

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

Address: 408 W 14th St New York, NY 10014

Prepared By

Dongguan New Testing Centre Co., Ltd.

Address: 3F No. 1 the 1st North Industry Road, Songshan Lake Science & Technology Park, Dongguan, Guangdong, China

Prepare by:

Alan Wang

Engineer: Alan Wang

Date: 2025-08-22

Review by:

Vincent Yuan

Technical Lead: Vincent Yuan

Issue Date: 2025-08-22

Revised Date: N/A

1.0 Test Summary

Wall mount Luminaire					
Requirement Category		Test Method	Requirements		Test Value
Luminaire Output (lm) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		2140
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	107.5
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.9
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	6.35
				277V	13.42
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.996
				277V	0.971
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3045±175	2987
			4 steps	3045±100	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		93.0
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		69
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		90
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		26.5%
Backlight, Uplight and Glare (BUG) Ratings (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019 IES TM-15-11	N/A		B0-U4-G2
Input Voltage (V)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Cast		120.0
(Goniophotometer – Section 4.2)			Non-Worst Case		277.0
Input Current (A)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		0.166
(Goniophotometer – Section 4.2)			Non-Worst Case		0.074
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.9
(Goniophotometer – Section 4.2)			Non-Worst Case		19.8

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-07-29	V1-24B @20W3000K	-	250728008-S1
2	Goniophotometer Test	2025-07-29	V1-24B @20W3000K	-	250728008-S1
3	THD and PF Test	2025-07-29	V1-24B @20W3000K	-	250728008-S1

Remark (If any):

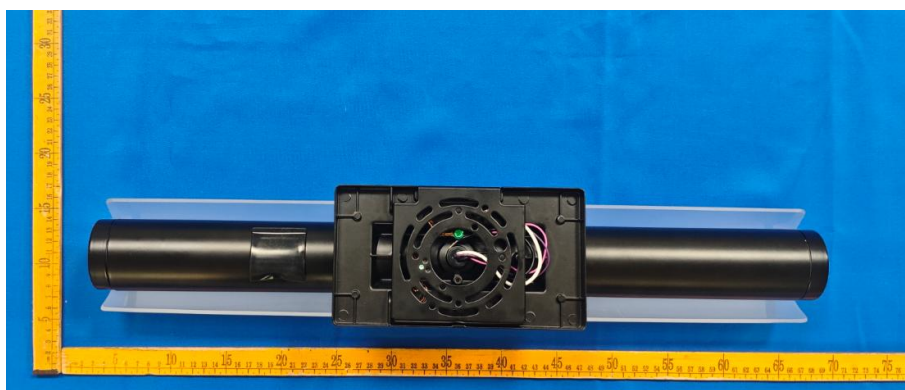
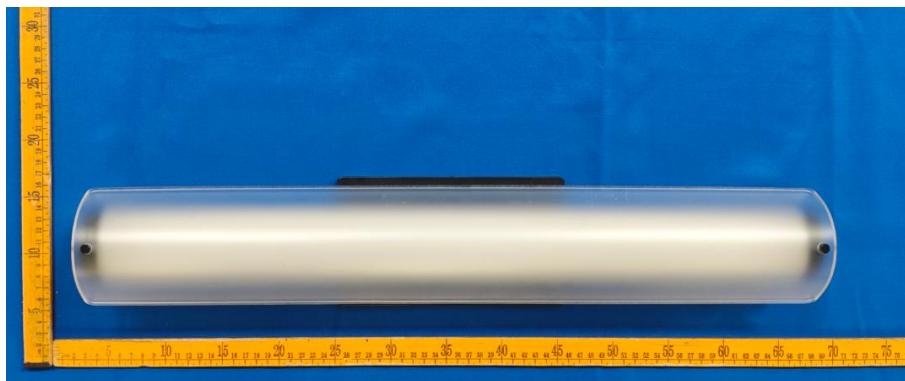
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. V1-24B @20W3000K, color tunable from 2700K, 3000K, 3500K, 4000K and 5000K.

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

Photos of Luminaire Characteristics



4.0 LM-79 Measurement and Test Results

4.1 Integrating Sphere Test

Model No.	V1-24B @20W3000K	Sample ID	250728008-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

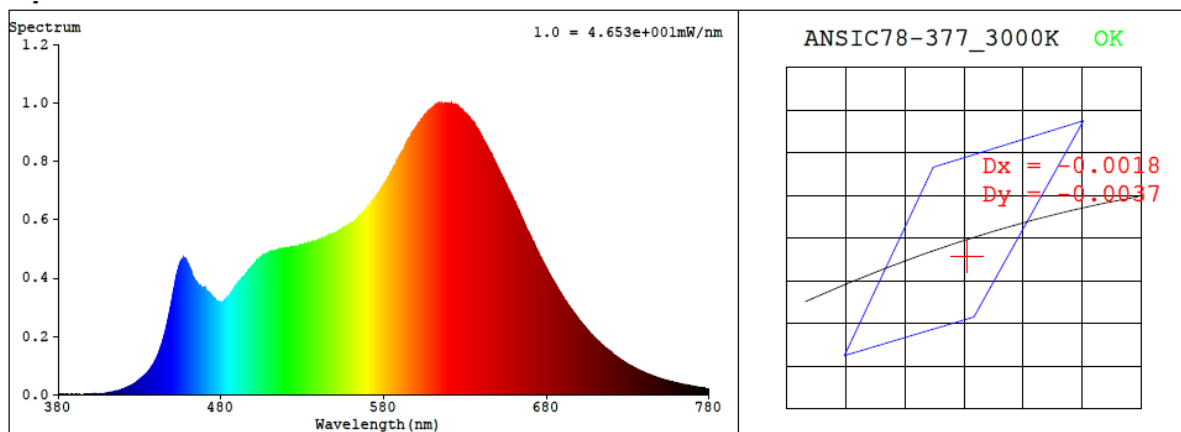
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made using a spectroradiometer connected by a fiber optic cable and detector through the detector port of the integrating sphere.</p> <p>The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ±0.2 percent under load.</p> <p>The sample was measured using 4π geometry and operated at rated voltage and was stabilized before measurement. Chromaticity coordinates, correlated color temperature and color rendering index were calculated from the spectral radiant flux measurements taken at 1 nm intervals over the range of 380 to 780nm.</p>

