

## 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

Review by:

*Vincent Yuan*

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		1597
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	105.8
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.1
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002	N/A	120V	4.66
		ANSI C82-77-10:2020		277V	21.04
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002	N/A	120V	0.994
		ANSI C82-77-10:2020		277V	0.918
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	2725±145	2772
			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		26.6%
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		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		0.059
(Goniophotometer – Section 4.2)			Non-Worst Case		0.122
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.1
(Goniophotometer – Section 4.2)			Non-Worst Case		14.6

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-07	V1-24 @15W2700K	-	250728007-S1
2	Goniophotometer Test	2025-08-07	V1-24 @15W2700K	-	250728007-S1
3	THD and PF Test	2025-08-07	V1-24 @15W2700K	-	250728007-S1

### Remark (If any):

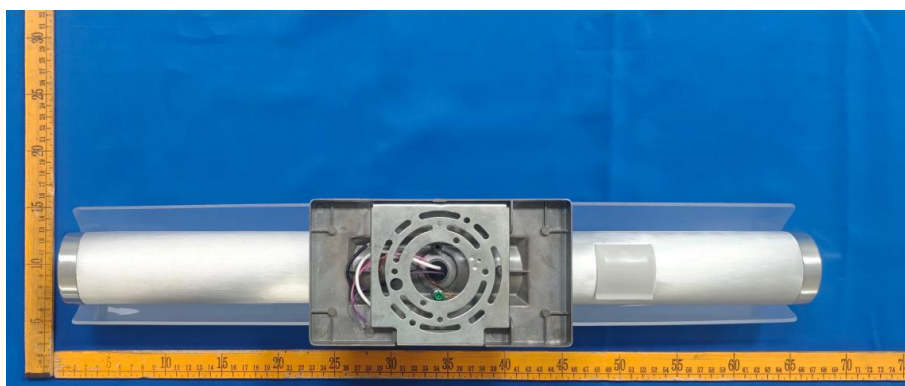
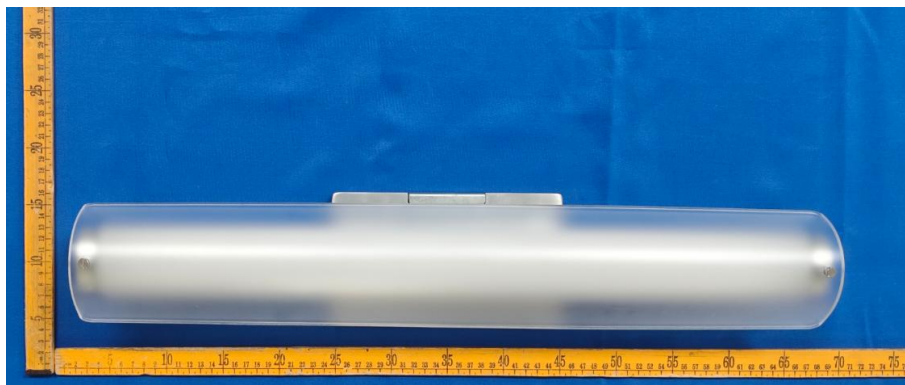
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement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

### 3.0 Product Description

Luminaire Description: Model No. V1-24 @15W2700K, color tunable from 2700K, 3000K, 3500K, 4000K and 5000K.

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

#### Photos of Luminaire Characteristics



## 4.0 LM-79 Measurement and Test Results

### 4.1 Integrating Sphere Test

<b>Model No.</b>	V1-24 @15W2700K	<b>Sample ID</b>	250728007-S1
<b>Operate time (Min.)</b>	10	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

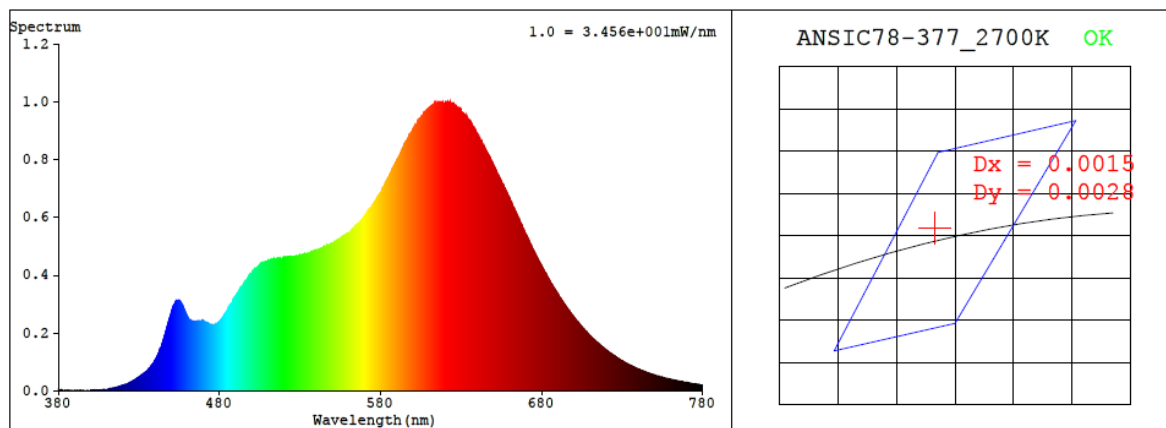
<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were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

