

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: 2025-04-03

Review by:

Vincent Yuan

Technical Lead: Vincent Yuan

Issue Date: 2025-04-03

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		398
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	148.7
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.7
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	8.87
				277V	21.24
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.983
				277V	0.851
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3442
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		84.1
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		12
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		85
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%		56.0%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	28.2
			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		0.045
(Goniophotometer – Section 4.2)			Non-Worst Case		0.085
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.7
(Goniophotometer – Section 4.2)			Non-Worst Case		10.0

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-04-03	STRP4/MVS @10W3500K	-	250402001-S1
2	Goniophotometer Test	2025-04-03	STRP4/MVS @10W3500K	-	250402001-S1
3	THD and PF Test	2025-04-03	STRP4/MVS @10W3500K	-	250402001-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. STRP4/MVS @10W3500K, 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.	STRP4/MVS @10W3500K	Sample ID	250402001-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

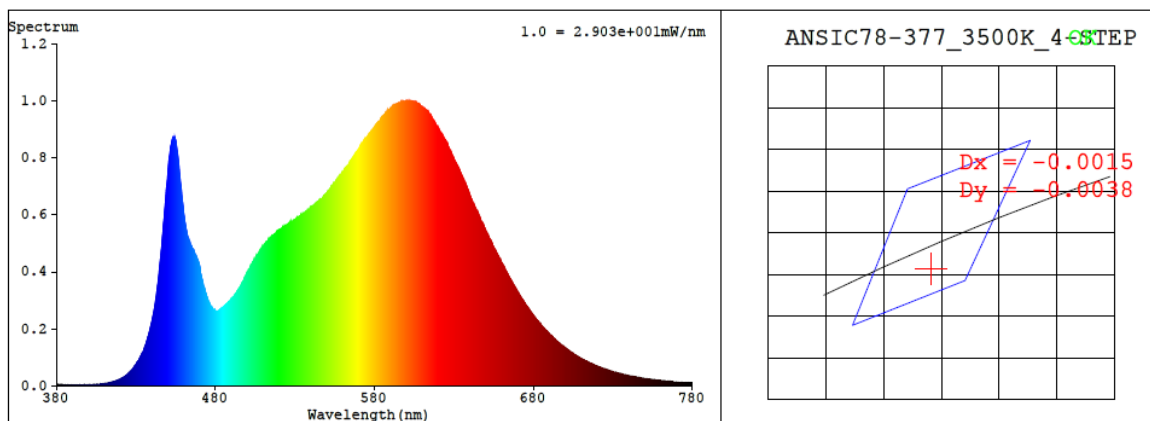
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.085	10.0	0.983
277.0	60	0.045	10.7	0.851

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
3442	84.1	12	-0.0014	2.0	85	95	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4072$ $y = 0.3885$ / $u' = 0.2378$ $v' = 0.5106$ ($duv = -1.37e-03$)