Test Result

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
120.0	60	0.166	19.9	0.996
277.0	60	0.074	19.8	0.971

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
2987	93.0	69	-0.0012	2.4	90	96	-4%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4360$ $y = 0.4007$ / $u' = 0.2515$ $v' = 0.5199$ ($duv = -1.23e-03$)

CCT= 2987K Prcp WL: Ld=583.3nm Purity=51.1%

Peak WL: Lp=615nm FWHM: =154.7nm Ratio:R=25.4% G=70.9% B=3.7%

Render Index: Ra = 93.0 AvgR = 91.4 TM30:Rf=91 Rg=98

EEL: 0.13622 A+

R1 =99 R2 =96 R3 =93 R4 =96 R5 =97 R6 =90 R7 =89

R8 =84 R9 =69 R10=91 R11=96 R12=84 R13=98 R14=97 R15=94

4.1 Integrating Sphere Test

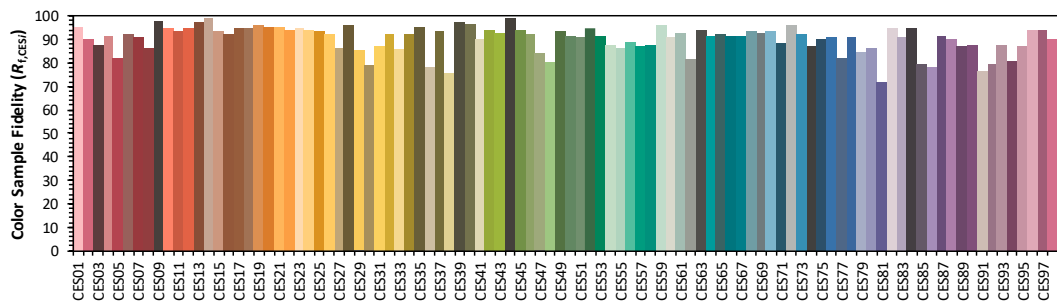
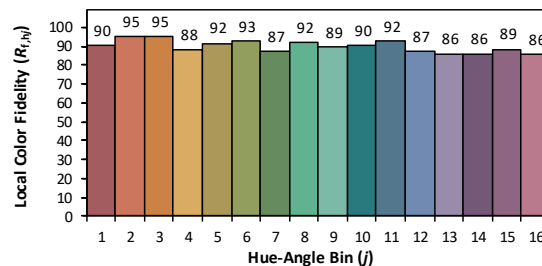
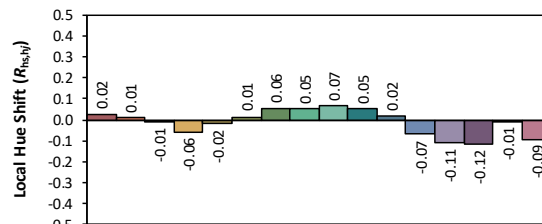
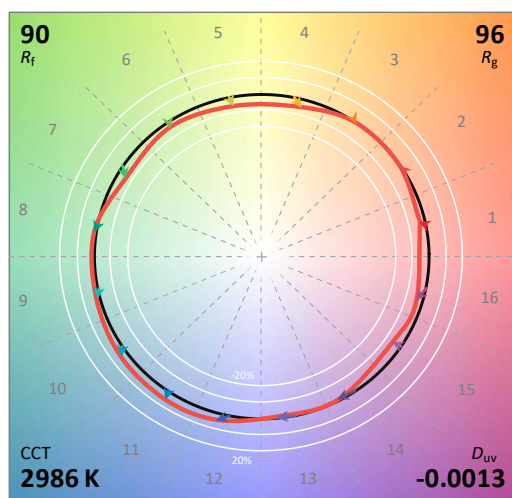
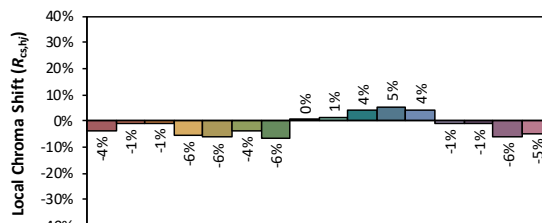
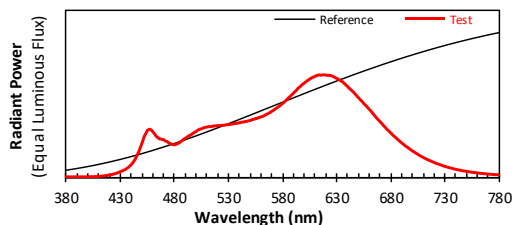
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc

