

## 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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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		1241
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	113.9
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.9
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	8.60
				277V	32.71
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.989
				277V	0.843
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3546
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		92.0
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		88
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%		-3%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		26.7%
Backlight, Uplight and Glare (BUG) Ratings (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019 IES TM-15-11	N/A		B0-U4-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		0.047
(Goniophotometer – Section 4.2)			Non-Worst Case		0.084
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.9
(Goniophotometer – Section 4.2)			Non-Worst Case		10.0

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-07	V1-24 @10W3500K	-	250728007-S1
2	Goniophotometer Test	2025-08-07	V1-24 @10W3500K	-	250728007-S1
3	THD and PF Test	2025-08-07	V1-24 @10W3500K	-	250728007-S1

### Remark (If any):

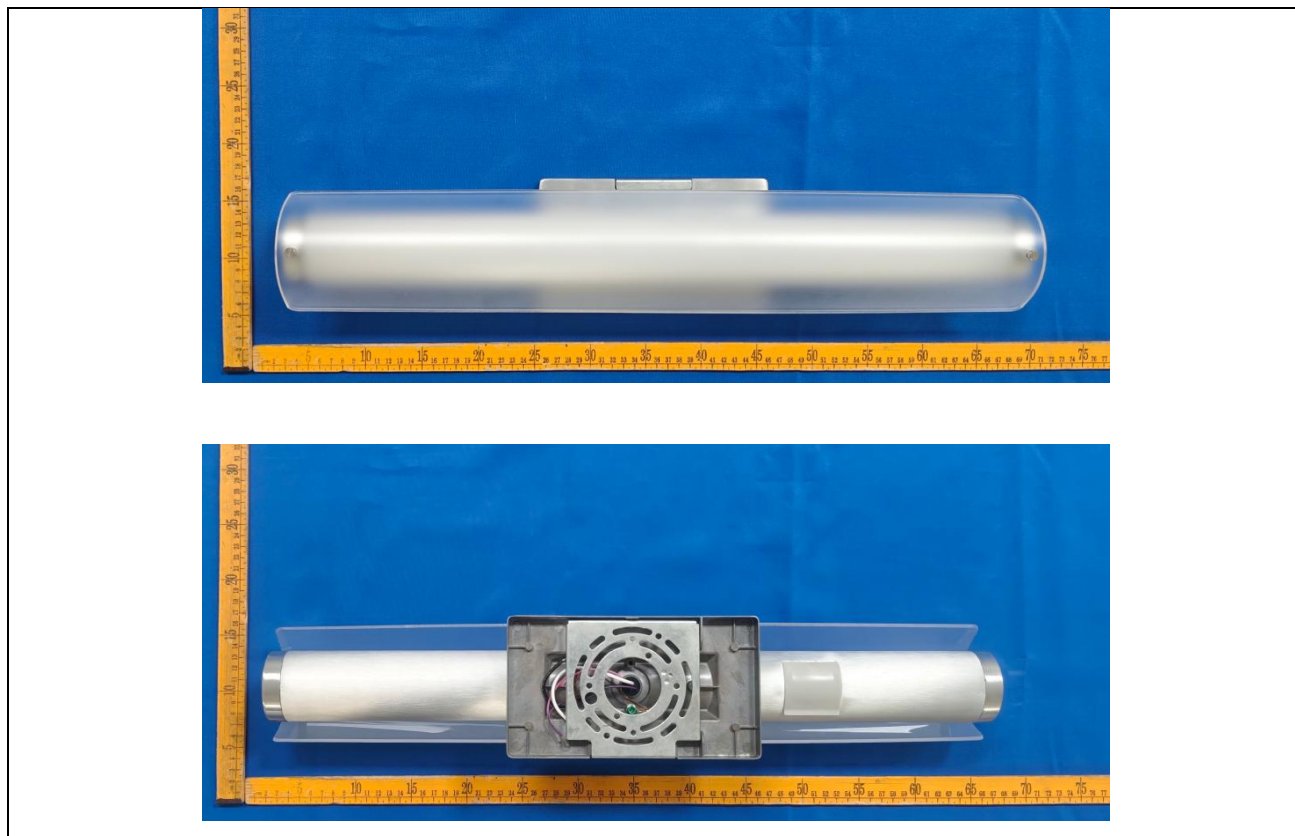
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

### 3.0 Product Description

Luminaire Description: Model No. V1-24 @10W3500K, 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 @10W3500K	<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