CCT= 3442K Prcp WL: $L_d = 581.7nm$ Purity=38.8%

Peak WL: $L_p = 600nm$ FWHM: $= 142.3nm$ Ratio: R=20.8% G=75.8% B=3.4%

Render Index: $R_a = 84.1$ AvgR = 78.6 TM30: $R_f = 84$ $R_g = 95$

EEL: 0.09649 A++ Highest

R1 =83	R2 =93	R3 =96	R4 =82	R5 =83	R6 =90	R7 =84
R8 =63	R9 =12	R10=83	R11=81	R12=69	R13=86	R14=98
R15=77						

4.1 Integrating Sphere Test

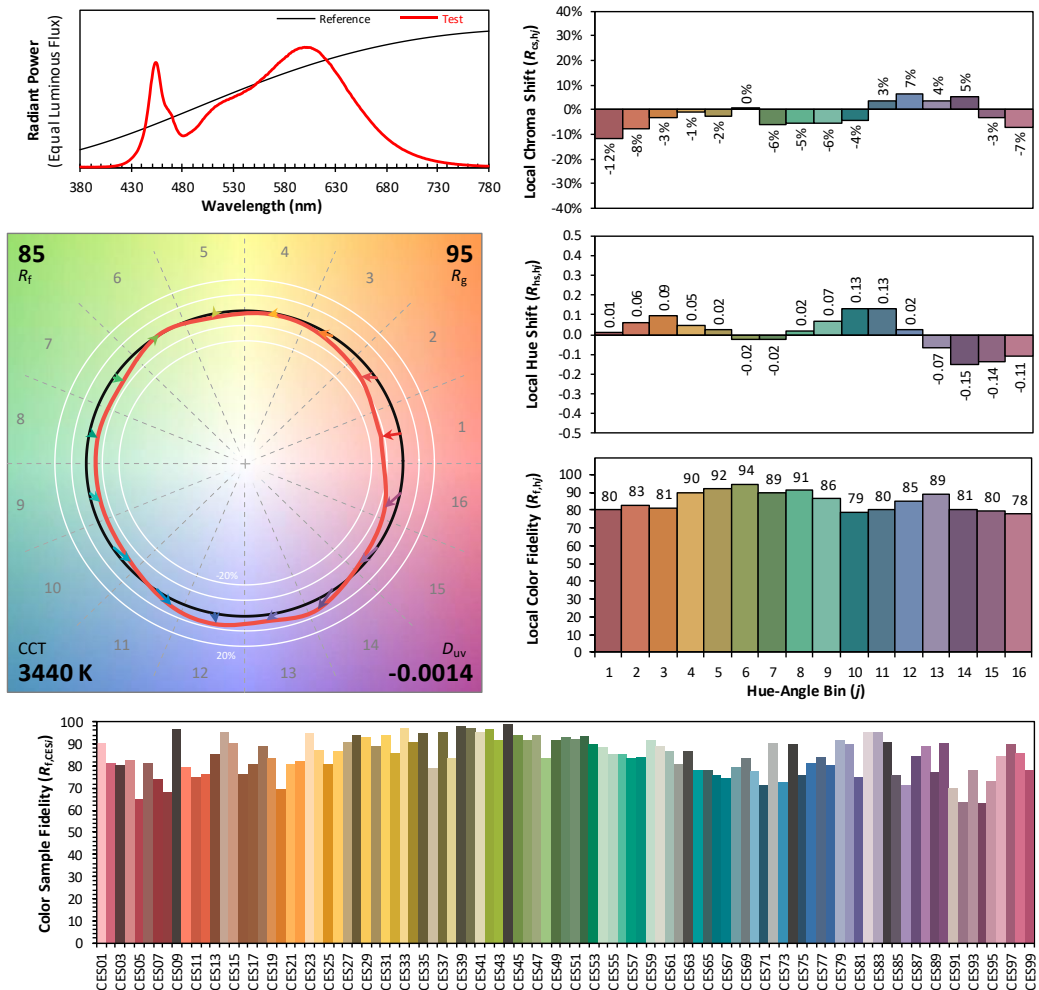
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/4/3

Model: STRP4/MVS @10W3500K



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

x 0.4072
 y 0.3884
 u' 0.2379
 v' 0.5106

CIE 13.3-1995
(CRI)

