

## 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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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		2398
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	123.0
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.5
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	5.44
				277V	13.51
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.997
				277V	0.969
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4055
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		92.1
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		80
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		26.5%
Backlight, Uplight and Glare (BUG) Ratings (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019 IES TM-15-11	N/A		B0-U5-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		0.163
(Goniophotometer – Section 4.2)			Non-Worst Case		0.072
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.5
(Goniophotometer – Section 4.2)			Non-Worst Case		19.4

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-07-29	V1-24 @20W4000K	-	250728007-S1
2	Goniophotometer Test	2025-07-29	V1-24 @20W4000K	-	250728007-S1
3	THD and PF Test	2025-07-29	V1-24 @20W4000K	-	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 @20W4000K, 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 @20W4000K	<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

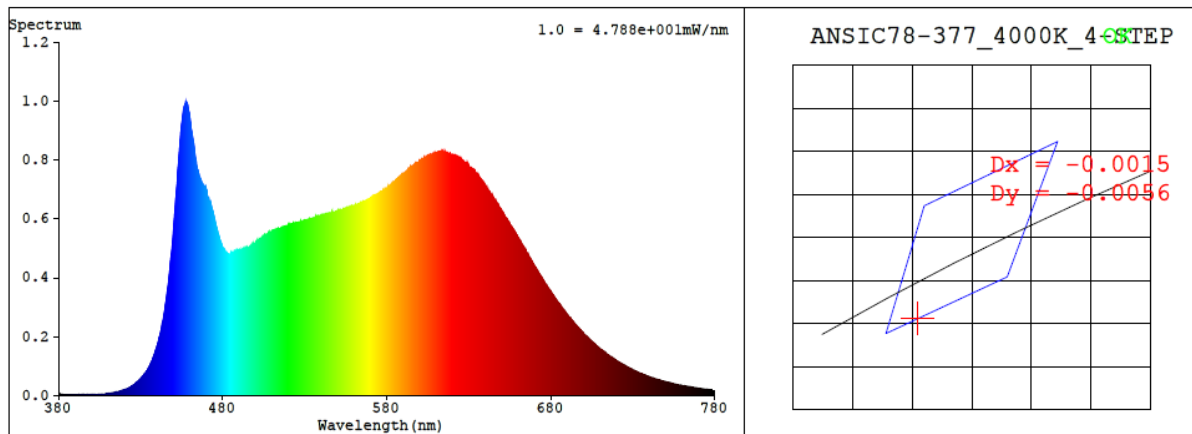
<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were 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	0.163	19.5	0.997
277.0	60	0.072	19.4	0.969

<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>
4055	92.1	80	-0.0022	3.8	87	95	-3%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.3766$   $y = 0.3696$  /  $u' = 0.2254$   $v' = 0.4978$  ( $duv = -2.23e-03$ )

CCT= 4055K Prcp WL:  $L_d = 580.2\text{nm}$  Purity=23.9%

Peak WL:  $L_p = 458\text{nm}$  FWHM:  $\approx 32.0\text{nm}$  Ratio: R=20.6% G=73.9% B=5.5%

