

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

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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		1949
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	121.8
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		16.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	6.25
				277V	14.52
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.995
				277V	0.954
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	5029±283	4962
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		91.1
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		72
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		94
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-5%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		26.9%
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		0.134
(Goniophotometer – Section 4.2)			Non-Worst Case		0.060
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		16.0
(Goniophotometer – Section 4.2)			Non-Worst Case		15.9

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-07-28	V1-18 @16W5000K	-	250728005-S1
2	Goniophotometer Test	2025-07-28	V1-18 @16W5000K	-	250728005-S1
3	THD and PF Test	2025-07-28	V1-18 @16W5000K	-	250728005-S1

Remark (If any):

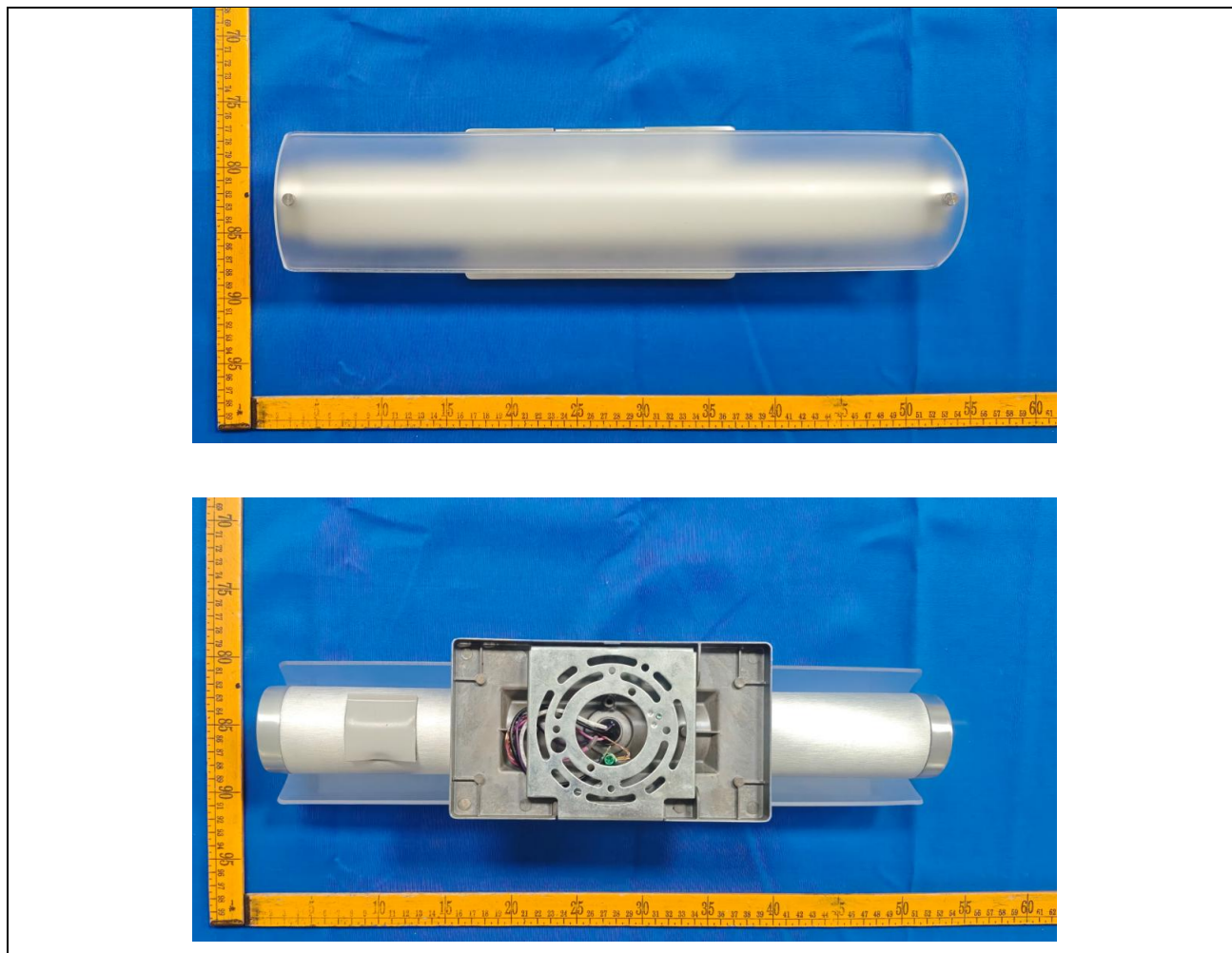
1. The results contained in this report pertain only to the tested samples.
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. V1-18 @16W5000K, 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.	V1-18 @16W5000K	Sample ID	250728005-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