R_a 84
 R_g 12

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	5.47E-04	514	5.15E-04	581	9.16E-04	648	5.70E-04	715	8.17E-05
381	3.50E-06	448	6.12E-04	515	5.20E-04	582	9.23E-04	649	5.57E-04	716	7.88E-05
382	2.50E-06	449	6.89E-04	516	5.28E-04	583	9.24E-04	650	5.44E-04	717	7.72E-05
383	2.90E-06	450	7.41E-04	517	5.32E-04	584	9.36E-04	651	5.33E-04	718	7.41E-05
384	2.80E-06	451	8.04E-04	518	5.36E-04	585	9.45E-04	652	5.20E-04	719	7.10E-05
385	2.20E-06	452	8.42E-04	519	5.42E-04	586	9.49E-04	653	5.11E-04	720	6.93E-05
386	2.80E-06	453	8.68E-04	520	5.47E-04	587	9.57E-04	654	4.99E-04	721	6.75E-05
387	3.00E-06	454	8.72E-04	521	5.50E-04	588	9.64E-04	655	4.85E-04	722	6.54E-05
388	2.50E-06	455	8.59E-04	522	5.53E-04	589	9.65E-04	656	4.76E-04	723	6.30E-05
389	2.60E-06	456	8.20E-04	523	5.59E-04	590	9.73E-04	657	4.65E-04	724	6.07E-05
390	2.90E-06	457	7.72E-04	524	5.62E-04	591	9.77E-04	658	4.55E-04	725	5.94E-05
391	2.70E-06	458	7.15E-04	525	5.63E-04	592	9.80E-04	659	4.43E-04	726	5.70E-05
392	3.10E-06	459	6.58E-04	526	5.69E-04	593	9.85E-04	660	4.31E-04	727	5.51E-05
393	2.70E-06	460	6.08E-04	527	5.74E-04	594	9.89E-04	661	4.21E-04	728	5.30E-05
394	2.40E-06	461	5.71E-04	528	5.75E-04	595	9.91E-04	662	4.11E-04	729	5.13E-05
395	2.90E-06	462	5.39E-04	529	5.79E-04	596	9.92E-04	663	4.00E-04	730	5.00E-05
396	2.90E-06	463	5.16E-04	530	5.82E-04	597	9.91E-04	664	3.90E-04	731	4.80E-05
397	3.30E-06	464	5.03E-04	531	5.88E-04	598	9.96E-04	665	3.79E-04	732	4.67E-05
398	3.60E-06	465	4.88E-04	532	5.92E-04	599	9.97E-04	666	3.69E-04	733	4.52E-05
399	3.50E-06	466	4.78E-04	533	5.95E-04	600	9.99E-04	667	3.60E-04	734	4.37E-05
400	3.90E-06	467	4.63E-04	534	6.01E-04	601	9.96E-04	668	3.50E-04	735	4.23E-05
401	4.10E-06	468	4.52E-04	535	6.04E-04	602	9.99E-04	669	3.39E-04	736	4.11E-05
402	4.50E-06	469	4.38E-04	536	6.06E-04	603	9.95E-04	670	3.30E-04	737	3.92E-05
403	4.80E-06	470	4.22E-04	537	6.10E-04	604	9.97E-04	671	3.22E-04	738	3.82E-05
404	4.40E-06	471	3.86E-04	538	6.14E-04	605	9.96E-04	672	3.12E-04	739	3.72E-05
405	5.10E-06	472	3.66E-04	539	6.18E-04	606	9.95E-04	673	3.03E-04	740	3.59E-05
406	5.60E-06	473	3.45E-04	540	6.27E-04	607	9.90E-04	674	2.95E-04	741	3.49E-05
407	5.90E-06	474	3.22E-04	541	6.31E-04	608	9.87E-04	675	2.86E-04	742	3.37E-05
408	6.50E-06	475	3.06E-04	542	6.34E-04	609	9.82E-04	676	2.78E-04	743	3.27E-05
409	7.20E-06	476	2.92E-04	543	6.40E-04	610	9.79E-04	677	2.70E-04	744	3.12E-05
410	8.10E-06	477	2.80E-04	544	6.45E-04	611	9.74E-04	678	2.63E-04	745	3.03E-05
411	9.30E-06	478	2.73E-04	545	6.48E-04	612	9.71E-04	679	2.54E-04	746	2.98E-05
412	1.00E-05	479	2.66E-04	546	6.52E-04	613	9.65E-04	680	2.47E-04	747	2.87E-05
413	1.07E-05	480	2.63E-04	547	6.57E-04	614	9.59E-04	681	2.40E-04	748	2.69E-05
414	1.17E-05	481	2.62E-04	548	6.64E-04	615	9.52E-04	682	2.33E-04	749	2.66E-05
