

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

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Prepared By

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Issue Date: 2025-08-21

Revised Date: N/A

1.0 Test Summary

Wall mount Luminaire				
Requirement Category	Test Method	Requirements		Test Value
Luminaire Output (lm) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	N/A		1368
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Standard	Premium	116.9
		N/A	N/A	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		11.7
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	6.36
			277V	27.34
Power Factor (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	N/A	120V	0.990
			277V	0.880
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)	ANSI/IES LM-79:2019	7 steps	3985±275	4007
		4 steps	3985±154	
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		82
Minimum Rf (Integrating Sphere – Section 4.1)	ANSI/IES TM-30-18	≥70		87
Minimum Rg (Integrating Sphere – Section 4.1)	ANSI/IES TM-30-18	≥89		95
IES Rcs,h1 (Integrating Sphere – Section 4.1)	ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-3%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	N/A		26.6%
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		0.048
(Goniophotometer – Section 4.2)		Non-Worst Case		0.097
Power (Input Wattage – W)				
(Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		11.7
(Goniophotometer – Section 4.2)		Non-Worst Case		11.5

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-08-10	V1-18B @12W4000K	-	250728006-S1
2	Goniophotometer Test	2025-08-10	V1-18B @12W4000K	-	250728006-S1
3	THD and PF Test	2025-08-10	V1-18B @12W4000K	-	250728006-S1

Remark (If any):

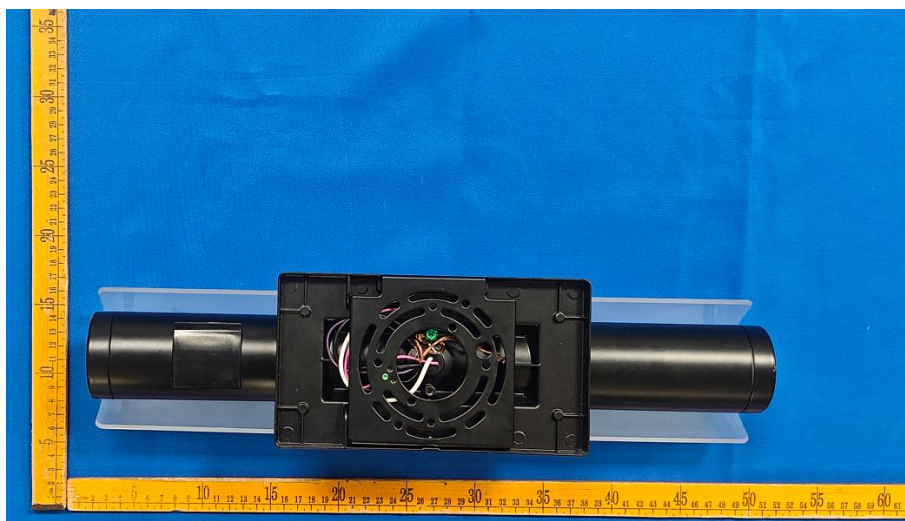
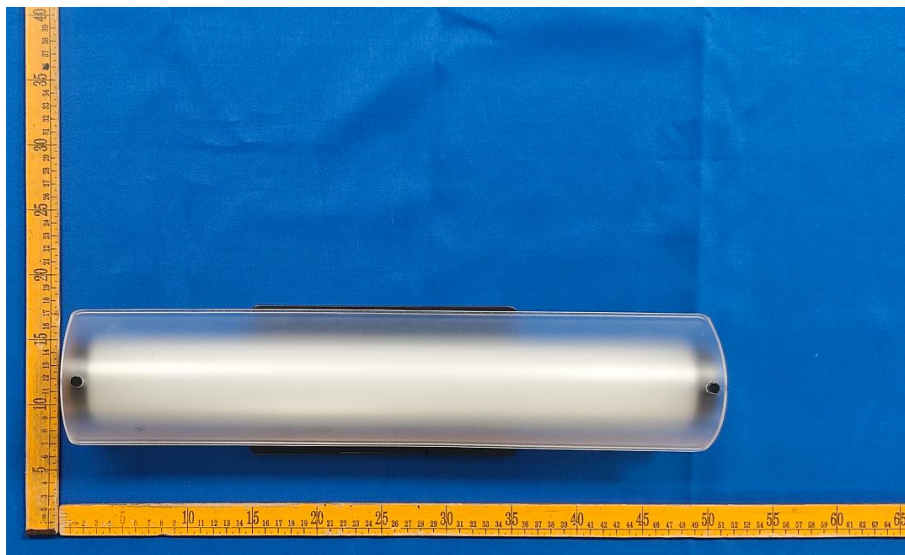
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. V1-18B @12W4000K, 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 @12W4000K	Sample ID	250728006-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

