

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

Address: 408 W 14th St New York, NY 10014

Prepared By

Dongguan New Testing Centre Co., Ltd.

Address: 3F No. 1 the 1st North Industry Road, Songshan Lake Science & Technology Park, Dongguan, Guangdong, China

Prepare by:

Alan Wang

Engineer: Alan Wang

Date: 2025-04-01

Review by:

Vincent Yuan

Technical Lead: Vincent Yuan

Issue Date: 2025-04-01

Revised Date: N/A

1.0 Test Summary

DLC Technical Requirements V5.1

Direct Linear Ambient Luminaires					
Requirement Category		Test Method	Requirements		Test Value
Luminaire Output (lm) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	375 lm/ft		431
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	141.3
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		6.1
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.10
				277V	19.17
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.979
				277V	0.836
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	5029±283	4867
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		83.6
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		14
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		84
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%		-12%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	≥40%		55.9%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	28.4
			N/A	<22	
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		0.026
(Goniophotometer – Section 4.2)			Non-Worst Case		0.047
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		6.1
(Goniophotometer – Section 4.2)			Non-Worst Case		5.5

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-03-29	STRP2/MVS @6W5000K	-	250324005-S1
2	Goniophotometer Test	2025-03-29	STRP2/MVS @6W5000K	-	250324005-S1
3	THD and PF Test	2025-03-29	STRP2/MVS @6W5000K	-	250324005-S1

Remark (If any):

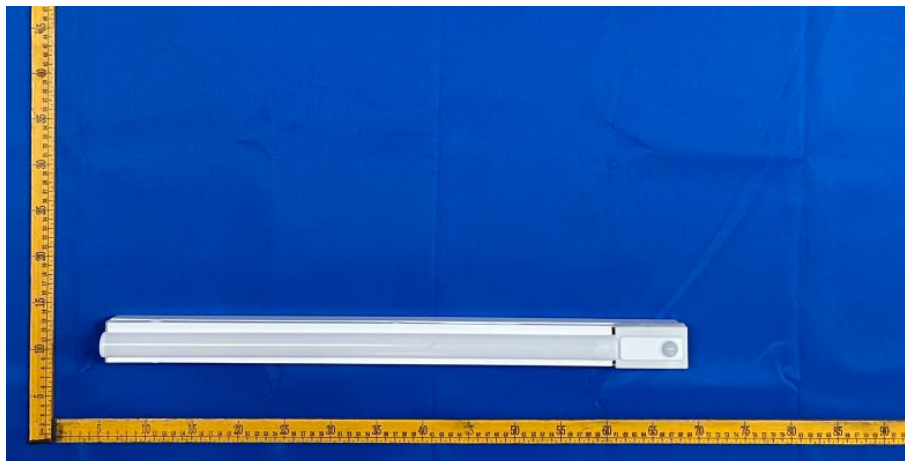
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. STRP2/MVS @6W5000K, color tunable from 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.	STRP2/MVS @6W5000K	Sample ID	250324005-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

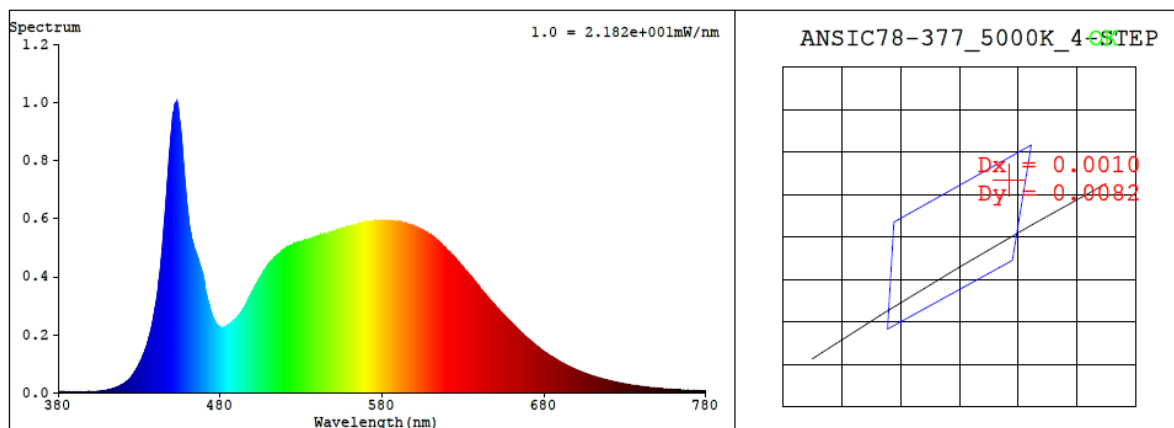
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.047	5.5	0.979
277.0	60	0.026	6.1	0.836

