

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		1259
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	106.7
			N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		11.8
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	6.30
				277V	26.92
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.990
				277V	0.882
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3045±175	3028
			4 steps	3045±100	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		92.7
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		71
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		90
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		97
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-4%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	N/A		26.6%
Backlight, Uplight and Glare (BUG) Ratings (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019 IES TM-15-11	N/A		B0-U4-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		0.048
(Goniophotometer – Section 4.2)			Non-Worst Case		0.098
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		11.8
(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	2025-08-10	V1-18B @12W3000K	-	250728006-S1
2	Goniophotometer Test	2025-08-10	V1-18B @12W3000K	-	250728006-S1
3	THD and PF Test	2025-08-10	V1-18B @12W3000K	-	250728006-S1

Remark (If any):

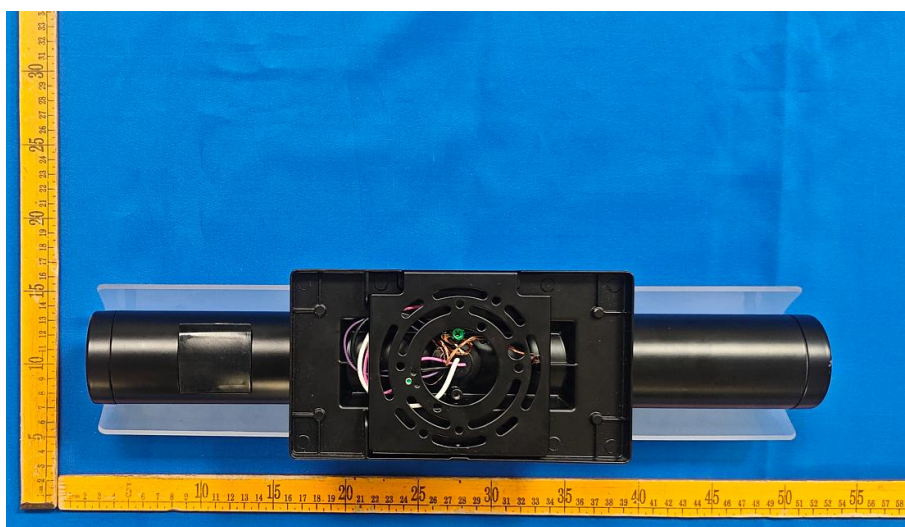
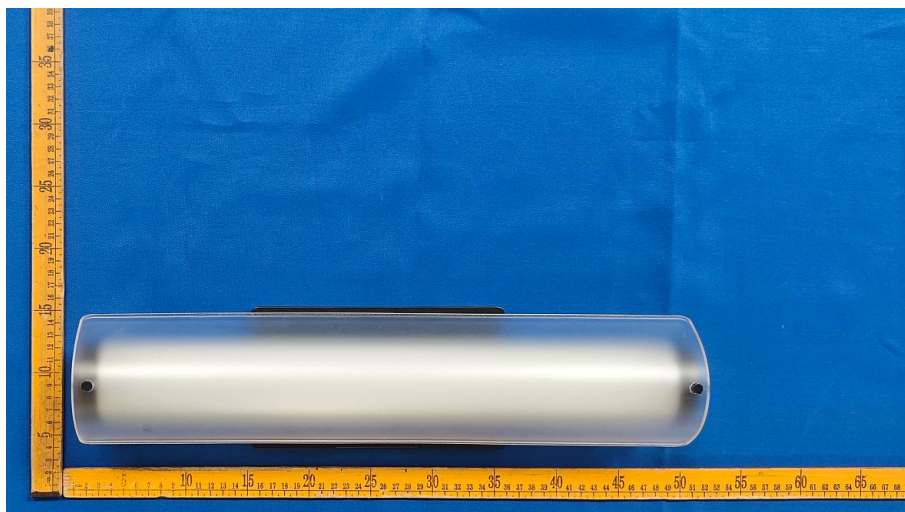
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. V1-18B @12W3000K, 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.	V1-18B @12W3000K	Sample ID	250728006-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

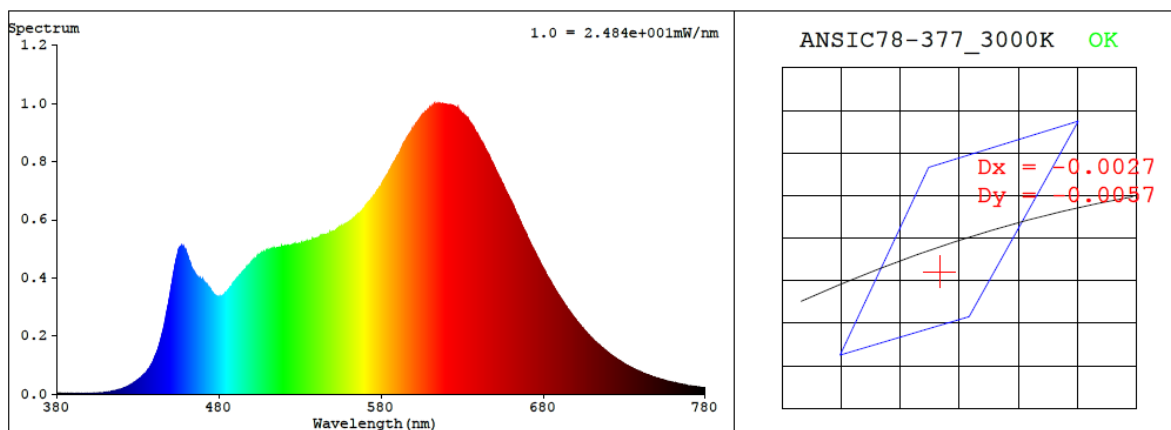
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.990
277.0	60	0.048	11.8	0.882