Date: 2025/8/22

Model: V1-24B @20W3000K



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

x 0.4361
 y 0.4006
 u' 0.2515
 v' 0.5199

CIE 13.3-1995
(CRI)
 R_a 93
 R_g 69

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	1.80E-06	447	2.47E-04	514	4.93E-04	581	7.27E-04	648	8.03E-04	715	1.67E-04
381	1.50E-06	448	2.74E-04	515	4.96E-04	582	7.37E-04	649	7.91E-04	716	1.62E-04
382	2.30E-06	449	3.03E-04	516	4.99E-04	583	7.45E-04	650	7.79E-04	717	1.58E-04
383	2.60E-06	450	3.30E-04	517	5.00E-04	584	7.58E-04	651	7.68E-04	718	1.53E-04
384	1.10E-06	451	3.62E-04	518	5.01E-04	585	7.67E-04	652	7.55E-04	719	1.48E-04
385	2.00E-06	452	3.93E-04	519	5.01E-04	586	7.79E-04	653	7.46E-04	720	1.45E-04
386	1.90E-06	453	4.15E-04	520	5.04E-04	587	7.86E-04	654	7.35E-04	721	1.40E-04
387	1.50E-06	454	4.34E-04	521	5.02E-04	588	7.98E-04	655	7.21E-04	722	1.35E-04
388	2.70E-06	455	4.55E-04	522	5.03E-04	589	8.07E-04	656	7.10E-04	723	1.31E-04
389	1.70E-06	456	4.62E-04	523	5.04E-04	590	8.18E-04	657	7.00E-04	724	1.27E-04
390	1.10E-06	457	4.67E-04	524	5.06E-04	591	8.29E-04	658	6.89E-04	725	1.23E-04
391	2.30E-06	458	4.64E-04	525	5.07E-04	592	8.38E-04	659	6.77E-04	726	1.20E-04
392	1.50E-06	459	4.56E-04	526	5.06E-04	593	8.49E-04	660	6.65E-04	727	1.16E-04
393	2.30E-06	460	4.43E-04	527	5.09E-04	594	8.62E-04	661	6.55E-04	728	1.13E-04
394	1.90E-06	461	4.31E-04	528	5.10E-04	595	8.72E-04	662	6.42E-04	729	1.08E-04
395	2.00E-06	462	4.17E-04	529	5.12E-04	596	8.81E-04	663	6.30E-04	730	1.04E-04
396	2.10E-06	463	4.02E-04	530	5.12E-04	597	8.89E-04	664	6.17E-04	731	1.02E-04
397	1.70E-06	464	3.91E-04	531	5.14E-04	598	9.01E-04	665	6.04E-04	732	9.89E-05
398	2.00E-06	465	3.85E-04	532	5.15E-04	599	9.09E-04	666	5.91E-04	733	9.62E-05
399	2.20E-06	466	3.74E-04	533	5.17E-04	600	9.17E-04	667	5.79E-04	734	9.23E-05
400	2.40E-06	467	3.73E-04	534	5.19E-04	601	9.26E-04	668	5.67E-04	735	9.05E-05
401	3.20E-06	468	3.69E-04	535	5.21E-04	602	9.33E-04	669	5.56E-04	736	8.67E-05
402	3.80E-06	469	3.67E-04	536	5.23E-04	603	9.42E-04	670	5.45E-04	737	8.43E-05
403	3.30E-06	470	3.66E-04	537	5.24E-04	604	9.48E-04	671	5.33E-04	738	8.17E-05
404	3.30E-06	471	3.56E-04	538	5.26E-04	605	9.56E-04	672	5.22E-04	739	7.91E-05
405	3.70E-06	472	3.51E-04	539	5.28E-04	606	9.62E-04	673	5.08E-04	740	7.67E-05
406	4.10E-06	473	3.48E-04	540	5.32E-04	607	9.69E-04	674	4.98E-04	741	7.39E-05
407	4.80E-06	474	3.41E-04	541	5.32E-04	608	9.75E-04	675	4.88E-04	742	7.17E-05
408	5.00E-06	475	3.32E-04	542	5.37E-04	609	9.78E-04	676	4.74E-04	743	6.97E-05
409	5.70E-06	476	3.29E-04	543	5.37E-04	610	9.85E-04	677	4.64E-04	744	6.78E-05
410	6.70E-06	477	3.22E-04	544	5.38E-04	611	9.87E-04	678	4.55E-04	745	6.55E-05
411	7.50E-06	478	3.19E-04	545	5.42E-04	612	9.93E-04	679	4.44E-04	746	6.34E-05
412	8.40E-06	479	3.17E-04	546	5.43E-04	613	9.96E-04	680	4.33E-04	747	6.08E-05
