

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: 2025-08-20

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		1412
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	117.6
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		12.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002	N/A	120V	6.07
		ANSI C82-77-10:2020		277V	25.46
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002	N/A	120V	0.991
		ANSI C82-77-10:2020		277V	0.886
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3501
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		92.3
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		79
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		26.9%
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		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		0.049
(Goniophotometer – Section 4.2)			Non-Worst Case		0.098
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		12.0
(Goniophotometer – Section 4.2)			Non-Worst Case		11.7

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-06	V1-18 @12W3500K	-	250728005-S1
2	Goniophotometer Test	2025-08-06	V1-18 @12W3500K	-	250728005-S1
3	THD and PF Test	2025-08-06	V1-18 @12W3500K	-	250728005-S1

Remark (If any):

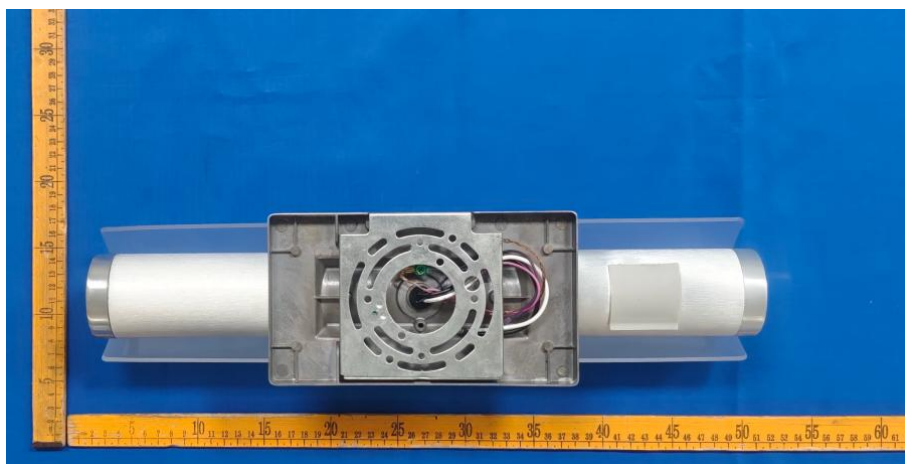
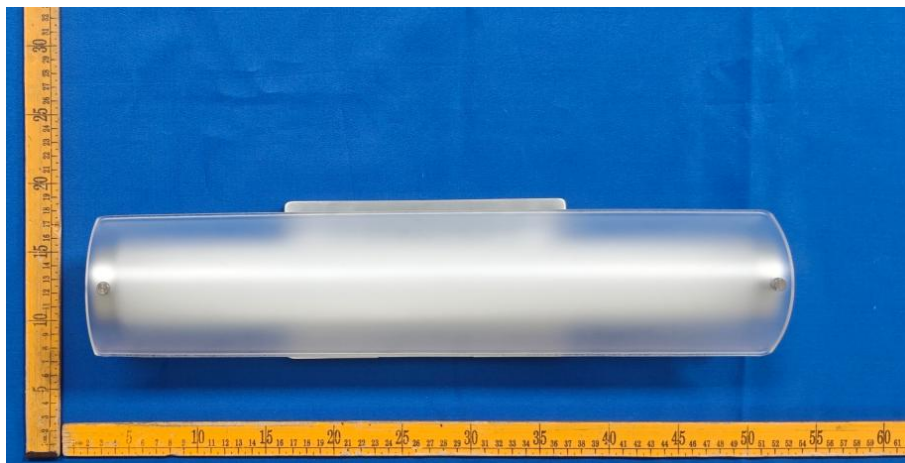
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. V1-18 @12W3500K, 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 @12W3500K	Sample ID	250728005-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

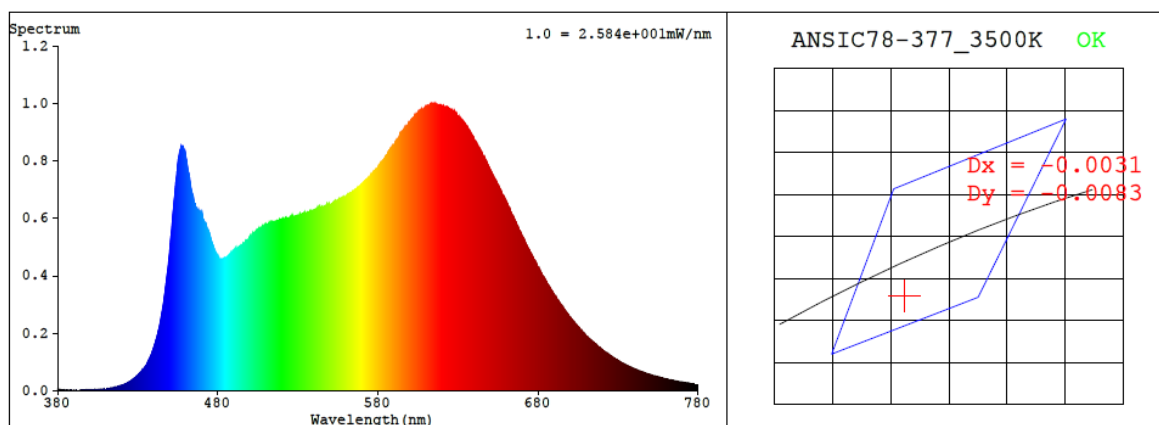
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.098	11.7	0.991
277.0	60	0.049	12.0	0.886