Render Index:  $R_a = 92.1$  AvgR = 91.0 TM30:  $R_f = 89$   $R_g = 97$

EEL: 0.11441 A+

R1 =97 R2 =95 R3 =93 R4 =91 R5 =94 R6 =91 R7 =88

R8 =87 R9 =80 R10=91 R11=95 R12=74 R13=97 R14=97 R15=95

## 4.1 Integrating Sphere Test

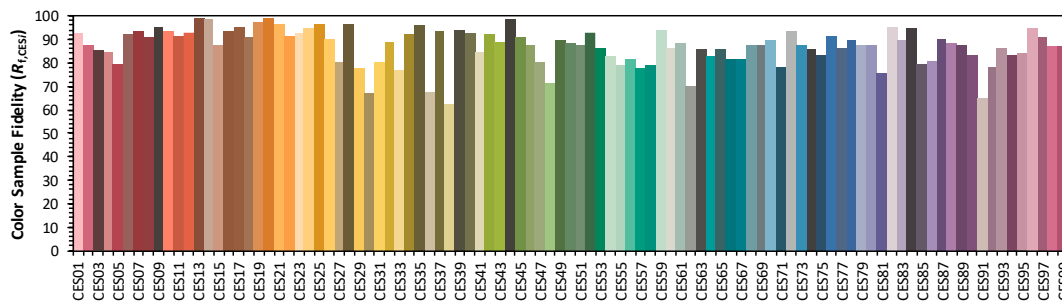
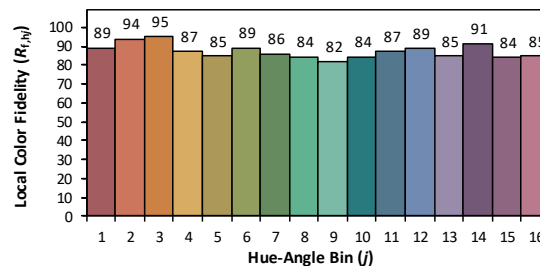
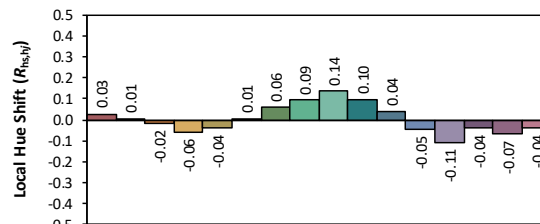
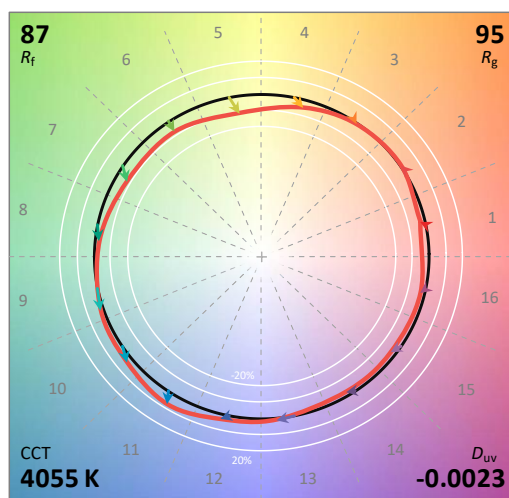
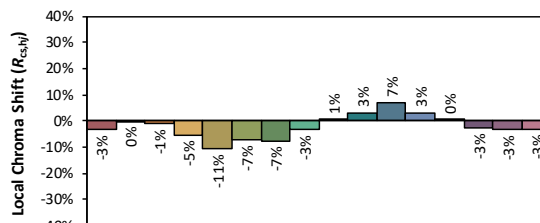
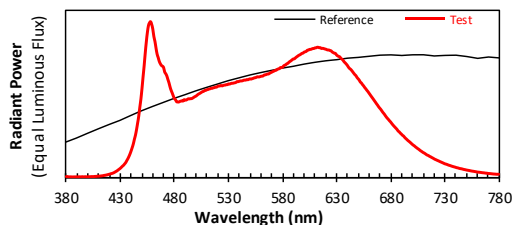
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc

Date: 2025/8/21

Model: V1-24 @20W4000K



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

$x$  0.3766  
 $y$  0.3695  
 $u'$  0.2254  
 $v'$  0.4978

CIE 13.3-1995  
(CRI)  
 $R_a$  92  
 $R_g$  80



## 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	4.00E-06	447	3.89E-04	514	5.67E-04	581	7.10E-04	648	6.48E-04	715	1.38E-04
381	4.30E-06	448	4.46E-04	515	5.67E-04	582	7.14E-04	649	6.36E-04	716	1.34E-04
382	2.60E-06	449	4.98E-04	516	5.71E-04	583	7.18E-04	650	6.28E-04	717	1.30E-04
383	2.30E-06	450	5.66E-04	517	5.72E-04	584	7.24E-04	651	6.20E-04	718	1.26E-04
384	2.50E-06	451	6.39E-04	518	5.75E-04	585	7.27E-04	652	6.08E-04	719	1.23E-04
385	2.10E-06	452	7.10E-04	519	5.75E-04	586	7.34E-04	653	6.01E-04	720	1.19E-04
386	1.80E-06	453	7.91E-04	520	5.80E-04	587	7.39E-04	654	5.91E-04	721	1.15E-04
387	2.20E-06	454	8.63E-04	521	5.82E-04	588	7.44E-04	655	5.83E-04	722	1.12E-04
388	2.30E-06	455	9.23E-04	522	5.82E-04	589	7.50E-04	656	5.73E-04	723	1.08E-04
389	2.40E-06	456	9.68E-04	523	5.86E-04	590	7.55E-04	657	5.65E-04	724	1.05E-04
390	2.40E-06	457	9.85E-04	524	5.83E-04	591	7.56E-04	658	5.55E-04	725	1.02E-04
391	2.40E-06	458	9.92E-04	525	5.85E-04	592	7.62E-04	659	5.47E-04	726	9.88E-05
392	3.00E-06	459	9.75E-04	526	5.88E-04	593	7.67E-04	660	5.37E-04	727	9.59E-05
393	2.40E-06	460	9.46E-04	527	5.88E-04	594	7.72E-04	661	5.27E-04	728	9.28E-05
394	2.70E-06	461	8.98E-04	528	5.91E-04	595	7.78E-04	662	5.18E-04	729	8.98E-05
395	3.30E-06	462	8.66E-04	529	5.91E-04	596	7.81E-04	663	5.08E-04	730	8.62E-05
396	2.30E-06	463	8.24E-04	530	5.96E-04	597	7.85E-04	664	4.99E-04	731	8.42E-05
397	3.00E-06	464	7.86E-04	531	5.94E-04	598	7.90E-04	665	4.89E-04	732	8.20E-05
398	3.20E-06	465	7.64E-04	532	5.97E-04	599	7.92E-04	666	4.79E-04	733	7.92E-05
399	2.60E-06	466	7.39E-04	533	6.00E-04	600	7.98E-04	667	4.69E-04	734	7.65E-05
400	3.20E-06	467	7.24E-04	534	6.00E-04	601	8.01E-04	668	4.60E-04	735	7.46E-05
401	3.40E-06	468	7.13E-04	535	6.02E-04	602	8.03E-04	669	4.49E-04	736	7.21E-05
402	3.30E-06	469	7.08E-04	536	6.03E-04	603	8.10E-04	670	4.41E-04	737	6.97E-05
403	3.90E-06	470	7.00E-04	537	6.05E-04	604	8.11E-04	671	4.32E-04	738	6.77E-05
404	4.10E-06	471	6.72E-04	538	6.10E-04	605	8.16E-04	672	4.22E-04	739	6.57E-05
405	3.90E-06	472	6.61E-04	539	6.10E-04	606	8.16E-04	673	4.13E-04	740	6.38E-05
406	4.80E-06	473	6.46E-04	540	6.12E-04	607	8.18E-04	674	4.05E-04	741	6.12E-05
407	5.30E-06	474	6.24E-04	541	6.14E-04	608	8.21E-04	675	3.95E-04	742	6.00E-05
408	5.60E-06	475	6.02E-04	542	6.14E-04	609	8.21E-04	676	3.85E-04	743	5.78E-05
409	6.60E-06	476	5.76E-04	543	6.16E-04	610	8.25E-04	677	3.76E-04	744	5.57E-05
410	6.50E-06	477	5.54E-04	544	6.18E-04	611	8.26E-04	678	3.69E-04	745	5.46E-05
411	7.60E-06	478	5.37E-04	545	6.20E-04	612	8.29E-04	679	3.60E-04	746	5.32E-05