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4867	83.6	14	0.0037	3.5	84	95	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3500$ $y = 0.3629$ / $u' = 0.2103$ $v' = 0.4908$ ($duv=3.68e-03$)

CCT= 4867K Prcp WL: $L_d=571.3nm$ Purity=13.9%

Peak WL: $L_p=453nm$ FWHM: $=19.8nm$ Ratio: $R=16.0\%$ $G=79.6\%$ $B=4.4\%$

Render Index: $R_a = 83.6$ AvgR = 76.5 TM30: $R_f=84$ $R_g=95$

EEL: 0.09414 A++ Highest

R1 =82 R2 =89 R3 =94 R4 =82 R5 =81 R6 =84 R7 =89

R8 =69 R9 =14 R10=73 R11=81 R12=55 R13=84 R14=97 R15=76

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	3.80E-06	447	6.97E-04	514	4.68E-04	581	5.92E-04	648	3.12E-04	715	4.95E-05
381	3.30E-06	448	7.73E-04	515	4.72E-04	582	5.90E-04	649	3.06E-04	716	4.82E-05
382	3.50E-06	449	8.46E-04	516	4.78E-04	583	5.91E-04	650	2.99E-04	717	4.71E-05
383	2.80E-06	450	9.09E-04	517	4.82E-04	584	5.92E-04	651	2.92E-04	718	4.55E-05
384	3.10E-06	451	9.64E-04	518	4.88E-04	585	5.93E-04	652	2.87E-04	719	4.35E-05
385	3.30E-06	452	9.95E-04	519	4.92E-04	586	5.91E-04	653	2.80E-04	720	4.26E-05
386	3.10E-06	453	9.96E-04	520	4.96E-04	587	5.91E-04	654	2.75E-04	721	4.12E-05
387	2.50E-06	454	9.85E-04	521	5.00E-04	588	5.90E-04	655	2.69E-04	722	3.98E-05
388	2.90E-06	455	9.34E-04	522	5.02E-04	589	5.89E-04	656	2.63E-04	723	3.85E-05
389	2.90E-06	456	8.81E-04	523	5.06E-04	590	5.89E-04	657	2.58E-04	724	3.77E-05
390	3.10E-06	457	8.06E-04	524	5.08E-04	591	5.87E-04	658	2.52E-04	725	3.63E-05
391	2.90E-06	458	7.40E-04	525	5.11E-04	592	5.86E-04	659	2.46E-04	726	3.51E-05
392	2.90E-06	459	6.73E-04	526	5.13E-04	593	5.83E-04	660	2.41E-04	727	3.41E-05
393	3.30E-06	460	6.22E-04	527	5.15E-04	594	5.83E-04	661	2.36E-04	728	3.31E-05
394	3.40E-06	461	5.75E-04	528	5.18E-04	595	5.81E-04	662	2.30E-04	729	3.20E-05
395	3.50E-06	462	5.43E-04	529	5.20E-04	596	5.79E-04	663	2.23E-04	730	3.09E-05
396	3.40E-06	463	5.16E-04	530	5.22E-04	597	5.78E-04	664	2.18E-04	731	3.00E-05
397	3.90E-06	464	4.96E-04	531	5.22E-04	598	5.75E-04	665	2.13E-04	732	2.89E-05
398	4.10E-06	465	4.82E-04	532	5.26E-04	599	5.75E-04	666	2.07E-04	733	2.81E-05
399	4.60E-06	466	4.64E-04	533	5.27E-04	600	5.72E-04	667	2.02E-04	734	2.69E-05
400	4.40E-06	467	4.49E-04	534	5.27E-04	601	5.71E-04	668	1.97E-04	735	2.65E-05
401	4.70E-06	468	4.30E-04	535	5.29E-04	602	5.69E-04	669	1.92E-04	736	2.55E-05
402	5.40E-06	469	4.12E-04	536	5.30E-04	603	5.65E-04	670	1.87E-04	737	2.49E-05
403	5.40E-06	470	3.86E-04	537	5.33E-04	604	5.63E-04	671	1.83E-04	738	2.40E-05
404	5.80E-06	471	3.51E-04	538	5.35E-04	605	5.61E-04	672	1.78E-04	739	2.33E-05
405	6.00E-06	472	3.27E-04	539	5.37E-04	606	5.56E-04	673	1.73E-04	740	2.24E-05
406	6.60E-06	473	3.06E-04	540	5.38E-04	607	5.54E-04	674	1.68E-04	741	2.18E-05
407	7.40E-06	474	2.84E-04	541	5.42E-04	608	5.51E-04	675	1.63E-04	742	2.10E-05
408	7.90E-06	475	2.66E-04	542	5.44E-04	609	5.46E-04	676	1.59E-04	743	2.06E-05
409	8.70E-06	476	2.53E-04	543	5.43E-04	610	5.45E-04	677	1.55E-04	744	1.97E-05
410	9.60E-06	477	2.43E-04	544	5.48E-04	611	5.38E-04	678	1.50E-04	745	1.91E-05
