E-04	673	5.10E-04	740	7.56E-05
406	3.70E-06	473	2.40E-04	540	4.81E-04	607	9.59E-04	674	4.98E-04	741	7.32E-05
407	4.20E-06	474	2.37E-04	541	4.83E-04	608	9.65E-04	675	4.87E-04	742	7.08E-05
408	3.90E-06	475	2.36E-04	542	4.85E-04	609	9.71E-04	676	4.76E-04	743	6.91E-05
409	4.70E-06	476	2.34E-04	543	4.86E-04	610	9.79E-04	677	4.66E-04	744	6.65E-05
410	5.40E-06	477	2.34E-04	544	4.89E-04	611	9.82E-04	678	4.57E-04	745	6.42E-05
411	6.30E-06	478	2.36E-04	545	4.92E-04	612	9.86E-04	679	4.43E-04	746	6.20E-05
412	6.60E-06	479	2.41E-04	546	4.92E-04	613	9.93E-04	680	4.31E-04	747	6.04E-05
413	7.50E-06	480	2.45E-04	547	4.96E-04	614	9.94E-04	681	4.24E-04	748	5.83E-05
414	8.40E-06	481	2.50E-04	548	4.99E-04	615	9.99E-04	682	4.12E-04	749	5.66E-05
415	9.90E-06	482	2.59E-04	549	5.00E-04	616	9.98E-04	683	4.00E-04	750	5.45E-05
416	1.07E-05	483	2.67E-04	550	5.04E-04	617	9.98E-04	684	3.92E-04	751	5.26E-05
417	1.21E-05	484	2.78E-04	551	5.07E-04	618	9.97E-04	685	3.82E-04	752	5.14E-05
418	1.36E-05	485	2.84E-04	552	5.10E-04	619	1.00E-03	686	3.72E-04	753	4.96E-05
419	1.50E-05	486	2.95E-04	553	5.15E-04	620	9.96E-04	687	3.63E-04	754	4.80E-05
420	1.68E-05	487	3.03E-04	554	5.19E-04	621	9.99E-04	688	3.53E-04	755	4.70E-05
421	1.87E-05	488	3.10E-04	555	5.22E-04	622	9.99E-04	689	3.45E-04	756	4.52E-05
422	2.07E-05	489	3.22E-04	556	5.27E-04	623	9.98E-04	690	3.36E-04	757	4.36E-05
423	2.25E-05	490	3.30E-04	557	5.28E-04	624	9.96E-04	691	3.26E-04	758	4.24E-05
424	2.50E-05	491	3.38E-04	558	5.31E-04	625	9.93E-04	692	3.17E-04	759	4.11E-05
425	2.75E-05	492	3.45E-04	559	5.36E-04	626	9.90E-04	693	3.10E-04	760	3.95E-05
426	3.02E-05	493	3.55E-04	560	5.39E-04	627	9.85E-04	694	3.02E-04	761	3.83E-05