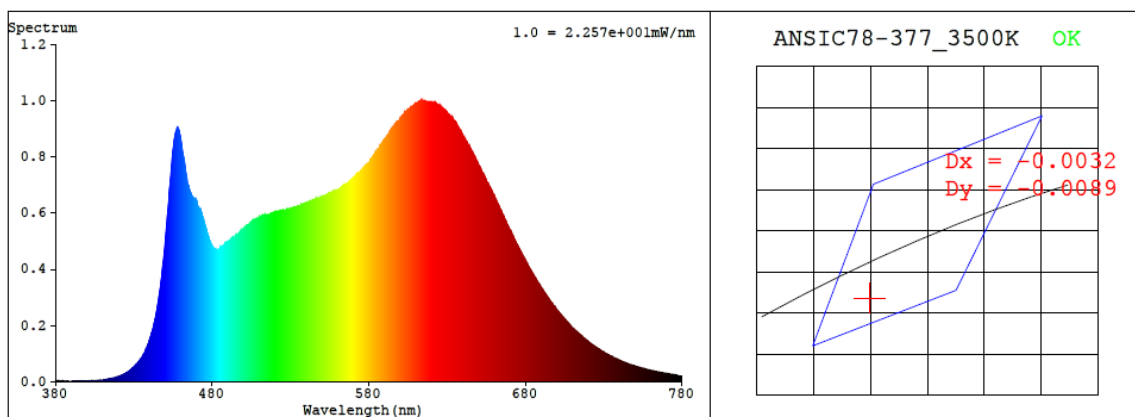
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.084	10.0	0.989
277.0	60	0.047	10.9	0.843

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3546	92.0	80	-0.0032	4.8	88	96	-3%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.3995$   $y = 0.3806$  /  $u' = 0.2361$   $v' = 0.5061$  ( $duv = -3.24e-03$ )

CCT= 3546K Prcp WL:  $L_d = 582.3\text{nm}$  Purity=34.1%

Peak WL:  $L_p = 614\text{nm}$  FWHM:  $= 183.3\text{nm}$  Ratio: R=22.7% G=72.4% B=4.8%

Render Index:  $R_a = 92.0$  AvgR = 91.1 TM30: Rf=90 Rg=98

EEL: 0.12322 A+

R1 =97 R2 =94 R3 =92 R4 =94 R5 =95 R6 =89 R7 =89

R8 =87 R9 =80 R10=88 R11=97 R12=77 R13=95 R14=96 R15=96

## 4.1 Integrating Sphere Test

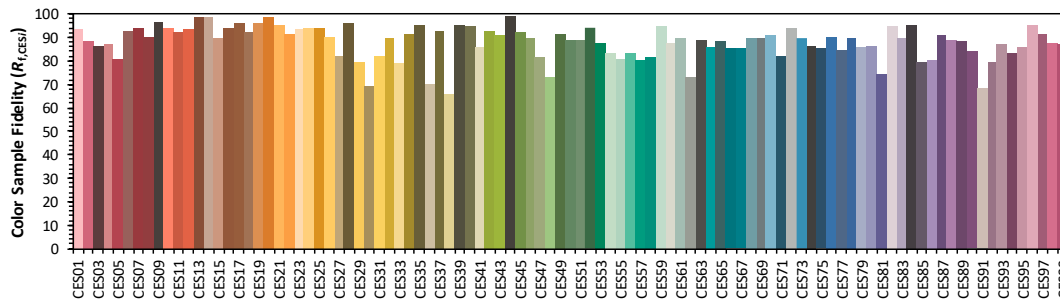
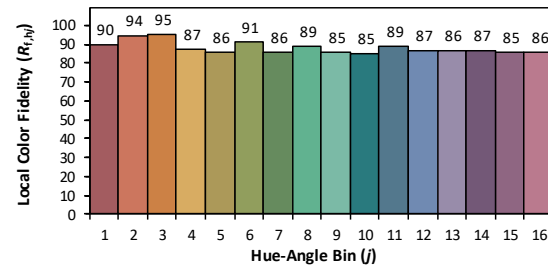
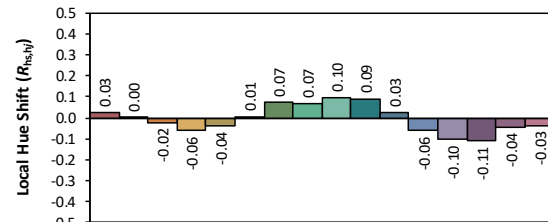
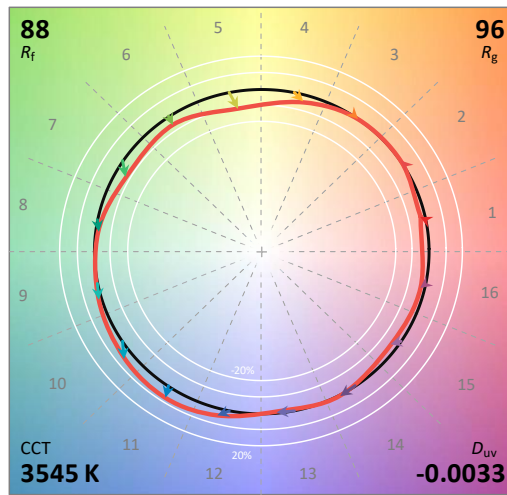
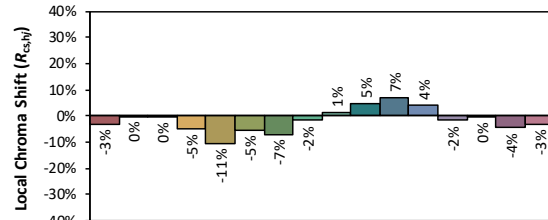
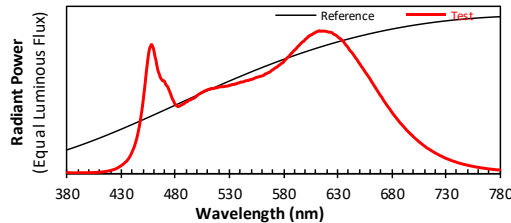
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc

Date: 2025/8/21

Model: V1-24 @10W3500K



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

$x$  0.3995  
 $y$  0.3805  
 $u'$  0.2362  
 $v'$  0.5060

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	3.70E-06	447	3.43E-04	514	5.95E-04	581	7.89E-04	648	7.97E-04	715	1.67E-04
381	3.10E-06	448	3.91E-04	515	5.93E-04	582	7.96E-04	649	7.83E-04	716	1.62E-04
382	3.20E-06	449	4.40E-04	516	5.94E-04	583	8.04E-04	650	7.72E-04	717	1.56E-04
383	2.60E-06	450	4.98E-04	517	5.97E-04	584	8.13E-04	651	7.62E-04	718	1.53E-04
384	2.10E-06	451	5.63E-04	518	6.00E-04	585	8.19E-04	652	7.48E-04	719	1.48E-04
385	2.40E-06	452	6.28E-04	519	5.98E-04	586	8.27E-04	653	7.40E-04	720	1.43E-04
386	1.10E-06	453	7.01E-04	520	6.03E-04	587	8.38E-04	654	7.28E-04	721	1.38E-04
387	2.60E-06	454	7.66E-04	521	6.06E-04	588	8.43E-04	655	7.17E-04	722	1.35E-04
388	1.60E-06	455	8.26E-04	522	6.05E-04	589	8.54E-04	656	7.04E-04	723	1.31E-04
389	1.60E-06	456	8.69E-04	523	6.07E-04	590	8.61E-04	657	6.94E-04	724	1.27E-04
390	1.80E-06	457	8.89E-04	524	6.06E-04	591	8.67E-04	658	6.84E-04	725	1.22E-04
391	2.30E-06	458	9.02E-04	525	6.06E-04	592	8.75E-04	659	6.73E-04	726	1.19E-04
392	2.40E-06	459	8.87E-04	526	6.10E-04	593	8.85E-04	660	6.62E-04	727	1.16E-04
393	2.50E-06	460	8.63E-04	527	6.10E-04	594	8.93E-04	661	6.49E-04	728	1.12E-04
394	2.90E-06	461	8.22E-04	528	6.10E-04	595	9.00E-04	662	6.35E-04	729	1.08E-04
395	2.80E-06	462	7.91E-04	529	6.12E-04	596	9.08E-04	663	6.25E-04	730	1.04E-04
396	2.60E-06	463	7.50E-04	530	6.16E-04	597	9.16E-04	664	6.12E-04	731	1.01E-04
397	2.70E-06	464	7.16E-04	531	6.16E-04	598	9.22E-04	665	6.01E-04	732	9.83E-05
398	2.60E-06	465	6.96E-04	532	6.20E-04	599	9.26E-04	666	5.88E-04	733	9.56E-05
399	2.90E-06	466	6.72E-04	533	6.22E-04	600	9.37E-04	667	5.77E-04	734	9.23E-05
400	2.90E-06	467	6.61E-04	534	6.21E-04	601	9.43E-04	668	5.64E-04	735	8.96E-05
401	2.80E-06	468	6.48E-04	535	6.26E-04	602	9.49E-04	669	5.52E-04	736	8.63E-05
402	3.30E-06	469	6.48E-04	536	6.24E-04	603	9.59E-04	670	5.41E-04	737	8.39E-05
403	3.90E-06	470	6.43E-04	537	6.29E-04	604	9.61E-04	671	5.32E-04	738	8.14E-05
404	3.70E-06	471	6.23E-04	538	6.32E-04	605	9.68E-04	672	5.18E-04	739	7.94E-05
405	4.30E-06	472	6.13E-04	539	6.33E-04	606	9.70E-04	673	5.06E-04	740	7.67E-05
406	4.40E-06	473	6.03E-04	540	6.37E-04	607	9.75E-04	674	4.95E-04	741	7.38E-05
407	4.80E-06	474	5.84E-04	541	6.39E-04	608	9.81E-04	675	4.84E-04	742	7.14E-05
408	5.50E-06	475	5.67E-04	542	6.39E-04	609	9.83E-04	676	4.72E-04	743	6.94E-05
409	5.70E-06	476	5.46E-04	543	6.40E-04	610	9.90E-04	677	4.62E-04	744	6.73E-05
410	6.30E-06	477	5.25E-04	544	6.44E-04	611	9.91E-04	678	4.53E-04	745	6.51E-05
411	7.20E-06	478	5.10E-04	545	6.47E-04	612	9.96E-04	679	4.41E-04	746	6.32E-05