411	1.07E-05	478	2.34E-04	545	5.46E-04	612	5.36E-04	679	1.46E-04	746	1.87E-05
412	1.19E-05	479	2.30E-04	546	5.48E-04	613	5.30E-04	680	1.42E-04	747	1.80E-05
413	1.34E-05	480	2.26E-04	547	5.49E-04	614	5.25E-04	681	1.38E-04	748	1.76E-05
414	1.53E-05	481	2.24E-04	548	5.51E-04	615	5.20E-04	682	1.35E-04	749	1.68E-05
415	1.73E-05	482	2.25E-04	549	5.53E-04	616	5.16E-04	683	1.31E-04	750	1.65E-05
416	1.98E-05	483	2.25E-04	550	5.55E-04	617	5.10E-04	684	1.27E-04	751	1.56E-05
417	2.17E-05	484	2.31E-04	551	5.56E-04	618	5.04E-04	685	1.23E-04	752	1.52E-05
418	2.42E-05	485	2.34E-04	552	5.59E-04	619	4.98E-04	686	1.20E-04	753	1.49E-05
419	2.73E-05	486	2.38E-04	553	5.62E-04	620	4.91E-04	687	1.17E-04	754	1.45E-05
420	3.00E-05	487	2.43E-04	554	5.63E-04	621	4.86E-04	688	1.13E-04	755	1.40E-05
421	3.41E-05	488	2.48E-04	555	5.66E-04	622	4.82E-04	689	1.10E-04	756	1.36E-05
422	3.82E-05	489	2.52E-04	556	5.66E-04	623	4.76E-04	690	1.07E-04	757	1.29E-05
423	4.24E-05	490	2.56E-04	557	5.68E-04	624	4.69E-04	691	1.04E-04	758	1.28E-05
424	4.79E-05	491	2.62E-04	558	5.72E-04	625	4.65E-04	692	1.01E-04	759	1.22E-05
425	5.43E-05	492	2.71E-04	559	5.70E-04	626	4.58E-04	693	9.77E-05	760	1.17E-05
426	6.19E-05	493	2.77E-04	560	5.72E-04	627	4.52E-04	694	9.45E-05	761	1.16E-05
427	6.93E-05	494	2.87E-04	561	5.75E-04	628	4.44E-04	695	9.19E-05	762	1.11E-05
428	7.80E-05	495	2.96E-04	562	5.76E-04	629	4.37E-04	696	8.91E-05	763	1.09E-05
429	8.80E-05	496	3.06E-04	563	5.77E-04	630	4.32E-04	697	8.68E-05	764	1.06E-05
430	9.94E-05	497	3.17E-04	564	5.77E-04	631	4.24E-04	698	8.45E-05	765	1.04E-05
431	1.10E-04	498	3.28E-04	565	5.81E-04	632	4.18E-04	699	8.15E-05	766	1.00E-05
432	1.24E-04	499	3.39E-04	566	5.83E-04	633	4.13E-04	700	7.92E-05	767	9.60E-06
433	1.36E-04	500	3.50E-04	567	5.82E-04	634	4.06E-04	701	7.71E-05	768	9.40E-06
434	1.51E-04	501	3.61E-04	568	5.85E-04	635	4.00E-04	702	7.47E-05	769	9.00E-06
435	1.69E-04	502	3.71E-04	569	5.87E-04	636	3.93E-04	703	7.25E-05	770	8.70E-06
436	1.89E-04	503	3.81E-04	570	5.88E-04	637	3.86E-04	704	7.00E-05	771	8.40E-06
437	2.12E-04	504	3.91E-04	571	5.88E-04	638	3.79E-04	705	6.79E-05	772	8.20E-06
438	2.38E-04	505	4.00E-04	572	5.90E-04	639	3.71E-04	706	6.56E-05	773	8.20E-06
439	2.68E-04	506	4.09E-04	573	5.90E-04	640	3.66E-04	707	6.39E-05	774	7.70E-06
440	3.00E-04	507	4.18E-04	574	5.91E-04	641	3.56E-04	708	6.19E-05	775	7.60E-06
441	3.34E-04	508	4.27E-04	575	5.93E-04	642	3.51E-04	709	5.97E-05	776	7.30E-06
442	3.83E-04	509	4.36E-04	576	5.94E-04	643	3.44E-04	710	5.83E-05	777	6.90E-06
443	4.27E-04	510	4.44E-04	577	5.91E-04	644	3.38E-04	711	5.62E-05	778	6.80E-06
444	4.85E-04	511	4.50E-04	578	5.93E-04	645	3.31E-04	712	5.48E-05	779	6.80E-06
445	5.52E-04	512	4.57E-04	579	5.91E-04	646	3.24E-04	713	5.28E-05	780	6.80E-06
446	6.22E-04	513	4.61E-04	580	5.91E-04	647	3.18E-04	714	5.14E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP2/MVS @6W5000K	Sample ID	250324005-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.7	Humidity (%RH)	41.3