427	3.33E-05	494	3.63E-04	561	5.44E-04	628	9.81E-04	695	2.94E-04	762	3.73E-05
428	3.66E-05	495	3.69E-04	562	5.49E-04	629	9.78E-04	696	2.85E-04	763	3.62E-05
429	4.06E-05	496	3.78E-04	563	5.54E-04	630	9.70E-04	697	2.77E-04	764	3.52E-05
430	4.38E-05	497	3.85E-04	564	5.59E-04	631	9.68E-04	698	2.70E-04	765	3.42E-05
431	4.72E-05	498	3.91E-04	565	5.64E-04	632	9.61E-04	699	2.63E-04	766	3.28E-05
432	5.07E-05	499	3.98E-04	566	5.71E-04	633	9.55E-04	700	2.56E-04	767	3.20E-05
433	5.59E-05	500	4.05E-04	567	5.76E-04	634	9.51E-04	701	2.49E-04	768	3.05E-05
434	5.88E-05	501	4.11E-04	568	5.83E-04	635	9.36E-04	702	2.41E-04	769	2.99E-05
435	6.30E-05	502	4.18E-04	569	5.90E-04	636	9.30E-04	703	2.35E-04	770	2.89E-05
436	7.00E-05	503	4.23E-04	570	5.98E-04	637	9.22E-04	704	2.28E-04	771	2.80E-05
437	7.57E-05	504	4.29E-04	571	6.05E-04	638	9.13E-04	705	2.21E-04	772	2.70E-05
438	8.34E-05	505	4.31E-04	572	6.12E-04	639	9.02E-04	706	2.15E-04	773	2.63E-05
439	9.18E-05	506	4.36E-04	573	6.19E-04	640	8.92E-04	707	2.09E-04	774	2.54E-05
440	1.01E-04	507	4.38E-04	574	6.26E-04	641	8.82E-04	708	2.02E-04	775	2.47E-05
441	1.10E-04	508	4.43E-04	575	6.35E-04	642	8.71E-04	709	1.96E-04	776	2.38E-05
442	1.23E-04	509	4.42E-04	576	6.42E-04	643	8.60E-04	710	1.90E-04	777	2.28E-05
443	1.36E-04	510	4.48E-04	577	6.53E-04	644	8.53E-04	711	1.86E-04	778	2.21E-05
444	1.53E-04	511	4.47E-04	578	6.63E-04	645	8.41E-04	712	1.80E-04	779	2.20E-05
445	1.71E-04	512	4.50E-04	579	6.70E-04	646	8.29E-04	713	1.75E-04	780	2.21E-05
446	1.89E-04	513	4.49E-04	580	6.78E-04	647	8.20E-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>	V1-18B @8W2700K	<b>Sample ID</b>	250728006-S1
<b>Operate time (Min.)</b>	30	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	24.9	<b>Humidity (%RH)</b>	42.6