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3028	92.7	71	-0.0019	2.5	90	97	-4%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4322$ $y = 0.3977$ / $u' = 0.2503$ $v' = 0.5181$ ($duv = -1.91e-03$)

CCT= 3028K Prcp WL: Ld=583.4nm Purity=49.1%

Peak WL: Lp=615nm FWHM: =159.0nm Ratio:R=25.3% G=70.9% B=3.9%

Render Index: Ra = 92.7 AvgR = 91.2 TM30:Rf=91 Rg=98

EEL: 0.13554 A+

R1 =98 R2 =95 R3 =92 R4 =96 R5 =97 R6 =89 R7 =89

R8 =85 R9 =71 R10=90 R11=96 R12=82 R13=97 R14=96 R15=95

4.1 Integrating Sphere Test

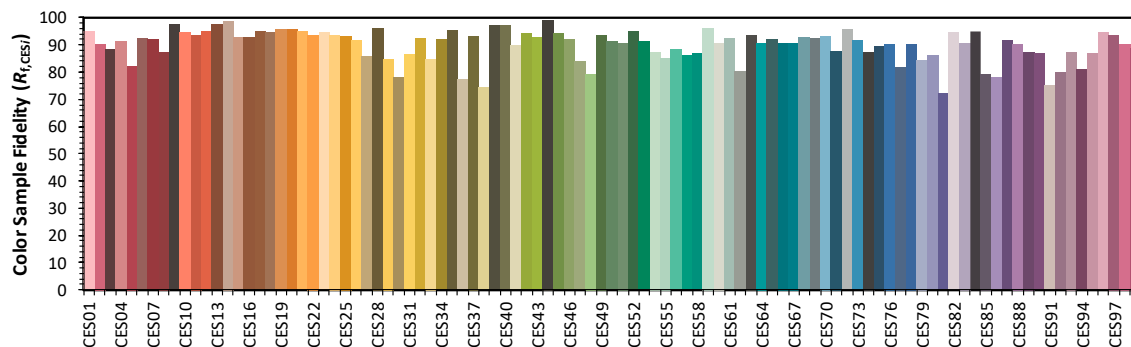
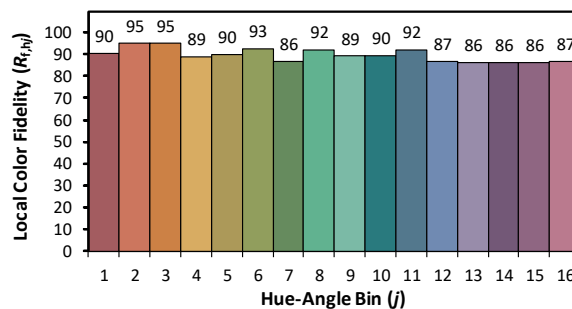
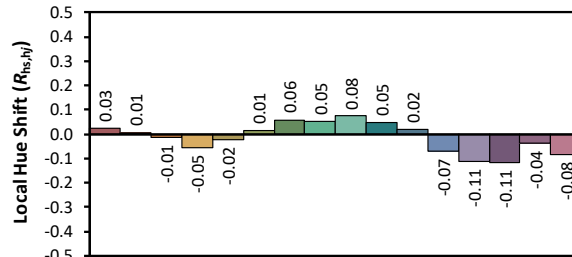
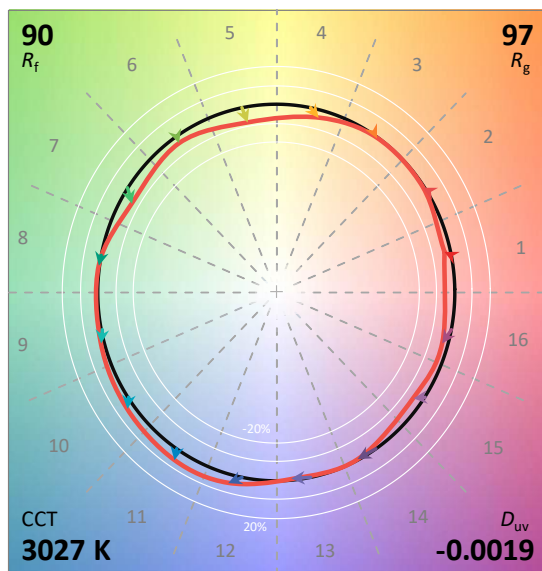
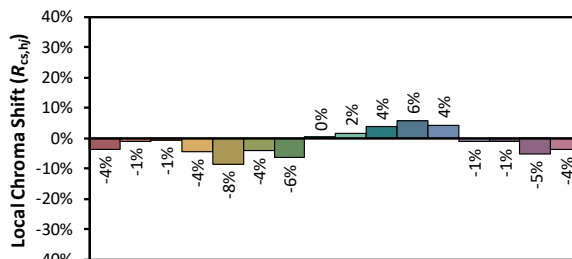
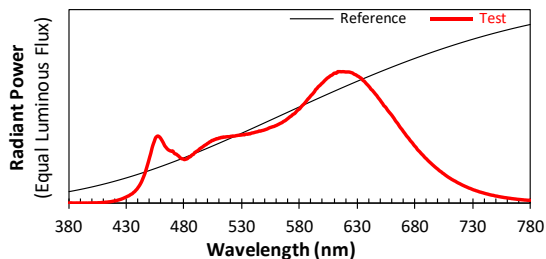
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/8/21