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3501	92.3	79	-0.0030	4.0	88	96	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4021$ $y = 0.3824$ / $u' = 0.2371$ $v' = 0.5073$ ($duv = -3.01e-03$)

CCT= 3501K Prcp WL: Ld=582.3nm Purity=35.4%

Peak WL: Lp=613nm FWHM: =180.3nm Ratio:R=22.9% G=72.4% B=4.7%

Render Index: Ra = 92.3 AvgR = 91.3 TM30:Rf=90 Rg=98

EEI: 0.12100 A+

R1 =97 R2 =94 R3 =92 R4 =94 R5 =95 R6 =90 R7 =89

R8 =87 R9 =79 R10=89 R11=97 R12=78 R13=96 R14=96 R15=96

4.1 Integrating Sphere Test

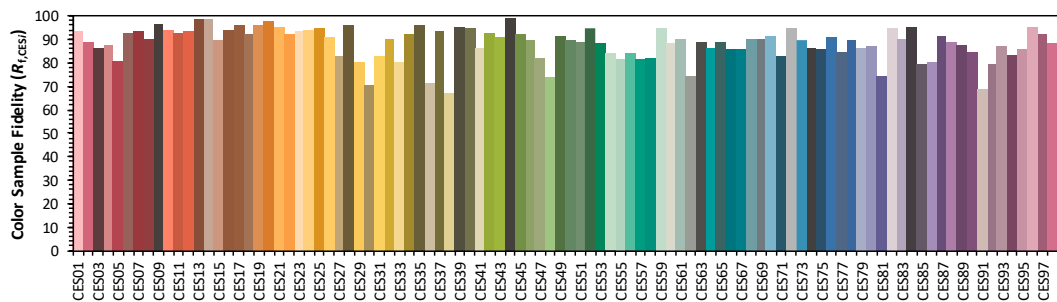
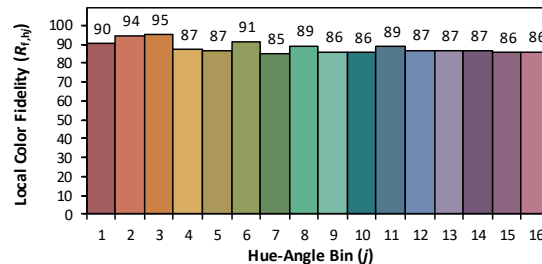
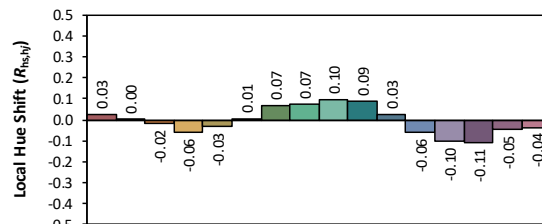
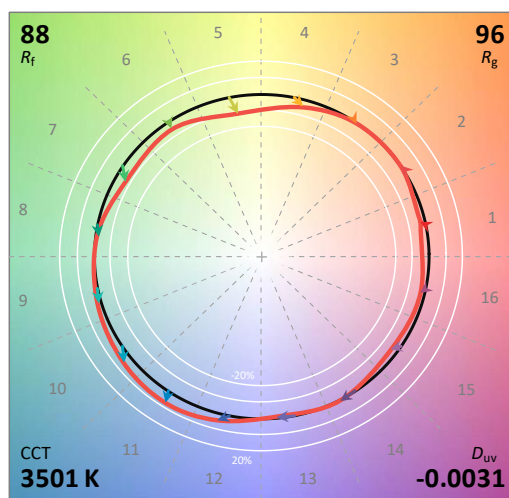
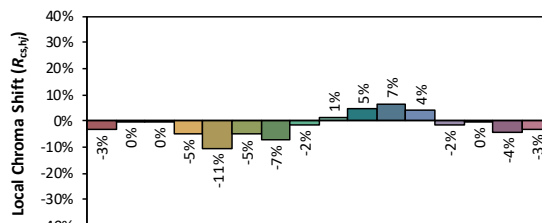
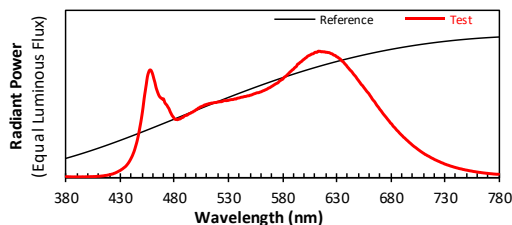
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc

Date: 2025/8/20

Model: V1-18 @12W3500K



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

x 0.4021
 y 0.3823
 u' 0.2371
 v' 0.5072

CIE 13.3-1995
(CRI)
 R_a 92
 R_g 79

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	4.20E-06	447	3.46E-04	514	5.88E-04	581	7.86E-04	648	7.95E-04	715	1.67E-04
381	3.20E-06	448	3.92E-04	515	5.87E-04	582	7.95E-04	649	7.81E-04	716	1.62E-04
382	3.10E-06	449	4.39E-04	516	5.90E-04	583	8.00E-04	650	7.71E-04	717	1.57E-04
383	2.10E-06	450	4.94E-04	517	5.92E-04	584	8.08E-04	651	7.59E-04	718	1.52E-04
384	2.70E-06	451	5.53E-04	518	5.92E-04	585	8.17E-04	652	7.47E-04	719	1.48E-04
385	1.60E-06	452	6.23E-04	519	5.92E-04	586	8.25E-04	653	7.34E-04	720	1.43E-04
386	2.00E-06	453	6.81E-04	520	5.97E-04	587	8.35E-04	654	7.27E-04	721	1.38E-04
387	1.40E-06	454	7.37E-04	521	5.96E-04	588	8.41E-04	655	7.15E-04	722	1.35E-04
388	2.30E-06	455	7.95E-04	522	5.99E-04	589	8.51E-04	656	7.04E-04	723	1.31E-04
389	1.30E-06	456	8.28E-04	523	5.98E-04	590	8.55E-04	657	6.92E-04	724	1.27E-04
390	1.80E-06	457	8.48E-04	524	6.00E-04	591	8.66E-04	658	6.81E-04	725	1.23E-04
391	1.80E-06	458	8.50E-04	525	6.03E-04	592	8.73E-04	659	6.71E-04	726	1.19E-04
392	2.10E-06	459	8.37E-04	526	6.07E-04	593	8.80E-04	660	6.62E-04	727	1.15E-04
393	1.90E-06	460	8.13E-04	527	6.08E-04	594	8.97E-04	661	6.48E-04	728	1.12E-04
394	1.90E-06	461	7.81E-04	528	6.07E-04	595	9.00E-04	662	6.36E-04	729	1.08E-04
395	2.60E-06	462	7.50E-04	529	6.08E-04	596	9.09E-04	663	6.21E-04	730	1.04E-04
396	2.00E-06	463	7.12E-04	530	6.09E-04	597	9.15E-04	664	6.10E-04	731	1.02E-04
397	2.00E-06	464	6.86E-04	531	6.13E-04	598	9.21E-04	665	6.01E-04	732	9.78E-05
398	2.70E-06	465	6.62E-04	532	6.14E-04	599	9.30E-04	666	5.88E-04	733	9.53E-05
399	2.60E-06	466	6.43E-04	533	6.16E-04	600	9.35E-04	667	5.74E-04	734	9.25E-05
400	3.20E-06	467	6.33E-04	534	6.15E-04	601	9.44E-04	668	5.62E-04	735	8.91E-05
401	3.10E-06	468	6.26E-04	535	6.18E-04	602	9.49E-04	669	5.52E-04	736	8.65E-05
402	3.50E-06	469	6.19E-04	536	6.21E-04	603	9.58E-04	670	5.38E-04	737	8.41E-05
403	3.90E-06	470	6.20E-04	537	6.20E-04	604	9.63E-04	671	5.29E-04	738	8.14E-05
404	3.60E-06	471	5.94E-04	538	6.26E-04	605	9.67E-04	672	5.17E-04	739	7.85E-05
405	4.30E-06	472	5.81E-04	539	6.27E-04	606	9.71E-04	673	5.05E-04	740	7.64E-05
406	4.40E-06	473	5.71E-04	540	6.29E-04	607	9.77E-04	674	4.94E-04	741	7.36E-05
407	4.90E-06	474	5.56E-04	541	6.32E-04	608	9.78E-04	675	4.84E-04	742	7.19E-05
408	5.40E-06	475	5.43E-04	542	6.34E-04	609	9.83E-04	676	4.73E-04	743	6.91E-05
409	6.70E-06	476	5.21E-04	543	6.35E-04	610	9.90E-04	677	4.62E-04	744	6.70E-05
410	6.20E-06	477	5.04E-04	544	6.37E-04	611	9.91E-04	678	4.51E-04	745	6.55E-05
411	7.20E-06	478	4.88E-04	545	6.40E-04	612	9.91E-04	679	4.41E-04	746	6.37E-05
412	7.90E-06	479	4.77E-04	546	6.40E-04	613	9.99E-04	680	4.29E-04	747	6.08E-05