<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	0.039	8.6	0.803
<b>NON-WORST CASE</b>	120.0	60	0.069	8.2	0.986

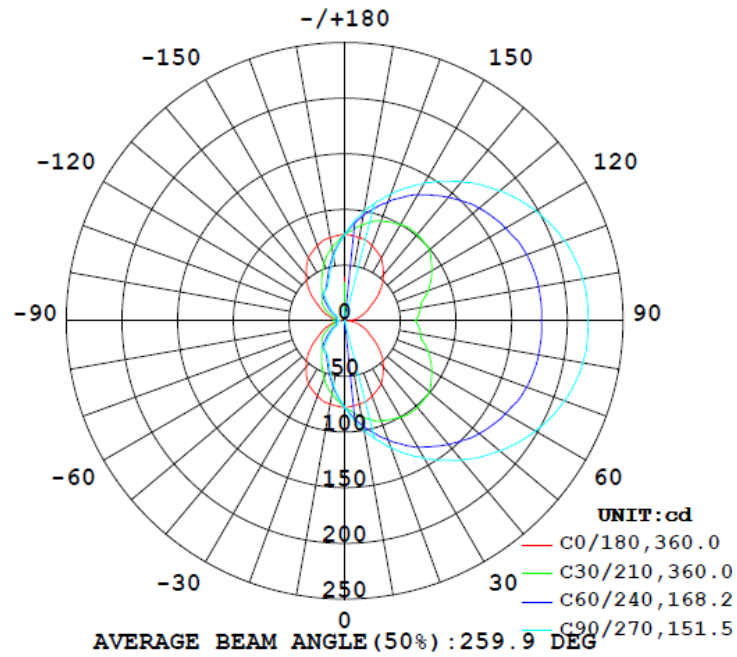
### Test Result

Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement	BUG
	C0-180	C90-270	C0-180	C90-270		( $0^\circ$ - $60^\circ$ )	
886	88.6	156.4	180.0	98.5	103.0	26.6%	B0-U3-G1

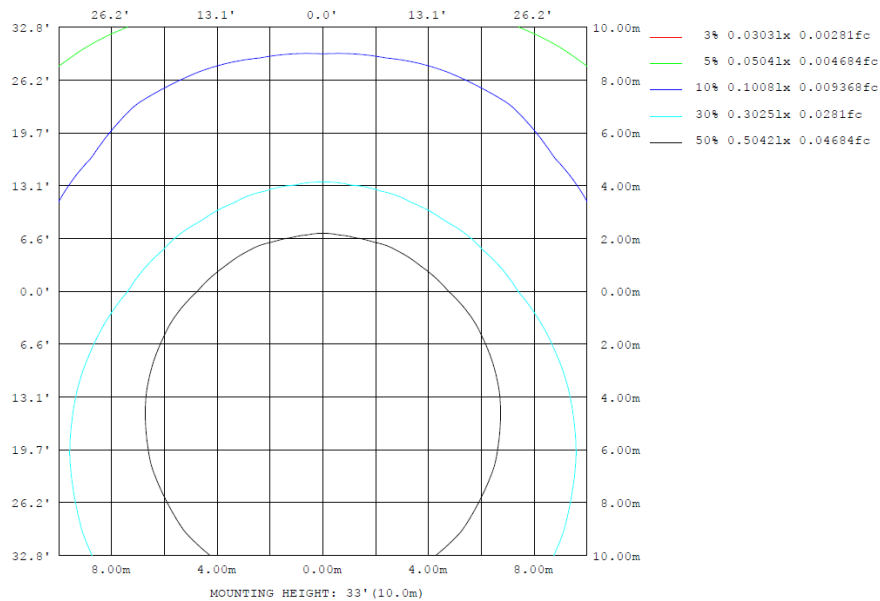
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

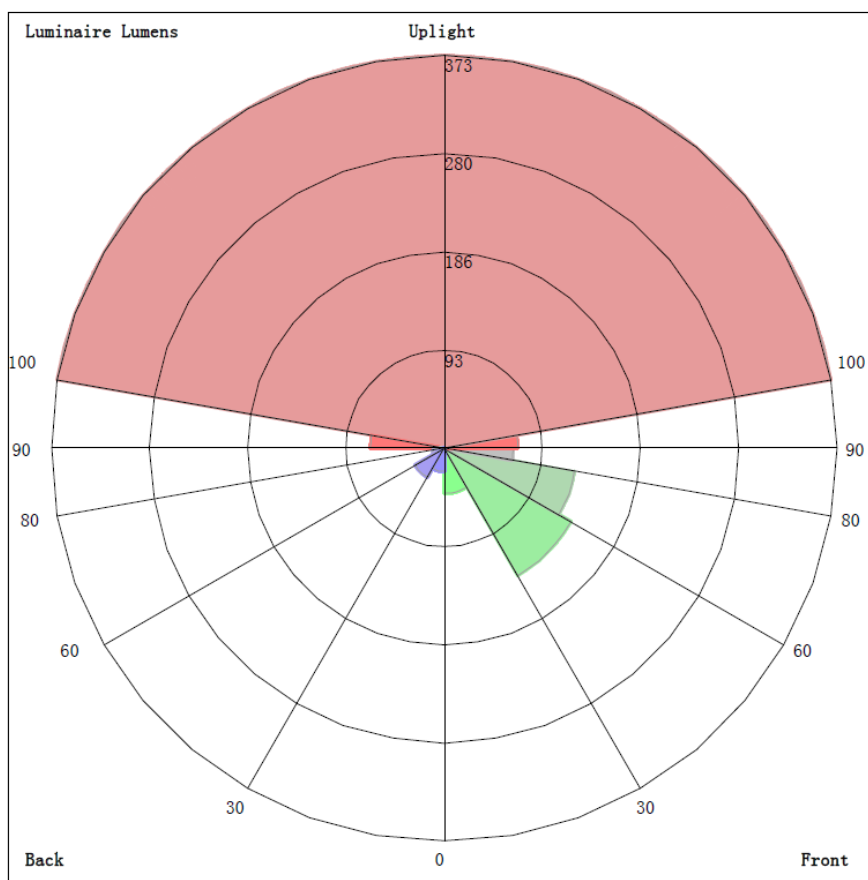
### Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	± zone	± total	%lum, lamp
10	76.01	92.22	99.94	92.22	76.01	63.06	58.41	63.06	0- 10	7.407	7.407	0.84, 0.84
20	71.87	106.4	121.0	106.4	71.87	48.96	41.49	48.96	10- 20	21.93	29.34	3.31, 3.31
30	65.61	116.5	142.7	116.5	65.61	35.98	32.92	35.98	20- 30	35.44	64.78	7.31, 7.31
40	54.01	125.0	163.5	125.0	54.01	30.76	27.05	30.76	30- 40	48.15	112.9	12.8, 12.8
50	41.12	130.1	181.8	130.1	41.12	24.42	16.25	24.42	40- 50	58.30	171.2	19.3, 19.3
60	26.96	132.5	197.8	132.5	26.96	14.71	7.838	14.71	50- 60	64.49	235.7	26.6, 26.6
70	18.19	131.6	210.1	131.6	18.19	8.344	7.314	8.344	60- 70	67.74	303.5	34.3, 34.3
80	10.14	128.6	217.4	128.6	10.14	8.199	6.825	8.199	70- 80	69.38	372.8	42.1, 42.1
90	2.806	125.2	218.4	125.2	2.806	9.065	7.236	9.065	80- 90	69.96	442.8	50, 50
100	10.14	128.6	217.4	128.6	10.14	8.199	6.825	8.199	90-100	69.96	512.8	57.9, 57.9
110	18.19	131.6	210.1	131.6	18.19	8.344	7.314	8.344	100-110	69.38	582.2	65.7, 65.7
120	26.96	132.5	197.8	132.5	26.96	14.71	7.838	14.71	110-120	67.74	649.9	73.4, 73.4
130	41.12	130.1	181.8	130.1	41.12	24.42	16.25	24.42	120-130	64.49	714.4	80.7, 80.7
140	54.01	125.0	163.5	125.0	54.01	30.76	27.05	30.76	130-140	58.30	772.7	87.2, 87.2