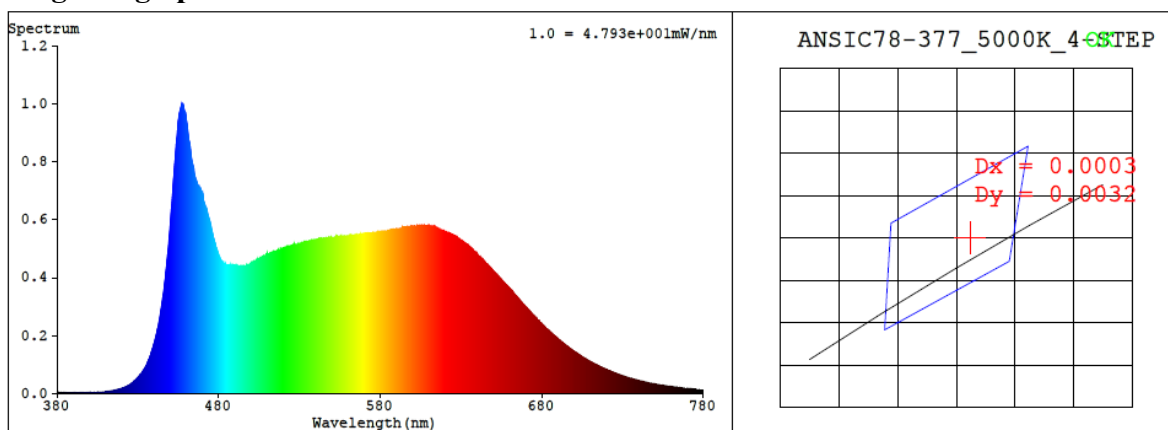
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.134	16.0	0.995
277.0	60	0.060	15.9	0.954

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4962	91.1	72	0.0015	1.3	87	94	-5%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3465$ $y = 0.3557$ / $u' = 0.2108$ $v' = 0.4869$ ($duv=1.46e-03$)

CCT= 4962K Prcp WL: $L_d=571.8nm$ Purity=10.7%

Peak WL: $L_p=457nm$ FWHM: $=30.0nm$ Ratio:R=17.7% G=75.9% B=6.4%

Render Index: $R_a = 91.1$ AvgR = 89.3 TM30:Rf=89 Rg=96

EEL: 0.00000 A++ Highest

R1 =96 R2 =97 R3 =94 R4 =85 R5 =91 R6 =95 R7 =87

R8 =84 R9 =72 R10=96 R11=89 R12=67 R13=99 R14=97 R15=91

4.1 Integrating Sphere Test

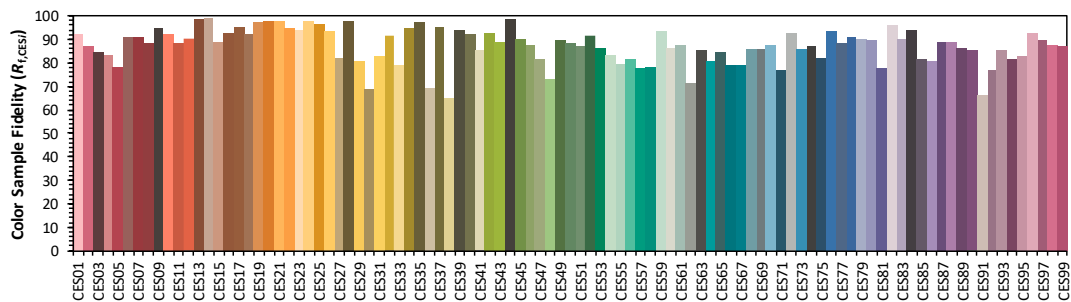
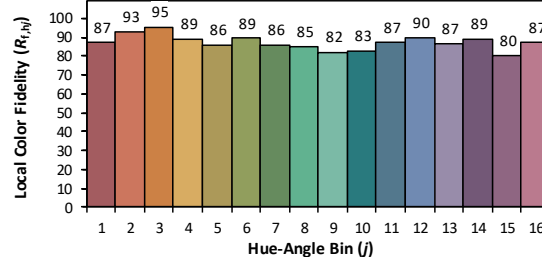
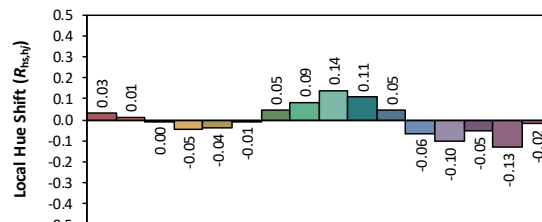
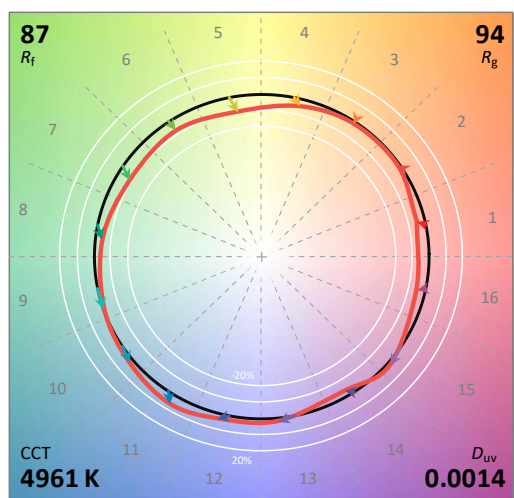
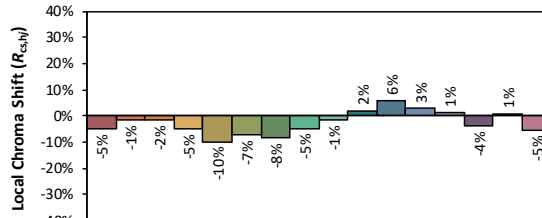
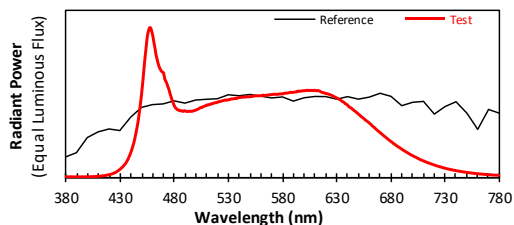
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc

Date: 2025/8/21

Model: V1-18 @16W5000K



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

x 0.3465
 y 0.3566
 u' 0.2108
 v' 0.4868

CIE 13.3-1995
(CRI)
 R_a 91
 R_g 72

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	3.60E-06	447	4.02E-04	514	4.90E-04	581	5.58E-04	648	4.36E-04	715	9.55E-05
381	3.00E-06	448	4.58E-04	515	4.90E-04	582	5.60E-04	649	4.29E-04	716	9.33E-05
382	2.70E-06	449	5.15E-04	516	4.93E-04	583	5.61E-04	650	4.23E-04	717	9.04E-05
383	2.70E-06	450	5.82E-04	517	4.96E-04	584	5.61E-04	651	4.17E-04	718	8.75E-05
384	3.10E-06	451	6.54E-04	518	4.97E-04	585	5.62E-04	652	4.11E-04	719	8.52E-05
385	2.90E-06	452	7.37E-04	519	4.97E-04	586	5.64E-04	653	4.04E-04	720	8.29E-05
386	2.40E-06	453	8.09E-04	520	5.02E-04	587	5.66E-04	654	3.99E-04	721	7.99E-05
387	2.30E-06	454	8.77E-04	521	5.03E-04	588	5.67E-04	655	3.93E-04	722	7.81E-05
388	2.20E-06	455	9.42E-04	522	5.06E-04	589	5.65E-04	656	3.86E-04	723	7.53E-05
389	2.50E-06	456	9.74E-04	523	5.07E-04	590	5.67E-04	657	3.80E-04	724	7.35E-05
390	2.90E-06	457	9.97E-04	524	5.09E-04	591	5.68E-04	658	3.75E-04	725	7.12E-05
391	2.90E-06	458	9.96E-04	525	5.11E-04	592	5.68E-04	659	3.70E-04	726	6.92E-05
392	2.60E-06	459	9.73E-04	526	5.13E-04	593	5.69E-04	660	3.64E-04	727	6.71E-05
393	2.00E-06	460	9.44E-04	527	5.15E-04	594	5.74E-04	661	3.57E-04	728	6.48E-05
394	3.00E-06	461	9.01E-04	528	5.14E-04	595	5.74E-04	662	3.52E-04	729	6.32E-05
395	2.70E-06	462	8.62E-04	529	5.16E-04	596	5.74E-04	663	3.43E-04	730	6.10E-05
396	2.90E-06	463	8.17E-04	530	5.16E-04	597	5.75E-04	664	3.37E-04	731	5.88E-05
397	2.80E-06	464	7.88E-04	531	5.19E-04	598	5.75E-04	665	3.31E-04	732	5.72E-05
398	2.40E-06	465	7.57E-04	532	5.20E-04	599	5.77E-04	666	3.24E-04	733	5.53E-05
399	3.30E-06	466	7.35E-04	533	5.23E-04	600	5.77E-04	667	3.18E-04	734	5.39E-05
400	3.30E-06	467	7.20E-04	534	5.22E-04	601	5.78E-04	668	3.11E-04	735	5.23E-05
401	3.10E-06	468	7.08E-04	535	5.23E-04	602	5.78E-04	669	3.06E-04	736	5.07E-05
402	3.30E-06	469	7.01E-04	536	5.26E-04	603	5.80E-04	670	2.99E-04	737	4.92E-05
403	3.70E-06	470	6.95E-04	537	5.24E-04	604	5.79E-04	671	2.94E-04	738	4.78E-05
404	3.80E-06	471	6.58E-04	538	5.28E-04	605	5.79E-04	672	2.88E-04	739	4.59E-05
405	4.30E-06	472	6.41E-04	539	5.30E-04	606	5.78E-04	673	2.81E-04	740	4.47E-05
406	4.30E-06	473	6.26E-04	540	5.31E-04	607	5.79E-04	674	2.75E-04	741	4.28E-05
407	4.80E-06	474	6.02E-04	541	5.32E-04	608	5.78E-04	675	2.70E-04	742	4.22E-05
408	5.50E-06	475	5.85E-04	542	5.34E-04	609	5.79E-04	676	2.64E-04	743	4.08E-05
409	6.00E-06	476	5.57E-04	543	5.34E-04	610	5.80E-04	677	2.57E-04	744	3.96E-05
410	6.60E-06	477	5.35E-04	544	5.34E-04	611	5.77E-04	678	2.52E-04	745	3.81E-05
411	7.00E-06	478	5.12E-04	545	5.36E-04	612	5.77E-04	679	2.46E-04	746	3.71E-05
412	7.70E-06	479	4.93E-04	546	5.35E-04	613	5.78E-04	680	2.41E-04	747	3.58E-05