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	0.026	6.1	0.836
NON-WORST CASE	120.0	60	0.047	5.5	0.979

Test Result

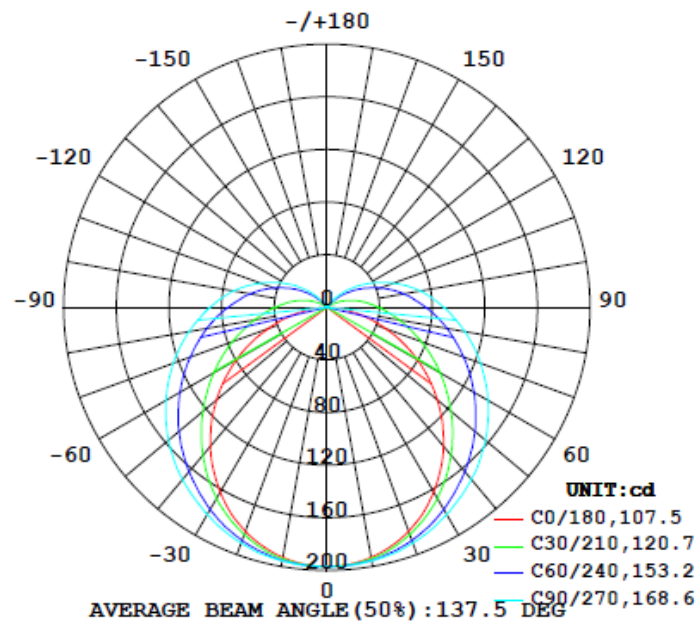
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
862	431	161.6	161.6	107.6	167.6	141.3