415	1.36E-05	482	2.64E-04	549	6.70E-04	616	9.42E-04	683	2.26E-04	750	2.54E-05
416	1.53E-05	483	2.67E-04	550	6.77E-04	617	9.31E-04	684	2.20E-04	751	2.49E-05
417	1.67E-05	484	2.69E-04	551	6.84E-04	618	9.23E-04	685	2.12E-04	752	2.40E-05
418	1.92E-05	485	2.76E-04	552	6.90E-04	619	9.11E-04	686	2.06E-04	753	2.38E-05
419	2.14E-05	486	2.82E-04	553	7.01E-04	620	9.05E-04	687	1.99E-04	754	2.29E-05
420	2.33E-05	487	2.87E-04	554	7.07E-04	621	8.95E-04	688	1.94E-04	755	2.17E-05
421	2.63E-05	488	2.93E-04	555	7.11E-04	622	8.86E-04	689	1.89E-04	756	2.12E-05
422	2.96E-05	489	2.97E-04	556	7.21E-04	623	8.77E-04	690	1.83E-04	757	2.08E-05
423	3.32E-05	490	3.05E-04	557	7.29E-04	624	8.65E-04	691	1.77E-04	758	2.00E-05
424	3.74E-05	491	3.11E-04	558	7.36E-04	625	8.58E-04	692	1.72E-04	759	1.94E-05
425	4.18E-05	492	3.18E-04	559	7.41E-04	626	8.47E-04	693	1.66E-04	760	1.87E-05
426	4.76E-05	493	3.25E-04	560	7.48E-04	627	8.32E-04	694	1.61E-04	761	1.82E-05
427	5.34E-05	494	3.35E-04	561	7.58E-04	628	8.20E-04	695	1.55E-04	762	1.78E-05
428	5.95E-05	495	3.42E-04	562	7.67E-04	629	8.06E-04	696	1.50E-04	763	1.72E-05
429	6.77E-05	496	3.52E-04	563	7.70E-04	630	7.96E-04	697	1.46E-04	764	1.63E-05
430	7.53E-05	497	3.63E-04	564	7.77E-04	631	7.84E-04	698	1.42E-04	765	1.58E-05
431	8.37E-05	498	3.75E-04	565	7.89E-04	632	7.73E-04	699	1.38E-04	766	1.53E-05
432	9.29E-05	499	3.86E-04	566	7.97E-04	633	7.62E-04	700	1.33E-04	767	1.52E-05
433	1.04E-04	500	3.99E-04	567	8.05E-04	634	7.50E-04	701	1.29E-04	768	1.46E-05
434	1.15E-04	501	4.07E-04	568	8.14E-04	635	7.37E-04	702	1.25E-04	769	1.41E-05
435	1.27E-04	502	4.19E-04	569	8.21E-04	636	7.24E-04	703	1.21E-04	770	1.36E-05
436	1.41E-04	503	4.29E-04	570	8.29E-04	637	7.10E-04	704	1.17E-04	771	1.33E-05
437	1.60E-04	504	4.39E-04	571	8.39E-04	638	6.99E-04	705	1.13E-04	772	1.27E-05
438	1.80E-04	505	4.46E-04	572	8.48E-04	639	6.84E-04	706	1.10E-04	773	1.22E-05
439	2.03E-04	506	4.56E-04	573	8.55E-04	640	6.71E-04	707	1.06E-04	774	1.19E-05
440	2.28E-04	507	4.62E-04	574	8.67E-04	641	6.54E-04	708	1.03E-04	775	1.13E-05
441	2.54E-04	508	4.75E-04	575	8.70E-04	642	6.40E-04	709	9.96E-05	776	1.14E-05
442	2.87E-04	509	4.81E-04	576	8.79E-04	643	6.30E-04	710	9.60E-05	777	1.06E-05
443	3.26E-04	510	4.88E-04	577	8.85E-04	644	6.18E-04	711	9.29E-05	778	1.08E-05
444	3.70E-04	511	4.97E-04	578	8.93E-04	645	6.09E-04	712	9.04E-05	779	1.08E-05
445	4.25E-04	512	5.06E-04	579	9.00E-04	646	5.93E-04	713	8.76E-05	780	1.09E-05
446	4.81E-04	513	5.09E-04	580	9.06E-04	647	5.80E-04	714	8.52E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4/MVS @10W3500K	Sample ID	250402001-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	25.0	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	0.045	10.7	0.851
NON-WORST CASE	120.0	60	0.085	10.0	0.983