412	8.00E-06	479	4.94E-04	546	6.48E-04	613	9.98E-04	680	4.30E-04	747	6.07E-05
413	8.50E-06	480	4.80E-04	547	6.50E-04	614	9.94E-04	681	4.19E-04	748	5.95E-05
414	9.90E-06	481	4.74E-04	548	6.50E-04	615	9.97E-04	682	4.09E-04	749	5.77E-05
415	1.09E-05	482	4.68E-04	549	6.56E-04	616	9.95E-04	683	4.00E-04	750	5.53E-05
416	1.21E-05	483	4.68E-04	550	6.56E-04	617	9.96E-04	684	3.90E-04	751	5.40E-05
417	1.35E-05	484	4.70E-04	551	6.58E-04	618	9.96E-04	685	3.81E-04	752	5.22E-05
418	1.50E-05	485	4.76E-04	552	6.62E-04	619	9.94E-04	686	3.71E-04	753	5.08E-05
419	1.66E-05	486	4.79E-04	553	6.64E-04	620	9.93E-04	687	3.61E-04	754	4.91E-05
420	1.85E-05	487	4.84E-04	554	6.69E-04	621	9.90E-04	688	3.52E-04	755	4.79E-05
421	2.06E-05	488	4.87E-04	555	6.71E-04	622	9.88E-04	689	3.44E-04	756	4.63E-05
422	2.27E-05	489	4.95E-04	556	6.73E-04	623	9.89E-04	690	3.36E-04	757	4.43E-05
423	2.50E-05	490	4.98E-04	557	6.75E-04	624	9.86E-04	691	3.27E-04	758	4.30E-05
424	2.74E-05	491	5.01E-04	558	6.77E-04	625	9.84E-04	692	3.18E-04	759	4.17E-05
425	3.09E-05	492	5.08E-04	559	6.79E-04	626	9.76E-04	693	3.10E-04	760	4.02E-05
426	3.42E-05	493	5.13E-04	560	6.82E-04	627	9.73E-04	694	3.00E-04	761	3.94E-05
427	3.84E-05	494	5.13E-04	561	6.84E-04	628	9.68E-04	695	2.94E-04	762	3.80E-05
428	4.32E-05	495	5.19E-04	562	6.87E-04	629	9.65E-04	696	2.86E-04	763	3.66E-05
429	4.83E-05	496	5.22E-04	563	6.95E-04	630	9.57E-04	697	2.79E-04	764	3.58E-05
430	5.30E-05	497	5.25E-04	564	6.96E-04	631	9.51E-04	698	2.71E-04	765	3.46E-05
431	5.88E-05	498	5.30E-04	565	7.01E-04	632	9.45E-04	699	2.65E-04	766	3.32E-05
432	6.43E-05	499	5.36E-04	566	7.05E-04	633	9.40E-04	700	2.56E-04	767	3.26E-05
433	7.11E-05	500	5.43E-04	567	7.07E-04	634	9.32E-04	701	2.49E-04	768	3.14E-05
434	7.84E-05	501	5.49E-04	568	7.13E-04	635	9.26E-04	702	2.43E-04	769	3.03E-05
435	8.42E-05	502	5.55E-04	569	7.20E-04	636	9.18E-04	703	2.36E-04	770	2.94E-05
436	9.51E-05	503	5.58E-04	570	7.25E-04	637	9.06E-04	704	2.30E-04	771	2.86E-05
437	1.05E-04	504	5.63E-04	571	7.29E-04	638	8.96E-04	705	2.22E-04	772	2.74E-05
438	1.18E-04	505	5.68E-04	572	7.36E-04	639	8.89E-04	706	2.17E-04	773	2.67E-05
439	1.32E-04	506	5.71E-04	573	7.40E-04	640	8.77E-04	707	2.10E-04	774	2.56E-05
440	1.49E-04	507	5.76E-04	574	7.44E-04	641	8.65E-04	708	2.04E-04	775	2.51E-05
441	1.67E-04	508	5.78E-04	575	7.51E-04	642	8.55E-04	709	1.98E-04	776	2.43E-05
442	1.86E-04	509	5.81E-04	576	7.57E-04	643	8.48E-04	710	1.92E-04	777	2.34E-05
443	2.11E-04	510	5.86E-04	577	7.62E-04	644	8.39E-04	711	1.87E-04	778	2.28E-05
444	2.36E-04	511	5.86E-04	578	7.69E-04	645	8.28E-04	712	1.81E-04	779	2.28E-05
445	2.67E-04	512	5.91E-04	579	7.73E-04	646	8.16E-04	713	1.75E-04	780	2.28E-05
446	3.04E-04	513	5.90E-04	580	7.78E-04	647	8.05E-04	714	1.71E-04	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