413	9.40E-06	480	3.15E-04	547	5.45E-04	614	9.98E-04	681	4.23E-04	748	5.92E-05
414	1.05E-05	481	3.18E-04	548	5.48E-04	615	9.96E-04	682	4.11E-04	749	5.77E-05
415	1.20E-05	482	3.22E-04	549	5.51E-04	616	9.96E-04	683	4.02E-04	750	5.56E-05
416	1.37E-05	483	3.27E-04	550	5.52E-04	617	9.98E-04	684	3.92E-04	751	5.43E-05
417	1.46E-05	484	3.33E-04	551	5.56E-04	618	9.98E-04	685	3.83E-04	752	5.25E-05
418	1.64E-05	485	3.38E-04	552	5.61E-04	619	9.99E-04	686	3.74E-04	753	5.08E-05
419	1.84E-05	486	3.47E-04	553	5.63E-04	620	9.96E-04	687	3.64E-04	754	4.95E-05
420	2.02E-05	487	3.55E-04	554	5.65E-04	621	9.94E-04	688	3.54E-04	755	4.76E-05
421	2.21E-05	488	3.63E-04	555	5.73E-04	622	9.95E-04	689	3.45E-04	756	4.56E-05
422	2.43E-05	489	3.73E-04	556	5.72E-04	623	9.93E-04	690	3.37E-04	757	4.50E-05
423	2.75E-05	490	3.79E-04	557	5.76E-04	624	9.94E-04	691	3.28E-04	758	4.34E-05
424	2.97E-05	491	3.84E-04	558	5.81E-04	625	9.91E-04	692	3.20E-04	759	4.19E-05
425	3.27E-05	492	3.91E-04	559	5.84E-04	626	9.87E-04	693	3.11E-04	760	4.09E-05
426	3.61E-05	493	4.01E-04	560	5.88E-04	627	9.81E-04	694	3.03E-04	761	3.93E-05
427	3.94E-05	494	4.05E-04	561	5.90E-04	628	9.77E-04	695	2.95E-04	762	3.82E-05
428	4.35E-05	495	4.11E-04	562	5.95E-04	629	9.70E-04	696	2.88E-04	763	3.71E-05
429	4.78E-05	496	4.17E-04	563	5.99E-04	630	9.65E-04	697	2.80E-04	764	3.60E-05
430	5.31E-05	497	4.27E-04	564	6.06E-04	631	9.59E-04	698	2.73E-04	765	3.49E-05
431	5.65E-05	498	4.31E-04	565	6.12E-04	632	9.53E-04	699	2.64E-04	766	3.38E-05
432	6.16E-05	499	4.40E-04	566	6.16E-04	633	9.48E-04	700	2.57E-04	767	3.23E-05
433	6.61E-05	500	4.45E-04	567	6.22E-04	634	9.39E-04	701	2.50E-04	768	3.20E-05
434	7.12E-05	501	4.52E-04	568	6.28E-04	635	9.34E-04	702	2.44E-04	769	3.07E-05
435	7.74E-05	502	4.60E-04	569	6.33E-04	636	9.27E-04	703	2.37E-04	770	2.94E-05
436	8.44E-05	503	4.65E-04	570	6.43E-04	637	9.16E-04	704	2.30E-04	771	2.85E-05
437	9.10E-05	504	4.69E-04	571	6.47E-04	638	9.08E-04	705	2.24E-04	772	2.77E-05
438	1.01E-04	505	4.71E-04	572	6.55E-04	639	8.96E-04	706	2.17E-04	773	2.67E-05
439	1.10E-04	506	4.76E-04	573	6.63E-04	640	8.88E-04	707	2.10E-04	774	2.59E-05
440	1.21E-04	507	4.81E-04	574	6.71E-04	641	8.75E-04	708	2.05E-04	775	2.52E-05
441	1.32E-04	508	4.84E-04	575	6.77E-04	642	8.67E-04	709	1.98E-04	776	2.43E-05
442	1.47E-04	509	4.86E-04	576	6.85E-04	643	8.56E-04	710	1.93E-04	777	2.37E-05
443	1.63E-04	510	4.89E-04	577	6.92E-04	644	8.46E-04	711	1.87E-04	778	2.32E-05
444	1.81E-04	511	4.91E-04	578	7.01E-04	645	8.36E-04	712	1.82E-04	779	2.32E-05
445	2.02E-04	512	4.93E-04	579	7.11E-04	646	8.27E-04	713	1.77E-04	780	2.33E-05
446	2.23E-04	513	4.93E-04	580	7.19E-04	647	8.13E-04	714	1.71E-04	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	V1-24B @20W3000K	Sample ID	250728008-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.9	Humidity (%RH)	42.1

Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using a type C goniophotometer and software.</p> <p>The ambient temperature shall be maintained at $25 \pm 1^\circ\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample.</p> <p>The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ± 0.2 percent under load.</p> <p>The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1.0° vertical intervals and 15° horizontal intervals.</p>

Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	120.0	60	0.166	19.9	0.996
NON-WORST CASE	277.0	60	0.074	19.8	0.971

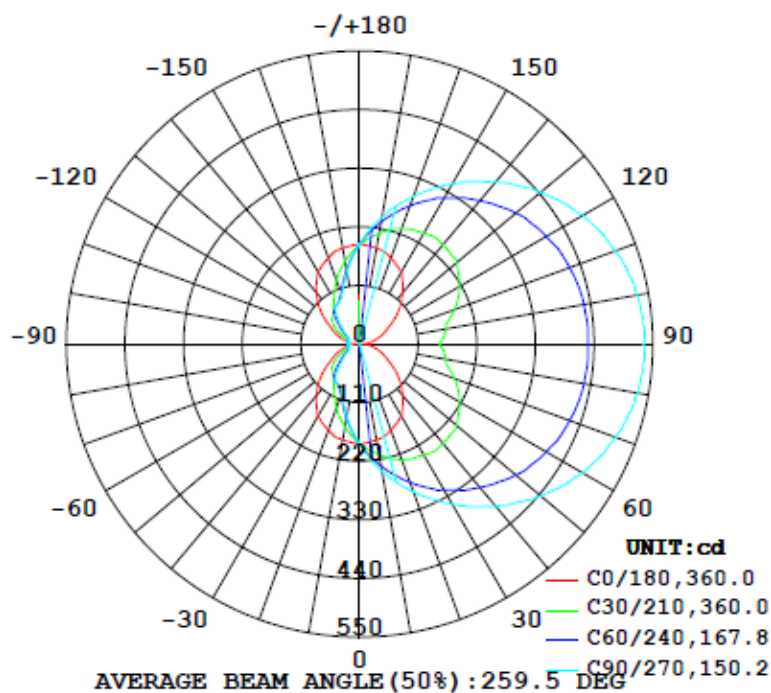
Test Result

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°)	
2140	87.1	154.6	180.0	97.5	107.5	26.5%	B0-U4-G2

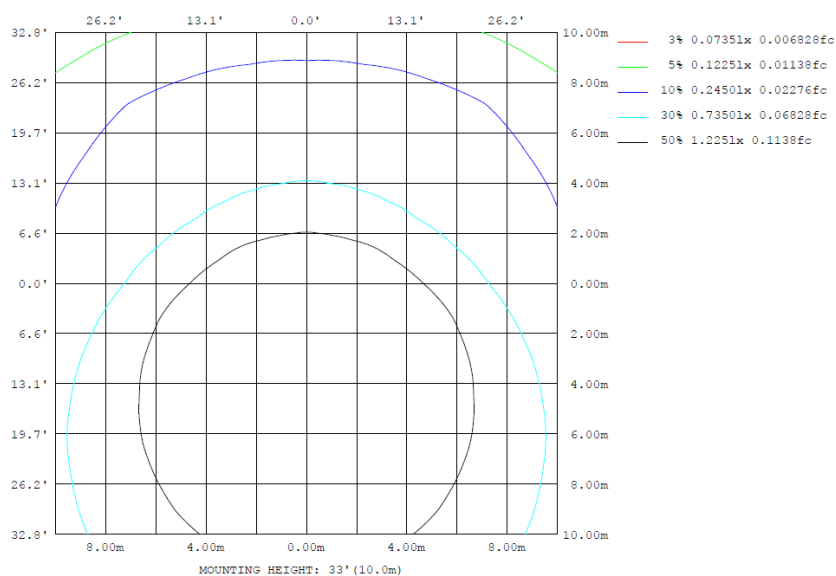
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