### Test Result

<b>Voltage (Vac)</b>	<b>Frequency (Hz)</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Power Factor</b>
120.0	60	0.122	14.6	0.994
277.0	60	0.059	15.1	0.918

<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>
2772	93.5	62	0.0009	2.1	91	96	-4%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4556$   $y = 0.4121$  /  $u' = 0.2591$   $v' = 0.5273$  ( $duv=9.21e-04$ )

CCT= 2772K Prcp WL:  $L_d=583.5nm$  Purity=60.5%

Peak WL:  $L_p=623nm$  FWHM:  $=126.8nm$  Ratio:R=26.7% G=70.2% B=3.1%

Render Index:  $R_a = 93.5$  AvgR = 91.7 TM30:Rf=91 Rg=96

EEL: 0.13463 A+

R1 =98 R2 =98 R3 =94 R4 =97 R5 =98 R6 =91 R7 =90

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

## 4.1 Integrating Sphere Test

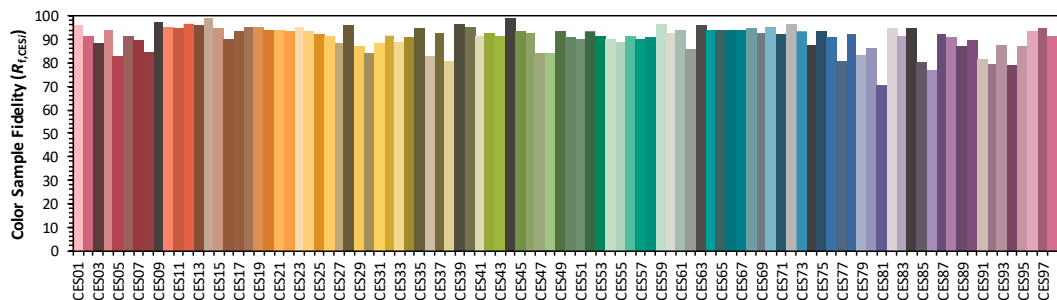
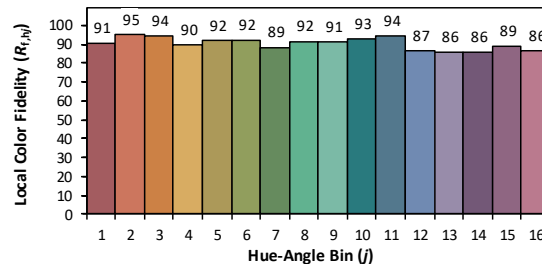
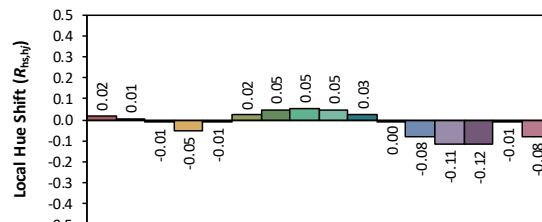
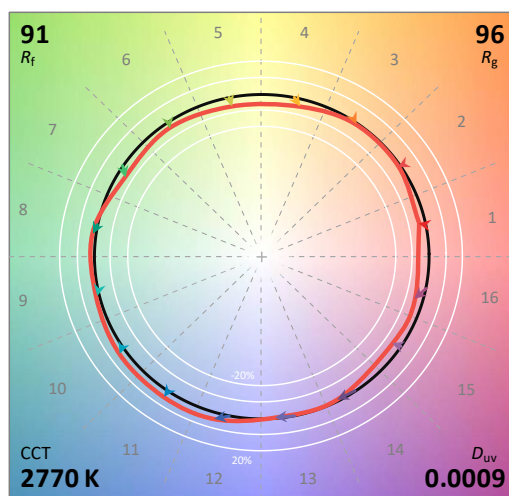
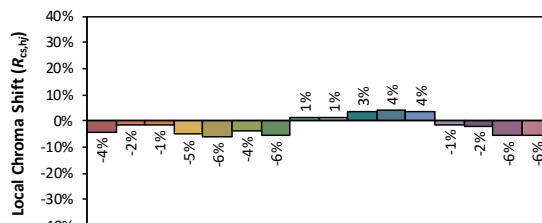
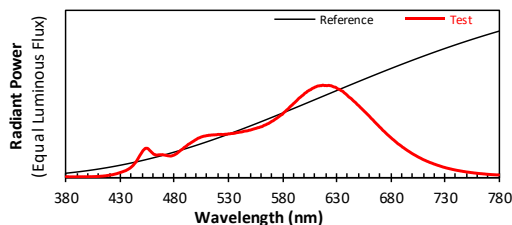
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc

Date: 2025/8/21

Model: V1-24 @15W2700K



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

$x$  0.4557  
 $y$  0.4120  
 $u'$  0.2592  
 $v'$  0.5273

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	3.20E-06	447	2.13E-04	514	4.57E-04	581	6.98E-04	648	8.06E-04	715	1.65E-04
381	2.30E-06	448	2.33E-04	515	4.57E-04	582	7.07E-04	649	7.91E-04	716	1.59E-04
382	2.30E-06	449	2.51E-04	516	4.59E-04	583	7.18E-04	650	7.82E-04	717	1.55E-04
383	0.00E+00	450	2.69E-04	517	4.58E-04	584	7.30E-04	651	7.71E-04	718	1.51E-04
384	1.00E-06	451	2.88E-04	518	4.59E-04	585	7.39E-04	652	7.58E-04	719	1.47E-04
385	7.00E-07	452	2.99E-04	519	4.60E-04	586	7.51E-04	653	7.47E-04	720	1.41E-04
386	1.00E-06	453	3.10E-04	520	4.63E-04	587	7.64E-04	654	7.36E-04	721	1.38E-04
387	7.00E-07	454	3.12E-04	521	4.64E-04	588	7.75E-04	655	7.24E-04	722	1.33E-04
388	6.00E-07	455	3.12E-04	522	4.63E-04	589	7.85E-04	656	7.12E-04	723	1.29E-04
389	8.00E-07	456	3.04E-04	523	4.64E-04	590	7.97E-04	657	7.01E-04	724	1.25E-04
390	2.10E-06	457	2.91E-04	524	4.63E-04	591	8.07E-04	658	6.89E-04	725	1.22E-04
391	1.20E-06	458	2.80E-04	525	4.61E-04	592	8.18E-04	659	6.78E-04	726	1.18E-04
392	1.80E-06	459	2.68E-04	526	4.64E-04	593	8.29E-04	660	6.66E-04	727	1.14E-04
393	1.90E-06	460	2.58E-04	527	4.65E-04	594	8.42E-04	661	6.53E-04	728	1.10E-04
394	1.60E-06	461	2.47E-04	528	4.66E-04	595	8.55E-04	662	6.39E-04	729	1.06E-04
395	1.90E-06	462	2.44E-04	529	4.65E-04	596	8.64E-04	663	6.29E-04	730	1.04E-04
396	1.40E-06	463	2.39E-04	530	4.70E-04	597	8.73E-04	664	6.18E-04	731	9.96E-05
397	2.10E-06	464	2.38E-04	531	4.69E-04	598	8.84E-04	665	6.03E-04	732	9.68E-05
398	1.60E-06	465	2.40E-04	532	4.71E-04	599	8.91E-04	666	5.92E-04	733	9.39E-05
399	1.80E-06	466	2.41E-04	533	4.73E-04	600	9.04E-04	667	5.79E-04	734	9.14E-05
400	2.60E-06	467	2.42E-04	534	4.73E-04	601	9.14E-04	668	5.68E-04	735	8.83E-05
401	2.00E-06	468	2.41E-04	535	4.75E-04	602	9.20E-04	669	5.56E-04	736	8.59E-05
402	3.00E-06	469	2.43E-04	536	4.77E-04	603	9.32E-04	670	5.43E-04	737	8.27E-05
403	2.40E-06	470	2.39E-04	537	4.80E-04	604	9.38E-04	671	5.33E-04	738	8.01E-05
404	3.00E-06	471	2.38E-04	538	4.83E-04	605	9.47E-04	672	5.20E-04	739	7.77E-05
405	3.40E-06	472	2.35E-04	539	4.84E-04	606	9.50E-04	673	5.06E-04	740	7.52E-05
406	3.60E-06	473	2.33E-04	540	4.87E-04	607	9.59E-04	674	4.97E-04	741	7.28E-05
407	4.10E-06	474	2.31E-04	541	4.89E-04	608	9.67E-04	675	4.85E-04	742	7.05E-05
408	4.70E-06	475	2.30E-04	542	4.90E-04	609	9.71E-04	676	4.74E-04	743	6.86E-05
409	5.40E-06	476	2.28E-04	543	4.92E-04	610	9.78E-04	677	4.62E-04	744	6.67E-05
410	5.50E-06	477	2.28E-04	544	4.96E-04	611	9.82E-04	678	4.52E-04	745	6.43E-05
411	6.60E-06	478	2.31E-04	545	5.00E-04	612	9.88E-04	679	4.42E-04	746	6.28E-05
412	7.90E-06	479	2.36E-04	546	5.00E-04	613	9.92E-04	680	4.31E-04	747	6.00E-05
413	8.60E-06	480	2.40E-04	547	5.02E-04	614	9.92E-04	681	4.20E-04	748	5.88E-05
414	9.30E-06	481	2.47E-04	548	5.04E-04	615	9.95E-04	682	4.10E-04	749	5.66E-05
415	1.11E-05	482	2.53E-04	549	5.09E-04	616	9.94E-04	683	4.02E-04	750	5.44E-05
416	1.14E-05	483	2.63E-04	550	5.10E-04	617	1.00E-03	684	3.91E-04	751	5.32E-05
417	1.39E-05	484	2.72E-04	551	5.14E-04	618	9.98E-04	685	3.81E-04	752	5.17E-05
418	1.55E-05	485	2.82E-04	552	5.17E-04	619	9.95E-04	686	3.70E-04	753	5.02E-05
419	1.74E-05	486	2.92E-04	553	5.21E-04	620	9.97E-04	687	3.60E-04	754	4.82E-05
420	1.93E-05	487	3.00E-04	554	5.24E-04	621	9.94E-04	688	3.53E-04	755	4.67E-05
421	2.13E-05	488	3.08E-04	555	5.28E-04	622	9.96E-04	689	3.44E-04	756	4.56E-05
422	2.28E-05	489	3.20E-04	556	5.31E-04	623	9.98E-04	690	3.36E-04	757	4.35E-05
423	2.49E-05	490	3.28E-04	557	5.36E-04	624	9.94E-04	691	3.25E-04	758	4.24E-05
424	2.80E-05	491	3.36E-04	558	5.37E-04	625	9.94E-04	692	3.18E-04	759	4.11E-05
425	3.08E-05	492	3.46E-04	559	5.42E-04	626	9.88E-04	693	3.09E-04	760	3.97E-05
426	3.36E-05	493	3.56E-04	560	5.46E-04	627	9.83E-04	694	3.01E-04	761	3.85E-05
427	3.66E-05	494	3.61E-04	561	5.48E-04	628	9.79E-04	695	2.93E-04	762	3.72E-05
428	4.12E-05	495	3.70E-04	562	5.55E-04	629	9.77E-04	696	2.85E-04	763	3.60E-05
429	4.42E-05	496	3.77E-04	563	5.62E-04	630	9.69E-04	697	2.78E-04	764	3.53E-05
430	4.86E-05	497	3.85E-04	564	5.66E-04	631	9.61E-04	698	2.70E-04	765	3.42E-05
431	5.22E-05	498	3.92E-04	565	5.71E-04	632	9.56E-04	699	2.62E-04	766	3.29E-05
432	5.63E-05	499	4.00E-04	566	5.78E-04	633	9.52E-04	700	2.55E-04	767	3.23E-05
433	6.07E-05	500	4.07E-04	567	5.82E-04	634	9.42E-04	701	2.48E-04	768	3.06E-05
434	6.51E-05	501	4.14E-04	568	5.89E-04	635	9.37E-04	702	2.41E-04	769	2.95E-05
435	6.86E-05	502	4.22E-04	569	5.97E-04	636	9.31E-04	703	2.35E-04	770	2.87E-05
436	7.57E-05	503	4.26E-04	570	6.05E-04	637	9.18E-04	704	2.28E-04	771	2.75E-05
437	8.18E-05	504	4.31E-04	571	6.10E-04	638	9.10E-04	705	2.21E-04	772	2.70E-05
438	8.93E-05	505	4.36E-04	572	6.18E-04	639	9.00E-04	706	2.15E-04	773	2.58E-05
439	9.67E-05	506	4.39E-04	573	6.27E-04	640	8.89E-04	707	2.09E-04	774	2.52E-05
440	1.07E-04	507	4.44E-04	574	6.34E-04	641	8.76E-04	708	2.03E-04	775	2.46E-05
441	1.17E-04	508	4.45E-04	575	6.42E-04	642	8.66E-04	709	1.96E-04	776	2.39E-05
442	1.28E-04	509	4.47E-04	576	6.51E-04	643	8.59E-04	710	1.90E-04	777	2.32E-05
443	1.44E-04	510	4.51E-04	577	6.60E-04	644	8.49E-04	711	1.85E-04	778	2.24E-05
444	1.57E-04	511	4.51E-04	578	6.69E-04	645	8.37E-04	712	1.80E-04	779	2.24E-05
445	1.73E-04	512	4.55E-04	579	6.76E-04	646	8.26E-04	713	1.74E-04	780	2.24E-05
446	1.93E-04	513	4.54E-04	580	6.83E-04	647	8.16E-04	714	1.69E-04	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