<b>Model No.</b>	V1-24 @10W3500K	<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>	277.0	60	0.047	10.9	0.843
<b>NON-WORST CASE</b>	120.0	60	0.084	10.0	0.989

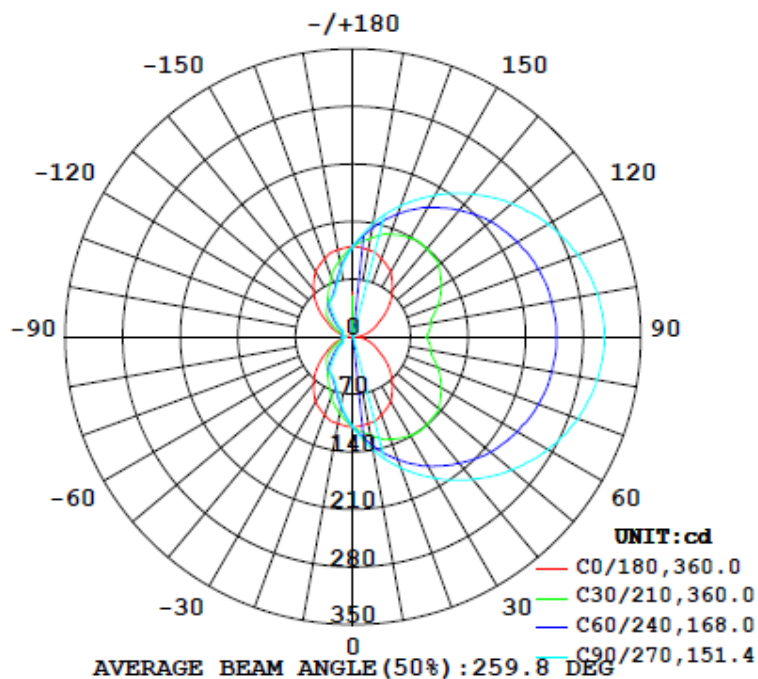
### Test Result

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°)	
1241	91.2	155.4	180.0	98.2	113.9	26.7%	B0-U4-G1

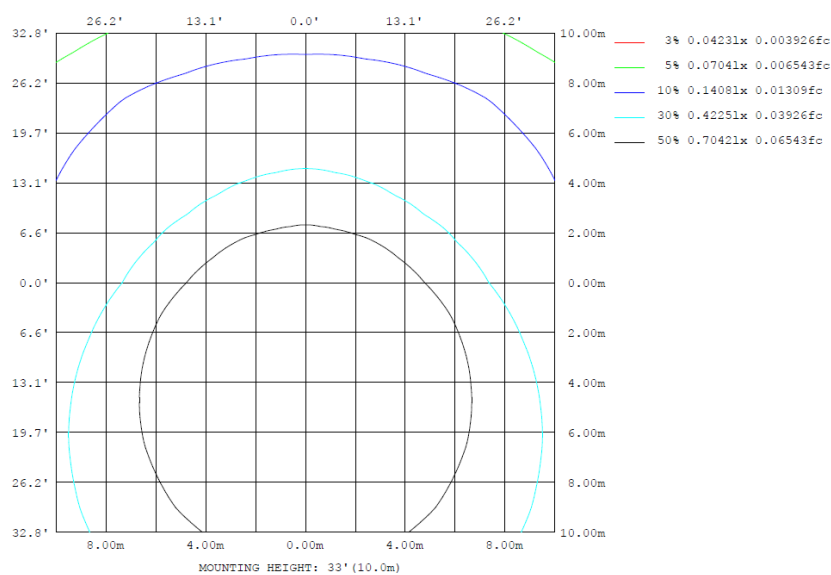
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