413	8.70E-06	480	4.75E-04	547	5.37E-04	614	5.75E-04	681	2.35E-04	748	3.50E-05
414	9.90E-06	481	4.64E-04	548	5.37E-04	615	5.72E-04	682	2.29E-04	749	3.39E-05
415	1.06E-05	482	4.56E-04	549	5.36E-04	616	5.68E-04	683	2.23E-04	750	3.29E-05
416	1.17E-05	483	4.49E-04	550	5.38E-04	617	5.65E-04	684	2.19E-04	751	3.18E-05
417	1.30E-05	484	4.49E-04	551	5.38E-04	618	5.63E-04	685	2.13E-04	752	3.09E-05
418	1.48E-05	485	4.44E-04	552	5.39E-04	619	5.62E-04	686	2.08E-04	753	2.97E-05
419	1.59E-05	486	4.43E-04	553	5.41E-04	620	5.58E-04	687	2.03E-04	754	2.90E-05
420	1.76E-05	487	4.43E-04	554	5.42E-04	621	5.58E-04	688	1.99E-04	755	2.83E-05
421	1.92E-05	488	4.39E-04	555	5.43E-04	622	5.56E-04	689	1.94E-04	756	2.71E-05
422	2.19E-05	489	4.44E-04	556	5.44E-04	623	5.53E-04	690	1.89E-04	757	2.61E-05
423	2.43E-05	490	4.42E-04	557	5.43E-04	624	5.51E-04	691	1.84E-04	758	2.54E-05
424	2.76E-05	491	4.40E-04	558	5.43E-04	625	5.47E-04	692	1.79E-04	759	2.50E-05
425	3.02E-05	492	4.38E-04	559	5.44E-04	626	5.45E-04	693	1.75E-04	760	2.39E-05
426	3.44E-05	493	4.40E-04	560	5.44E-04	627	5.40E-04	694	1.70E-04	761	2.34E-05
427	3.89E-05	494	4.40E-04	561	5.45E-04	628	5.36E-04	695	1.66E-04	762	2.22E-05
428	4.34E-05	495	4.41E-04	562	5.47E-04	629	5.34E-04	696	1.62E-04	763	2.17E-05
429	4.92E-05	496	4.39E-04	563	5.45E-04	630	5.29E-04	697	1.57E-04	764	2.11E-05
430	5.51E-05	497	4.42E-04	564	5.46E-04	631	5.26E-04	698	1.54E-04	765	2.07E-05
431	6.20E-05	498	4.44E-04	565	5.46E-04	632	5.21E-04	699	1.49E-04	766	1.96E-05
432	6.77E-05	499	4.45E-04	566	5.48E-04	633	5.18E-04	700	1.45E-04	767	1.92E-05
433	7.61E-05	500	4.49E-04	567	5.49E-04	634	5.14E-04	701	1.42E-04	768	1.86E-05
434	8.46E-05	501	4.51E-04	568	5.51E-04	635	5.07E-04	702	1.38E-04	769	1.80E-05
435	9.37E-05	502	4.55E-04	569	5.51E-04	636	5.04E-04	703	1.35E-04	770	1.76E-05
436	1.06E-04	503	4.59E-04	570	5.51E-04	637	4.98E-04	704	1.31E-04	771	1.69E-05
437	1.19E-04	504	4.64E-04	571	5.53E-04	638	4.91E-04	705	1.27E-04	772	1.63E-05
438	1.35E-04	505	4.65E-04	572	5.53E-04	639	4.88E-04	706	1.23E-04	773	1.60E-05
439	1.52E-04	506	4.68E-04	573	5.54E-04	640	4.82E-04	707	1.20E-04	774	1.53E-05
440	1.71E-04	507	4.71E-04	574	5.53E-04	641	4.74E-04	708	1.16E-04	775	1.46E-05
441	1.94E-04	508	4.75E-04	575	5.53E-04	642	4.68E-04	709	1.13E-04	776	1.44E-05
442	2.18E-04	509	4.76E-04	576	5.54E-04	643	4.64E-04	710	1.10E-04	777	1.41E-05
443	2.46E-04	510	4.82E-04	577	5.55E-04	644	4.59E-04	711	1.07E-04	778	1.36E-05
444	2.80E-04	511	4.81E-04	578	5.55E-04	645	4.53E-04	712	1.04E-04	779	1.36E-05
445	3.15E-04	512	4.85E-04	579	5.57E-04	646	4.46E-04	713	1.01E-04	780	1.36E-05
446	3.54E-04	513	4.85E-04	580	5.55E-04	647	4.42E-04	714	9.83E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	V1-18 @16W5000K	Sample ID	250728005-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	0.134	16.0	0.995
NON-WORST CASE	277.0	60	0.060	15.9	0.954