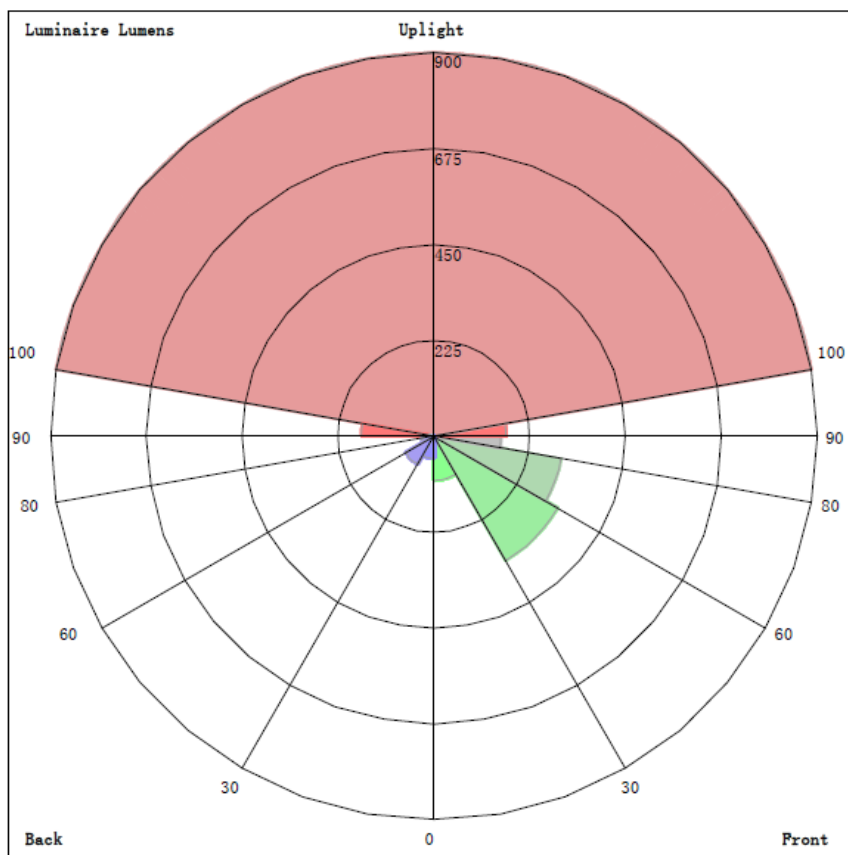
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	182.8	222.8	241.8	222.8	182.8	148.3	137.4	148.3	0- 10	17.79	17.79	0.83,0.83
20	172.2	256.7	294.1	256.7	172.2	113.2	97.80	113.2	10- 20	52.44	70.22	3.28,3.28
30	156.4	281.3	346.7	281.3	156.4	86.54	85.89	86.54	20- 30	85.25	155.5	7.26,7.26
40	126.0	303.4	398.1	303.4	126.0	77.99	63.82	77.99	30- 40	116.4	271.9	12.7,12.7
50	94.57	314.8	443.1	314.8	94.57	57.18	38.64	57.18	40- 50	140.3	412.3	19.3,19.3
60	61.98	319.9	483.5	319.9	61.98	35.21	22.92	35.21	50- 60	155.6	567.8	26.5,26.5
70	41.44	317.3	510.7	317.3	41.44	23.89	22.20	23.89	60- 70	164.2	732.1	34.2,34.2
80	22.32	309.1	529.4	309.1	22.32	23.96	22.20	23.96	70- 80	168.3	900.4	42.1,42.1
90	4.636	301.2	532.6	301.2	4.636	24.63	23.15	24.63	80- 90	169.8	1070	50,50
100	22.32	309.1	529.4	309.1	22.32	23.96	22.20	23.96	90-100	169.8	1240	57.9,57.9
110	41.44	317.3	510.7	317.3	41.44	23.89	22.20	23.89	100-110	168.3	1408	65.8,65.8
120	61.98	319.9	483.5	319.9	61.98	35.21	22.92	35.21	110-120	164.2	1572	73.5,73.5
130	94.57	314.8	443.1	314.8	94.57	57.18	38.64	57.18	120-130	155.6	1728	80.7,80.7
140	126.0	303.4	398.1	303.4	126.0	77.99	63.82	77.99	130-140	140.3	1868	87.3,87.3
150	156.4	281.3	346.7	281.3	156.4	86.54	85.89	86.54	140-150	116.4	1985	92.7,92.7
160	172.2	256.7	294.1	256.7	172.2	113.2	97.80	113.2	150-160	85.25	2070	96.7,96.7
170	182.8	222.8	241.8	222.8	182.8	148.3	137.4	148.3	160-170	52.44	2122	99.2,99.2
180	188.0	188.0	188.0	188.0	188.0	188.0	188.0	188.0	170-180	17.79	2140	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	17.79	0-10	17.79	0.84%
10-20	52.44	0-20	70.23	3.31%
20-30	85.25	0-30	155.48	7.33%
30-40	116.45	0-40	271.93	12.81%
40-50	140.34	0-50	412.27	19.42%
50-60	155.57	0-60	567.84	26.75%
60-70	164.22	0-70	732.06	34.49%
70-80	168.30	0-80	900.36	42.42%
80-90	169.75	0-90	1070.11	50.42%
90-100	169.75	0-100	1239.86	58.42%
100-110	168.30	0-110	1408.16	66.35%
110-120	164.22	0-120	1572.38	74.08%
120-130	155.57	0-130	1727.95	81.41%
130-140	140.34	0-140	1868.29	88.03%
140-150	116.45	0-150	1984.74	93.51%
150-160	85.25	0-160	2069.99	97.53%
160-170	52.44	0-170	2122.43	100.00%
170-180	17.79	0-180	2140.22	100.84%

4.2 Goniophotometer Test

LCS/BUG

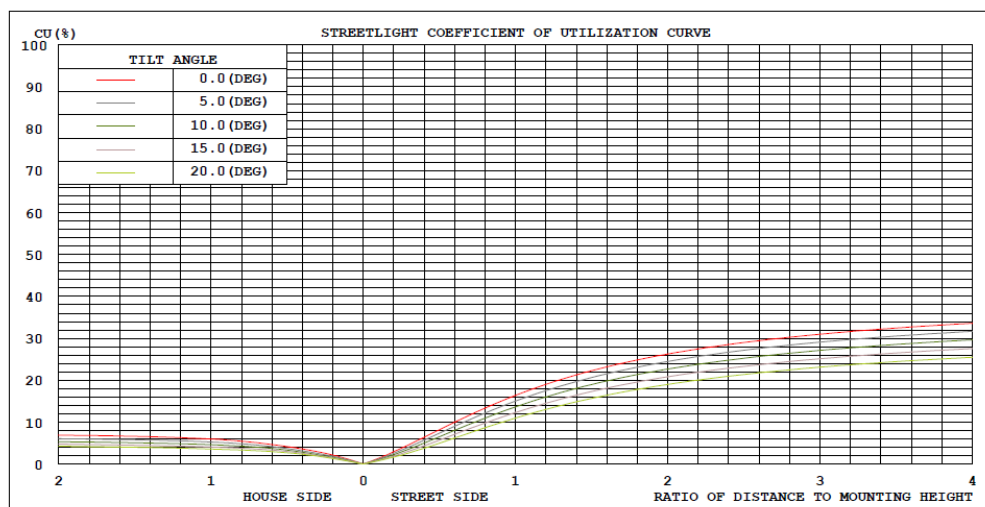


LUMINAIRE CLASSIFICATION SYSTEM (LCS)