Model: V1-18B @12W3000K



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

x 0.4323
 y 0.3976
 u' 0.2503
 v' 0.5181

CIE 13.3-1995
(CRI)

R_a 93
 R_g 71

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	2.70E-06	447	2.59E-04	514	5.03E-04	581	7.27E-04	648	8.02E-04	715	1.67E-04
381	2.80E-06	448	2.88E-04	515	5.01E-04	582	7.38E-04	649	7.92E-04	716	1.62E-04
382	3.00E-06	449	3.18E-04	516	5.03E-04	583	7.46E-04	650	7.80E-04	717	1.57E-04
383	2.20E-06	450	3.50E-04	517	5.04E-04	584	7.54E-04	651	7.67E-04	718	1.52E-04
384	2.00E-06	451	3.81E-04	518	5.05E-04	585	7.65E-04	652	7.56E-04	719	1.48E-04
385	1.90E-06	452	4.17E-04	519	5.04E-04	586	7.76E-04	653	7.41E-04	720	1.43E-04
386	2.00E-06	453	4.46E-04	520	5.07E-04	587	7.88E-04	654	7.33E-04	721	1.39E-04
387	2.50E-06	454	4.70E-04	521	5.08E-04	588	7.97E-04	655	7.24E-04	722	1.35E-04
388	1.80E-06	455	4.94E-04	522	5.10E-04	589	8.07E-04	656	7.10E-04	723	1.31E-04
389	2.70E-06	456	5.05E-04	523	5.09E-04	590	8.18E-04	657	6.98E-04	724	1.27E-04
390	1.90E-06	457	5.10E-04	524	5.10E-04	591	8.26E-04	658	6.88E-04	725	1.23E-04
391	1.50E-06	458	5.06E-04	525	5.13E-04	592	8.37E-04	659	6.78E-04	726	1.19E-04
392	1.90E-06	459	4.98E-04	526	5.14E-04	593	8.48E-04	660	6.67E-04	727	1.15E-04
393	1.90E-06	460	4.86E-04	527	5.16E-04	594	8.63E-04	661	6.55E-04	728	1.12E-04
394	1.80E-06	461	4.71E-04	528	5.16E-04	595	8.70E-04	662	6.42E-04	729	1.09E-04
395	2.30E-06	462	4.55E-04	529	5.17E-04	596	8.82E-04	663	6.28E-04	730	1.05E-04
396	1.40E-06	463	4.37E-04	530	5.18E-04	597	8.89E-04	664	6.16E-04	731	1.01E-04
397	2.30E-06	464	4.26E-04	531	5.21E-04	598	8.97E-04	665	6.06E-04	732	9.88E-05
398	2.10E-06	465	4.15E-04	532	5.19E-04	599	9.06E-04	666	5.92E-04	733	9.52E-05
399	2.80E-06	466	4.06E-04	533	5.23E-04	600	9.14E-04	667	5.78E-04	734	9.27E-05
400	2.50E-06	467	4.01E-04	534	5.24E-04	601	9.23E-04	668	5.67E-04	735	8.98E-05
401	2.90E-06	468	3.97E-04	535	5.24E-04	602	9.32E-04	669	5.57E-04	736	8.62E-05
402	3.10E-06	469	3.95E-04	536	5.28E-04	603	9.40E-04	670	5.44E-04	737	8.43E-05
403	3.20E-06	470	3.97E-04	537	5.26E-04	604	9.49E-04	671	5.33E-04	738	8.14E-05
404	2.90E-06	471	3.83E-04	538	5.31E-04	605	9.54E-04	672	5.20E-04	739	7.94E-05
405	3.80E-06	472	3.75E-04	539	5.33E-04	606	9.61E-04	673	5.08E-04	740	7.66E-05
406	4.10E-06	473	3.73E-04	540	5.35E-04	607	9.68E-04	674	4.99E-04	741	7.41E-05
407	4.10E-06	474	3.65E-04	541	5.37E-04	608	9.72E-04	675	4.88E-04	742	7.16E-05
408	5.00E-06	475	3.59E-04	542	5.40E-04	609	9.78E-04	676	4.75E-04	743	6.98E-05
409	5.80E-06	476	3.49E-04	543	5.42E-04	610	9.86E-04	677	4.66E-04	744	6.72E-05
410	6.00E-06	477	3.41E-04	544	5.44E-04	611	9.87E-04	678	4.56E-04	745	6.48E-05
411	7.40E-06	478	3.38E-04	545	5.48E-04	612	9.87E-04	679	4.43E-04	746	6.28E-05
412	8.40E-06	479	3.36E-04	546	5.47E-04	613	9.98E-04	680	4.32E-04	747	6.10E-05