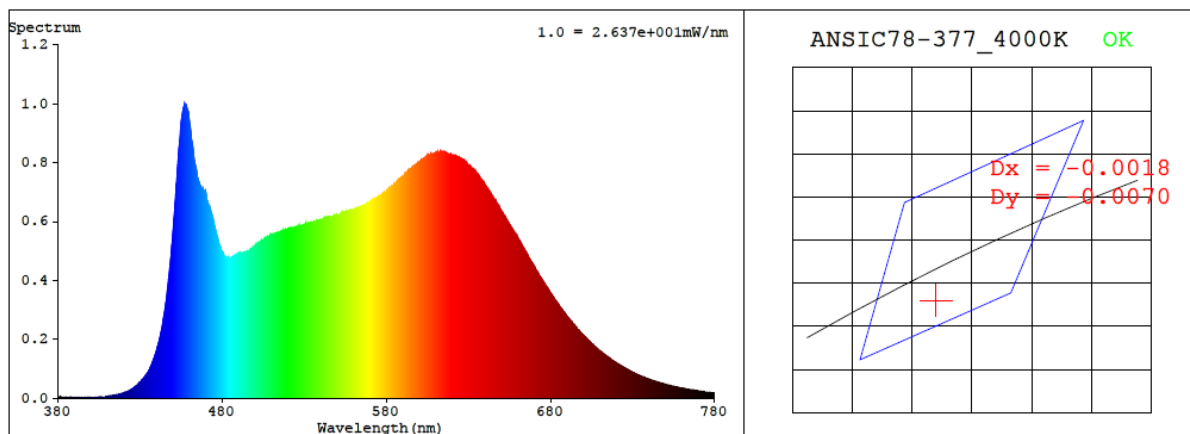
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.097	11.5	0.990
277.0	60	0.048	11.7	0.880

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4007	92.0	82	-0.0028	4.1	87	95	-3%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3784$ $y = 0.3695$ / $u' = 0.2266$ $v' = 0.4980$ ($duv = -2.81e-03$)

CCT= 4007K Prcp WL: $L_d = 580.8\text{nm}$ Purity=24.4%

Peak WL: $L_p = 457\text{nm}$ FWHM: $\approx 31.0\text{nm}$ Ratio: R=20.9% G=73.6% B=5.5%

Render Index: $R_a = 92.0$ AvgR = 91.0 TM30: $R_f = 89$ $R_g = 97$

EEL: 0.12547 A+

R1 =97 R2 =94 R3 =93 R4 =92 R5 =94 R6 =91 R7 =88

R8 =88 R9 =82 R10=90 R11=96 R12=74 R13=96 R14=97 R15=96

4.1 Integrating Sphere Test

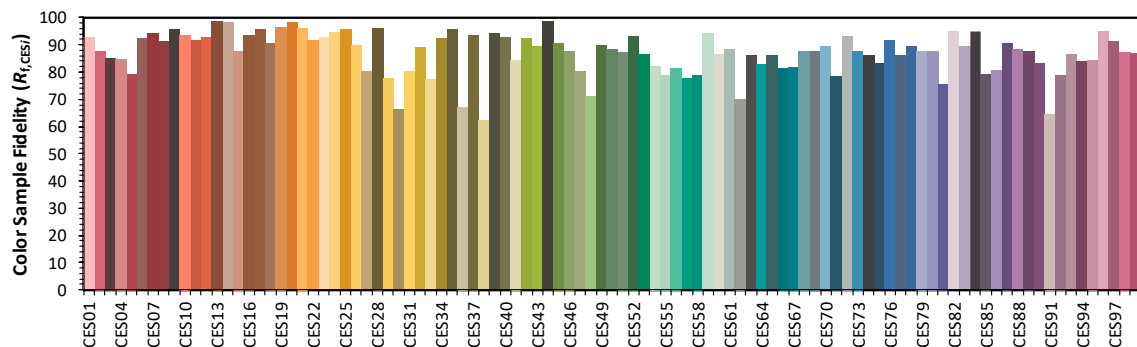
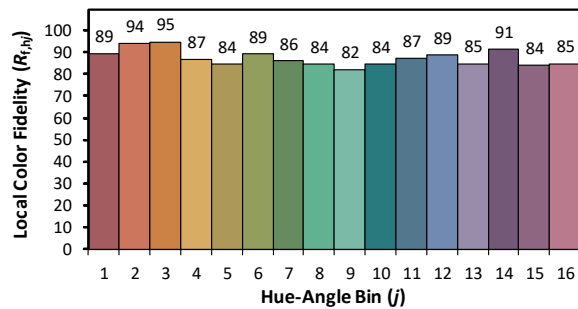
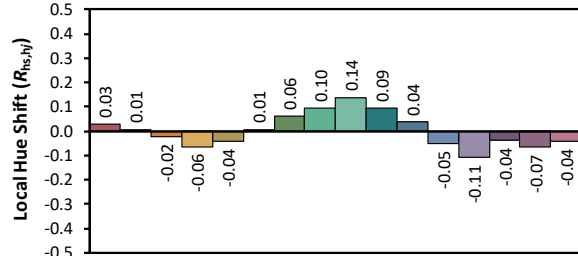
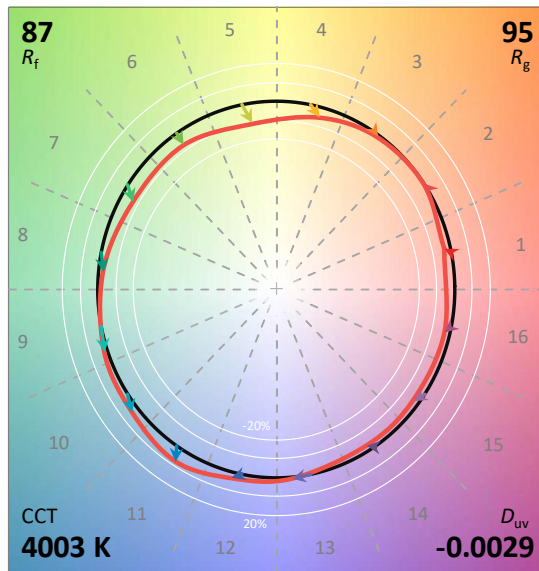
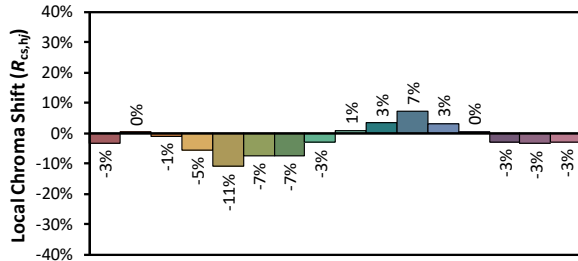
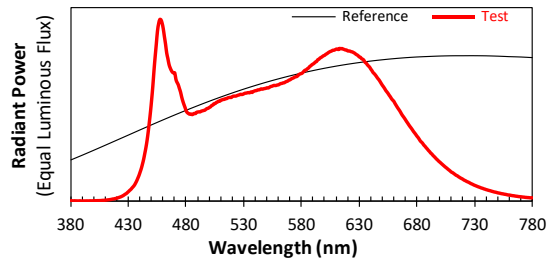
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/8/21