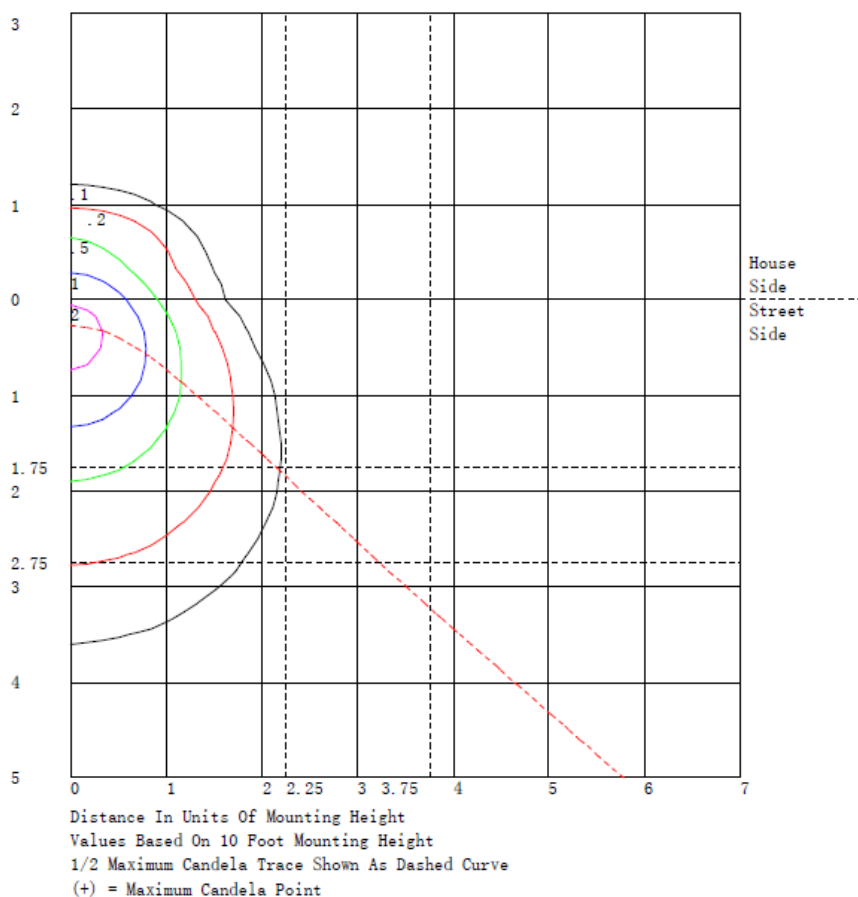
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	103.7	N.A.	4.8
FM - Front-Medium (30-60)	336.3	N.A.	15.7
FH - Front-High (60-80)	303.5	N.A.	14.2
FVH - Front-Very High (80-90)	157.9	N.A.	7.4
BL - Back-Low (0-30)	51.8	N.A.	2.4
BM - Back-Medium (30-60)	76.0	N.A.	3.6
BH - Back-High (60-80)	29.1	N.A.	1.4
BVH - Back-Very High (80-90)	11.8	N.A.	0.6
UL - Uplight-Low (90-100)	169.8	N.A.	7.9
UH - Uplight-High (100-180)	900.4	N.A.	42.1
Total	2140.3	N.A.	100.0
BUG Rating	B0-U4-G2		