150	65.61	116.5	142.7	116.5	65.61	35.98	32.92	35.98	140-150	48.15	820.8	92.7, 92.7
160	71.87	106.4	121.0	106.4	71.87	48.96	41.49	48.96	150-160	35.44	856.3	96.7, 96.7
170	76.01	92.22	99.94	92.22	76.01	63.06	58.41	63.06	160-170	21.93	878.2	99.2, 99.2
180	78.03	78.03	78.03	78.03	78.03	78.03	78.03	78.03	170-180	7.407	885.6	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	7.41	0-10	7.41	0.84%
10-20	21.93	0-20	29.34	3.34%
20-30	35.44	0-30	64.78	7.38%
30-40	48.15	0-40	112.93	12.86%
40-50	58.30	0-50	171.23	19.50%
50-60	64.49	0-60	235.72	26.84%
60-70	67.74	0-70	303.46	34.56%
70-80	69.38	0-80	372.84	42.46%
80-90	69.96	0-90	442.80	50.42%
90-100	69.96	0-100	512.76	58.39%
100-110	69.38	0-110	582.14	66.29%
110-120	67.74	0-120	649.88	74.00%
120-130	64.49	0-130	714.37	81.35%
130-140	58.30	0-140	772.67	87.98%
140-150	48.15	0-150	820.82	93.47%
150-160	35.44	0-160	856.26	97.50%
160-170	21.93	0-170	878.19	100.00%
170-180	7.41	0-180	885.60	100.84%

## 4.2 Goniophotometer Test

LCS/BUG

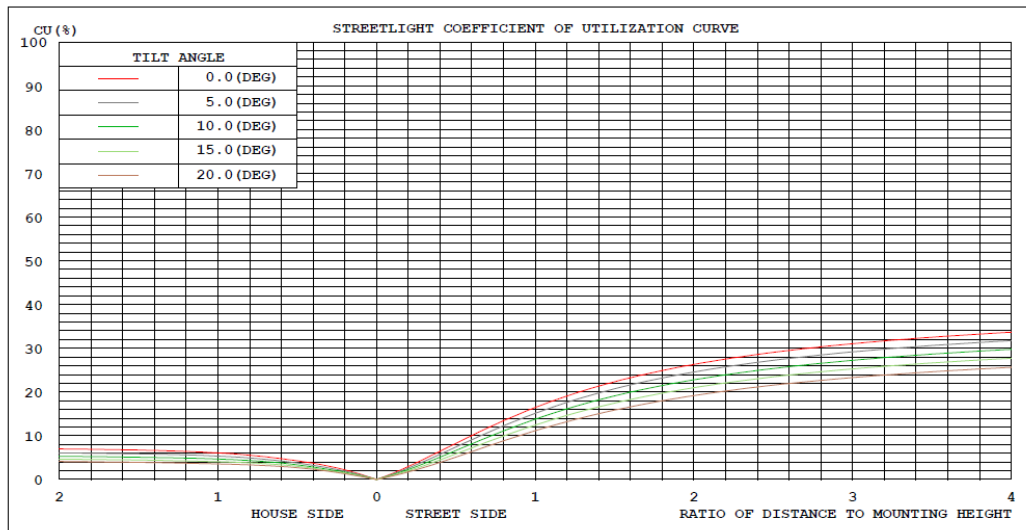


### LUMINAIRE CLASSIFICATION SYSTEM (LCS)

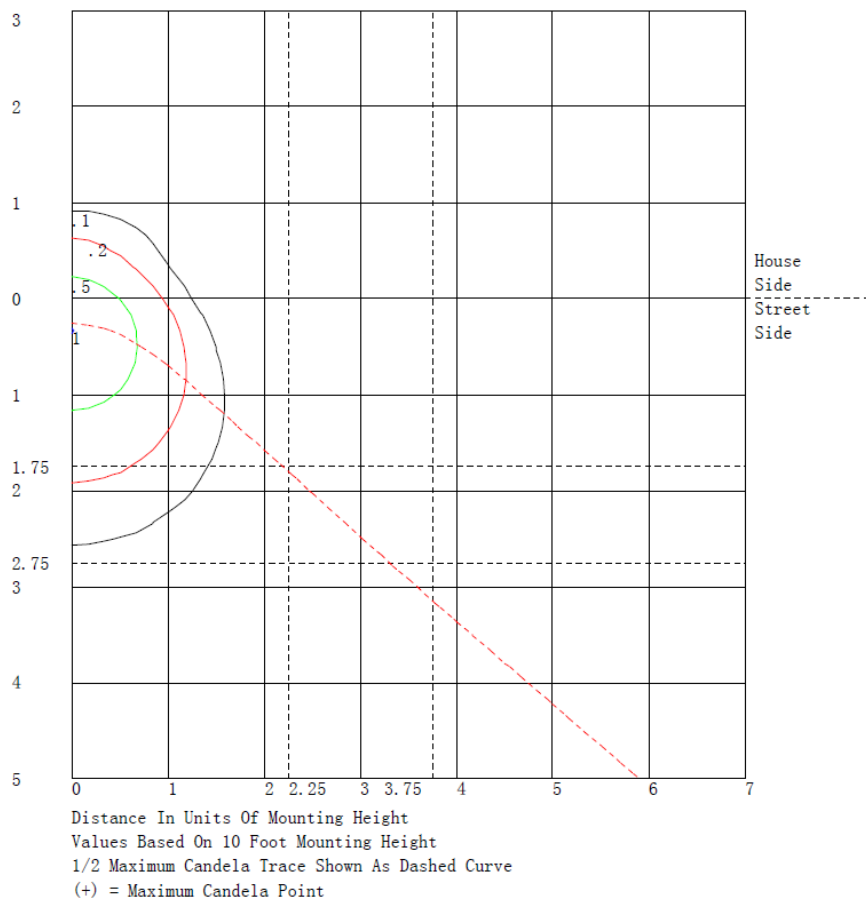
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	42.9	N.A.	4.8
FM - Front-Medium (30-60)	139.3	N.A.	15.7
FH - Front-High (60-80)	125.9	N.A.	14.2
FVH - Front-Very High (80-90)	65.5	N.A.	7.4
BL - Back-Low (0-30)	21.9	N.A.	2.5
BM - Back-Medium (30-60)	31.7	N.A.	3.6
BH - Back-High (60-80)	11.3	N.A.	1.3
BVH - Back-Very High (80-90)	4.5	N.A.	0.5
UL - Uplight-Low (90-100)	70.0	N.A.	7.9
UH - Uplight-High (100-180)	372.8	N.A.	42.1
Total	885.8	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	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