Model: V1-18B @12W4000K



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

x 0.3783
 y 0.3694
 u' 0.2267
 v' 0.4980

CIE 13.3-1995
(CRI)

R_a 92
 R_g 82

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	3.90E-06	447	3.82E-04	514	5.63E-04	581	7.06E-04	648	6.57E-04	715	1.40E-04
381	2.90E-06	448	4.36E-04	515	5.63E-04	582	7.13E-04	649	6.47E-04	716	1.35E-04
382	2.40E-06	449	4.94E-04	516	5.67E-04	583	7.19E-04	650	6.37E-04	717	1.31E-04
383	3.00E-06	450	5.61E-04	517	5.69E-04	584	7.21E-04	651	6.28E-04	718	1.27E-04
384	2.60E-06	451	6.33E-04	518	5.70E-04	585	7.27E-04	652	6.19E-04	719	1.24E-04
385	2.40E-06	452	7.18E-04	519	5.69E-04	586	7.31E-04	653	6.08E-04	720	1.21E-04
386	2.10E-06	453	7.93E-04	520	5.74E-04	587	7.39E-04	654	6.00E-04	721	1.16E-04
387	2.40E-06	454	8.62E-04	521	5.76E-04	588	7.43E-04	655	5.91E-04	722	1.13E-04
388	2.80E-06	455	9.33E-04	522	5.77E-04	589	7.49E-04	656	5.81E-04	723	1.10E-04
389	1.50E-06	456	9.73E-04	523	5.77E-04	590	7.53E-04	657	5.73E-04	724	1.07E-04
390	2.00E-06	457	9.96E-04	524	5.80E-04	591	7.58E-04	658	5.62E-04	725	1.04E-04
391	2.10E-06	458	9.95E-04	525	5.82E-04	592	7.64E-04	659	5.55E-04	726	1.00E-04
392	2.10E-06	459	9.77E-04	526	5.83E-04	593	7.67E-04	660	5.48E-04	727	9.68E-05
393	2.30E-06	460	9.47E-04	527	5.87E-04	594	7.76E-04	661	5.37E-04	728	9.43E-05
394	2.40E-06	461	9.03E-04	528	5.86E-04	595	7.79E-04	662	5.26E-04	729	9.09E-05
395	2.10E-06	462	8.62E-04	529	5.87E-04	596	7.86E-04	663	5.16E-04	730	8.80E-05
396	2.50E-06	463	8.13E-04	530	5.90E-04	597	7.89E-04	664	5.06E-04	731	8.55E-05
397	2.80E-06	464	7.83E-04	531	5.93E-04	598	7.94E-04	665	4.97E-04	732	8.29E-05
398	2.50E-06	465	7.51E-04	532	5.93E-04	599	7.98E-04	666	4.87E-04	733	8.02E-05
399	2.90E-06	466	7.32E-04	533	5.95E-04	600	8.01E-04	667	4.75E-04	734	7.80E-05
400	3.40E-06	467	7.18E-04	534	5.96E-04	601	8.06E-04	668	4.66E-04	735	7.56E-05
401	3.30E-06	468	7.08E-04	535	5.95E-04	602	8.09E-04	669	4.58E-04	736	7.29E-05
402	3.50E-06	469	7.04E-04	536	6.00E-04	603	8.14E-04	670	4.48E-04	737	7.13E-05
403	3.80E-06	470	7.04E-04	537	5.97E-04	604	8.18E-04	671	4.38E-04	738	6.85E-05
404	3.80E-06	471	6.69E-04	538	6.01E-04	605	8.22E-04	672	4.29E-04	739	6.68E-05
405	4.10E-06	472	6.52E-04	539	6.04E-04	606	8.24E-04	673	4.19E-04	740	6.43E-05
406	4.30E-06	473	6.40E-04	540	6.07E-04	607	8.28E-04	674	4.10E-04	741	6.26E-05
407	5.10E-06	474	6.19E-04	541	6.07E-04	608	8.28E-04	675	4.02E-04	742	6.05E-05
408	5.30E-06	475	6.00E-04	542	6.11E-04	609	8.31E-04	676	3.93E-04	743	5.90E-05
409	5.70E-06	476	5.72E-04	543	6.11E-04	610	8.34E-04	677	3.83E-04	744	5.72E-05
410	6.40E-06	477	5.49E-04	544	6.13E-04	611	8.34E-04	678	3.75E-04	745	5.51E-05
411	7.10E-06	478	5.30E-04	545	6.16E-04	612	8.32E-04	679	3.67E-04	746	5.35E-05
412	8.00E-06	479	5.13E-04	546	6.15E-04	613	8.38E-04	680	3.58E-04	747	5.15E-05