413	8.60E-06	480	3.31E-04	547	5.50E-04	614	9.97E-04	681	4.24E-04	748	5.99E-05
414	1.00E-05	481	3.33E-04	548	5.52E-04	615	9.98E-04	682	4.10E-04	749	5.74E-05
415	1.09E-05	482	3.36E-04	549	5.55E-04	616	9.97E-04	683	4.00E-04	750	5.49E-05
416	1.19E-05	483	3.41E-04	550	5.58E-04	617	9.98E-04	684	3.92E-04	751	5.43E-05
417	1.35E-05	484	3.50E-04	551	5.61E-04	618	9.98E-04	685	3.82E-04	752	5.21E-05
418	1.53E-05	485	3.52E-04	552	5.64E-04	619	9.97E-04	686	3.72E-04	753	5.03E-05
419	1.72E-05	486	3.60E-04	553	5.68E-04	620	9.95E-04	687	3.64E-04	754	4.88E-05
420	1.83E-05	487	3.68E-04	554	5.73E-04	621	9.96E-04	688	3.54E-04	755	4.71E-05
421	1.99E-05	488	3.71E-04	555	5.75E-04	622	9.96E-04	689	3.44E-04	756	4.59E-05
422	2.27E-05	489	3.84E-04	556	5.78E-04	623	9.95E-04	690	3.37E-04	757	4.42E-05
423	2.50E-05	490	3.89E-04	557	5.81E-04	624	9.93E-04	691	3.27E-04	758	4.28E-05
424	2.78E-05	491	3.96E-04	558	5.83E-04	625	9.90E-04	692	3.19E-04	759	4.19E-05
425	3.02E-05	492	4.00E-04	559	5.88E-04	626	9.87E-04	693	3.11E-04	760	4.03E-05
426	3.36E-05	493	4.10E-04	560	5.91E-04	627	9.81E-04	694	3.03E-04	761	3.91E-05
427	3.71E-05	494	4.16E-04	561	5.96E-04	628	9.76E-04	695	2.94E-04	762	3.80E-05
428	4.12E-05	495	4.22E-04	562	6.00E-04	629	9.73E-04	696	2.87E-04	763	3.70E-05
429	4.51E-05	496	4.28E-04	563	6.05E-04	630	9.66E-04	697	2.79E-04	764	3.53E-05
430	4.92E-05	497	4.35E-04	564	6.09E-04	631	9.62E-04	698	2.71E-04	765	3.45E-05
431	5.37E-05	498	4.41E-04	565	6.13E-04	632	9.55E-04	699	2.64E-04	766	3.32E-05
432	5.72E-05	499	4.45E-04	566	6.20E-04	633	9.50E-04	700	2.57E-04	767	3.24E-05
433	6.34E-05	500	4.53E-04	567	6.24E-04	634	9.43E-04	701	2.49E-04	768	3.12E-05
434	6.86E-05	501	4.58E-04	568	6.30E-04	635	9.31E-04	702	2.43E-04	769	3.00E-05
435	7.34E-05	502	4.65E-04	569	6.37E-04	636	9.26E-04	703	2.37E-04	770	2.93E-05
436	8.21E-05	503	4.68E-04	570	6.44E-04	637	9.16E-04	704	2.29E-04	771	2.85E-05
437	8.86E-05	504	4.76E-04	571	6.51E-04	638	9.06E-04	705	2.24E-04	772	2.76E-05
438	9.88E-05	505	4.77E-04	572	6.58E-04	639	8.97E-04	706	2.16E-04	773	2.66E-05
439	1.08E-04	506	4.83E-04	573	6.63E-04	640	8.88E-04	707	2.10E-04	774	2.60E-05
440	1.21E-04	507	4.84E-04	574	6.72E-04	641	8.77E-04	708	2.04E-04	775	2.46E-05
441	1.33E-04	508	4.90E-04	575	6.77E-04	642	8.64E-04	709	1.98E-04	776	2.43E-05
442	1.48E-04	509	4.89E-04	576	6.83E-04	643	8.57E-04	710	1.92E-04	777	2.35E-05
443	1.65E-04	510	4.95E-04	577	6.93E-04	644	8.47E-04	711	1.87E-04	778	2.28E-05
444	1.86E-04	511	4.95E-04	578	7.03E-04	645	8.36E-04	712	1.81E-04	779	2.29E-05
445	2.07E-04	512	5.00E-04	579	7.10E-04	646	8.25E-04	713	1.77E-04	780	2.29E-05
446	2.30E-04	513	4.98E-04	580	7.16E-04	647	8.16E-04	714	1.71E-04	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	V1-18B @12W3000K	Sample ID	250728006-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.9	Humidity (%RH)	42.6