413	9.00E-06	480	4.64E-04	547	6.43E-04	614	9.98E-04	681	4.22E-04	748	5.96E-05
414	9.80E-06	481	4.58E-04	548	6.46E-04	615	9.99E-04	682	4.09E-04	749	5.72E-05
415	1.13E-05	482	4.58E-04	549	6.46E-04	616	9.94E-04	683	3.99E-04	750	5.57E-05
416	1.29E-05	483	4.55E-04	550	6.50E-04	617	9.96E-04	684	3.91E-04	751	5.43E-05
417	1.37E-05	484	4.62E-04	551	6.51E-04	618	9.94E-04	685	3.80E-04	752	5.23E-05
418	1.53E-05	485	4.61E-04	552	6.55E-04	619	9.95E-04	686	3.70E-04	753	5.07E-05
419	1.74E-05	486	4.66E-04	553	6.59E-04	620	9.91E-04	687	3.63E-04	754	4.92E-05
420	1.91E-05	487	4.73E-04	554	6.62E-04	621	9.91E-04	688	3.52E-04	755	4.80E-05
421	2.09E-05	488	4.75E-04	555	6.64E-04	622	9.89E-04	689	3.44E-04	756	4.59E-05
422	2.35E-05	489	4.83E-04	556	6.68E-04	623	9.89E-04	690	3.35E-04	757	4.44E-05
423	2.52E-05	490	4.88E-04	557	6.70E-04	624	9.85E-04	691	3.27E-04	758	4.33E-05
424	2.92E-05	491	4.90E-04	558	6.70E-04	625	9.80E-04	692	3.17E-04	759	4.16E-05
425	3.18E-05	492	4.93E-04	559	6.74E-04	626	9.78E-04	693	3.11E-04	760	4.04E-05
426	3.59E-05	493	4.99E-04	560	6.77E-04	627	9.71E-04	694	3.02E-04	761	3.91E-05
427	4.00E-05	494	5.05E-04	561	6.81E-04	628	9.67E-04	695	2.94E-04	762	3.76E-05
428	4.45E-05	495	5.08E-04	562	6.85E-04	629	9.64E-04	696	2.87E-04	763	3.71E-05
429	4.93E-05	496	5.14E-04	563	6.88E-04	630	9.56E-04	697	2.78E-04	764	3.54E-05
430	5.36E-05	497	5.16E-04	564	6.92E-04	631	9.53E-04	698	2.71E-04	765	3.44E-05
431	5.98E-05	498	5.24E-04	565	6.96E-04	632	9.45E-04	699	2.64E-04	766	3.32E-05
432	6.52E-05	499	5.26E-04	566	7.00E-04	633	9.40E-04	700	2.56E-04	767	3.23E-05
433	7.23E-05	500	5.35E-04	567	7.06E-04	634	9.32E-04	701	2.48E-04	768	3.11E-05
434	7.87E-05	501	5.38E-04	568	7.09E-04	635	9.22E-04	702	2.41E-04	769	3.03E-05
435	8.60E-05	502	5.47E-04	569	7.14E-04	636	9.17E-04	703	2.36E-04	770	2.96E-05
436	9.60E-05	503	5.50E-04	570	7.20E-04	637	9.07E-04	704	2.29E-04	771	2.85E-05
437	1.07E-04	504	5.57E-04	571	7.25E-04	638	8.96E-04	705	2.22E-04	772	2.75E-05
438	1.19E-04	505	5.60E-04	572	7.31E-04	639	8.88E-04	706	2.16E-04	773	2.67E-05
439	1.34E-04	506	5.64E-04	573	7.36E-04	640	8.76E-04	707	2.10E-04	774	2.60E-05
440	1.50E-04	507	5.67E-04	574	7.42E-04	641	8.66E-04	708	2.03E-04	775	2.49E-05
441	1.68E-04	508	5.74E-04	575	7.45E-04	642	8.55E-04	709	1.98E-04	776	2.43E-05
442	1.89E-04	509	5.73E-04	576	7.50E-04	643	8.46E-04	710	1.92E-04	777	2.36E-05
443	2.12E-04	510	5.79E-04	577	7.60E-04	644	8.38E-04	711	1.87E-04	778	2.28E-05
444	2.40E-04	511	5.79E-04	578	7.66E-04	645	8.26E-04	712	1.80E-04	779	2.29E-05
445	2.70E-04	512	5.84E-04	579	7.73E-04	646	8.15E-04	713	1.77E-04	780	2.29E-05
446	3.05E-04	513	5.83E-04	580	7.76E-04	647	8.05E-04	714	1.70E-04	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	V1-18 @12W3500K	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	277.0	60	0.049	12.0	0.886
NON-WORST CASE	120.0	60	0.098	11.7	0.991