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	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188
5	185	192	199	205	210	213	214	213	210	205	199	192	185	179	173	168	164	162	162
10	183	197	211	223	232	239	242	239	232	223	211	197	183	169	158	148	142	138	137
15	180	201	222	241	254	264	268	264	254	241	222	201	180	161	143	130	120	115	115
20	172	201	231	257	276	289	294	289	276	257	231	201	172	147	127	113	103	98.1	97.8
25	164	200	237	270	297	314	322	314	297	270	237	200	164	132	110	97.3	90.7	88.5	88.7
30	156	200	241	281	316	338	347	338	316	281	241	200	156	119	96.6	86.5	85.1	85.0	85.9
35	141	192	246	294	336	363	373	363	336	294	246	192	141	104	85.5	81.0	82.6	82.2	81.0
40	126	183	243	303	351	385	398	385	351	303	243	183	126	90.0	77.7	78.0	74.2	66.2	63.8
45	111	175	241	311	367	406	420	406	367	311	241	175	111	77.5	71.9	71.1	58.7	51.8	49.0
50	94.6	160	238	315	383	425	443	425	383	315	238	160	94.6	67.9	67.5	57.2	46.0	40.4	38.6
55	78.3	141	227	319	394	444	464	444	394	319	227	141	78.3	59.8	58.4	44.0	36.2	32.0	31.0
60	62.0	122	217	320	404	462	483	462	404	320	217	122	62.0	52.5	46.7	35.2	28.4	24.5	22.9
65	51.7	107	204	319	414	477	499	477	414	319	204	107	51.7	44.5	35.8	27.6	23.6	22.6	22.4
70	41.4	90.9	189	317	419	488	511	488	419	317	189	90.9	41.4	35.6	29.0	23.9	23.5	22.6	22.2
75	31.2	74.1	173	314	425	495	521	495	425	314	173	74.1	31.2	26.3	23.4	23.8	23.5	22.8	22.2
80	22.3	69.3	164	309	427	503	529	503	427	309	164	69.3	22.3	23.8	21.9	24.0	23.2	22.4	22.2
85	13.5	65.5	158	307	429	507	534	507	429	307	158	65.5	13.5	22.3	22.6	24.3	23.5	20.1	19.4
90	4.64	61.2	150	301	428	507	533	507	428	301	150	61.2	4.64	20.9	23.1	24.6	24.7	19.8	23.1
95	13.5	65.5	158	307	429	507	534	507	429	307	158	65.5	13.5	22.3	22.6	24.3	23.5	20.1	19.4
100	22.3	69.3	164	309	427	503	529	503	427	309	164	69.3	22.3	23.8	21.9	24.0	23.2	22.4	22.2
105	31.2	74.1	173	314	425	495	521	495	425	314	173	74.1	31.2	26.3	23.4	23.8	23.5	22.8	22.2
110	41.4	90.9	189	317	419	488	511	488	419	317	189	90.9	41.4	35.6	29.0	23.9	23.5	22.6	22.2
115	51.7	107	204	319	414	477	499	477	414	319	204	107	51.7	44.5	35.8	27.6	23.6	22.6	22.4
120	62.0	122	217	320	404	462	483	462	404	320	217	122	62.0	52.5	46.7	35.2	28.4	24.5	22.9
125	78.3	141	227	319	394	444	464	444	394	319	227	141	78.3	59.8	58.4	44.0	36.2	32.0	31.0
130	94.6	160	238	315	383	425	443	425	383	315	238	160	94.6	67.9	67.5	57.2	46.0	40.4	38.6
135	111	175	241	311	367	406	420	406	367	311	241	175	111	77.5	71.9	71.1	58.7	51.8	49.0
140	126	183	243	303	351	385	398	385	351	303	243	183	126	90.0	77.7	78.0	74.2	66.2	63.8
145	141	192	246	294	336	363	373	363	336	294	246	192	141	104	85.5	81.0	82.6	82.2	81.0
150	156	200	241	281	316	338	347	338	316	281	241	200	156	119	96.6	86.5	85.1	85.0	85.9
155	164	200	237	270	297	314	322	314	297	270	237	200	164	132	110	97.3	90.7	88.5	88.7
160	172	201	231	257	276	289	294	289	276	257	231	201	172	147	127	113	103	98.1	97.8
165	180	201	222	241	254	264	268	264	254	241	222	201	180	161	143	130	120	115	115
170	183	197	211	223	232	239	242	239	232	223	211	197	183	169	158	148	142	138	137
175	185	192	199	205	210	213	214	213	210	205	199	192	185	179	173	168	164	162	162
180	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188	188

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	188	188	188	188	188														
5	162	164	168	173	179														
10	138	142	148	158	169														
15	115	120	130	143	161														
20	98.1	103	113	127	147														
25	88.5	90.7	97.3	110	132														
30	85.0	85.1	86.5	96.6	119														
35	82.2	82.6	81.0	85.5	104														
40	66.2	74.2	78.0	77.7	90.0														
45	51.8	58.7	71.1	71.9	77.5														
50	40.4	46.0	57.2	67.5	67.9														
55	32.0	36.2	44.0	58.4	59.8														
60	24.5	28.4	35.2	46.7	52.5														
65	22.6	23.6	27.6	35.8	44.5														
70	22.6	23.5	23.9	29.0	35.6														
75	22.8	23.5	23.8	23.4	26.3														
80	22.4	23.2	24.0	21.9	23.8														
85	20.1	23.5	24.3	22.6	22.3														
90	19.8	24.7	24.6	23.1	20.9														
95	20.1	23.5	24.3	22.6	22.3														
100	22.4	23.2	24.0	21.9	23.8														
105	22.8	23.5	23.8	23.4	26.3														
110	22.6	23.5	23.9	29.0	35.6														
115	22.6	23.6	27.6	35.8	44.5														
120	24.5	28.4	35.2	46.7	52.5														
125	32.0	36.2	44.0	58.4	59.8														
130	40.4	46.0	57.2	67.5	67.9														
135	51.8	58.7	71.1	71.9	77.5														
140	66.2	74.2	78.0	77.7	90.0														
145	82.2	82.6	81.0	85.5	104														
150	85.0	85.1	86.5	96.6	119														
155	88.5	90.7	97.3	110	132														
160	98.1	103	113	127	147														
165	115	120	130	143	161														
170	138	142	148	158	169														
175	162	164	168	173	179														
180	188	188	188	188	188														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	V1-24B @20W3000K	Sample ID	250728008-S1
Temperature (°C)	25.4	Humidity (%RH)	41.0

Test Method
<p>The samples were tested according to the and Ansi C82.77: 2002 and ANSI C82.77-10:2020</p> <p>The total harmonic distortion shall be measured to the 40th order.</p> <p>The ambient temperature shall be maintained at $25 \pm 1^{\circ}\text{C}$. The sample measurements were made using a digital power meter and power supply. The sample was operated at rated voltage and was stabilized before measurement. The total harmonic distortion was calculated.</p>

Test Results

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	iTHD(%)
120.0	60	0.166	19.9	0.996	6.35
277.0	60	0.074	19.8	0.971	13.42

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	2024-08-06	2025-08-05
NTC-F01-019	Temperature & Humidity Meter	2024-10-29	2025-10-28

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