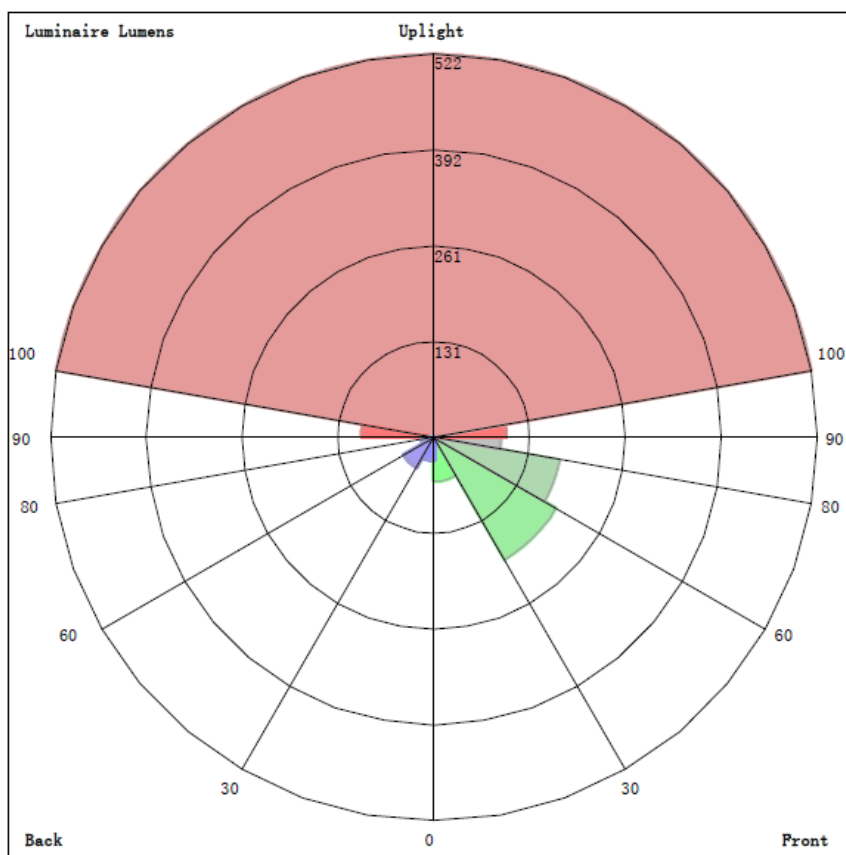
### Zonal Lumen Summary

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	107.4	128.3	139.4	128.3	107.4	89.52	83.90	89.52	0- 10	10.44	10.44	0.84,0.84
20	101.2	148.1	169.5	148.1	101.2	70.13	61.72	70.13	10- 20	30.86	41.30	3.33,3.33
30	91.64	161.9	198.6	161.9	91.64	54.77	53.29	54.77	20- 30	50.10	91.40	7.37,7.37
40	74.56	173.9	226.4	173.9	74.56	48.80	39.31	48.80	30- 40	68.05	159.4	12.8,12.8
50	56.31	180.0	251.9	180.0	56.31	35.53	24.65	35.53	40- 50	81.57	241.0	19.4,19.4
60	36.88	182.9	273.9	182.9	36.88	22.13	13.63	22.13	50- 60	89.88	330.9	26.7,26.7
70	24.37	181.8	291.5	181.8	24.37	14.22	12.87	14.22	60- 70	94.43	425.3	34.3,34.3
80	12.99	179.0	301.2	179.0	12.99	13.69	12.29	13.69	70- 80	96.90	522.2	42.1,42.1
90	2.748	176.6	305.4	176.6	2.748	14.90	14.09	14.90	80- 90	98.29	620.5	50,50
100	12.99	179.0	301.2	179.0	12.99	13.69	12.29	13.69	90-100	98.29	718.8	57.9,57.9
110	24.37	181.8	291.5	181.8	24.37	14.22	12.87	14.22	100-110	96.90	815.7	65.7,65.7
120	36.88	182.9	273.9	182.9	36.88	22.13	13.63	22.13	110-120	94.43	910.1	73.3,73.3
130	56.31	180.0	251.9	180.0	56.31	35.53	24.65	35.53	120-130	89.88	1000	80.6,80.6
140	74.56	173.9	226.4	173.9	74.56	48.80	39.31	48.80	130-140	81.57	1082	87.2,87.2
150	91.64	161.9	198.6	161.9	91.64	54.77	53.29	54.77	140-150	68.05	1150	92.6,92.6
160	101.2	148.1	169.5	148.1	101.2	70.13	61.72	70.13	150-160	50.10	1200	96.7,96.7
170	107.4	128.3	139.4	128.3	107.4	89.53	83.90	89.53	160-170	30.86	1231	99.2,99.2
180	110.2	110.2	110.2	110.2	110.2	110.2	110.2	110.2	170-180	10.44	1241	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	10.44	0-10	10.44	0.85%
10-20	30.86	0-20	41.30	3.36%
20-30	50.10	0-30	91.40	7.43%
30-40	68.05	0-40	159.45	12.96%
40-50	81.57	0-50	241.02	19.59%
50-60	89.88	0-60	330.90	26.89%
60-70	94.43	0-70	425.33	34.56%
70-80	96.90	0-80	522.23	42.44%
80-90	98.29	0-90	620.52	50.42%
90-100	98.29	0-100	718.81	58.41%
100-110	96.90	0-110	815.71	66.29%
110-120	94.43	0-120	910.14	73.96%
120-130	89.88	0-130	1000.02	81.26%
130-140	81.57	0-140	1081.59	87.89%
140-150	68.05	0-150	1149.64	93.42%
150-160	50.10	0-160	1199.74	97.49%
160-170	30.86	0-170	1230.60	100.00%
170-180	10.44	0-180	1241.04	100.85%