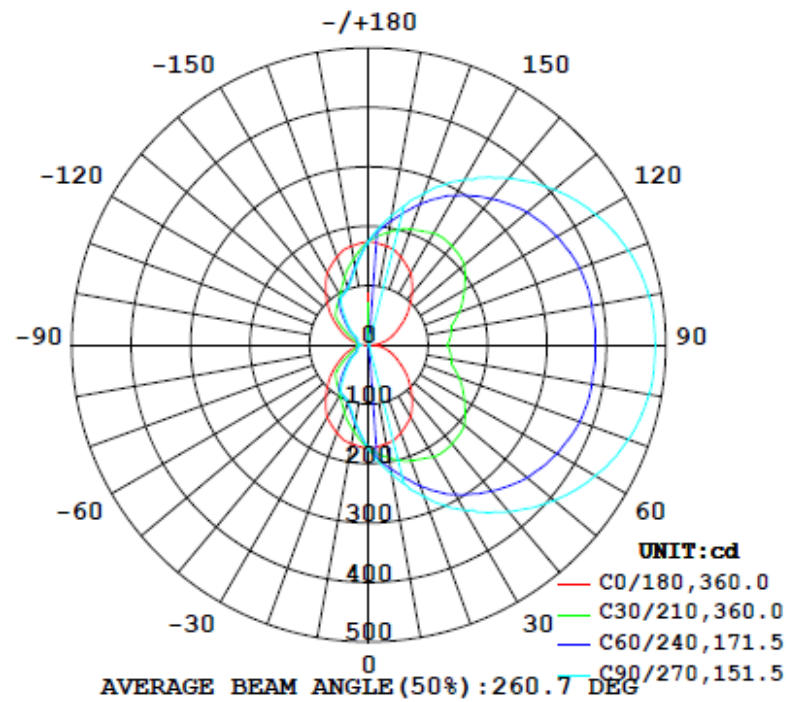
Test Result

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°)	
1949	92.9	155.8	180.0	94.7	121.8	26.9%	B0-U4-G2

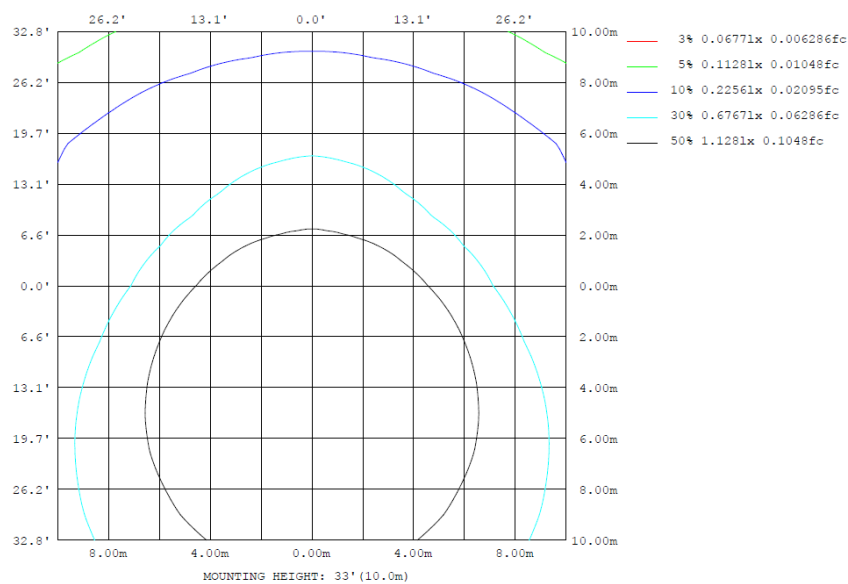
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