Test Result

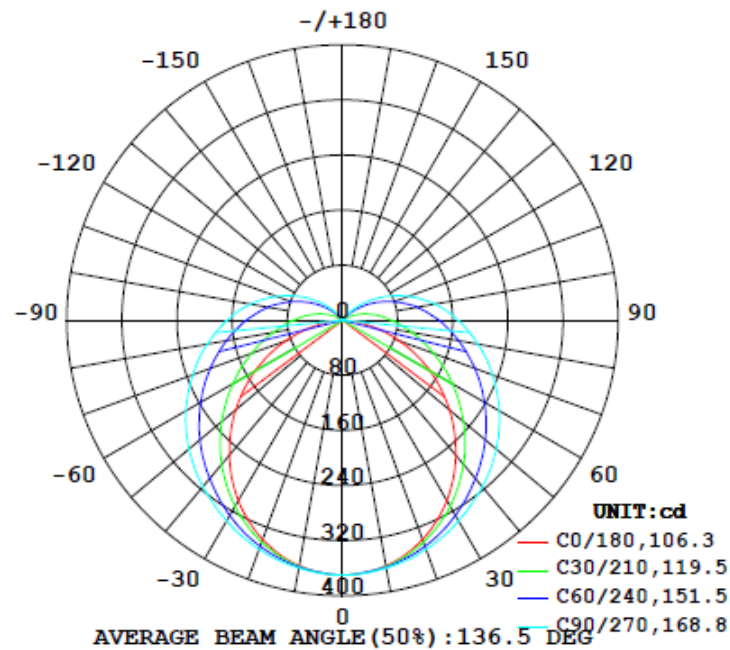
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
1591	398	160.4	160.4	106.6	168.8	148.7