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
55.9%	20.4	28.4

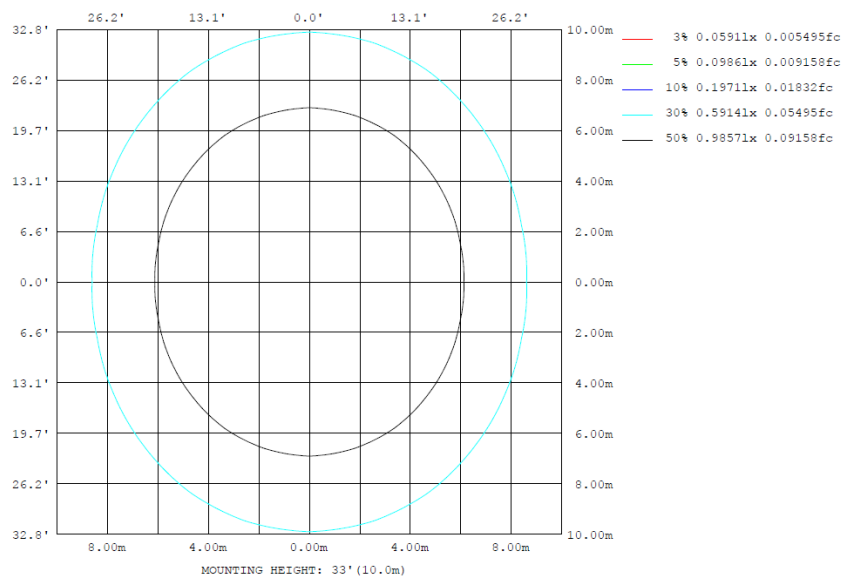
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

Zonal Lumen Summary

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	± zone	± total	%lum, lamp
10	193.0	194.3	195.7	194.3	193.0	194.3	195.7	194.3	0- 10	18.69	18.69	2.17,2.17
20	181.2	185.9	190.7	185.9	181.2	185.9	190.7	185.9	10- 20	53.95	72.63	8.43,8.43
30	162.2	172.3	181.9	172.3	162.2	172.3	181.9	172.3	20- 30	82.92	155.6	18,18
40	137.8	154.6	170.8	154.6	137.8	154.6	170.8	154.6	30- 40	102.6	258.1	29.9,29.9
50	109.6	135.2	157.2	135.2	109.6	135.2	157.2	135.2	40- 50	111.8	370.0	42.9,42.9
60	79.17	114.9	141.2	114.9	79.17	114.9	141.2	114.9	50- 60	110.8	480.8	55.8,55.8
70	47.82	94.74	124.3	94.74	47.82	94.74	124.3	94.74	60- 70	101.0	581.8	67.5,67.5
80	19.13	76.01	106.5	76.01	19.13	76.01	106.5	76.01	70- 80	85.25	667.1	77.4,77.4
90	2.066	59.22	88.84	59.22	2.066	59.22	88.84	59.22	80- 90	67.40	734.5	85.2,85.2
100	1.415	44.79	72.19	44.79	1.415	44.79	72.19	44.79	90-100	51.27	785.7	91.1,91.1
110	1.302	30.46	53.92	30.46	1.302	30.46	53.92	30.46	100-110	36.34	822.1	95.4,95.4
120	1.302	17.34	36.24	17.34	1.302	17.34	36.24	17.34	110-120	22.56	844.6	98,98
130	1.302	6.043	20.53	6.043	1.302	6.043	20.53	6.043	120-130	11.58	856.2	99.3,99.3
140	1.302	1.205	6.713	1.205	1.302	1.205	6.713	1.205	130-140	4.212	860.4	99.8,99.8
150	1.302	0.8860	0.9009	0.8860	1.302	0.8860	0.9009	0.8860	140-150	0.8901	861.3	99.9,99.9
160	1.374	0.7682	0.8396	0.7682	1.374	0.7682	0.8396	0.7682	150-160	0.4182	861.8	100,100
170	1.277	0.7455	0.7783	0.7455	1.277	0.7455	0.7783	0.7455	160-170	0.2410	862.0	100,100
180	1.209	0.7296	0.7354	0.7296	1.209	0.7296	0.7354	0.7296	170-180	0.0800	862.1	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	18.16	0-10	18.16	2.18%
10-20	52.38	0-20	70.54	8.46%
20-30	80.46	0-30	151.00	18.11%
30-40	99.43	0-40	250.43	30.04%
40-50	108.29	0-50	358.72	43.02%
50-60	107.19	0-60	465.91	55.88%
60-70	97.59	0-70	563.50	67.59%
70-80	82.24	0-80	645.74	77.45%
80-90	64.92	0-90	710.66	85.24%
90-100	49.37	0-100	760.03	91.16%
100-110	35.01	0-110	795.04	95.36%
110-120	21.77	0-120	816.81	97.97%
120-130	11.23	0-130	828.04	99.31%
130-140	4.14	0-140	832.18	99.81%
140-150	0.92	0-150	833.10	99.92%
150-160	0.42	0-160	833.52	99.97%
160-170	0.24	0-170	833.76	100.00%
170-180	0.08	0-180	833.84	100.01%