<b>Model No.</b>	V1-24 @15W2700K	<b>Sample ID</b>	250728007-S1
<b>Operate time (Min.)</b>	30	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	24.9	<b>Humidity (%RH)</b>	42.1

<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using a type C goniophotometer and software.</p> <p>The ambient temperature shall be maintained at <math>25\pm1^{\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	0.059	15.1	0.918
<b>NON-WORST CASE</b>	120.0	60	0.122	14.6	0.994

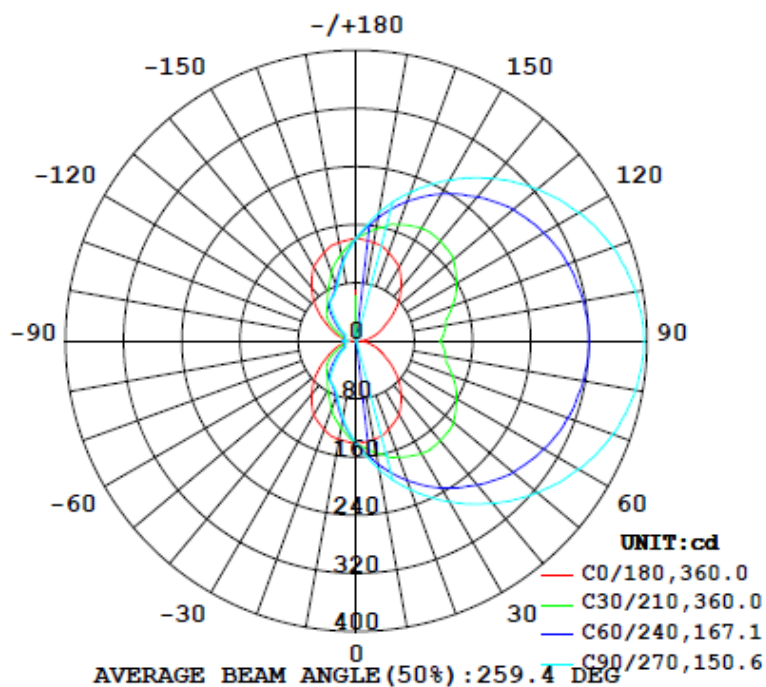
### Test Result

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°)	
1597	90.3	155.2	180.0	98.0	105.8	26.6%	B0-U4-G2

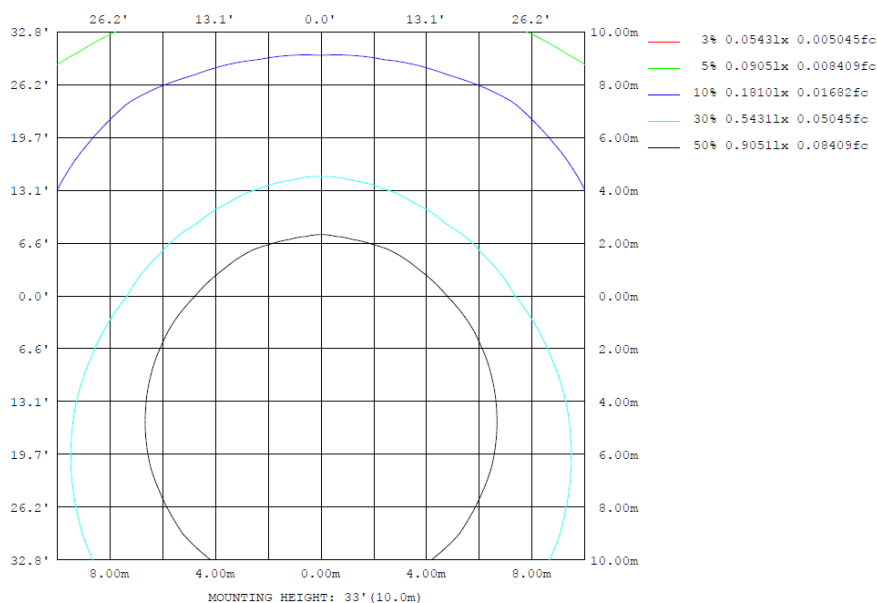
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