Zonal Lumen Requirement	UGR	
(0° - 60°)	Crosswise	Endwise
56.0%	19.9	28.2

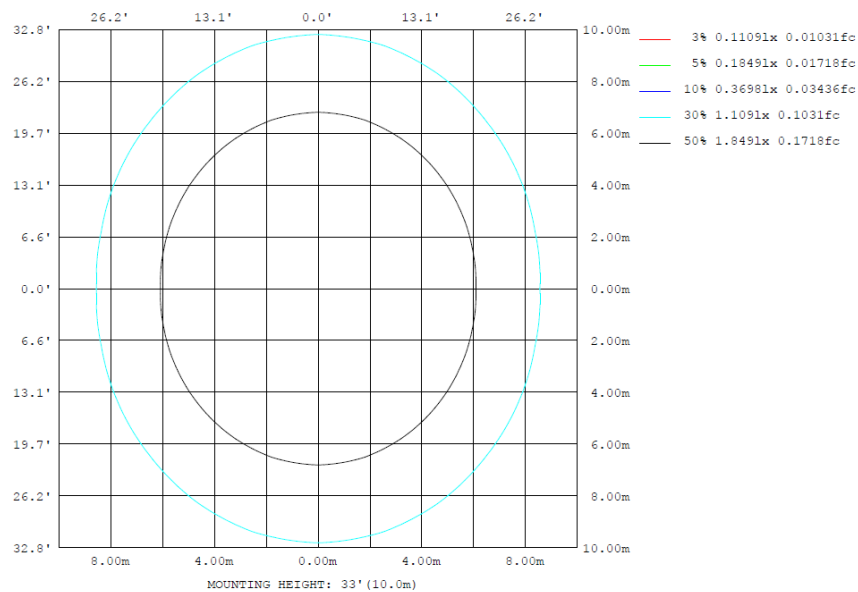
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	362.0	363.1	365.5	363.1	362.0	363.1	365.5	363.1	0- 10	34.98	34.98	2.2,2.2
20	339.1	345.9	353.8	345.9	339.1	345.9	353.8	345.9	10- 20	100.6	135.6	8.52,8.52
30	302.2	319.5	336.3	319.5	302.2	319.5	336.3	319.5	20- 30	154.1	289.6	18.2,18.2
40	255.5	285.7	315.4	285.7	255.5	285.7	315.4	285.7	30- 40	190.1	479.7	30.1,30.1
50	202.5	249.6	291.2	249.6	202.5	249.6	291.2	249.6	40- 50	206.9	686.6	43.2,43.2
60	145.8	212.2	262.6	212.2	145.8	212.2	262.6	212.2	50- 60	204.9	891.5	56.56
70	87.99	174.7	231.4	174.7	87.99	174.7	231.4	174.7	60- 70	186.7	1078	67.8,67.8
80	33.51	140.0	199.4	140.0	33.51	140.0	199.4	140.0	70- 80	157.4	1236	77.7,77.7
90	1.995	109.8	167.5	109.8	1.995	109.8	167.5	109.8	80- 90	124.3	1360	85.5,85.5
100	1.443	81.45	136.1	81.45	1.443	81.45	136.1	81.45	90-100	94.71	1455	91.4,91.4
110	1.508	54.57	101.7	54.57	1.508	54.57	101.7	54.57	100-110	66.60	1521	95.6,95.6
120	1.598	30.26	68.14	30.26	1.598	30.26	68.14	30.26	110-120	41.01	1562	98.2,98.2
130	1.596	8.873	37.66	8.873	1.596	8.873	37.66	8.873	120-130	20.40	1583	99.5,99.5
140	1.680	1.089	10.63	1.089	1.680	1.089	10.63	1.089	130-140	6.721	1589	99.9,99.9
150	1.674	0.8606	0.7673	0.8606	1.674	0.8606	0.7673	0.8606	140-150	0.9893	1590	99.9,99.9
160	1.661	0.7709	0.7673	0.7709	1.661	0.7709	0.7673	0.7709	150-160	0.4862	1591	100,100
170	2.078	0.8144	0.7673	0.8144	2.078	0.8144	0.7673	0.8144	160-170	0.2842	1591	100,100
180	0.2877	0.2877	0.2877	0.2877	0.2877	0.2877	0.2877	0.2877	170-180	0.1024	1591	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	34.98	0-10	34.98	2.20%
10-20	100.57	0-20	135.55	8.52%
20-30	154.07	0-30	289.62	18.20%
30-40	190.09	0-40	479.71	30.15%
40-50	206.88	0-50	686.59	43.15%
50-60	204.86	0-60	891.45	56.03%
60-70	186.71	0-70	1078.16	67.76%
70-80	157.43	0-80	1235.59	77.66%
80-90	124.26	0-90	1359.85	85.47%
90-100	94.71	0-100	1454.56	91.42%
100-110	66.60	0-110	1521.16	95.61%
110-120	41.01	0-120	1562.17	98.18%
120-130	20.40	0-130	1582.57	99.47%
130-140	6.72	0-140	1589.29	99.89%
140-150	0.99	0-150	1590.28	99.95%
150-160	0.49	0-160	1590.77	99.98%
160-170	0.28	0-170	1591.05	100.00%
170-180	0.10	0-180	1591.15	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											
X=2H		UGR Viewed Crosswise					UGR Viewed Endwise				
Y=2H		14.3	15.7	14.9	16.3	17.0	18.5	19.9	19.1	20.5	21.2
3H		15.6	17.0	16.2	17.6	18.2	21.5	22.8	22.1	23.4	24.1
4H		16.1	17.3	16.7	17.9	18.6	23.1	24.3	23.7	24.9	25.7
6H		16.3	17.5	16.9	18.1	18.8	24.8	25.9	25.4	26.6	27.3
8H		16.4	17.5	17.0	18.1	18.9	25.7	26.8	26.3	27.4	28.2
12H		16.4	17.4	17.0	18.1	18.8	26.7	27.7	27.3	28.4	29.1
4H	2H	15.6	16.9	16.2	17.5	18.2	18.8	20.1	19.4	20.7	21.4
	3H	17.3	18.4	17.9	19.0	19.7	22.1	23.1	22.7	23.8	24.5
	4H	17.9	18.9	18.5	19.5	20.3	23.8	24.8	24.4	25.4	26.2
	6H	18.3	19.1	18.9	19.8	20.6	25.6	26.5	26.3	27.2	28.0
	8H	18.3	19.2	19.0	19.8	20.6	26.6	27.5	27.3	28.2	28.9
	12H	18.4	19.1	19.1	19.8	20.6	27.8	28.5	28.5	29.2	30.0
8H	4H	19.1	19.9	19.7	20.6	21.4	23.9	24.8	24.6	25.4	26.2
	6H	19.7	20.4	20.4	21.1	21.9	26.0	26.7	26.7	27.4	28.2
	8H	19.9	20.6	20.6	21.3	22.1	27.1	27.7	27.8	28.5	29.3
	12H	20.1	20.6	20.8	21.4	22.2	28.4	29.0	29.1	29.7	30.5
12H	4H	19.4	20.2	20.1	20.9	21.7	23.9	24.7	24.6	25.4	26.2
	6H	20.3	20.9	21.0	21.6	22.4	26.0	26.6	26.7	27.3	28.2
	8H	20.6	21.2	21.3	21.9	22.8	27.2	27.8	27.9	28.5	29.3