4.2 Goniophotometer Test

UGR – Uncorrected Table:

UGR TABLE - UNCORRECTED

Reflectances											
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30	
Walls	50	30	50	30	30	50	30	50	30	30	
Floor Cavity	20	20	20	20	20	20	20	20	20	20	
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	16.9	18.3	17.5	18.9	19.6	21.0	22.5	21.6	23.1	23.7
	3H	18.2	19.6	18.8	20.2	20.9	24.0	25.3	24.6	25.9	26.6
	4H	18.7	19.9	19.3	20.5	21.3	25.6	26.8	26.2	27.4	28.1
	6H	18.9	20.1	19.6	20.7	21.5	27.2	28.3	27.8	29.0	29.7
	8H	19.0	20.1	19.6	20.8	21.5	28.0	29.2	28.7	29.8	30.5
	12H	19.0	20.1	19.6	20.7	21.5	29.0	30.0	29.6	30.7	31.4
4H	2H	18.2	19.5	18.8	20.1	20.8	21.4	22.6	22.0	23.2	23.9
	3H	19.9	21.0	20.5	21.6	22.3	24.6	25.6	25.2	26.3	27.0
	4H	20.5	21.5	21.1	22.1	22.9	26.2	27.2	26.9	27.9	28.7
	6H	20.9	21.8	21.5	22.4	23.2	28.1	29.0	28.7	29.6	30.4
	8H	21.0	21.8	21.6	22.5	23.3	29.0	29.9	29.7	30.5	31.3
	12H	21.0	21.8	21.7	22.5	23.3	30.1	30.9	30.8	31.6	32.4
8H	4H	21.7	22.5	22.3	23.2	24.0	26.4	27.2	27.1	27.9	28.7
	6H	22.3	23.0	23.0	23.8	24.5	28.4	29.1	29.1	29.8	30.6
	8H	22.6	23.2	23.3	23.9	24.7	29.5	30.1	30.2	30.9	31.7
	12H	22.7	23.3	23.4	24.0	24.9	30.7	31.3	31.4	32.0	32.9
12H	4H	22.0	22.8	22.7	23.5	24.3	26.4	27.2	27.1	27.9	28.7
	6H	22.9	23.5	23.6	24.2	25.1	28.4	29.1	29.1	29.8	30.6
	8H	23.2	23.8	23.9	24.5	25.4	29.6	30.2	30.3	30.9	31.7
Maximum UGR = 32.9											

Maximum UGR = 32.9

UGR – Corrected Table:

UGR TABLE - CORRECTED

Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	16.4	17.8	17.0	18.4	19.1	20.5	22.0	21.1	22.6	23.2
	3H	17.7	19.1	18.3	19.7	20.4	23.5	24.8	24.1	25.4	26.1
	4H	18.2	19.4	18.8	20.0	20.8	25.1	26.3	25.7	26.9	27.6
	6H	18.4	19.6	19.1	20.2	21.0	26.7	27.8	27.3	28.5	29.2
	8H	18.5	19.6	19.1	20.3	21.0	27.5	28.7	28.2	29.3	30.0
	12H	18.5	19.6	19.1	20.2	21.0	28.5	29.5	29.1	30.2	30.9
4H	2H	17.7	19.0	18.3	19.6	20.3	20.9	22.1	21.5	22.7	23.4
	3H	19.4	20.5	20.0	21.1	21.8	24.1	25.1	24.7	25.8	26.5
	4H	20.0	21.0	20.6	21.6	22.4	25.7	26.7	26.4	27.4	28.2
	6H	20.4	21.3	21.0	21.9	22.7	27.6	28.5	28.2	29.1	29.9
	8H	20.5	21.3	21.1	22.0	22.8	28.5	29.4	29.2	30.0	30.8
	12H	20.5	21.3	21.2	22.0	22.8	29.6	30.4	30.3	31.1	31.9
8H	4H	21.2	22.0	21.8	22.7	23.5	25.9	26.7	26.6	27.4	28.2
	6H	21.8	22.5	22.5	23.3	24.0	27.9	28.6	28.6	29.3	30.1
	8H	22.1	22.7	22.8	23.4	24.2	29.0	29.6	29.7	30.4	31.2
	12H	22.2	22.8	22.9	23.5	24.4	30.2	30.8	30.9	31.5	32.4
12H	4H	21.5	22.3	22.2	23.0	23.8	25.9	26.7	26.6	27.4	28.2
	6H	22.4	23.0	23.1	23.7	24.6	27.9	28.6	28.6	29.3	30.1
	8H	22.7	23.3	23.4	24.0	24.9	29.1	29.7	29.8	30.4	31.2