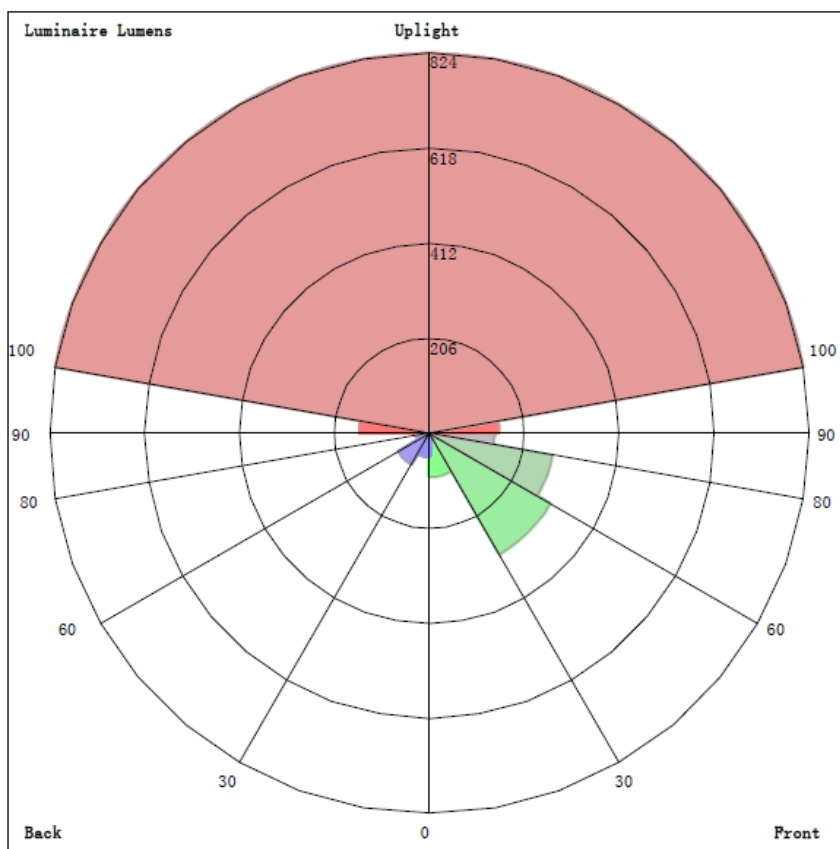
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	168.9	203.0	219.8	203.0	168.9	139.5	131.6	139.5	0- 10	16.51	16.51	0.85,0.85
20	157.5	232.9	271.6	232.9	157.5	110.5	102.5	110.5	10- 20	48.62	65.13	3.34,3.34
30	140.7	256.5	321.3	256.5	140.7	93.15	94.58	93.15	20- 30	79.99	145.1	7.44,7.44
40	112.8	275.7	366.6	275.7	112.8	84.66	64.16	84.66	30- 40	108.7	253.8	13,13
50	85.57	284.0	407.8	284.0	85.57	55.20	41.15	55.20	40- 50	129.5	383.3	19.7,19.7
60	59.11	285.1	439.9	285.1	59.11	33.93	22.77	33.93	50- 60	142.0	525.3	26.9,26.9
70	40.41	279.8	464.7	279.8	40.41	22.46	20.80	22.46	60- 70	148.2	673.4	34.5,34.5
80	22.14	268.5	478.9	268.5	22.14	20.85	17.95	20.85	70- 80	150.6	824.0	42.3,42.3
90	4.296	261.5	482.5	261.5	4.296	19.03	17.91	19.03	80- 90	150.7	974.7	50,50
100	22.14	268.5	478.9	268.5	22.14	20.85	17.95	20.85	90-100	150.7	1125	57.7,57.7
110	40.41	279.8	464.7	279.8	40.41	22.46	20.80	22.46	100-110	150.6	1276	65.5,65.5
120	59.11	285.1	439.9	285.1	59.11	33.93	22.77	33.93	110-120	148.2	1424	73.1,73.1
130	85.57	284.0	407.8	284.0	85.57	55.20	41.15	55.20	120-130	142.0	1566	80.3,80.3
140	112.8	275.7	366.6	275.7	112.8	84.66	64.16	84.66	130-140	129.5	1696	87,87
150	140.7	256.5	321.3	256.5	140.7	93.15	94.58	93.15	140-150	108.7	1804	92.6,92.6
160	157.5	232.9	271.6	232.9	157.5	110.5	102.5	110.5	150-160	79.99	1884	96.7,96.7
170	168.9	203.0	219.8	203.0	168.9	139.5	131.6	139.5	160-170	48.62	1933	99.2,99.2
180	175.1	175.1	175.1	175.1	175.1	175.1	175.1	175.1	170-180	16.51	1949	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	16.51	0-10	16.51	0.85%
10-20	48.62	0-20	65.13	3.37%
20-30	79.99	0-30	145.12	7.51%
30-40	108.70	0-40	253.82	13.13%
40-50	129.47	0-50	383.29	19.83%
50-60	141.97	0-60	525.26	27.17%
60-70	148.16	0-70	673.42	34.84%
70-80	150.61	0-80	824.03	42.63%
80-90	150.68	0-90	974.71	50.43%
90-100	150.68	0-100	1125.39	58.22%
100-110	150.61	0-110	1276.00	66.01%
110-120	148.16	0-120	1424.16	73.68%
120-130	141.97	0-130	1566.13	81.02%
130-140	129.47	0-140	1695.60	87.72%
140-150	108.70	0-150	1804.30	93.35%
150-160	79.99	0-160	1884.29	97.48%
160-170	48.62	0-170	1932.91	100.00%
170-180	16.51	0-180	1949.42	100.85%

4.2 Goniophotometer Test

LCS/BUG

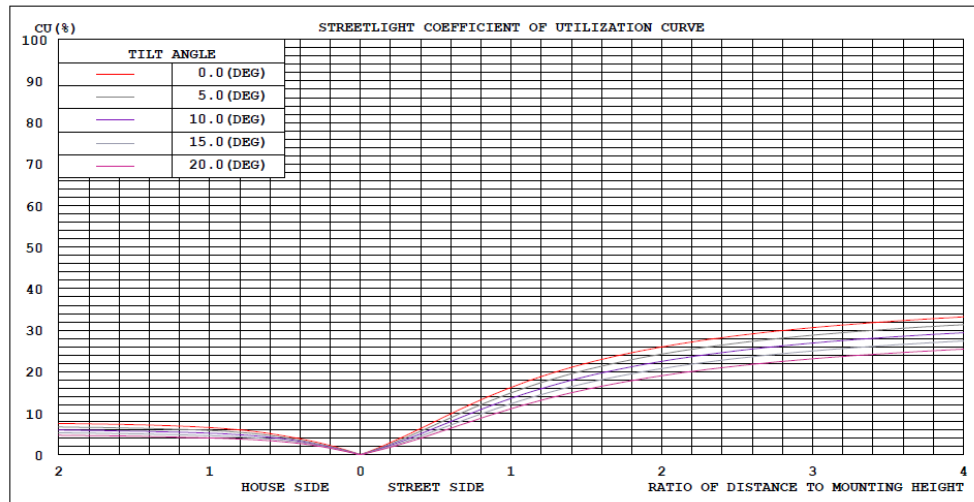


LUMINAIRE CLASSIFICATION SYSTEM (LCS)