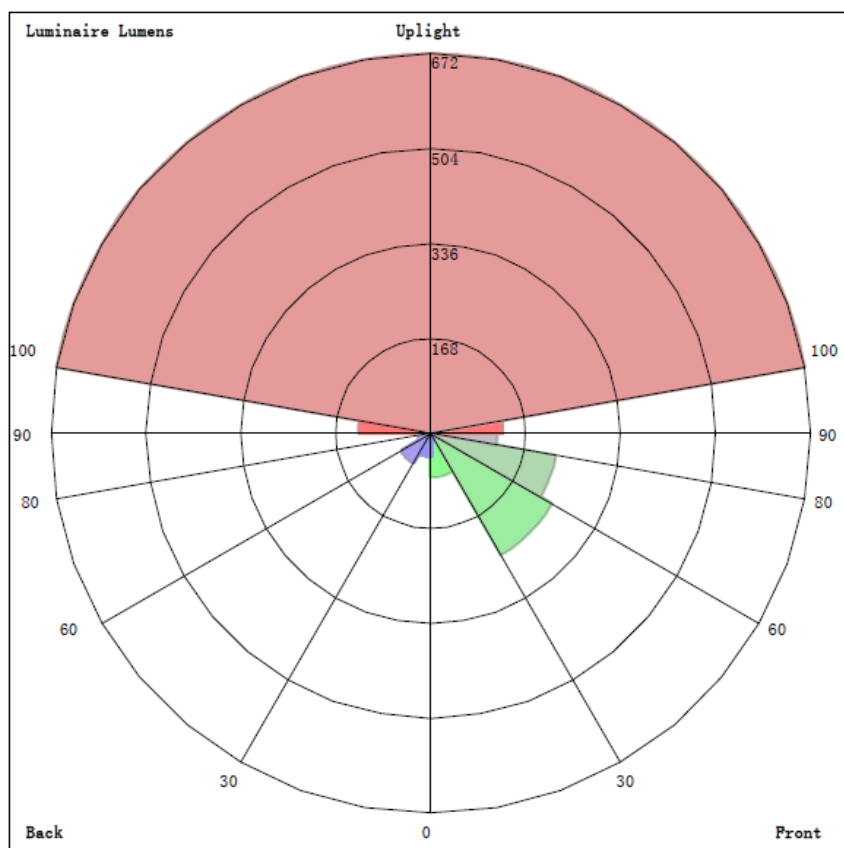
### Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	φ zone	φ total	%lum, lamp
10	137.6	164.5	179.6	164.5	137.6	115.0	107.8	115.0	0- 10	13.41	13.41	0.84, 0.84
20	129.6	190.1	217.8	190.1	129.6	89.50	79.06	89.50	10- 20	39.64	53.05	3.32, 3.32
30	117.8	207.9	255.5	207.9	117.8	69.83	67.85	69.83	20- 30	64.33	117.4	7.35, 7.35
40	95.71	223.6	292.1	223.6	95.71	61.81	50.23	61.81	30- 40	87.38	204.8	12.8, 12.8
50	72.23	231.6	325.0	231.6	72.23	45.12	31.21	45.12	40- 50	104.8	309.6	19.4, 19.4
60	47.32	235.5	353.2	235.5	47.32	28.23	17.39	28.23	50- 60	115.6	425.2	26.6, 26.6
70	31.26	234.3	375.9	234.3	31.26	18.20	16.40	18.20	60- 70	121.6	546.8	34.2, 34.2
80	16.59	230.5	389.4	230.5	16.59	17.60	15.92	17.60	70- 80	124.9	671.7	42.1, 42.1
90	3.320	227.7	395.9	227.7	3.320	19.35	18.29	19.35	80- 90	126.9	798.6	50, 50
100	16.59	230.5	389.4	230.5	16.59	17.60	15.92	17.60	90-100	126.9	925.5	57.9, 57.9
110	31.26	234.3	375.9	234.3	31.26	18.20	16.40	18.20	100-110	124.9	1050	65.8, 65.8
120	47.32	235.5	353.2	235.5	47.32	28.23	17.39	28.23	110-120	121.6	1172	73.4, 73.4
130	72.23	231.6	325.0	231.6	72.23	45.12	31.21	45.12	120-130	115.6	1288	80.6, 80.6
140	95.71	223.6	292.1	223.6	95.71	61.81	50.23	61.81	130-140	104.8	1392	87.2, 87.2
150	117.8	207.9	255.5	207.9	117.8	69.83	67.85	69.83	140-150	87.38	1480	92.7, 92.7
160	129.6	190.1	217.8	190.1	129.6	89.50	79.06	89.50	150-160	64.33	1544	96.7, 96.7
170	137.6	164.5	179.6	164.5	137.6	115.0	107.8	115.0	160-170	39.64	1584	99.2, 99.2
180	141.5	141.5	141.5	141.5	141.5	141.5	141.5	141.5	170-180	13.41	1597	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	13.41	0-10	13.41	0.85%
10-20	39.64	0-20	53.05	3.35%
20-30	64.33	0-30	117.38	7.41%
30-40	87.38	0-40	204.76	12.93%
40-50	104.84	0-50	309.60	19.55%
50-60	115.58	0-60	425.18	26.85%
60-70	121.59	0-70	546.77	34.52%
70-80	124.89	0-80	671.66	42.41%
80-90	126.92	0-90	798.58	50.42%
90-100	126.92	0-100	925.50	58.44%
100-110	124.89	0-110	1050.39	66.32%
110-120	121.59	0-120	1171.98	74.00%
120-130	115.58	0-130	1287.56	81.30%
130-140	104.84	0-140	1392.40	87.92%
140-150	87.38	0-150	1479.78	93.44%
150-160	64.33	0-160	1544.11	97.50%
160-170	39.64	0-170	1583.75	100.00%
170-180	13.41	0-180	1597.16	100.85%