Maximum UGR = 30.5

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											
X=2H		UGR Viewed Crosswise					UGR Viewed Endwise				
Y=2H		15.9	17.3	16.5	17.9	18.6	20.1	21.5	20.7	22.1	22.8
3H		17.2	18.6	17.8	19.2	19.8	23.1	24.4	23.7	25.0	25.7
4H		17.7	18.9	18.3	19.5	20.2	24.7	25.9	25.3	26.5	27.3
6H		17.9	19.1	18.5	19.7	20.4	26.4	27.5	27.0	28.2	28.9
8H		18.0	19.1	18.6	19.7	20.5	27.3	28.4	27.9	29.0	29.8
12H		18.0	19.0	18.6	19.7	20.4	28.3	29.3	28.9	30.0	30.7
4H	2H	17.2	18.5	17.8	19.1	19.8	20.4	21.7	21.0	22.3	23.0
	3H	18.9	20.0	19.5	20.6	21.3	23.7	24.7	24.3	25.4	26.1
	4H	19.5	20.5	20.1	21.1	21.9	25.4	26.4	26.0	27.0	27.8
	6H	19.9	20.7	20.5	21.4	22.2	27.2	28.1	27.9	28.8	29.6
	8H	19.9	20.8	20.6	21.4	22.2	28.2	29.1	28.9	29.8	30.5
	12H	20.0	20.7	20.7	21.4	22.2	29.4	30.1	30.1	30.8	31.6
8H	4H	20.7	21.5	21.3	22.2	23.0	25.5	26.4	26.2	27.0	27.8
	6H	21.3	22.0	22.0	22.7	23.5	27.6	28.3	28.3	29.0	29.8
	8H	21.5	22.2	22.2	22.9	23.7	28.7	29.3	29.4	30.1	30.9
	12H	21.7	22.2	22.4	23.0	23.8	30.0	30.6	30.7	31.3	32.1
12H	4H	21.0	21.8	21.7	22.5	23.3	25.5	26.3	26.2	27.0	27.8
	6H	21.9	22.5	22.6	23.2	24.0	27.6	28.2	28.3	28.9	29.8
	8H	22.2	22.8	22.9	23.5	24.4	28.8	29.4	29.5	30.1	30.9