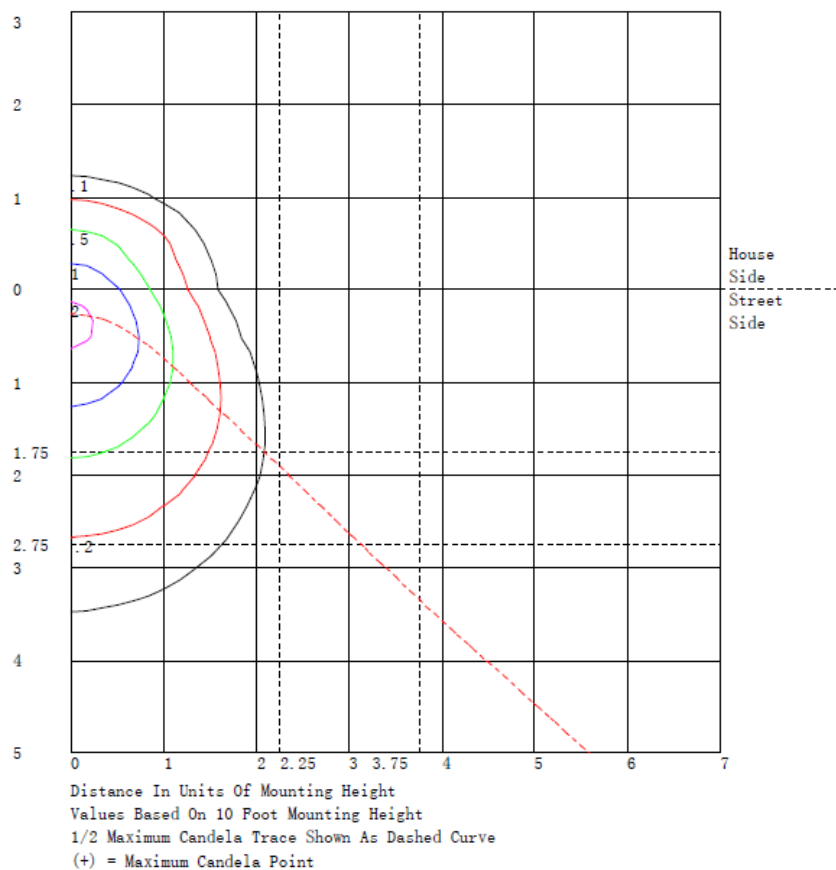
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	94.5	N.A.	4.8
FM - Front-Medium (30-60)	303.5	N.A.	15.6
FH - Front-High (60-80)	270.9	N.A.	13.9
FVH - Front-Very High (80-90)	140.7	N.A.	7.2
BL - Back-Low (0-30)	50.6	N.A.	2.6
BM - Back-Medium (30-60)	76.7	N.A.	3.9
BH - Back-High (60-80)	27.9	N.A.	1.4
BVH - Back-Very High (80-90)	10.0	N.A.	0.5
UL - Uplight-Low (90-100)	150.7	N.A.	7.7
UH - Uplight-High (100-180)	824.0	N.A.	42.3
Total	1949.5	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)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
γ (DEG)	0	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175
5	172	178	184	189	193	196	198	196	193	189	184	178	172	167	162	157	154	152	152
10	169	181	192	203	212	217	220	217	212	203	192	181	169	158	147	140	134	131	132
15	166	185	201	217	231	241	245	241	231	217	201	185	166	149	135	124	117	114	114
20	157	181	207	233	252	265	272	265	252	233	207	181	157	137	121	110	105	102	102
25	149	179	212	245	272	290	297	290	272	245	212	179	149	124	107	99.9	97.3	96.4	96.9
30	141	176	217	256	291	311	321	311	291	256	217	176	141	113	97.6	93.1	93.5	93.5	94.6
35	127	168	219	266	306	333	344	333	306	266	219	168	127	101	89.9	89.1	87.0	80.8	79.9
40	113	158	218	276	321	353	367	353	321	276	218	158	113	89.6	83.9	84.7	71.8	65.2	64.2
45	98.8	149	215	280	335	373	388	373	335	280	215	149	98.8	80.0	78.8	69.0	57.4	52.1	51.1
50	85.6	134	210	284	348	391	408	391	348	284	210	134	85.6	71.5	72.2	55.2	46.2	41.7	41.2
55	72.3	118	198	287	357	405	425	405	357	287	198	118	72.3	64.0	58.3	43.7	36.6	32.7	32.2
60	59.1	102	186	285	366	420	440	420	366	285	186	102	59.1	57.2	45.0	33.9	26.9	23.4	22.8
65	49.8	89.4	174	283	372	432	454	432	372	283	174	89.4	49.8	47.4	34.8	26.2	22.7	21.8	21.7
70	40.4	77.4	162	280	378	441	465	441	378	280	162	77.4	40.4	36.5	28.5	22.5	21.7	20.8	20.8
75	31.1	64.6	148	274	381	449	474	449	381	274	148	64.6	31.1	25.5	23.2	21.6	20.7	20.1	20.3
80	22.1	62.2	141	269	381	453	479	453	381	269	141	62.2	22.1	22.6	21.2	20.9	18.5	18.1	17.9
85	13.2	60.7	138	267	382	455	482	455	382	267	138	60.7	13.2	20.8	21.0	19.9	17.7	15.4	15.0
90	4.30	58.8	132	261	381	455	482	455	381	261	132	58.8	4.30	19.0	20.8	19.0	18.5	16.0	17.9
95	13.2	60.7	138	267	382	455	482	455	382	267	138	60.7	13.2	20.8	21.0	19.9	17.7	15.4	15.0
100	22.1	62.2	141	269	381	453	479	453	381	269	141	62.2	22.1	22.6	21.2	20.9	18.5	18.1	17.9
105	31.1	64.6	148	274	381	449	474	449	381	274	148	64.6	31.1	25.5	23.2	21.6	20.7	20.1	20.3
110	40.4	77.4	162	280	378	441	465	441	378	280	162	77.4	40.4	36.5	28.5	22.5	21.7	20.8	20.8
115	49.8	89.4	174	283	372	432	454	432	372	283	174	89.4	49.8	47.4	34.8	26.2	22.7	21.8	21.7
120	59.1	102	186	285	366	420	440	420	366	285	186	102	59.1	57.2	45.0	33.9	26.9	23.4	22.8
125	72.3	118	198	287	357	405	425	405	357	287	198	118	72.3	64.0	58.3	43.7	36.6	32.7	32.2
130	85.6	134	210	284	348	391	408	391	348	284	210	134	85.6	71.5	72.2	55.2	46.2	41.7	41.2
135	98.8	149	215	280	335	373	388	373	335	280	215	149	98.8	80.0	78.8	69.0	57.4	52.1	51.1
140	113	158	218	276	321	353	367	353	321	276	218	158	113	89.6	83.9	84.7	71.8	65.2	64.2
145	127	168	219	266	306	333	344	333	306	266	219	168	127	101	89.9	89.1	87.0	80.8	79.9
150	141	176	217	256	291	311	321	311	291	256	217	176	141	113	97.6	93.1	93.5	93.5	94.6
155	149	179	212	245	272	290	297	290	272	245	212	179	149	124	107	99.9	97.3	96.4	96.9
160	157	181	207	233	252	265	272	265	252	233	207	181	157	137	121	110	105	102	102
165	166	185	201	217	231	241	245	241	231	217	201	185	166	149	135	124	117	114	114
170	169	181	192	203	212	217	220	217	212	203	192	181	169	158	147	140	134	131	132
175	172	178	184	189	193	196	198	196	193	189	184	178	172	167	162	157	154	152	152
180	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175	175