413	8.70E-06	480	4.94E-04	547	6.17E-04	614	8.36E-04	681	3.50E-04	748	5.03E-05
414	9.80E-06	481	4.86E-04	548	6.18E-04	615	8.38E-04	682	3.41E-04	749	4.89E-05
415	1.06E-05	482	4.81E-04	549	6.19E-04	616	8.35E-04	683	3.31E-04	750	4.68E-05
416	1.24E-05	483	4.77E-04	550	6.22E-04	617	8.32E-04	684	3.25E-04	751	4.56E-05
417	1.31E-05	484	4.79E-04	551	6.21E-04	618	8.30E-04	685	3.18E-04	752	4.43E-05
418	1.47E-05	485	4.75E-04	552	6.25E-04	619	8.29E-04	686	3.08E-04	753	4.26E-05
419	1.60E-05	486	4.78E-04	553	6.29E-04	620	8.25E-04	687	3.02E-04	754	4.15E-05
420	1.81E-05	487	4.82E-04	554	6.30E-04	621	8.24E-04	688	2.94E-04	755	4.04E-05
421	1.98E-05	488	4.81E-04	555	6.33E-04	622	8.23E-04	689	2.87E-04	756	3.89E-05
422	2.22E-05	489	4.88E-04	556	6.35E-04	623	8.20E-04	690	2.79E-04	757	3.81E-05
423	2.43E-05	490	4.90E-04	557	6.35E-04	624	8.19E-04	691	2.73E-04	758	3.65E-05
424	2.73E-05	491	4.90E-04	558	6.35E-04	625	8.15E-04	692	2.65E-04	759	3.50E-05
425	3.05E-05	492	4.90E-04	559	6.38E-04	626	8.12E-04	693	2.59E-04	760	3.45E-05
426	3.45E-05	493	4.94E-04	560	6.39E-04	627	8.07E-04	694	2.51E-04	761	3.35E-05
427	3.91E-05	494	4.96E-04	561	6.43E-04	628	8.03E-04	695	2.45E-04	762	3.22E-05
428	4.27E-05	495	4.98E-04	562	6.46E-04	629	7.99E-04	696	2.39E-04	763	3.11E-05
429	4.86E-05	496	4.99E-04	563	6.47E-04	630	7.92E-04	697	2.32E-04	764	3.05E-05
430	5.42E-05	497	5.04E-04	564	6.49E-04	631	7.90E-04	698	2.26E-04	765	2.93E-05
431	6.06E-05	498	5.09E-04	565	6.50E-04	632	7.82E-04	699	2.20E-04	766	2.82E-05
432	6.60E-05	499	5.10E-04	566	6.54E-04	633	7.79E-04	700	2.14E-04	767	2.75E-05
433	7.37E-05	500	5.15E-04	567	6.57E-04	634	7.73E-04	701	2.08E-04	768	2.63E-05
434	8.06E-05	501	5.18E-04	568	6.60E-04	635	7.62E-04	702	2.03E-04	769	2.56E-05
435	8.86E-05	502	5.25E-04	569	6.64E-04	636	7.58E-04	703	1.97E-04	770	2.50E-05
436	9.99E-05	503	5.28E-04	570	6.66E-04	637	7.49E-04	704	1.92E-04	771	2.43E-05
437	1.12E-04	504	5.35E-04	571	6.71E-04	638	7.42E-04	705	1.86E-04	772	2.33E-05
438	1.27E-04	505	5.36E-04	572	6.74E-04	639	7.36E-04	706	1.82E-04	773	2.29E-05
439	1.43E-04	506	5.42E-04	573	6.77E-04	640	7.25E-04	707	1.76E-04	774	2.17E-05
440	1.61E-04	507	5.44E-04	574	6.81E-04	641	7.17E-04	708	1.71E-04	775	2.13E-05
441	1.80E-04	508	5.49E-04	575	6.83E-04	642	7.06E-04	709	1.66E-04	776	2.06E-05
442	2.04E-04	509	5.48E-04	576	6.85E-04	643	7.00E-04	710	1.60E-04	777	2.03E-05
443	2.30E-04	510	5.55E-04	577	6.91E-04	644	6.92E-04	711	1.57E-04	778	1.93E-05
444	2.62E-04	511	5.56E-04	578	6.96E-04	645	6.84E-04	712	1.52E-04	779	1.94E-05
445	2.95E-04	512	5.59E-04	579	6.99E-04	646	6.74E-04	713	1.48E-04	780	1.95E-05
446	3.35E-04	513	5.59E-04	580	7.01E-04	647	6.67E-04	714	1.43E-04	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	V1-18B @12W4000K	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	11.7	0.880
NON-WORST CASE	120.0	60	0.097	11.5	0.990