Maximum UGR = 32.4

4.2 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) y (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
5	196	196	196	196	196	197	197	197	197	196	196	196	196	196	196	196	196	197	197
10	193	193	194	194	195	195	196	195	195	194	194	193	193	193	194	194	195	195	196
15	188	189	190	191	193	193	194	193	193	191	190	189	188	189	190	191	193	193	194
20	181	182	184	186	189	190	191	190	189	186	184	182	181	182	184	186	189	190	191
25	173	174	176	180	184	186	187	186	184	180	176	174	173	174	176	180	184	186	187
30	162	164	168	172	178	181	182	181	178	172	168	164	162	164	168	172	178	181	182
35	151	152	158	164	170	174	177	174	170	164	158	152	151	152	158	164	170	174	177
40	138	140	147	155	163	169	171	169	163	155	147	140	138	140	147	155	163	169	171
45	124	127	135	145	155	162	164	162	155	145	135	127	124	127	135	145	155	162	164
50	110	114	123	135	147	154	157	154	147	135	123	114	110	114	123	135	147	154	157
55	94.6	99.9	111	125	138	146	149	146	138	125	111	99.9	94.6	99.9	111	125	138	146	149
60	79.2	85.7	99.3	115	129	138	141	138	129	115	99.3	85.7	79.2	85.7	99.3	115	129	138	141
65	63.6	71.3	87.7	105	120	130	133	130	120	105	87.7	71.3	63.6	71.3	87.7	105	120	130	133
70	47.8	57.6	76.3	94.7	111	121	124	121	111	94.7	76.3	57.6	47.8	57.6	76.3	94.7	111	121	124
75	32.9	44.9	65.6	85.3	101	112	115	112	101	85.3	65.6	44.9	32.9	44.9	65.6	85.3	101	112	115
80	19.1	33.5	55.9	76.0	92.7	103	106	103	92.7	76.0	55.9	33.5	19.1	33.5	55.9	76.0	92.7	103	106
85	8.02	24.3	47.2	67.6	84.0	94.0	97.4	94.0	84.0	67.6	47.2	24.3	8.02	24.3	47.2	67.6	84.0	94.0	97.4
90	2.07	17.2	39.1	59.2	75.0	85.2	88.8	85.2	75.0	59.2	39.1	17.2	2.07	17.2	39.1	59.2	75.0	85.2	88.8
95	1.51	12.2	32.6	51.9	67.0	76.9	80.5	76.9	67.0	51.9	32.6	12.2	1.51	12.2	32.6	51.9	67.0	76.9	80.5
100	1.41	8.04	26.7	44.8	59.4	68.3	72.2	68.3	59.4	44.8	26.7	8.04	1.41	8.04	26.7	44.8	59.4	68.3	72.2
105	1.30	4.37	20.7	37.4	51.1	59.8	63.1	59.8	51.1	37.4	20.7	4.37	1.30	4.37	20.7	37.4	51.1	59.8	63.1
110	1.30	1.94	15.1	30.5	43.0	50.8	53.9	50.8	43.0	30.5	15.1	1.94	1.30	1.94	15.1	30.5	43.0	50.8	53.9
115	1.30	1.57	9.99	23.7	35.1	42.0	44.8	42.0	35.1	23.7	9.99	1.57	1.30	1.57	9.99	23.7	35.1	42.0	44.8
120	1.30	1.52	5.53	17.3	27.6	33.7	36.2	33.7	27.6	17.3	5.53	1.52	1.30	1.52	5.53	17.3	27.6	33.7	36.2
125	1.30	1.44	1.93	11.3	20.3	26.1	28.2	26.1	20.3	11.3	1.93	1.44	1.30	1.44	1.93	11.3	20.3	26.1	28.2
130	1.30	1.46	1.47	6.04	13.8	18.8	20.5	18.8	13.8	6.04	1.47	1.46	1.30	1.46	1.47	6.04	13.8	18.8	20.5
135	1.30	1.41	1.40	1.64	7.45	11.8	13.4	11.8	7.45	1.64	1.40	1.41	1.30	1.41	1.40	1.64	7.45	11.8	13.4
140	1.30	1.35	1.33	1.20	2.11	5.34	6.71	5.34	2.11	1.20	1.33	1.35	1.30	1.35	1.33	1.20	2.11	5.34	6.71
145	1.30	1.27	1.28	1.09	1.01	1.21	1.20	1.21	1.01	1.09	1.28	1.27	1.30	1.27	1.28	1.09	1.01	1.21	1.20
150	1.30	1.11	1.00	0.89	0.89	0.93	0.90	0.93	0.89	0.89	1.00	1.11	1.30	1.11	1.00	0.89	0.89	0.93	0.90
155	1.30	0.94	0.97	0.78	0.75	0.79	0.87	0.79	0.75	0.78	0.97	0.94	1.30	0.94	0.97	0.78	0.75	0.79	0.87
160	1.37	0.89	0.94	0.77	0.66	0.77	0.84	0.77	0.66	0.77	0.94	0.89	1.37	0.89	0.94	0.77	0.66	0.77	0.84
165	1.33	0.95	0.90	0.76	0.65	0.76	0.81	0.76	0.65	0.76	0.90	0.95	1.33	0.95	0.90	0.76	0.65	0.76	0.81
170	1.28	1.02	0.87	0.75	0.65	0.75	0.78	0.75	0.65	0.75	0.87	1.02	1.28	1.02	0.87	0.75	0.65	0.75	0.78
175	1.23	1.09	0.84	0.73	0.64	0.74	0.75	0.74	0.64	0.73	0.84	1.09	1.23	1.09	0.84	0.73	0.64	0.74	0.75
180	1.21	1.02	0.82	0.73	0.64	0.73	0.74	0.73	0.64	0.73	0.82	1.02	1.21	1.02	0.82	0.73	0.64	0.73	0.74