## 4.2 Goniophotometer Test

LCS/BUG

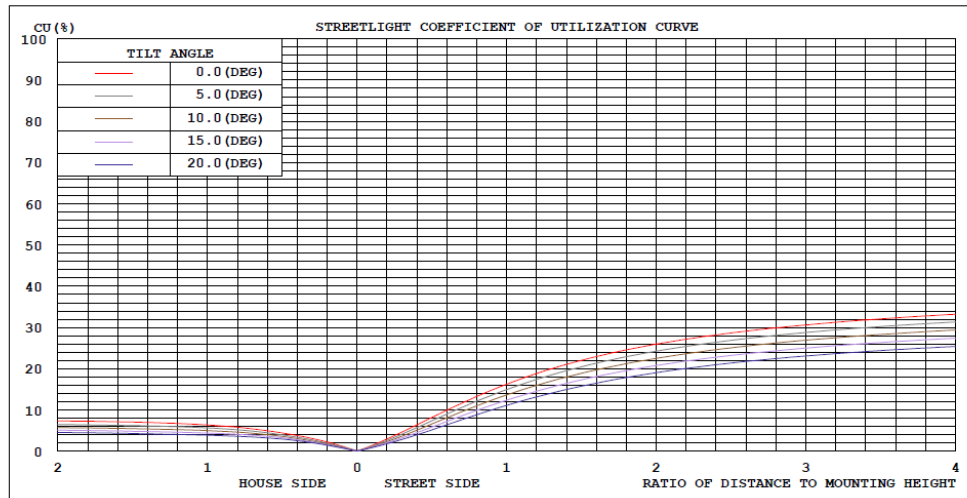


### LUMINAIRE CLASSIFICATION SYSTEM (LCS)

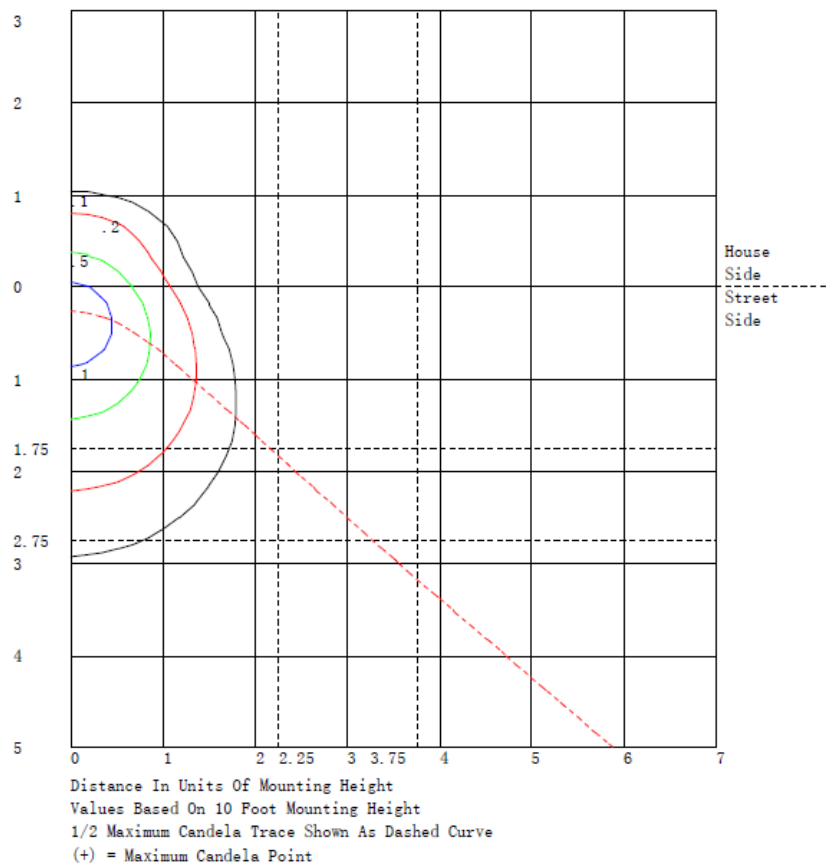
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	59.7	N.A.	4.8
FM - Front-Medium (30-60)	192.3	N.A.	15.5
FH - Front-High (60-80)	173.8	N.A.	14.0
FVH - Front-Very High (80-90)	91.2	N.A.	7.3
BL - Back-Low (0-30)	31.7	N.A.	2.6
BM - Back-Medium (30-60)	47.2	N.A.	3.8
BH - Back-High (60-80)	17.5	N.A.	1.4
BVH - Back-Very High (80-90)	7.1	N.A.	0.6
UL - Uplight-Low (90-100)	98.3	N.A.	7.9
UH - Uplight-High (100-180)	522.2	N.A.	42.1
Total	1241.0	N.A.	100.0
BUG Rating	B0-U4-G1		