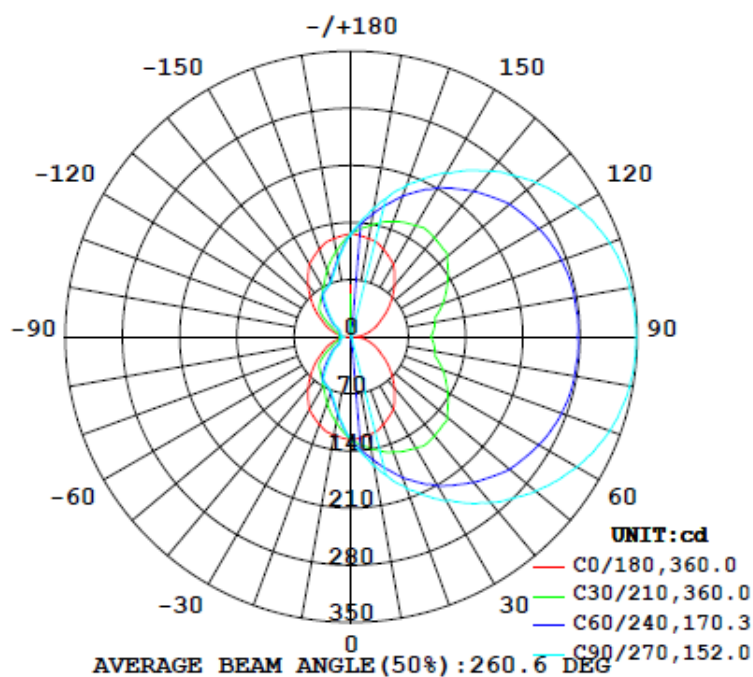
Test Result

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°)	
1412	92.8	155.9	180.0	95.7	117.6	26.9%	B0-U4-G2

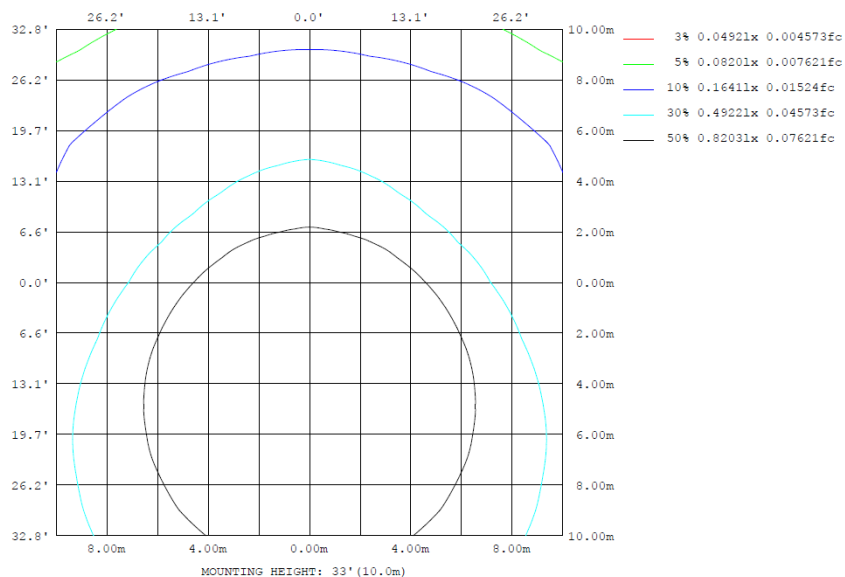
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