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	0.048	11.8	0.882
NON-WORST CASE	120.0	60	0.098	11.7	0.990

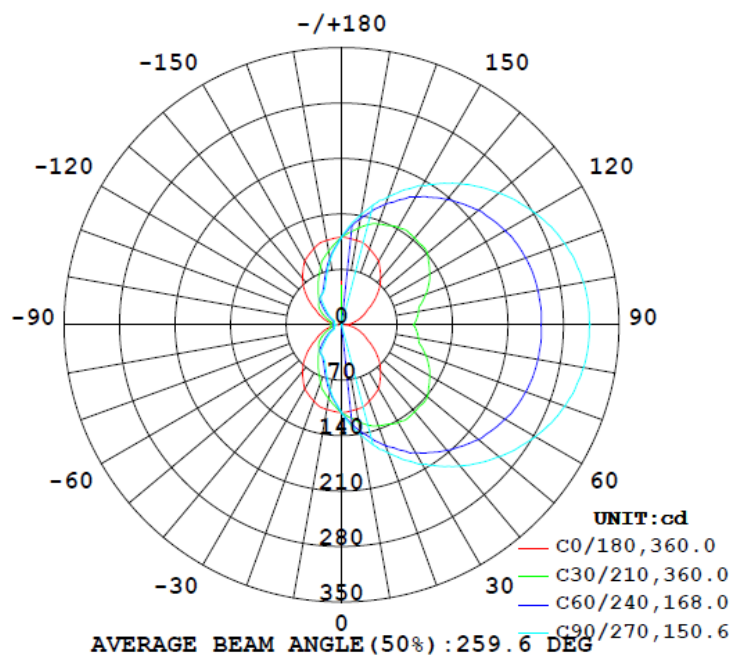
Test Result

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°)	
1259	87.8	155.5	180.0	97.5	106.7	26.6%	B0-U4-G1

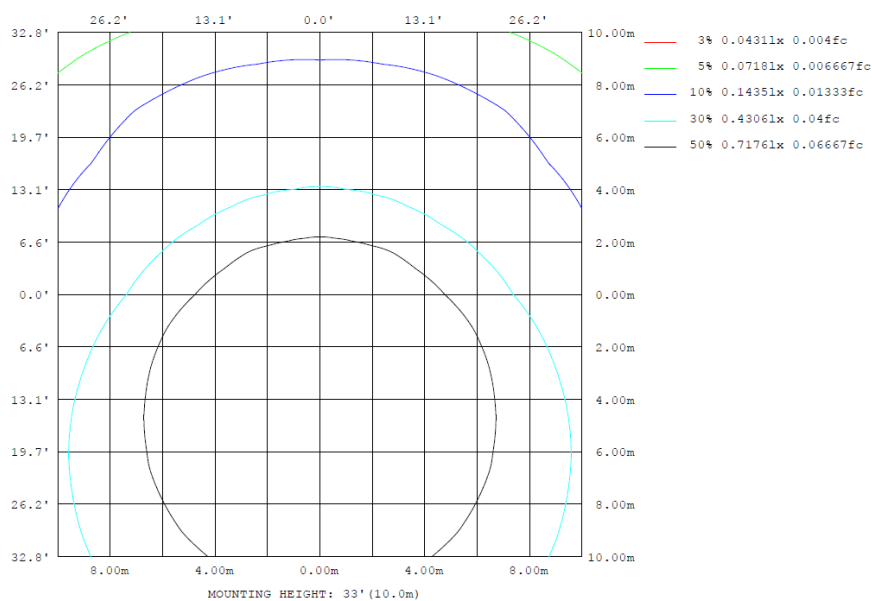
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