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
γ (DEG)	0	175	175	175	175														
5	152	154	157	162	167														
10	131	134	140	147	158														
15	114	117	124	135	149														
20	102	105	110	121	137														
25	96.4	97.3	99.9	107	124														
30	93.5	93.5	93.1	97.6	113														
35	80.8	87.0	89.1	89.9	101														
40	65.2	71.8	84.7	83.9	89.6														
45	52.1	57.4	69.0	78.8	80.0														
50	41.7	46.2	55.2	72.2	71.5														
55	32.7	36.6	43.7	58.3	64.0														
60	23.4	26.9	33.9	45.0	57.2														
65	21.8	22.7	26.2	34.8	47.4														
70	20.8	21.7	22.5	28.5	36.5														
75	20.1	20.7	21.6	23.2	29.5														
80	18.1	18.5	20.9	21.2	22.6														
85	15.4	17.7	19.9	21.0	20.8														
90	16.0	18.5	19.0	20.8	19.0														
95	15.4	17.7	19.9	21.0	20.8														
100	18.1	18.5	20.9	21.2	22.6														
105	20.1	20.7	21.6	23.2	29.5														
110	20.8	21.7	22.5	28.5	36.5														
115	21.8	22.7	26.2	34.8	47.4														
120	23.4	26.9	33.9	45.0	57.2														
125	32.7	36.6	43.7	58.3	64.0														
130	41.7	46.2	55.2	72.2	71.5														
135	52.1	57.4	69.0	78.8	80.0														
140	65.2	71.8	84.7	83.9	89.6														
145	80.8	87.0	89.1	89.9	101														
150	93.5	93.5	93.1	97.6	113														
155	96.4	97.3	99.9	107	124														
160	102	105	110	121	137														
165	114	117	124	135	149														
170	131	134	140	147	158														
175	152	154	157	162	167														
180	175	175	175	175	175														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	V1-18 @16W5000K	Sample ID	250728005-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	0.134	16.0	0.995	6.25
277.0	60	0.060	15.9	0.954	14.52

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*****