## 4.2 Goniophotometer Test

LCS/BUG

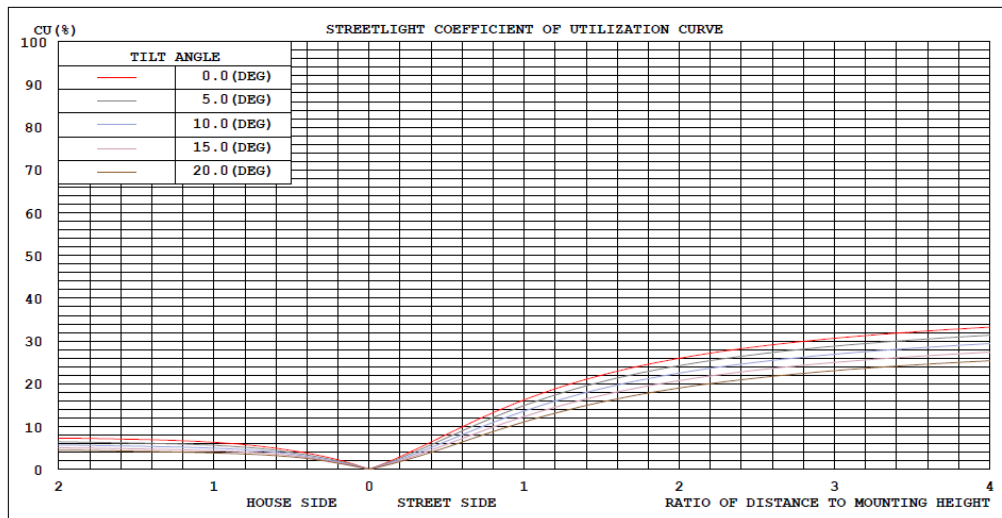


### LUMINAIRE CLASSIFICATION SYSTEM (LCS)

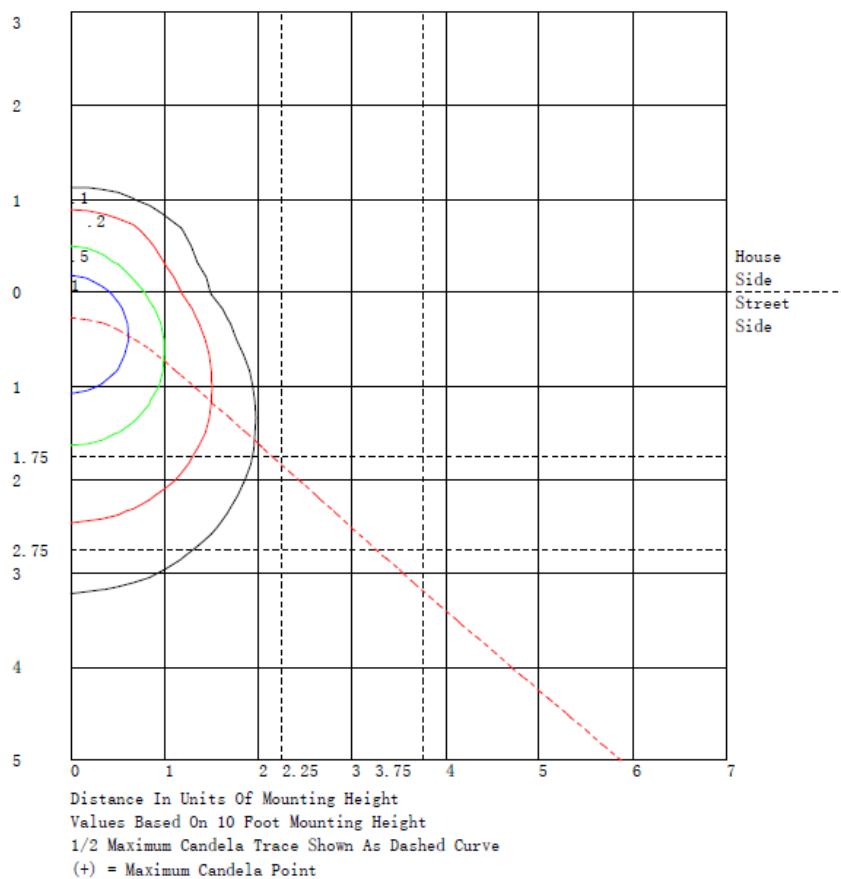
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	76.8	N.A.	4.8
FM - Front-Medium (30-60)	247.6	N.A.	15.5
FH - Front-High (60-80)	224.2	N.A.	14.0
FVH - Front-Very High (80-90)	117.8	N.A.	7.4
BL - Back-Low (0-30)	40.6	N.A.	2.5
BM - Back-Medium (30-60)	60.2	N.A.	3.8
BH - Back-High (60-80)	22.3	N.A.	1.4
BVH - Back-Very High (80-90)	9.1	N.A.	0.6
UL - Uplight-Low (90-100)	126.9	N.A.	7.9
UH - Uplight-High (100-180)	671.7	N.A.	42.1
Total	1597.2	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) y (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142
5	140	144	149	153	156	158	159	159	156	153	149	144	140	135	132	128	126	125	125
10	138	147	156	165	172	177	180	177	172	165	156	147	138	129	122	115	110	108	108
15	136	150	164	178	189	196	199	196	189	178	164	150	136	123	111	102	95.5	92.1	91.5
20	130	149	170	190	204	213	218	213	204	190	170	149	130	113	99.9	89.5	82.6	79.2	79.1
25	124	148	175	200	219	231	237	231	219	200	175	148	124	104	87.8	78.4	73.3	71.1	71.0
30	118	147	179	208	234	249	256	249	234	208	179	147	118	94.2	77.7	69.8	67.8	67.4	67.9
35	107	142	181	216	247	266	274	266	247	216	181	142	107	82.8	69.4	65.0	65.1	64.3	62.9
40	95.7	136	179	224	259	283	292	283	259	224	179	136	95.7	71.9	62.5	61.8	58.0	52.1	50.2
45	84.7	129	178	228	271	299	309	299	271	228	178	129	84.7	62.4	57.6	55.8	46.6	41.4	39.8
50	72.2	117	174	232	282	313	325	313	282	232	174	117	72.2	54.6	53.6	45.1	37.1	32.7	31.2
55	59.8	104	167	235	290	326	340	326	290	235	167	104	59.8	47.9	46.2	35.8	29.3	25.5	24.3
60	47.3	89.8	159	235	298	339	353	339	298	235	159	89.8	47.3	41.9	37.5	28.2	21.7	18.3	17.4
65	39.3	78.8	151	235	305	350	366	350	305	235	151	78.8	39.3	35.3	29.0	21.3	17.8	17.0	16.7
70	31.3	67.6	141	234	310	359	376	359	310	234	141	67.6	31.3	28.2	23.1	18.2	17.6	16.8	16.4