412	8.00E-06	479	5.18E-04	546	6.20E-04	613	8.29E-04	680	3.53E-04	747	5.12E-05
413	9.10E-06	480	5.02E-04	547	6.23E-04	614	8.26E-04	681	3.44E-04	748	4.94E-05
414	9.90E-06	481	4.95E-04	548	6.22E-04	615	8.27E-04	682	3.35E-04	749	4.82E-05
415	1.17E-05	482	4.82E-04	549	6.25E-04	616	8.22E-04	683	3.27E-04	750	4.64E-05
416	1.26E-05	483	4.81E-04	550	6.28E-04	617	8.23E-04	684	3.20E-04	751	4.50E-05
417	1.42E-05	484	4.80E-04	551	6.26E-04	618	8.21E-04	685	3.12E-04	752	4.38E-05
418	1.57E-05	485	4.84E-04	552	6.29E-04	619	8.19E-04	686	3.05E-04	753	4.26E-05
419	1.78E-05	486	4.86E-04	553	6.31E-04	620	8.17E-04	687	2.95E-04	754	4.10E-05
420	1.93E-05	487	4.88E-04	554	6.35E-04	621	8.14E-04	688	2.90E-04	755	3.96E-05
421	2.19E-05	488	4.86E-04	555	6.35E-04	622	8.12E-04	689	2.82E-04	756	3.84E-05
422	2.37E-05	489	4.95E-04	556	6.38E-04	623	8.12E-04	690	2.75E-04	757	3.75E-05
423	2.60E-05	490	4.92E-04	557	6.41E-04	624	8.09E-04	691	2.68E-04	758	3.60E-05
424	2.90E-05	491	4.93E-04	558	6.40E-04	625	8.06E-04	692	2.63E-04	759	3.50E-05
425	3.30E-05	492	4.97E-04	559	6.41E-04	626	7.99E-04	693	2.55E-04	760	3.34E-05
426	3.69E-05	493	5.01E-04	560	6.44E-04	627	7.95E-04	694	2.48E-04	761	3.25E-05
427	4.13E-05	494	5.00E-04	561	6.45E-04	628	7.92E-04	695	2.41E-04	762	3.18E-05
428	4.66E-05	495	5.02E-04	562	6.46E-04	629	7.90E-04	696	2.35E-04	763	3.09E-05
429	5.18E-05	496	5.02E-04	563	6.52E-04	630	7.80E-04	697	2.29E-04	764	2.99E-05
430	5.72E-05	497	5.06E-04	564	6.53E-04	631	7.75E-04	698	2.23E-04	765	2.89E-05
431	6.39E-05	498	5.10E-04	565	6.55E-04	632	7.71E-04	699	2.17E-04	766	2.83E-05
432	7.08E-05	499	5.15E-04	566	6.59E-04	633	7.68E-04	700	2.11E-04	767	2.74E-05
433	7.68E-05	500	5.18E-04	567	6.59E-04	634	7.59E-04	701	2.05E-04	768	2.61E-05
434	8.55E-05	501	5.24E-04	568	6.63E-04	635	7.54E-04	702	2.00E-04	769	2.58E-05
435	9.39E-05	502	5.29E-04	569	6.67E-04	636	7.47E-04	703	1.94E-04	770	2.44E-05
436	1.07E-04	503	5.33E-04	570	6.70E-04	637	7.37E-04	704	1.89E-04	771	2.38E-05
437	1.19E-04	504	5.37E-04	571	6.74E-04	638	7.30E-04	705	1.83E-04	772	2.32E-05
438	1.34E-04	505	5.42E-04	572	6.77E-04	639	7.22E-04	706	1.79E-04	773	2.25E-05
439	1.50E-04	506	5.46E-04	573	6.81E-04	640	7.14E-04	707	1.73E-04	774	2.16E-05
440	1.69E-04	507	5.48E-04	574	6.83E-04	641	7.03E-04	708	1.68E-04	775	2.08E-05
441	1.90E-04	508	5.54E-04	575	6.87E-04	642	6.94E-04	709	1.63E-04	776	2.03E-05
442	2.13E-04	509	5.54E-04	576	6.91E-04	643	6.89E-04	710	1.58E-04	777	1.98E-05
443	2.42E-04	510	5.58E-04	577	6.93E-04	644	6.81E-04	711	1.55E-04	778	1.91E-05
444	2.69E-04	511	5.60E-04	578	6.99E-04	645	6.72E-04	712	1.50E-04	779	1.90E-05
445	3.05E-04	512	5.63E-04	579	7.00E-04	646	6.63E-04	713	1.45E-04	780	1.91E-05
446	3.46E-04	513	5.64E-04	580	7.02E-04	647	6.54E-04	714	1.41E-04	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