5	77.0	79.7	82.4	84.9	86.8	88.2	88.8	88.2	86.8	84.9	82.4	79.7	77.0	74.5	72.0	70.2	68.9	68.2	68.2
10	76.0	81.9	87.2	92.2	95.9	98.7	99.9	98.7	95.9	92.2	87.2	81.9	76.0	71.0	66.7	63.1	60.2	58.7	58.4
15	75.0	84.0	92.1	99.4	105	109	111	109	105	99.4	92.1	84.0	75.0	68.0	61.3	55.6	51.8	49.6	49.4
20	71.9	83.7	95.4	106	114	119	121	119	114	106	95.4	83.7	71.9	62.5	54.6	49.0	44.0	41.7	41.5
25	68.7	83.3	97.9	112	122	129	132	129	122	112	97.9	83.3	68.7	57.3	47.7	41.5	37.9	36.0	36.0
30	65.6	82.7	100	117	131	139	143	139	131	117	100	82.7	65.6	51.8	41.7	36.0	33.9	33.1	32.9
35	59.8	80.2	102	121	138	149	153	149	138	121	102	80.2	59.8	45.3	36.3	32.6	32.0	32.1	32.2
40	54.0	76.9	101	125	145	159	163	159	145	125	101	76.9	54.0	39.0	32.1	30.8	30.3	28.2	27.0
45	48.2	73.5	101	128	152	168	173	168	152	128	101	73.5	48.2	33.4	29.2	28.6	25.1	22.2	20.9
50	41.1	66.9	99.2	130	158	176	182	176	158	130	99.2	66.9	41.1	29.0	27.0	24.4	19.7	17.1	16.2
55	34.0	59.6	94.9	133	163	183	190	183	163	133	94.9	59.6	34.0	25.1	23.9	19.1	15.2	13.0	12.4
60	27.0	52.1	90.3	133	167	190	198	190	167	133	90.3	52.1	27.0	21.7	20.0	14.7	10.7	8.48	7.84
65	22.6	45.5	85.3	132	171	196	205	196	171	132	85.3	45.5	22.6	18.7	15.7	10.5	8.12	7.72	7.38
70	18.2	38.9	79.7	132	174	201	210	201	174	132	79.7	38.9	18.2	15.5	12.4	8.34	7.81	7.48	7.31
75	13.8	31.8	73.1	130	176	205	214	205	176	130	73.1	31.8	13.8	12.2	9.53	8.20	7.74	7.07	6.83
80	10.1	29.8	69.3	129	177	207	217	207	177	129	69.3	29.8	10.1	11.2	8.91	8.20	7.55	6.87	6.82
85	6.47	28.3	66.9	128	177	208	219	208	177	128	66.9	28.3	6.47	10.5	9.60	8.63	7.65	6.58	5.87
90	2.81	26.6	63.5	125	177	208	218	208	177	125	63.5	26.6	2.81	10.00	10.3	9.07	8.07	7.10	7.24
95	6.47	28.3	66.9	128	177	208	219	208	177	128	66.9	28.3	6.47	10.5	9.60	8.63	7.65	6.58	5.87