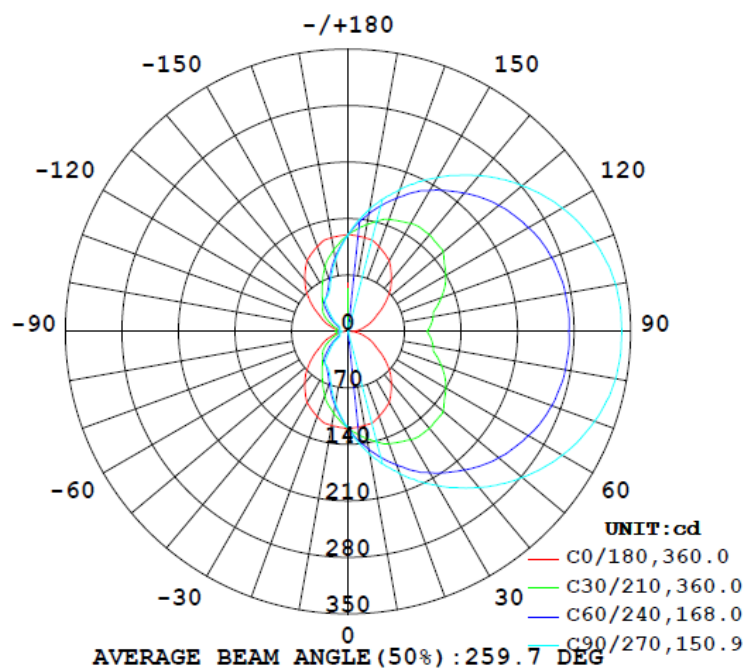
Test Result

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°)	
1368	88.2	155.7	180.0	97.6	116.9	26.6%	B0-U4-G2

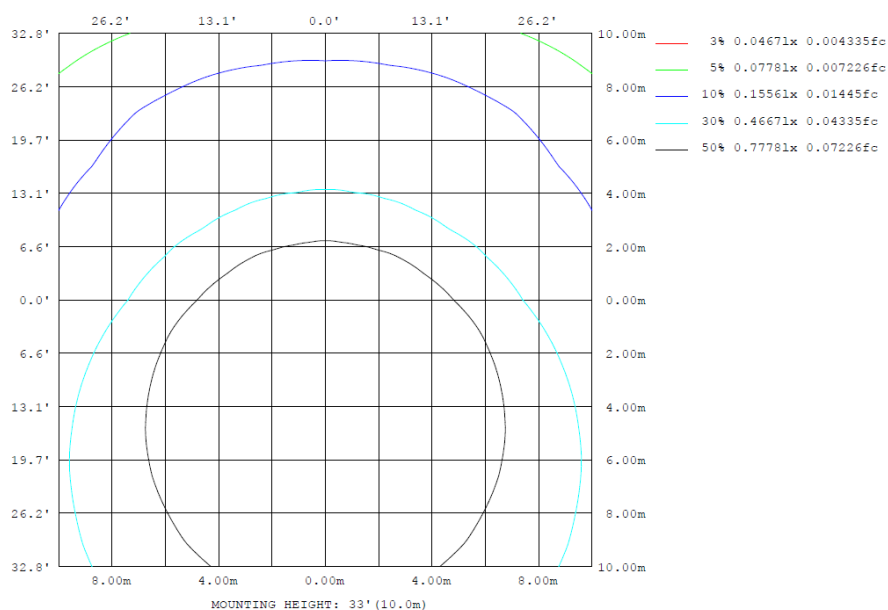
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