<b>Model No.</b>	V1-24 @20W4000K	<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 \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>	120.0	60	0.163	19.5	0.997
<b>NON-WORST CASE</b>	277.0	60	0.072	19.4	0.969

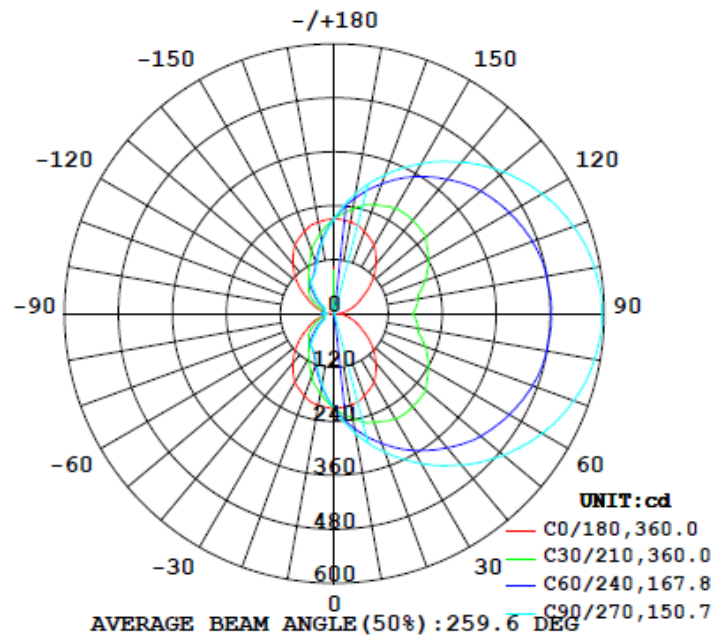
### Test Result

Flux (lm)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)	Zonal Lumen Requirement	BUG
	C0-180	C90-270	C0-180	C90-270		( $0^\circ$ - $60^\circ$ )	
2398	89.5	155.0	180.0	98.2	123.0	26.5%	B0-U5-G2