100	10.1	29.8	69.3	129	177	207	217	207	177	129	69.3	29.8	10.1	11.2	8.91	8.20	7.55	6.87	6.82
105	13.8	31.8	73.1	130	176	205	214	205	176	130	73.1	31.8	13.8	12.2	9.53	8.20	7.74	7.07	6.83
110	18.2	38.9	79.7	132	174	201	210	201	174	132	79.7	38.9	18.2	15.5	12.4	8.34	7.81	7.48	7.31
115	22.6	45.5	85.3	132	171	196	205	196	171	132	85.3	45.5	22.6	18.7	15.7	10.5	8.12	7.72	7.38
120	27.0	52.1	90.3	133	167	190	198	190	167	133	90.3	52.1	27.0	21.7	20.0	14.7	10.7	8.48	7.84
125	34.0	59.6	94.9	133	163	183	190	183	163	133	94.9	59.6	34.0	25.1	23.9	19.1	15.2	13.0	12.4
130	41.1	66.9	99.2	130	158	176	182	176	158	130	99.2	66.9	41.1	29.0	27.0	24.4	19.7	17.1	16.2
135	48.2	73.5	101	128	152	168	173	168	152	128	101	73.5	48.2	33.4	29.2	28.6	25.1	22.2	20.9
140	54.0	76.9	101	125	145	159	163	159	145	125	101	76.9	54.0	39.0	32.1	30.8	30.3	28.2	27.0
145	59.8	80.2	102	121	138	149	153	149	138	121	102	80.2	59.8	45.3	36.3	32.6	32.0	32.1	32.2
150	65.6	82.7	100	117	131	139	143	139	131	117	100	82.7	65.6	51.8	41.7	36.0	33.9	33.1	32.9
155	68.7	83.3	97.9	112	122	129	132	129	122	112	97.9	83.3	68.7	57.3	47.7	41.5	37.9	36.0	36.0
160	71.9	83.7	95.4	106	114	119	121	119	114	106	95.4	83.7	71.9	62.5	54.6	49.0	44.0	41.7	41.5
165	75.0	84.0	92.1	99.4	105	109	111	109	105	99.4	92.1	84.0	75.0	68.0	61.3	55.6	51.8	49.6	49.4
170	76.0	81.9	87.2	92.2	95.9	98.7	99.9	98.7	95.9	92.2	87.2	81.9	76.0	71.0	66.7	63.1	60.2	58.7	58.4
175	77.0	79.7	82.4	84.9	86.8	88.2	88.8	88.2	86.8	84.9	82.4	79.7	77.0	74.5	72.0	70.2	68.9	68.2	68.2
180	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
y (DEG)	0	78.0	78.0	78.0	78.0														
5	68.2	68.9	70.2	72.0	74.5														
10	58.7	60.2	63.1	66.7	71.0														