75	23.2	55.5	131	233	313	366	384	366	313	233	131	55.5	23.2	20.9	18.0	17.7	17.6	16.7	16.2
80	16.6	52.4	125	230	317	371	389	371	317	230	125	52.4	16.6	19.1	16.7	17.6	17.4	16.5	15.9
85	9.95	50.0	121	230	319	375	394	375	319	230	121	50.0	9.95	18.1	17.7	18.5	18.0	14.8	14.3
90	3.32	47.2	116	228	320	377	396	377	320	228	116	47.2	3.32	17.1	18.6	19.3	19.4	15.5	18.3
95	9.95	50.0	121	230	319	375	394	375	319	230	121	50.0	9.95	18.1	17.7	18.5	18.0	14.8	14.3
100	16.6	52.4	125	230	317	371	389	371	317	230	125	52.4	16.6	19.1	16.7	17.6	17.4	16.5	15.9
105	23.2	55.5	131	233	313	366	384	366	313	233	131	55.5	23.2	20.9	18.0	17.7	17.6	16.7	16.2
110	31.3	67.6	141	234	310	359	376	359	310	234	141	67.6	31.3	28.2	23.1	18.2	17.6	16.8	16.4
115	39.3	78.8	151	235	305	350	366	350	305	235	151	78.8	39.3	35.3	29.0	21.3	17.8	17.0	16.7
120	47.3	89.8	159	235	298	339	353	339	298	235	159	89.8	47.3	41.9	37.5	28.2	21.7	18.3	17.4
125	59.8	104	167	235	290	326	340	326	290	235	167	104	59.8	47.9	46.2	35.8	29.3	25.5	24.3
130	72.2	117	174	232	282	313	325	313	282	232	174	117	72.2	54.6	53.6	45.1	37.1	32.7	31.2
135	84.7	129	178	228	271	299	309	299	271	228	178	129	84.7	62.4	57.6	55.8	46.6	41.4	39.8
140	95.7	136	179	224	259	283	292	283	259	224	179	136	95.7	71.9	62.5	61.8	58.0	52.1	50.2
145	107	142	181	216	247	266	274	266	247	216	181	142	107	82.8	69.4	65.0	65.1	64.3	62.9
150	118	147	179	208	234	249	256	249	234	208	179	147	118	94.2	77.7	69.8	67.8	67.4	67.9
155	124	148	175	200	219	231	237	231	219	200	175	148	124	104	87.8	78.4	73.3	71.1	71.0
160	130	149	170	190	204	213	218	213	204	190	170	149	130	113	99.9	89.5	82.6	79.2	79.1
165	136	150	164	178	189	196	199	196	189	178	164	150	136	123	111	102	95.5	92.1	91.5
170	138	147	156	165	172	177	180	177	172	165	156	147	138	129	122	115	110	108	108
175	140	144	149	153	156	158	159	159	156	153	149	144	140	135	132	128	126	125	125
180	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142	142