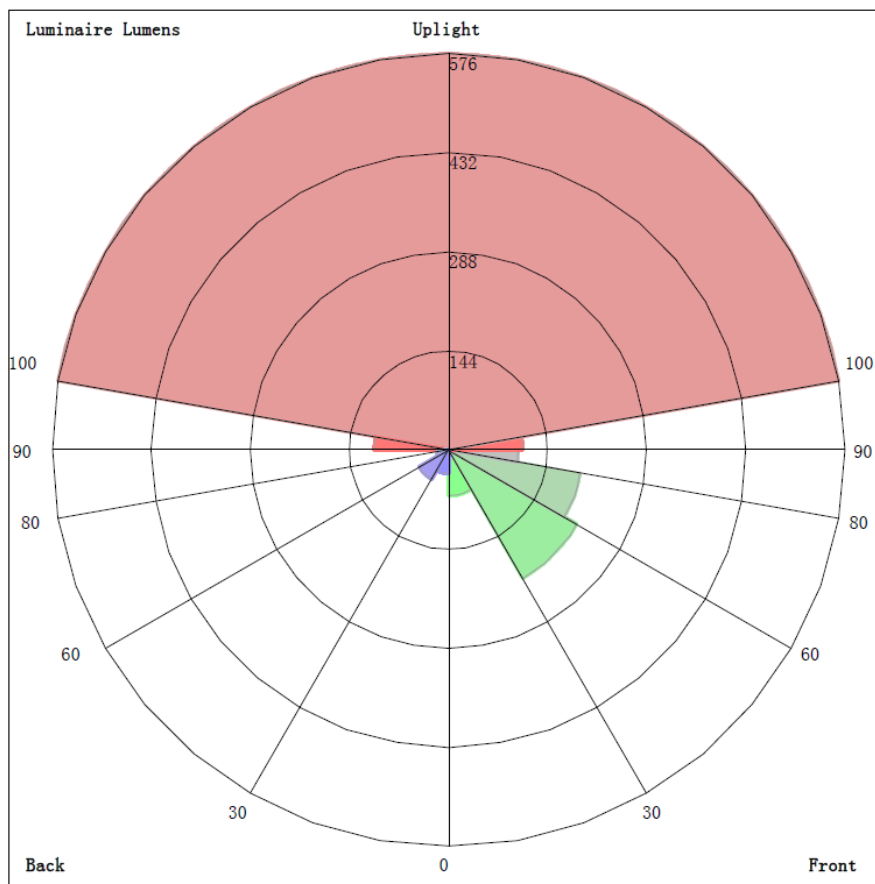
Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum,lamp
10	118.2	142.1	154.3	142.1	118.2	97.03	90.69	97.03	0- 10	11.45	11.45	0.84,0.84
20	112.1	164.2	187.6	164.2	112.1	75.53	64.42	75.53	10- 20	33.93	45.37	3.32,3.32
30	101.8	180.4	220.1	180.4	101.8	55.79	51.38	55.79	20- 30	54.87	100.2	7.33,7.33
40	83.48	194.5	252.5	194.5	83.48	47.10	41.78	47.10	30- 40	74.45	174.7	12.8,12.8
50	63.31	201.0	281.4	201.0	63.31	37.24	24.89	37.24	40- 50	90.02	264.7	19.4,19.4
60	41.31	204.6	306.6	204.6	41.31	22.51	11.93	22.51	50- 60	99.56	364.3	26.6,26.6
70	27.56	203.4	324.8	203.4	27.56	12.83	10.88	12.83	60- 70	104.6	468.9	34.3,34.3
80	15.10	198.2	336.5	198.2	15.10	12.58	10.26	12.58	70- 80	107.0	575.9	42.1,42.1
90	3.948	193.7	339.1	193.7	3.948	13.68	11.37	13.68	80- 90	108.0	683.9	50,50
100	15.10	198.2	336.5	198.2	15.10	12.58	10.26	12.58	90-100	108.0	792.0	57.9,57.9
110	27.56	203.4	324.8	203.4	27.56	12.83	10.88	12.83	100-110	107.0	899.0	65.7,65.7
120	41.31	204.6	306.6	204.6	41.31	22.51	11.93	22.51	110-120	104.6	1004	73.4,73.4
130	63.31	201.0	281.4	201.0	63.31	37.24	24.89	37.24	120-130	99.56	1103	80.6,80.6
140	83.48	194.5	252.5	194.5	83.48	47.10	41.78	47.10	130-140	90.02	1193	87.2,87.2
150	101.8	180.4	220.1	180.4	101.8	55.79	51.38	55.79	140-150	74.45	1268	92.7,92.7
160	112.1	164.2	187.6	164.2	112.1	75.53	64.42	75.53	150-160	54.87	1322	96.7,96.7
170	118.2	142.1	154.3	142.1	118.2	97.03	90.69	97.03	160-170	33.93	1356	99.2,99.2
180	120.3	120.3	120.3	120.3	120.3	120.3	120.3	120.3	170-180	11.45	1368	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	11.45	0-10	11.45	0.84%
10-20	33.93	0-20	45.38	3.35%
20-30	54.87	0-30	100.25	7.39%
30-40	74.45	0-40	174.70	12.88%
40-50	90.02	0-50	264.72	19.52%
50-60	99.56	0-60	364.28	26.86%
60-70	104.61	0-70	468.89	34.57%
70-80	107.00	0-80	575.89	42.46%
80-90	108.05	0-90	683.94	50.42%
90-100	108.05	0-100	791.99	58.39%
100-110	107.00	0-110	898.99	66.28%
110-120	104.61	0-120	1003.60	73.99%
120-130	99.56	0-130	1103.16	81.33%
130-140	90.02	0-140	1193.18	87.96%
140-150	74.45	0-150	1267.63	93.45%
150-160	54.87	0-160	1322.50	97.50%
160-170	33.93	0-170	1356.43	100.00%
170-180	11.45	0-180	1367.88	100.84%

4.2 Goniophotometer Test

LCS/BUG

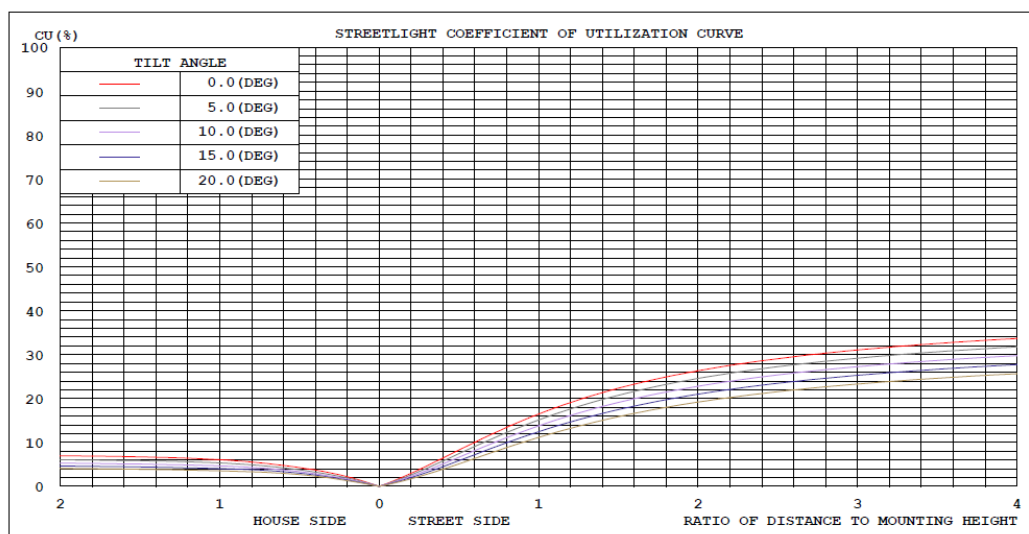


LUMINAIRE CLASSIFICATION SYSTEM (LCS)