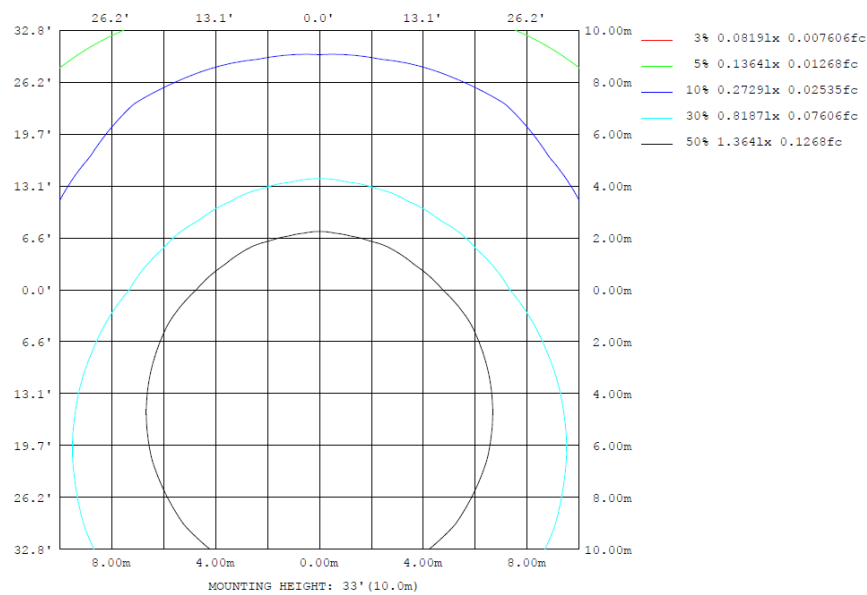
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

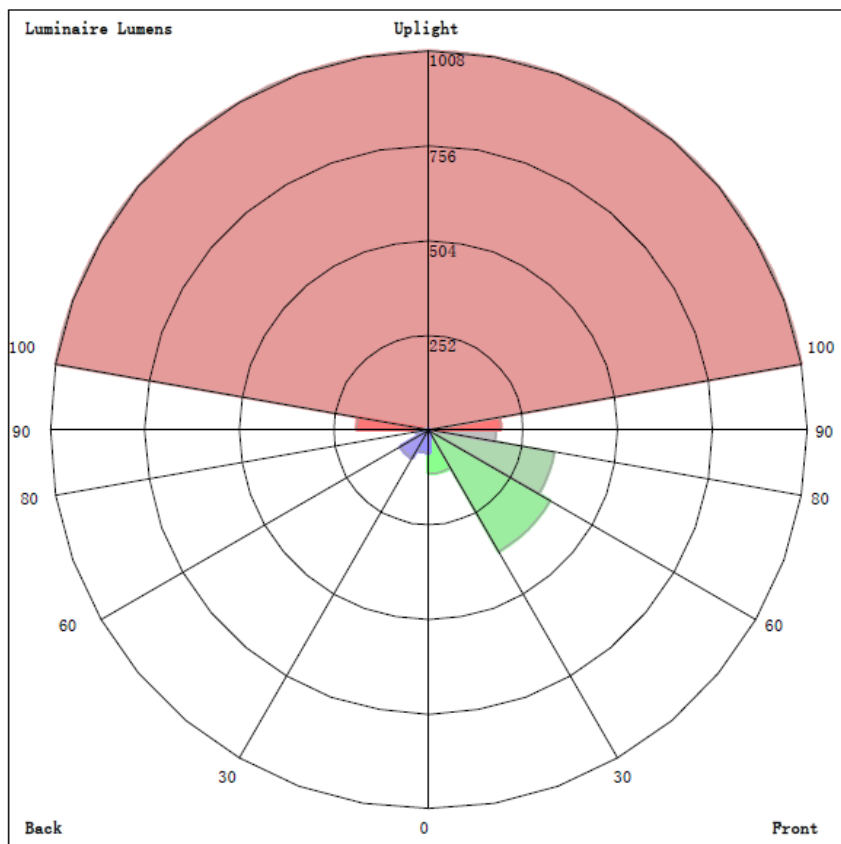
### Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	φ zone	φ total	Σlum, lamp
10	206.6	249.7	270.2	249.7	206.6	171.4	160.2	171.4	0- 10	20.13	20.13	0.84, 0.84
20	194.8	287.5	327.8	287.5	194.8	132.2	115.3	132.2	10- 20	59.49	79.62	3.32, 3.32
30	176.8	313.5	384.8	313.5	176.8	100.4	94.64	100.4	20- 30	96.11	175.7	7.33, 7.33
40	143.5	337.2	439.5	337.2	143.5	86.21	74.69	86.21	30- 40	130.3	306.1	12.8, 12.8
50	108.1	350.3	490.7	350.3	108.1	66.54	45.37	66.54	40- 50	157.0	463.1	19.3, 19.3
60	70.48	355.5	533.5	355.5	70.48	40.63	24.53	40.63	50- 60	173.4	636.5	26.5, 26.5
70	45.97	356.4	566.5	356.4	45.97	25.70	23.05	25.70	60- 70	182.9	819.4	34.2, 34.2
80	24.00	349.7	587.0	349.7	24.00	25.41	23.20	25.41	70- 80	188.1	1008	42, 42
90	4.568	344.4	595.3	344.4	4.568	29.92	27.69	29.92	80- 90	191.3	1199	50, 50
100	24.00	349.7	587.0	349.7	24.00	25.41	23.20	25.41	90-100	191.3	1390	58, 58
110	45.97	356.4	566.5	356.4	45.97	25.70	23.05	25.70	100-110	188.1	1578	65.8, 65.8
120	70.48	355.5	533.5	355.5	70.48	40.63	24.53	40.63	110-120	182.9	1761	73.5, 73.5
130	108.1	350.3	490.7	350.3	108.1	66.54	45.37	66.54	120-130	173.4	1934	80.7, 80.7
140	143.5	337.2	439.5	337.2	143.5	86.21	74.69	86.21	130-140	157.0	2091	87.2, 87.2
150	176.8	313.5	384.8	313.5	176.8	100.4	94.64	100.4	140-150	130.3	2222	92.7, 92.7
160	194.8	287.5	327.8	287.5	194.8	132.2	115.3	132.2	150-160	96.11	2318	96.7, 96.7
170	206.6	249.7	270.2	249.7	206.6	171.4	160.2	171.4	160-170	59.49	2377	99.2, 99.2
180	212.2	212.2	212.2	212.2	212.2	212.2	212.2	212.2	170-180	20.13	2398	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	20.13	0-10	20.13	0.85%
10-20	59.49	0-20	79.62	3.35%
20-30	96.11	0-30	175.73	7.39%
30-40	130.33	0-40	306.06	12.87%
40-50	157.03	0-50	463.09	19.48%
50-60	173.40	0-60	636.49	26.77%
60-70	182.91	0-70	819.40	34.47%
70-80	188.12	0-80	1007.52	42.38%
80-90	191.25	0-90	1198.77	50.42%
90-100	191.25	0-100	1390.02	58.47%
100-110	188.12	0-110	1578.14	66.38%
110-120	182.91	0-120	1761.05	74.07%
120-130	173.40	0-130	1934.45	81.37%
130-140	157.03	0-140	2091.48	87.97%
140-150	130.33	0-150	2221.81	93.46%
150-160	96.11	0-160	2317.92	97.50%
160-170	59.49	0-170	2377.41	100.00%
170-180	20.13	0-180	2397.54	100.85%