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	197	197	197	197	197														
5	197	197	196	196	196														
10	195	195	194	194	193														
15	193	193	191	190	189														
20	190	189	186	184	182														
25	186	184	180	176	174														
30	181	178	172	168	164														
35	174	170	164	158	152														
40	169	163	155	147	140														
45	162	155	145	135	127														
50	154	147	135	123	114														
55	146	138	125	111	99.9														
60	138	129	115	99.3	85.7														
65	130	120	105	87.7	71.3														
70	121	111	94.7	76.3	57.6														
75	112	101	85.3	65.6	44.9														
80	103	92.7	76.0	55.9	33.5														
85	94.0	84.0	67.6	47.2	24.3														
90	85.2	75.0	59.2	39.1	17.2														
95	76.9	67.0	51.9	32.6	12.2														
100	68.3	59.4	44.8	26.7	8.04														
105	59.8	51.1	37.4	20.7	4.37														
110	50.8	43.0	30.5	15.1	1.94														
115	42.0	35.1	23.7	9.99	1.57														
120	33.7	27.6	17.3	5.53	1.52														
125	26.1	20.3	11.3	1.93	1.44														
130	18.8	13.8	6.04	1.47	1.46														
135	11.8	7.45	1.64	1.40	1.41														
140	5.34	2.11	1.20	1.33	1.35														
145	1.21	1.01	1.09	1.28	1.27														
150	0.93	0.89	0.89	1.00	1.11														
155	0.79	0.75	0.78	0.97	0.94														
160	0.77	0.66	0.77	0.94	0.89														
165	0.76	0.65	0.76	0.90	0.95														
170	0.75	0.65	0.75	0.87	1.02														
175	0.74	0.64	0.73	0.84	1.09														
180	0.73	0.64	0.73	0.82	1.02														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP2/MVS @6W5000K	Sample ID	250324005-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	0.047	5.5	0.979	9.10
277.0	60	0.026	6.1	0.836	19.17

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*****