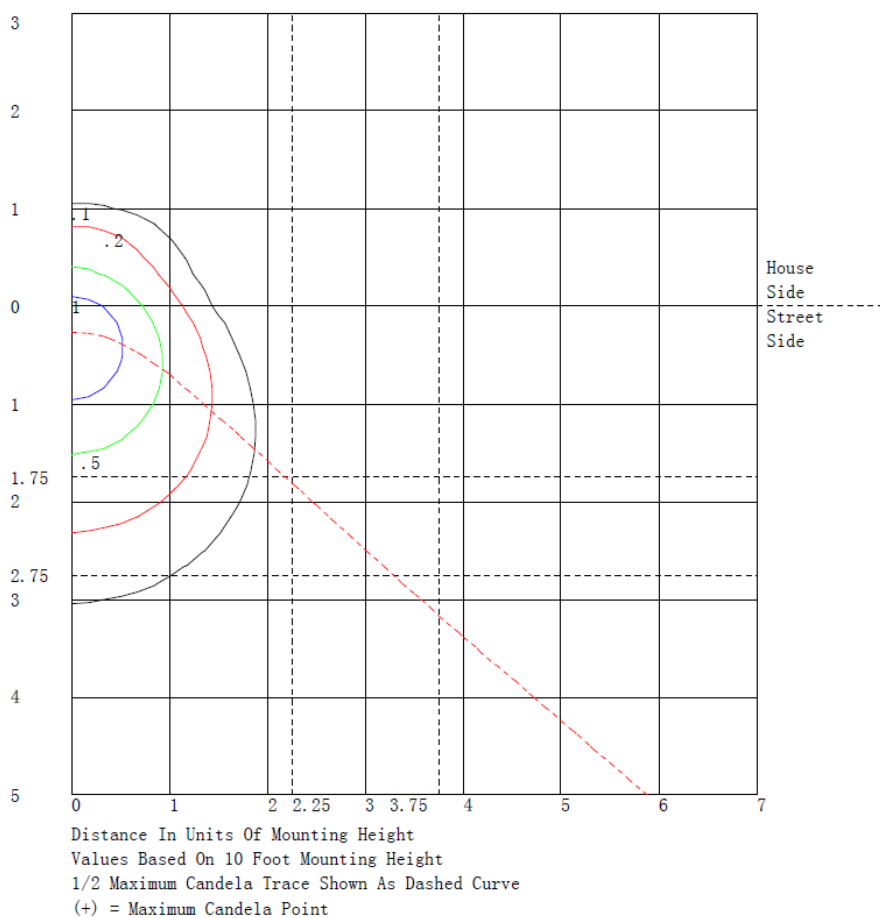
	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	66.3	N.A.	4.8
FM - Front-Medium (30-60)	215.3	N.A.	15.7
FH - Front-High (60-80)	194.4	N.A.	14.2
FVH - Front-Very High (80-90)	101.2	N.A.	7.4
BL - Back-Low (0-30)	33.9	N.A.	2.5
BM - Back-Medium (30-60)	48.7	N.A.	3.6
BH - Back-High (60-80)	17.2	N.A.	1.3
BVH - Back-Very High (80-90)	6.9	N.A.	0.5
UL - Uplight-Low (90-100)	108.0	N.A.	7.9
UH - Uplight-High (100-180)	575.9	N.A.	42.1
Total	1367.8	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
y (DEG)	0	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
5	119	123	128	131	134	136	137	136	134	131	128	123	119	115	112	109	106	105	105
10	118	127	135	142	148	152	154	152	148	142	135	127	118	110	103	97.0	93.1	91.0	90.7
15	117	129	142	153	162	168	171	168	162	153	142	129	117	105	94.4	86.2	80.3	76.9	76.8
20	112	129	148	164	176	184	188	184	176	164	148	129	112	96.9	84.7	75.5	68.1	64.6	64.4
25	107	129	151	172	190	200	205	200	190	172	151	129	107	88.6	74.0	64.4	58.6	55.8	55.5
30	102	128	155	180	202	215	220	215	202	180	155	128	102	80.4	64.4	55.8	52.6	51.1	51.4
35	92.7	124	157	187	213	231	236	231	213	187	157	124	92.7	70.1	56.2	50.3	49.4	49.6	49.5
40	83.5	119	157	194	224	245	253	245	224	194	157	119	83.5	60.3	49.4	47.1	46.7	43.3	41.8
45	74.3	113	155	198	234	259	267	259	234	198	155	113	74.3	51.5	44.7	44.0	38.4	33.8	32.0
50	63.3	104	154	201	243	272	281	272	243	201	154	104	63.3	44.4	41.4	37.2	30.1	26.3	24.9
55	52.3	92.3	146	204	251	283	295	283	251	204	146	92.3	52.3	38.6	36.7	29.4	23.3	19.8	18.8
60	41.3	80.3	139	205	258	294	307	294	258	205	139	80.3	41.3	33.5	30.6	22.5	16.2	12.8	11.9
65	34.4	70.1	132	205	264	303	317	303	264	205	132	70.1	34.4	28.7	24.0	16.0	12.3	11.5	11.2
70	27.6	59.5	123	203	268	310	325	310	268	203	123	59.5	27.6	23.8	19.1	12.8	11.9	11.4	10.9
75	20.7	48.5	113	201	271	317	331	317	271	201	113	48.5	20.7	18.6	14.7	12.6	11.7	10.7	10.4
80	15.1	45.7	107	198	273	320	337	320	273	198	107	45.7	15.1	17.2	13.8	12.6	11.4	10.2	10.3
85	9.53	43.5	103	197	274	322	339	322	274	197	103	43.5	9.53	16.4	14.9	13.1	11.6	9.80	9.18
90	3.95	41.0	97.9	194	273	323	339	323	273	194	97.9	41.0	3.95	15.7	16.0	13.7	12.3	10.8	11.4
95	9.53	43.5	103	197	274	322	339	322	274	197	103	43.5	9.53	16.4	14.9	13.1	11.6	9.80	9.18
100	15.1	45.7	107	198	273	320	337	320	273	198	107	45.7	15.1	17.2	13.8	12.6	11.4	10.2	10.3
105	20.7	48.5	113	201	271	317	331	317	271	201	113	48.5	20.7	18.6	14.7	12.6	11.7	10.7	10.4
110	27.6	59.5	123	203	268	310	325	310	268	203	123	59.5	27.6	23.8	19.1	12.8	11.9	11.4	10.9
115	34.4	70.1	132	205	264	303	317	303	264	205	132	70.1	34.4	28.7	24.0	16.0	12.3	11.5	11.2
120	41.3	80.3	139	205	258	294	307	294	258	205	139	80.3	41.3	33.5	30.6	22.5	16.2	12.8	11.9