## 4.2 Goniophotometer Test

LCS/BUG

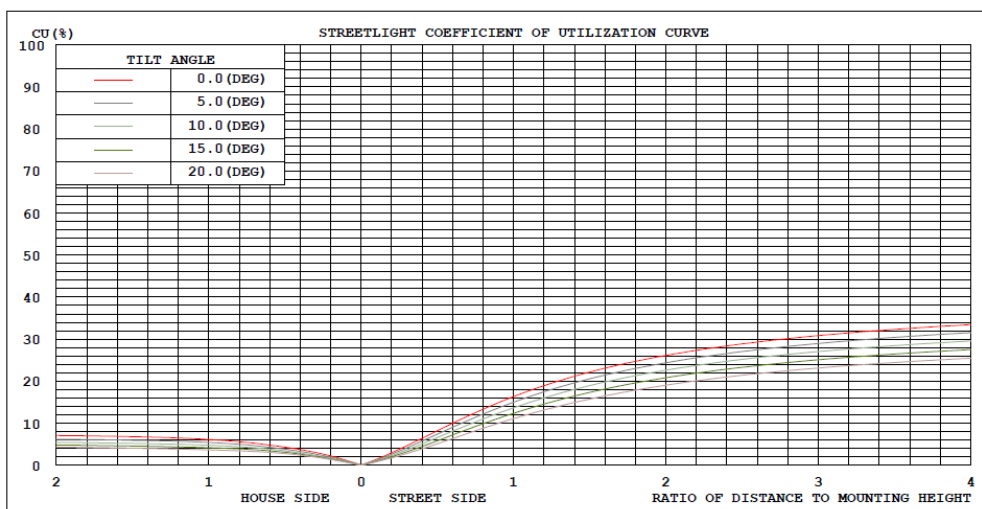


### LUMINAIRE CLASSIFICATION SYSTEM (LCS)

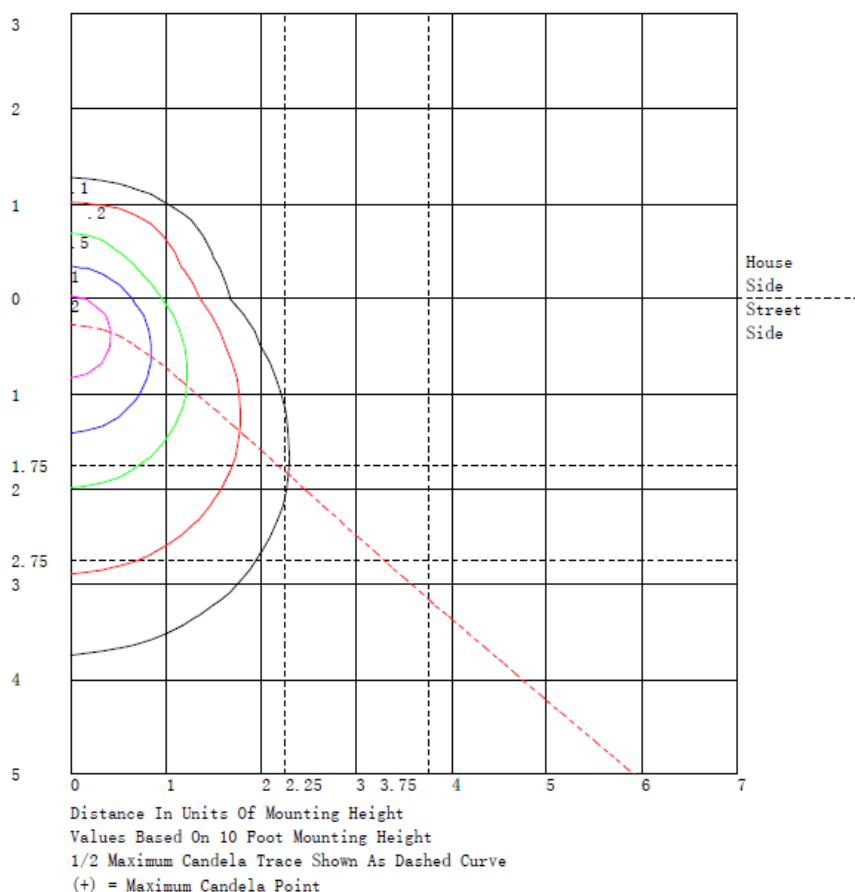
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	115.8	N.A.	4.8
FM - Front-Medium (30-60)	373.9	N.A.	15.6
FH - Front-High (60-80)	339.1	N.A.	14.1
FVH - Front-Very High (80-90)	177.8	N.A.	7.4
BL - Back-Low (0-30)	59.9	N.A.	2.5
BM - Back-Medium (30-60)	86.9	N.A.	3.6
BH - Back-High (60-80)	31.9	N.A.	1.3
BVH - Back-Very High (80-90)	13.5	N.A.	0.6
UL - Uplight-Low (90-100)	191.3	N.A.	8.0
UH - Uplight-High (100-180)	1007.5	N.A.	42.0
Total	2397.6	N.A.	100.0
BUG Rating	B0-U5-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	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212
5	209	217	224	230	235	239	241	239	235	230	224	217	209	203	197	192	188	186	186
10	207	221	236	250	260	267	270	267	260	250	236	221	207	194	181	171	165	161	160
15	204	227	249	268	284	295	299	295	284	268	249	227	204	184	166	151	141	136	136
20	195	226	258	288	307	321	328	321	307	288	258	226	195	168	148	132	121	116	115
25	186	225	264	300	330	348	357	348	330	300	264	225	186	154	130	115	106	101	101
30	177	224	270	313	352	375	385	375	352	313	270	224	177	140	114	100	95.6	94.4	94.6
35	160	215	272	326	371	401	413	401	371	326	272	215	160	122	100.0	91.5	90.4	90.9	91.4
40	144	205	271	337	390	426	440	426	390	337	271	205	144	106	88.9	86.2	84.6	77.3	74.7
45	127	195	268	344	408	450	466	450	408	344	268	195	127	90.4	80.6	79.4	68.7	61.0	58.4
50	108	178	265	350	425	473	491	473	425	350	265	178	108	78.4	74.1	66.5	54.5	47.6	45.4
55	89.3	158	252	355	437	493	512	493	437	355	252	158	89.3	68.0	64.6	52.4	42.2	36.3	34.3
60	70.5	137	242	356	449	512	534	512	449	356	242	137	70.5	58.8	53.5	40.6	30.7	25.7	24.5
65	58.2	120	229	358	460	528	552	528	460	358	229	120	58.2	49.8	42.4	30.3	25.1	23.5	23.2
70	46.0	102	215	356	469	541	567	541	469	356	215	102	46.0	40.2	33.5	25.7	24.8	23.4	23.1
75	33.7	83.8	199	354	476	551	579	551	476	354	199	83.8	33.7	30.3	26.1	25.2	24.9	23.7	23.1
80	24.0	79.0	190	350	479	560	587	560	479	350	190	79.0	24.0	28.3	24.6	25.4	24.9	23.4	23.2
85	14.3	75.1	183	349	482	565	593	565	482	349	183	75.1	14.3	27.3	26.4	27.6	26.5	21.4	21.3
90	4.57	70.5	174	344	482	567	595	567	482	344	174	70.5	4.57	26.5	28.3	29.9	29.8	23.0	27.7
95	14.3	75.1	183	349	482	565	593	565	482	349	183	75.1	14.3	27.3	26.4	27.6	26.5	21.4	21.3
100	24.0	79.0	190	350	479	560	587	560	479	350	190	79.0	24.0	28.3	24.6	25.4	24.9	23.4	23.2
105	33.7	83.8	199	354	476	551	579	551	476	354	199	83.8	33.7	30.3	26.1	25.2	24.9	23.7	23.1
110	46.0	102	215	356	469	541	567	541	469	356	215	102	46.0	40.2	33.5	25.7	24.8	23.4	23.1
115	58.2	120	229	358	460	528	552	528	460	358	229	120	58.2	49.8	42.4	30.3	25.1	23.5	23.2