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	142	142	142	142	142														
5	125	126	128	132	135														
10	108	110	115	122	129														
15	92.1	95.5	102	111	123														
20	79.2	82.6	89.5	99.9	113														
25	71.1	73.3	78.4	87.8	104														
30	67.4	67.8	69.8	77.7	94.2														
35	64.3	65.1	65.0	69.4	82.8														
40	52.1	58.0	61.8	62.5	71.9														
45	41.4	46.6	55.8	57.6	62.4														
50	32.7	37.1	45.1	53.6	54.6														
55	25.5	29.3	35.8	46.2	47.9														
60	18.3	21.7	28.2	37.5	41.9														
65	17.0	17.8	21.3	29.0	35.3														
70	16.8	17.6	18.2	23.1	28.2														
75	16.7	17.6	17.7	18.0	20.9														
80	16.5	17.4	17.6	16.7	19.1														
85	14.8	18.0	18.5	17.7	18.1														
90	15.5	19.4	19.3	18.6	17.1														
95	14.8	18.0	18.5	17.7	18.1														
100	16.5	17.4	17.6	16.7	19.1														
105	16.7	17.6	17.7	18.0	20.9														
110	16.8	17.6	18.2	23.1	28.2														
115	17.0	17.8	21.3	29.0	35.3														
120	18.3	21.7	28.2	37.5	41.9														
125	25.5	29.3	35.8	46.2	47.9														
130	32.7	37.1	45.1	53.6	54.6														
135	41.4	46.6	55.8	57.6	62.4														
140	52.1	58.0	61.8	62.5	71.9														
145	64.3	65.1	65.0	69.4	82.8														
150	67.4	67.8	69.8	77.7	94.2														
155	71.1	73.3	78.4	87.8	104														
160	79.2	82.6	89.5	99.9	113														
165	92.1	95.5	102	111	123														
170	108	110	115	122	129														
175	125	126	128	132	135														
180	142	142	142	142	142														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	V1-24 @15W2700K	<b>Sample ID</b>	250728007-S1
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

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

### Test Results

Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor	iTHD(%)
120.0	60	0.122	14.6	0.994	4.66
277.0	60	0.059	15.1	0.918	21.04



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