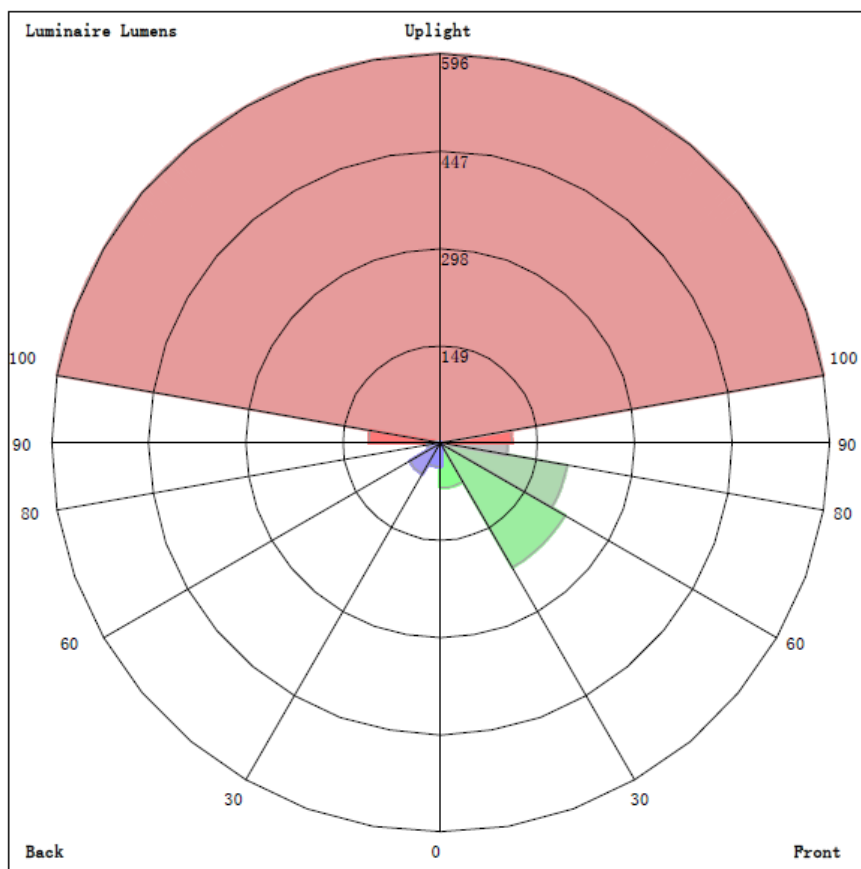
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	122.3	146.4	160.6	146.4	122.3	100.9	94.24	100.9	0- 10	11.92	11.92	0.84,0.84
20	114.5	169.1	198.1	169.1	114.5	78.98	72.09	78.98	10- 20	35.14	47.07	3.33,3.33
30	103.0	186.0	232.6	186.0	103.0	65.10	66.34	65.10	20- 30	57.61	104.7	7.42,7.42
40	82.17	199.7	265.0	199.7	82.17	58.95	46.45	58.95	30- 40	78.44	183.1	13,13
50	61.89	205.4	294.2	205.4	61.89	39.80	29.56	39.80	40- 50	93.62	276.7	19.6,19.6
60	42.20	207.1	318.8	207.1	42.20	24.42	16.05	24.42	50- 60	102.8	379.5	26.9,26.9
70	28.78	203.8	336.6	203.8	28.78	15.82	14.64	15.82	60- 70	107.4	486.9	34.5,34.5
80	15.86	197.1	346.0	197.1	15.86	14.91	12.29	14.91	70- 80	109.3	596.2	42.2,42.2
90	3.431	192.5	348.6	192.5	3.431	13.93	12.51	13.93	80- 90	109.6	705.8	50,50
100	15.86	197.1	346.0	197.1	15.86	14.91	12.29	14.91	90-100	109.6	815.4	57.8,57.8
110	28.78	203.8	336.6	203.8	28.78	15.82	14.64	15.82	100-110	109.3	924.7	65.5,65.5
120	42.20	207.1	318.8	207.1	42.20	24.42	16.05	24.42	110-120	107.4	1032	73.1,73.1
130	61.89	205.4	294.2	205.4	61.89	39.80	29.56	39.80	120-130	102.8	1135	80.4,80.4
140	82.17	199.7	265.0	199.7	82.17	58.95	46.45	58.95	130-140	93.62	1229	87,87
150	103.0	186.0	232.6	186.0	103.0	65.10	66.34	65.10	140-150	78.44	1307	92.6,92.6
160	114.5	169.1	198.1	169.1	114.5	78.98	72.09	78.98	150-160	57.61	1365	96.7,96.7
170	122.3	146.4	160.6	146.4	122.3	100.9	94.24	100.9	160-170	35.14	1400	99.2,99.2
180	126.7	126.7	126.7	126.7	126.7	126.7	126.7	126.7	170-180	11.92	1412	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	11.92	0-10	11.92	0.85%
10-20	35.14	0-20	47.06	3.36%
20-30	57.61	0-30	104.67	7.48%
30-40	78.44	0-40	183.11	13.08%
40-50	93.62	0-50	276.73	19.77%
50-60	102.79	0-60	379.52	27.11%
60-70	107.35	0-70	486.87	34.78%
70-80	109.35	0-80	596.22	42.60%
80-90	109.58	0-90	705.80	50.43%
90-100	109.58	0-100	815.38	58.25%
100-110	109.35	0-110	924.73	66.07%
110-120	107.35	0-120	1032.08	73.74%
120-130	102.79	0-130	1134.87	81.08%
130-140	93.62	0-140	1228.49	87.77%
140-150	78.44	0-150	1306.93	93.37%
150-160	57.61	0-160	1364.54	97.49%
160-170	35.14	0-170	1399.68	100.00%
170-180	11.92	0-180	1411.60	100.85%

4.2 Goniophotometer Test

LCS/BUG

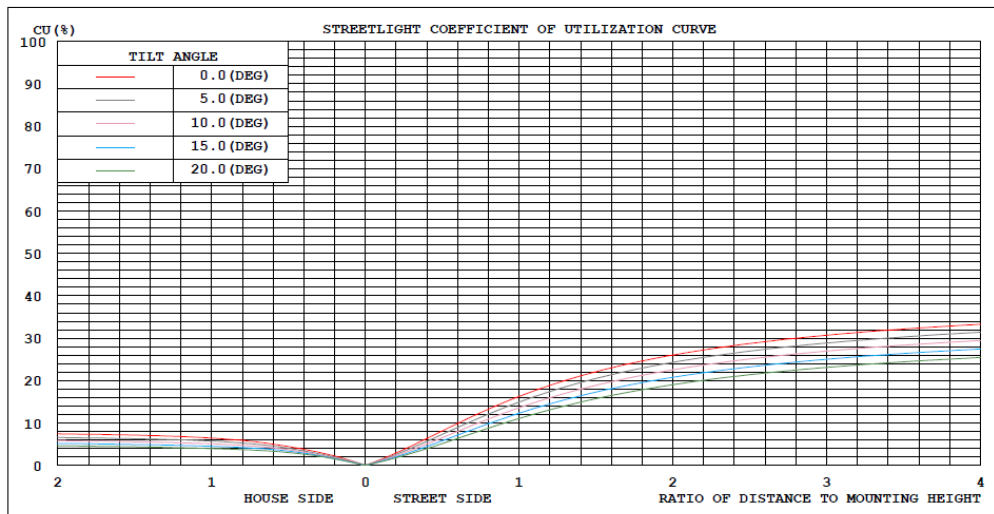


LUMINAIRE CLASSIFICATION SYSTEM (LCS)