120	70.5	137	242	356	449	512	534	512	449	356	242	137	70.5	58.8	53.5	40.6	30.7	25.7	24.5
125	89.3	158	252	355	437	493	512	493	437	355	252	158	89.3	68.0	64.6	52.4	42.2	36.3	34.3
130	108	178	265	350	425	473	491	473	425	350	265	178	108	78.4	74.1	66.5	54.5	47.6	45.4
135	127	195	268	344	408	450	466	450	408	344	268	195	127	90.4	80.6	79.4	68.7	61.0	58.4
140	144	205	271	337	390	426	440	426	390	337	271	205	144	106	88.9	86.2	84.6	77.3	74.7
145	160	215	272	326	371	401	413	401	371	326	272	215	160	122	100.0	91.5	90.4	90.9	91.4
150	177	224	270	313	352	375	385	375	352	313	270	224	177	140	114	100	95.6	94.4	94.6
155	186	225	264	300	330	348	357	348	330	300	264	225	186	154	130	115	106	101	101
160	195	226	258	288	307	321	328	321	307	288	258	226	195	168	148	132	121	116	115
165	204	227	249	268	284	295	299	295	284	268	249	227	204	184	166	151	141	136	136
170	207	221	236	250	260	267	270	267	260	250	236	221	207	194	181	171	165	161	160
175	209	217	224	230	235	239	241	239	235	230	224	217	209	203	197	192	188	186	186
180	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	212	212	212	212	212														
5	186	188	192	197	203														
10	161	165	171	181	194														
15	136	141	151	166	184														
20	116	121	132	148	168														
25	101	106	115	130	154														
30	94.4	95.6	100	114	140														
35	90.9	90.4	91.5	100.0	122														
40	77.3	84.6	86.2	88.9	106														
45	61.0	68.7	79.4	80.6	90.4														
50	47.6	54.5	66.5	74.1	78.4														
55	36.3	42.2	52.4	64.6	68.0														
60	25.7	30.7	40.6	53.5	58.8														
65	23.5	25.1	30.3	42.4	49.8														
70	23.4	24.8	25.7	33.5	40.2														
75	23.7	24.9	25.2	26.1	30.3														
80	23.4	24.9	25.4	24.6	28.3														
85	21.4	26.5	27.6	26.4	27.3														
90	23.0	29.8	29.9	28.3	26.5														
95	21.4	26.5	27.6	26.4	27.3														
100	23.4	24.9	25.4	24.6	28.3														
105	23.7	24.9	25.2	26.1	30.3														
110	23.4	24.8	25.7	33.5	40.2														
115	23.5	25.1	30.3	42.4	49.8														
120	25.7	30.7	40.6	53.5	58.8														
125	36.3	42.2	52.4	64.6	68.0														
130	47.6	54.5	66.5	74.1	78.4														
135	61.0	68.7	79.4	80.6	90.4														
140	77.3	84.6	86.2	88.9	106														
145	90.9	90.4	91.5	100.0	122														
150	94.4	95.6	100	114	140														
155	101	106	115	130	154														
160	116	121	132	148	168														
165	136	141	151	166	184														
170	161	165	171	181	194														
175	186	188	192	197	203														
180	212	212	212	212	212														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	V1-24 @20W4000K	<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	0.163	19.5	0.997	5.44
277.0	60	0.072	19.4	0.969	13.51



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