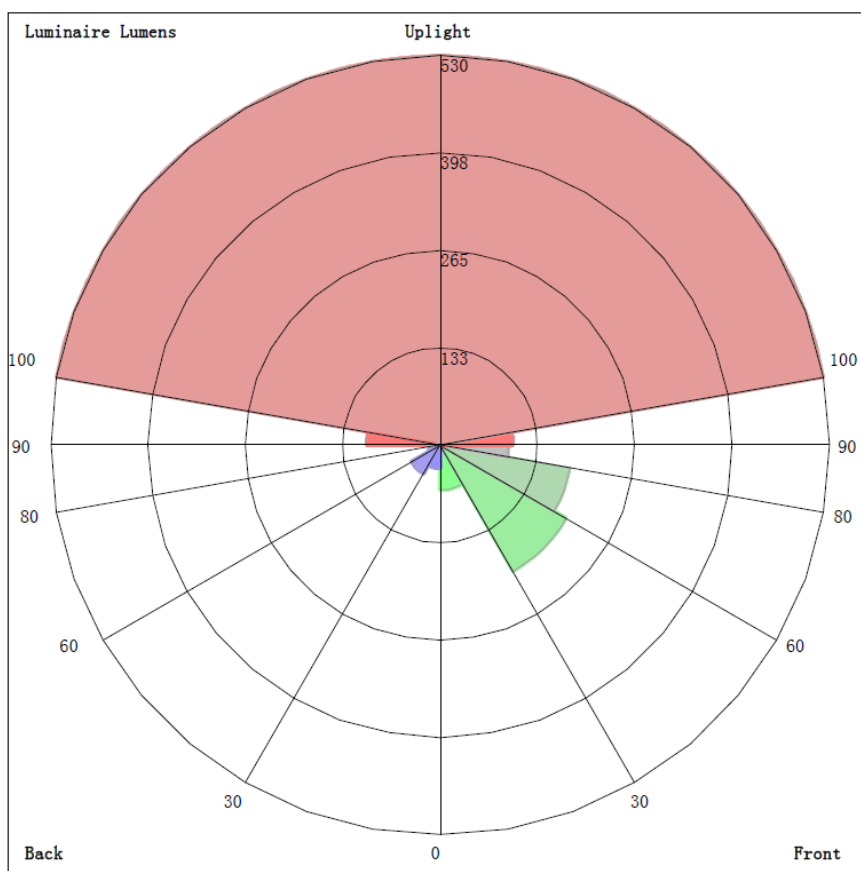
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φlum, lamp
10	108.5	131.4	141.5	131.4	108.5	89.72	83.33	89.72	0- 10	10.54	10.54	0.84,0.84
20	102.6	152.0	172.3	152.0	102.6	69.38	58.82	69.38	10- 20	31.18	41.72	3.31,3.31
30	93.37	165.5	203.5	165.5	93.37	51.08	46.92	51.08	20- 30	50.41	92.13	7.32,7.32
40	76.60	178.5	232.7	178.5	76.60	43.26	38.06	43.26	30- 40	68.51	160.6	12.8,12.8
50	58.04	185.6	259.2	185.6	58.04	34.29	22.75	34.29	40- 50	82.85	243.5	19.3,19.3
60	37.68	188.4	282.2	188.4	37.68	20.63	11.00	20.63	50- 60	91.67	335.2	26.6,26.6
70	25.21	187.2	299.7	187.2	25.21	11.77	10.08	11.77	60- 70	96.37	431.5	34.3,34.3
80	13.83	182.5	310.1	182.5	13.83	11.60	8.999	11.60	70- 80	98.57	530.1	42.1,42.1
90	3.554	178.4	313.2	178.4	3.554	12.63	9.975	12.63	80- 90	99.57	629.7	50.50
100	13.83	182.5	310.1	182.5	13.83	11.60	8.999	11.60	90-100	99.57	729.2	57.9,57.9
110	25.21	187.2	299.7	187.2	25.21	11.77	10.08	11.77	100-110	98.57	827.8	65.7,65.7
120	37.68	188.4	282.2	188.4	37.68	20.63	11.00	20.63	110-120	96.37	924.2	73.4,73.4
130	58.04	185.6	259.2	185.6	58.04	34.29	22.75	34.29	120-130	91.67	1016	80.7,80.7
140	76.60	178.5	232.7	178.5	76.60	43.26	38.06	43.26	130-140	82.85	1099	87.2,87.2
150	93.37	165.5	203.5	165.5	93.37	51.08	46.92	51.08	140-150	68.51	1167	92.7,92.7
160	102.6	152.0	172.3	152.0	102.6	69.38	58.82	69.38	150-160	50.41	1218	96.7,96.7
170	108.5	131.4	141.5	131.4	108.5	89.72	83.33	89.72	160-170	31.18	1249	99.2,99.2
180	111.1	111.1	111.1	111.1	111.1	111.1	111.1	111.1	170-180	10.54	1259	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	10.54	0-10	10.54	0.84%
10-20	31.18	0-20	41.72	3.34%
20-30	50.41	0-30	92.13	7.38%
30-40	68.51	0-40	160.64	12.86%
40-50	82.85	0-50	243.49	19.50%
50-60	91.67	0-60	335.16	26.84%
60-70	96.37	0-70	431.53	34.56%
70-80	98.57	0-80	530.10	42.45%
80-90	99.57	0-90	629.67	50.42%
90-100	99.57	0-100	729.24	58.40%
100-110	98.57	0-110	827.81	66.29%
110-120	96.37	0-120	924.18	74.01%
120-130	91.67	0-130	1015.85	81.35%
130-140	82.85	0-140	1098.70	87.98%
140-150	68.51	0-150	1167.21	93.47%
150-160	50.41	0-160	1217.62	97.50%
160-170	31.18	0-170	1248.80	100.00%
170-180	10.54	0-180	1259.34	100.84%

4.2 Goniophotometer Test

LCS/BUG

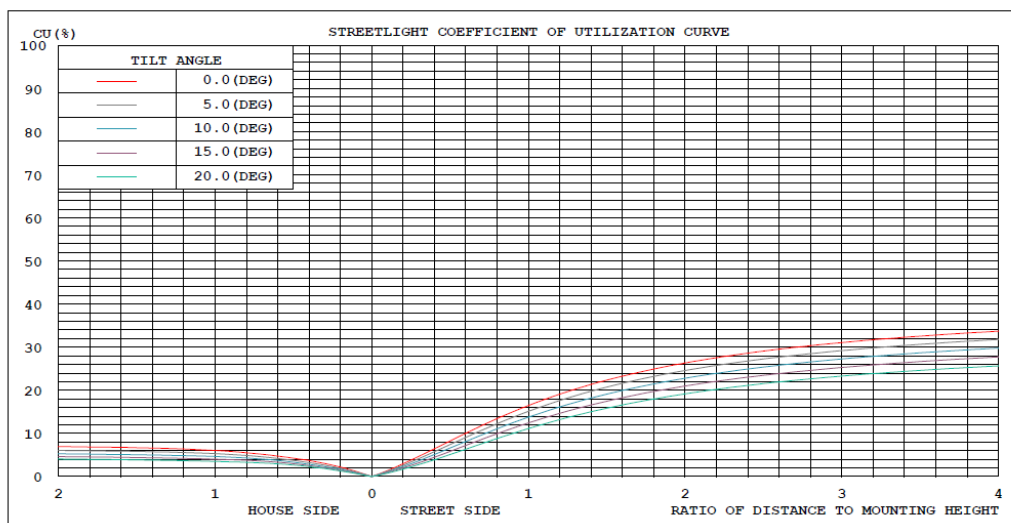


LUMINAIRE CLASSIFICATION SYSTEM (LCS)