125	52.3	92.3	146	204	251	283	295	283	251	204	146	92.3	52.3	38.6	36.7	29.4	23.3	19.8	18.8
130	63.3	104	154	201	243	272	281	272	243	201	154	104	63.3	44.4	41.4	37.2	30.1	26.3	24.9
135	74.3	113	155	198	234	259	267	259	234	198	155	113	74.3	51.5	44.7	44.0	38.4	33.8	32.0
140	83.5	119	157	194	224	245	253	245	224	194	157	119	83.5	60.3	49.4	47.1	46.7	43.3	41.8
145	92.7	124	157	187	213	231	236	231	213	187	157	124	92.7	70.1	56.2	50.3	49.4	49.6	49.5
150	102	128	155	180	202	215	220	215	202	180	155	128	102	80.4	64.4	55.8	52.6	51.1	51.4
155	107	129	151	172	190	200	205	200	190	172	151	129	107	88.6	74.0	64.4	58.6	55.8	55.5
160	112	129	148	164	176	184	188	184	176	164	148	129	112	96.9	84.7	75.5	68.1	64.6	64.4
165	117	129	142	153	162	168	171	168	162	153	142	129	117	105	94.4	86.2	80.3	76.9	76.8
170	118	127	135	142	148	152	154	152	148	142	135	127	118	110	103	97.0	93.1	91.0	90.7
175	119	123	128	131	134	136	137	136	134	131	128	123	119	115	112	109	106	105	105
180	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
y (DEG)	0	120	120	120	120	120													
5	105	106	109	112	115														
10	91.0	93.1	97.0	103	110														
15	76.9	80.3	86.2	94.4	105														
20	64.6	68.1	75.5	84.7	96.9														
25	55.8	58.6	64.4	74.0	88.6														
30	51.1	52.6	55.8	64.4	80.4														
35	49.6	49.4	50.3	56.2	70.1														
40	43.3	46.7	47.1	49.4	60.3														
45	33.8	38.4	44.0	44.7	51.5														
50	26.3	30.1	37.2	41.4	44.4														
55	19.8	23.3	29.4	36.7	38.6														
60	12.8	16.2	22.5	30.6	33.5														
65	11.5	12.3	16.0	24.0	28.7														
70	11.4	11.9	12.8	19.1	23.8														
75	10.7	11.7	12.6	14.7	18.6														
80	10.2	11.4	12.6	13.8	17.2														
85	9.80	11.6	13.1	14.9	16.4														
90	10.8	12.3	13.7	16.0	15.7														
95	9.80	11.6	13.1	14.9	16.4														
100	10.2	11.4	12.6	13.8	17.2														
105	10.7	11.7	12.6	14.7	18.6														
110	11.4	11.9	12.8	19.1	23.8														
115	11.5	12.3	16.0	24.0	28.7														
120	12.8	16.2	22.5	30.6	33.5														
125	19.8	23.3	29.4	36.7	38.6														
130	26.3	30.1	37.2	41.4	44.4														
135	33.8	38.4	44.0	44.7	51.5														
140	43.3	46.7	47.1	49.4	60.3														
145	49.6	49.4	50.3	56.2	70.1														
150	51.1	52.6	55.8	64.4	80.4														
155	55.8	58.6	64.4	74.0	88.6														
160	64.6	68.1	75.5	84.7	96.9														
165	76.9	80.3	86.2	94.4	105														
170	91.0	93.1	97.0	103	110														
175	105	106	109	112	115														
180	120	120	120	120	120														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	V1-18B @12W4000K	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	0.097	11.5	0.990	6.36
277.0	60	0.048	11.7	0.880	27.34

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*****