15	49.6	51.8	55.6	61.3	68.0														
20	41.7	44.0	49.0	54.6	62.5														
25	36.0	37.9	41.5	47.7	57.3														
30	33.1	33.9	36.0	41.7	51.8														
35	32.1	32.0	32.6	36.3	45.3														
40	28.2	30.3	30.8	32.1	39.0														
45	22.2	25.1	28.6	29.2	33.4														
50	17.1	19.7	24.4	27.0	29.0														
55	13.0	15.2	19.1	23.9	25.1														
60	8.48	10.7	14.7	20.0	21.7														
65	7.72	8.12	10.5	15.7	18.7														
70	7.48	7.81	8.34	12.4	15.5														
75	7.07	7.74	8.20	9.53	12.2														
80	6.87	7.55	8.20	8.91	11.2														
85	6.58	7.65	8.63	9.60	10.5														
90	7.10	8.07	9.07	10.3	10.00														
95	6.58	7.65	8.63	9.60	10.5														
100	6.87	7.55	8.20	8.91	11.2														
105	7.07	7.74	8.20	9.53	12.2														
110	7.48	7.81	8.34	12.4	15.5														
115	7.72	8.12	10.5	15.7	18.7														
120	8.48	10.7	14.7	20.0	21.7														
125	13.0	15.2	19.1	23.9	25.1														
130	17.1	19.7	24.4	27.0	29.0														
135	22.2	25.1	28.6	29.2	33.4														
140	28.2	30.3	30.8	32.1	39.0														
145	32.1	32.0	32.6	36.3	45.3														
150	33.1	33.9	36.0	41.7	51.8														
155	36.0	37.9	41.5	47.7	57.3														
160	41.7	44.0	49.0	54.6	62.5														
165	49.6	51.8	55.6	61.3	68.0														
170	58.7	60.2	63.1	66.7	71.0														
175	68.2	68.9	70.2	72.0	74.5														
180	78.0	78.0	78.0	78.0	78.0														



## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	V1-18B @8W2700K	<b>Sample ID</b>	250728006-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	0.069	8.2	0.986	7.25
277.0	60	0.039	8.6	0.803	43.12

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