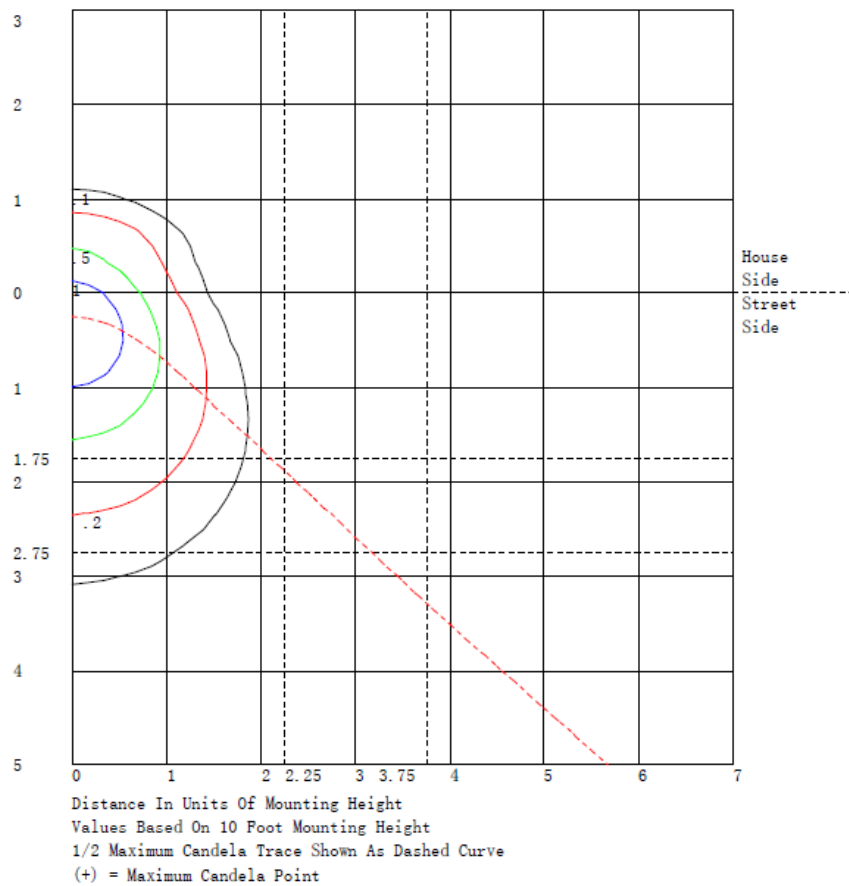
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	68.5	N.A.	4.9
FM - Front-Medium (30-60)	220.2	N.A.	15.6
FH - Front-High (60-80)	196.9	N.A.	14.0
FVH - Front-Very High (80-90)	102.4	N.A.	7.3
BL - Back-Low (0-30)	36.2	N.A.	2.6
BM - Back-Medium (30-60)	54.6	N.A.	3.9
BH - Back-High (60-80)	19.8	N.A.	1.4
BVH - Back-Very High (80-90)	7.1	N.A.	0.5
UL - Uplight-Low (90-100)	109.6	N.A.	7.8
UH - Uplight-High (100-180)	596.2	N.A.	42.2
Total	1411.5	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) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127
5	125	129	133	137	139	142	143	142	139	137	133	129	125	121	117	114	112	111	111
10	122	131	139	146	153	158	161	158	153	146	139	131	122	114	107	101	96.6	94.4	94.2
15	120	133	145	158	168	175	178	175	168	158	145	133	120	108	97.0	88.9	83.7	81.3	81.3
20	114	132	150	169	183	192	198	192	183	169	150	132	114	98.7	86.7	79.0	74.0	72.0	72.1
25	109	130	155	179	197	208	215	208	197	179	155	130	109	89.6	76.8	70.6	68.2	67.4	67.9
30	103	128	158	186	211	226	233	226	211	186	158	128	103	80.9	69.1	65.1	64.9	65.4	66.3
35	92.6	123	160	193	222	241	249	241	222	193	160	123	92.6	71.8	63.0	62.1	61.9	58.6	58.1
40	82.2	116	158	200	233	256	265	256	233	200	158	116	82.2	63.3	58.6	59.0	51.9	47.0	46.4
45	71.7	109	156	202	243	270	280	270	243	202	156	109	71.7	56.0	55.0	50.5	41.6	37.7	36.8
50	61.9	98.8	153	205	253	282	294	282	253	205	153	98.8	61.9	50.1	50.8	39.8	33.3	30.1	29.6
55	52.0	87.0	145	208	259	294	307	294	259	208	145	87.0	52.0	44.7	42.1	31.6	26.4	23.5	23.0
60	42.2	74.7	136	207	265	304	319	304	265	207	136	74.7	42.2	39.4	32.7	24.4	19.2	16.5	16.0
65	35.5	65.8	128	206	270	313	329	313	270	206	128	65.8	35.5	32.6	25.3	18.6	15.8	15.5	15.2
70	28.8	56.9	119	204	274	320	337	320	274	204	119	56.9	28.8	25.4	20.5	15.8	15.4	14.8	14.6
75	22.1	47.4	109	201	277	324	342	324	277	201	109	47.4	22.1	18.2	16.5	15.3	14.7	14.3	14.2
80	15.9	45.5	104	197	277	328	346	328	277	197	104	45.5	15.9	16.2	15.0	14.9	13.3	12.8	12.3
85	9.65	44.2	101	196	278	330	348	330	278	196	101	44.2	9.65	14.8	14.8	14.4	12.5	11.0	10.7
90	3.43	42.6	97.4	192	277	330	349	330	277	192	97.4	42.6	3.43	13.5	14.7	13.9	12.7	11.3	12.5
95	9.65	44.2	101	196	278	330	348	330	278	196	101	44.2	9.65	14.8	14.8	14.4	12.5	11.0	10.7
100	15.9	45.5	104	197	277	328	346	328	277	197	104	45.5	15.9	16.2	15.0	14.9	13.3	12.8	12.3
105	22.1	47.4	109	201	277	324	342	324	277	201	109	47.4	22.1	18.2	16.5	15.3	14.7	14.3	14.2
110	28.8	56.9	119	204	274	320	337	320	274	204	119	56.9	28.8	25.4	20.5	15.8	15.4	14.8	14.6
115	35.5	65.8	128	206	270	313	329	313	270	206	128	65.8	35.5	32.6	25.3	18.6	15.8	15.5	15.2
120	42.2	74.7	136	207	265	304	319	304	265	207	136	74.7	42.2	39.4	32.7	24.4	19.2	16.5	16.0
125	52.0	87.0	145	208	259	294	307	294	259	208	145	87.0	52.0	44.7	42.1	31.6	26.4	23.5	23.0
130	61.9	98.8	153	205	253	282	294	282	253	205	153	98.8	61.9	50.1	50.8	39.8	33.3	30.1	29.6
135	71.7	109	156	202	243	270	280	270	243	202	156	109	71.7	56.0	55.0	50.5	41.6	37.7	36.8
140	82.2	116	158	200	233	256	265	256	233	200	158	116	82.2	63.3	58.6	59.0	51.9	47.0	46.4
145	92.6	123	160	193	222	241	249	241	222	193	160	123	92.6	71.8	63.0	62.1	61.9	58.6	58.1
150	103	128	158	186	211	226	233	226	211	186	158	128	103	80.9	69.1	65.1	64.9	65.4	66.3
155	109	130	155	179	197	208	215	208	197	179	155	130	109	89.6	76.8	70.6	68.2	67.4	67.9
160	114	132	150	169	183	192	198	192	183	169	150	132	114	98.7	86.7	79.0	74.0	72.0	72.1
165	120	133	145	158	168	175	178	175	168	158	145	133	120	108	97.0	88.9	83.7	81.3	81.3
170	122	131	139	146	153	158	161	158	153	146	139	131	122	114	107	101	96.6	94.4	94.2
175	125	129	133	137	139	142	143	142	139	137	133	129	125	121	117	114	112	111	111
180	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127	127