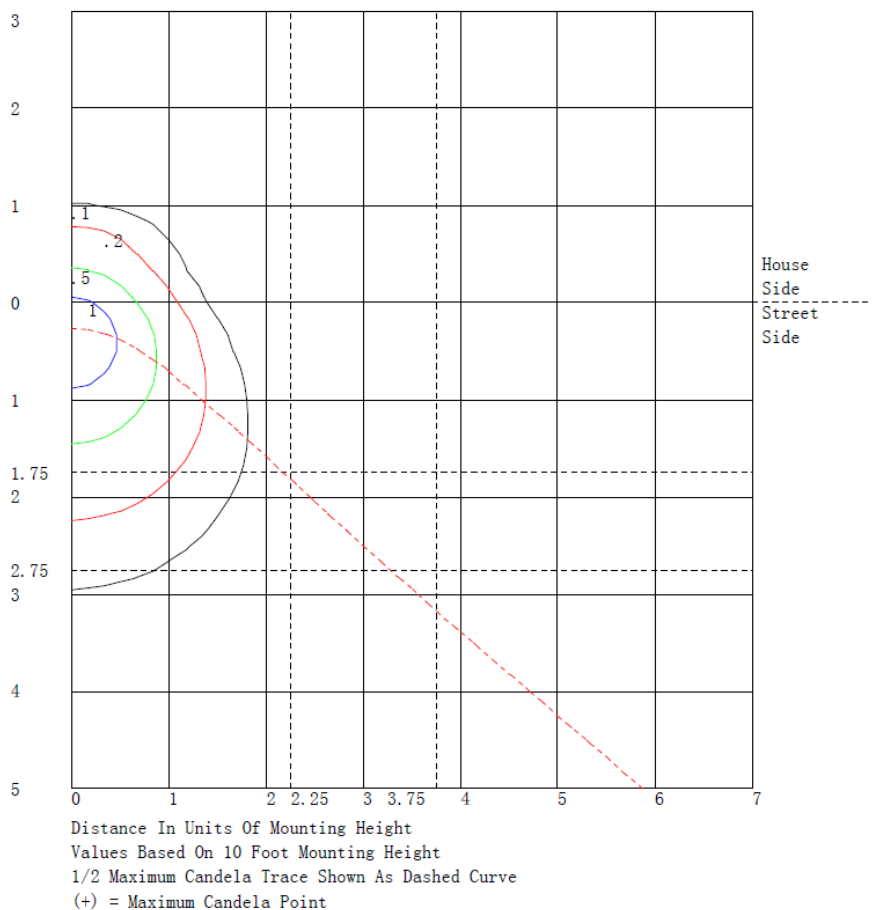
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	61.0	N.A.	4.8
FM - Front-Medium (30-60)	198.4	N.A.	15.8
FH - Front-High (60-80)	179.2	N.A.	14.2
FVH - Front-Very High (80-90)	93.3	N.A.	7.4
BL - Back-Low (0-30)	31.2	N.A.	2.5
BM - Back-Medium (30-60)	44.6	N.A.	3.5
BH - Back-High (60-80)	15.7	N.A.	1.3
BVH - Back-Very High (80-90)	6.3	N.A.	0.5
UL - Uplight-Low (90-100)	99.6	N.A.	7.9
UH - Uplight-High (100-180)	530.1	N.A.	42.1
Total	1259.4	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)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
γ (DEG)	0	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111
5	110	113	117	121	123	125	126	125	123	121	117	113	110	106	102	99.8	97.9	96.7	96.5
10	108	116	124	131	136	140	141	140	136	131	124	116	108	101	94.5	89.7	85.8	83.5	83.3
15	107	119	131	141	149	155	157	155	149	141	131	119	107	96.5	87.3	79.3	73.9	70.5	70.3
20	103	119	136	152	162	169	172	169	162	152	136	119	103	88.8	77.9	69.4	62.5	59.0	58.8
25	98.0	119	138	159	175	185	188	185	175	159	138	119	98.0	81.2	68.0	59.1	53.8	51.0	50.6
30	93.4	118	142	166	187	199	204	199	187	166	142	118	93.4	73.9	59.2	51.1	48.1	46.8	46.9
35	85.0	114	145	173	197	213	218	213	197	173	145	114	85.0	64.6	51.6	46.1	45.1	45.3	45.3
40	76.6	109	143	179	207	226	233	226	207	179	143	109	76.6	55.4	45.1	43.3	42.7	39.7	38.1
45	68.2	104	143	184	216	239	246	239	216	184	143	104	68.2	47.1	41.0	40.2	35.2	31.1	29.5
50	58.0	95.3	141	186	225	251	259	251	225	186	141	95.3	58.0	40.6	38.0	34.3	27.7	24.0	22.7
55	47.9	85.0	134	188	232	262	271	262	232	188	134	85.0	47.9	35.2	33.5	26.9	21.3	18.1	17.3
60	37.7	73.8	128	188	238	271	282	271	238	188	128	73.8	37.7	30.4	27.9	20.6	14.9	11.8	11.0
65	31.4	64.5	121	189	244	280	292	280	244	189	121	64.5	31.4	26.2	22.0	14.6	11.3	10.7	10.3
70	25.2	54.9	113	187	247	287	300	287	247	187	113	54.9	25.2	21.7	17.5	11.8	10.9	10.4	10.1
75	19.0	44.7	104	185	250	292	306	292	250	185	104	44.7	19.0	17.1	13.5	11.6	10.8	9.78	9.53
80	13.8	42.0	98.5	183	251	295	310	295	251	183	98.5	42.0	13.8	15.8	12.7	11.6	10.5	9.55	9.00
85	8.69	39.9	95.3	182	252	297	312	297	252	182	95.3	39.9	8.69	15.1	13.7	12.0	10.6	9.18	8.45
90	3.55	37.5	90.9	178	252	298	313	298	252	178	90.9	37.5	3.55	14.5	14.7	12.6	11.4	9.86	9.97
95	8.69	39.9	95.3	182	252	297	312	297	252	182	95.3	39.9	8.69	15.1	13.7	12.0	10.6	9.18	8.45
100	13.8	42.0	98.5	183	251	295	310	295	251	183	98.5	42.0	13.8	15.8	12.7	11.6	10.5	9.55	9.00
105	19.0	44.7	104	185	250	292	306	292	250	185	104	44.7	19.0	17.1	13.5	11.6	10.8	9.78	9.53
110	25.2	54.9	113	187	247	287	300	287	247	187	113	54.9	25.2	21.7	17.5	11.8	10.9	10.4	10.1
115	31.4	64.5	121	189	244	280	292	280	244	189	121	64.5	31.4	26.2	22.0	14.6	11.3	10.7	10.3
120	37.7	73.8	128	188	238	271	282	271	238	188	128	73.8	37.7	30.4	27.9	20.6	14.9	11.8	11.0
125	47.9	85.0	134	188	232	262	271	262	232	188	134	85.0	47.9	35.2	33.5	26.9	21.3	18.1	17.3
130	58.0	95.3	141	186	225	251	259	251	225	186	141	95.3	58.0	40.6	38.0	34.3	27.7	24.0	22.7
135	68.2	104	143	184	216	239	246	239	216	184	143	104	68.2	47.1	41.0	40.2	35.2	31.1	29.5
140	76.6	109	143	179	207	226	233	226	207	179	143	109	76.6	55.4	45.1	43.3	42.7	39.7	38.1
145	85.0	114	145	173	197	213	218	213	197	173	145	114	85.0	64.6	51.6	46.1	45.1	45.3	45.3
150	93.4	118	142	166	187	199	204	199	187	166	142	118	93.4	73.9	59.2	51.1	48.1	46.8	46.9
155	98.0	119	138	159	175	185	188	185	175	159	138	119	98.0	81.2	68.0	59.1	53.8	51.0	50.6
160	103	119	136	152	162	169	172	169	162	152	136	119	103	88.8	77.9	69.4	62.5	59.0	58.8
165	107	119	131	141	149	155	157	155	149	141	131	119	107	96.5	87.3	79.3	73.9	70.5	70.3
170	108	116	124	131	136	140	141	140	136	131	124	116	108	101	94.5	89.7	85.8	83.5	83.3
175	110	113	117	121	123	125	126	125	123	121	117	113	110	106	102	99.8	97.9	96.7	96.5
180	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111	111