## 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	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110
5	109	112	116	119	121	123	124	123	121	119	116	112	109	105	102	100.0	98.1	97.1	97.1
10	107	114	121	128	134	138	139	138	134	128	121	114	107	101	94.5	89.5	85.9	84.0	83.9
15	106	117	128	138	147	152	155	152	147	138	128	117	106	95.9	86.7	79.3	74.3	71.7	71.4
20	101	116	133	148	159	166	170	166	159	148	133	116	101	88.3	77.7	70.1	64.4	61.8	61.7
25	96.4	115	136	155	170	180	184	180	170	155	136	115	96.4	80.6	68.5	61.1	57.4	55.7	55.8
30	91.6	115	139	162	182	193	199	193	182	162	139	115	91.6	73.2	60.7	54.8	53.4	53.1	53.3
35	83.1	111	141	168	191	207	213	207	191	168	141	111	83.1	64.4	54.2	51.0	51.2	50.4	49.5
40	74.6	106	140	174	201	220	226	220	201	174	140	106	74.6	56.1	48.9	48.8	45.4	40.7	39.3
45	66.0	100	138	177	210	232	239	232	210	177	138	100	66.0	48.7	45.3	43.8	36.3	32.7	31.3
50	56.3	91.2	136	180	218	243	252	243	218	180	136	91.2	56.3	42.8	42.1	35.5	29.3	25.8	24.6
55	46.6	80.9	130	182	225	253	264	253	225	182	130	80.9	46.6	37.7	36.3	28.2	23.0	20.0	19.1
60	36.9	70.2	124	183	231	262	274	262	231	183	124	70.2	36.9	33.1	29.4	22.1	17.0	14.4	13.6
65	30.6	61.4	117	183	236	271	283	271	236	183	117	61.4	30.6	27.8	22.9	16.8	14.0	13.2	13.0
70	24.4	52.5	110	182	240	278	291	278	240	182	110	52.5	24.4	22.2	18.3	14.2	13.9	13.1	12.9
75	18.1	43.3	101	181	244	283	297	283	244	181	101	43.3	18.1	16.4	14.2	13.9	13.9	13.2	12.7
80	13.0	40.9	96.6	179	245	287	301	287	245	179	96.6	40.9	13.0	14.9	13.2	13.7	13.6	13.2	12.3
85	7.87	38.9	93.4	179	247	290	305	290	247	179	93.4	38.9	7.87	14.1	13.9	14.3	13.9	11.7	11.2
90	2.75	36.6	89.0	177	247	291	305	291	247	177	89.0	36.6	2.75	13.3	14.6	14.9	14.8	12.1	14.1
95	7.87	38.9	93.4	179	247	290	305	290	247	179	93.4	38.9	7.87	14.1	13.9	14.3	13.9	11.7	11.2
100	13.0	40.9	96.6	179	245	287	301	287	245	179	96.6	40.9	13.0	14.9	13.2	13.7	13.6	13.2	12.3
105	18.1	43.3	101	181	244	283	297	283	244	181	101	43.3	18.1	16.4	14.2	13.9	13.9	13.2	12.7
110	24.4	52.5	110	182	240	278	291	278	240	182	110	52.5	24.4	22.2	18.3	14.2	13.9	13.1	12.9
115	30.6	61.4	117	183	236	271	283	271	236	183	117	61.4	30.6	27.8	22.9	16.8	14.0	13.2	13.0
120	36.9	70.2	124	183	231	262	274	262	231	183	124	70.2	36.9	33.1	29.4	22.1	17.0	14.4	13.6
125	46.6	80.9	130	182	225	253	264	253	225	182	130	80.9	46.6	37.7	36.3	28.2	23.0	20.0	19.1
130	56.3	91.2	136	180	218	243	252	243	218	180	136	91.2	56.3	42.8	42.1	35.5	29.3	25.8	24.6
135	66.0	100	138	177	210	232	239	232	210	177	138	100	66.0	48.7	45.3	43.8	36.3	32.7	31.3
140	74.6	106	140	174	201	220	226	220	201	174	140	106	74.6	56.1	48.9	48.8	45.4	40.7	39.3
145	83.1	111	141	168	191	207	213	207	191	168	141	111	83.1	64.4	54.2	51.0	51.2	50.4	49.5
150	91.6	115	139	162	182	193	199	193	182	162	139	115	91.6	73.2	60.7	54.8	53.4	53.1	53.3
155	96.4	115	136	155	170	180	184	180	170	155	136	115	96.4	80.6	68.5	61.1	57.4	55.7	55.8
160	101	116	133	148	159	166	170	166	159	148	133	116	101	88.3	77.7	70.1	64.4	61.8	61.7
165	106	117	128	138	147	152	155	152	147	138	128	117	106	95.9	86.7	79.3	74.3	71.7	71.4
170	107	114	121	128	134	138	139	138	134	128	121	114	107	101	94.5	89.5	85.9	84.0	83.9
175	109	112	116	119	121	123	124	123	121	119	116	112	109	105	102	100.0	98.1	97.1	97.1
180	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	110	110	110	110	110														
5	97.1	98.1	100.0	102	105														
10	84.0	85.9	89.5	94.5	101														
15	71.7	74.3	79.3	86.7	95.9														
20	61.8	64.4	70.1	77.7	88.3														
25	55.7	57.4	61.1	68.5	80.6														
30	53.1	53.4	54.8	60.7	73.2														
35	50.4	51.2	51.0	54.2	64.4														
40	40.7	45.4	48.8	48.9	56.1														
45	32.7	36.3	43.8	45.3	48.7														
50	25.8	29.3	35.5	42.1	42.8														
55	20.0	23.0	28.2	36.3	37.7														
60	14.4	17.0	22.1	29.4	33.1														
65	13.2	14.0	16.8	22.9	27.8														
70	13.1	13.9	14.2	18.3	22.2														
75	13.2	13.9	13.9	14.2	16.4														
80	13.2	13.6	13.7	13.2	14.9														
85	11.7	13.9	14.3	13.9	14.1														
90	12.1	14.8	14.9	14.6	13.3														
95	11.7	13.9	14.3	13.9	14.1														
100	13.2	13.6	13.7	13.2	14.9														
105	13.2	13.9	13.9	14.2	16.4														
110	13.1	13.9	14.2	18.3	22.2														
115	13.2	14.0	16.8	22.9	27.8														
120	14.4	17.0	22.1	29.4	33.1														
125	20.0	23.0	28.2	36.3	37.7														
130	25.8	29.3	35.5	42.1	42.8														
135	32.7	36.3	43.8	45.3	48.7														
140	40.7	45.4	48.8	48.9	56.1														
145	50.4	51.2	51.0	54.2	64.4														
150	53.1	53.4	54.8	60.7	73.2														
155	55.7	57.4	61.1	68.5	80.6														
160	61.8	64.4	70.1	77.7	88.3														
165	71.7	74.3	79.3	86.7	95.9														
170	84.0	85.9	89.5	94.5	101														
175	97.1	98.1	100.0	102	105														
180	110	110	110	110	110														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	V1-24 @10W3500K	<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	0.084	10.0	0.989	8.60
277.0	60	0.047	10.9	0.843	32.71



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