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	127	127	127	127	127														
5	111	112	114	117	121														
10	94.4	96.6	101	107	114														
15	81.3	83.7	88.9	97.0	108														
20	72.0	74.0	79.0	86.7	98.7														
25	67.4	68.2	70.6	76.8	89.6														
30	65.4	64.9	65.1	69.1	80.9														
35	58.6	61.9	62.1	63.0	71.8														
40	47.0	51.9	59.0	58.6	63.3														
45	37.7	41.6	50.5	55.0	56.0														
50	30.1	33.3	39.8	50.8	50.1														
55	23.5	26.4	31.6	42.1	44.7														
60	16.5	19.2	24.4	32.7	39.4														
65	15.5	15.8	18.6	25.3	32.6														
70	14.8	15.4	15.8	20.5	25.4														
75	14.3	14.7	15.3	16.5	18.2														
80	12.8	13.3	14.9	15.0	16.2														
85	11.0	12.5	14.4	14.8	14.8														
90	11.3	12.7	13.9	14.7	13.5														
95	11.0	12.5	14.4	14.8	14.8														
100	12.8	13.3	14.9	15.0	16.2														
105	14.3	14.7	15.3	16.5	18.2														
110	14.8	15.4	15.8	20.5	25.4														
115	15.5	15.8	18.6	25.3	32.6														
120	16.5	19.2	24.4	32.7	39.4														
125	23.5	26.4	31.6	42.1	44.7														
130	30.1	33.3	39.8	50.8	50.1														
135	37.7	41.6	50.5	55.0	56.0														
140	47.0	51.9	59.0	58.6	63.3														
145	58.6	61.9	62.1	63.0	71.8														
150	65.4	64.9	65.1	69.1	80.9														
155	67.4	68.2	70.6	76.8	89.6														
160	72.0	74.0	79.0	86.7	98.7														
165	81.3	83.7	88.9	97.0	108														
170	94.4	96.6	101	107	114														
175	111	112	114	117	121														
180	127	127	127	127	127														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	V1-18 @12W3500K	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	0.098	11.7	0.991	6.07
277.0	60	0.049	12.0	0.886	25.46

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*****