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
γ (DEG)	0	111	111	111	111														
5	96.7	97.9	99.8	102	106														
10	83.5	85.8	89.7	94.5	101														
15	70.5	73.9	79.3	87.3	96.5														
20	59.0	62.5	69.4	77.9	88.8														
25	51.0	53.8	59.1	68.0	81.2														
30	46.8	48.1	51.1	59.2	73.9														
35	45.3	45.1	46.1	51.6	64.6														
40	39.7	42.7	43.3	45.1	55.4														
45	31.1	35.2	40.2	41.0	47.1														
50	24.0	27.7	34.3	38.0	40.6														
55	18.1	21.3	26.9	33.5	35.2														
60	11.8	14.9	20.6	27.9	30.4														
65	10.7	11.3	14.6	22.0	26.2														
70	10.4	10.9	11.8	17.5	21.7														
75	9.78	10.8	11.6	13.5	17.1														
80	9.55	10.5	11.6	12.7	15.8														
85	9.18	10.6	12.0	13.7	15.1														
90	9.86	11.4	12.6	14.7	14.5														
95	9.18	10.6	12.0	13.7	15.1														
100	9.55	10.5	11.6	12.7	15.8														
105	9.78	10.8	11.6	13.5	17.1														
110	10.4	10.9	11.8	17.5	21.7														
115	10.7	11.3	14.6	22.0	26.2														
120	11.8	14.9	20.6	27.9	30.4														
125	18.1	21.3	26.9	33.5	35.2														
130	24.0	27.7	34.3	38.0	40.6														
135	31.1	35.2	40.2	41.0	47.1														
140	39.7	42.7	43.3	45.1	55.4														
145	45.3	45.1	46.1	51.6	64.6														
150	46.8	48.1	51.1	59.2	73.9														
155	51.0	53.8	59.1	68.0	81.2														
160	59.0	62.5	69.4	77.9	88.8														
165	70.5	73.9	79.3	87.3	96.5														
170	83.5	85.8	89.7	94.5	101														
175	96.7	97.9	99.8	102	106														
180	111	111	111	111	111														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	V1-18B @12W3000K	Sample ID	250728006-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	0.990	6.30
277.0	60	0.048	11.8	0.882	26.92

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*****