Maximum UGR = 32.1

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	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370	370
5	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368	368
10	362	362	363	363	364	365	366	365	364	363	363	362	362	362	363	363	364	365	366
15	352	353	355	356	358	360	361	360	358	356	355	353	352	353	355	356	358	360	361
20	339	340	343	346	349	353	354	353	349	346	343	340	339	340	343	346	349	353	354
25	322	324	328	334	339	344	346	344	339	334	328	324	322	324	328	334	339	344	346
30	302	306	312	320	327	334	336	334	327	320	312	306	302	306	312	320	327	334	336
35	280	284	293	303	314	323	326	323	314	303	293	284	280	284	293	303	314	323	326
40	256	261	273	286	300	312	315	312	300	286	273	261	256	261	273	286	300	312	315
45	230	236	251	268	286	299	304	299	286	268	251	236	230	236	251	268	286	299	304
50	203	211	229	250	270	285	291	285	270	250	229	211	203	211	229	250	270	285	291
55	175	185	206	231	254	271	277	271	254	231	206	185	175	185	206	231	254	271	277
60	146	158	184	212	238	256	263	256	238	212	184	158	146	158	184	212	238	256	263
65	117	132	162	193	221	240	247	240	221	193	162	132	117	132	162	193	221	240	247
70	88.0	106	141	175	204	224	231	224	204	175	141	106	88.0	106	141	175	204	224	231
75	59.5	82.0	121	157	187	208	216	208	187	157	121	82.0	59.5	82.0	121	157	187	208	216
80	33.5	60.5	102	140	171	192	199	192	171	140	102	60.5	33.5	60.5	102	140	171	192	199
85	12.6	42.7	85.5	124	155	175	183	175	155	124	85.5	42.7	12.6	42.7	85.5	124	155	175	183
90	1.99	29.5	71.6	110	140	160	167	160	140	110	71.6	29.5	1.99	29.5	71.6	110	140	160	167
95	1.42	20.6	58.9	95.2	124	144	152	144	124	95.2	58.9	20.6	1.42	20.6	58.9	95.2	124	144	152
100	1.44	12.9	47.1	81.5	110	128	136	128	110	81.5	47.1	12.9	1.44	12.9	47.1	81.5	110	128	136
105	1.39	6.35	36.1	67.7	94.4	112	119	112	94.4	67.7	36.1	6.35	1.39	6.35	36.1	67.7	94.4	112	119
110	1.51	2.44	26.1	54.6	78.8	95.1	102	95.1	78.8	54.6	26.1	2.44	1.51	2.44	26.1	54.6	78.8	95.1	102
115	1.51	2.03	16.7	41.9	64.1	78.8	84.7	78.8	64.1	41.9	16.7	2.03	1.51	2.03	16.7	41.9	64.1	78.8	84.7
120	1.60	1.75	8.29	30.3	49.7	62.9	68.1	62.9	49.7	30.3	8.29	1.75	1.60	1.75	8.29	30.3	49.7	62.9	68.1
125	1.60	1.51	2.47	19.0	36.0	47.6	52.6	47.6	36.0	19.0	2.47	1.51	1.60	1.51	2.47	19.0	36.0	47.6	52.6
130	1.60	1.50	1.72	8.87	23.4	33.5	37.7	33.5	23.4	8.87	1.72	1.50	1.60	1.50	1.72	8.87	23.4	33.5	37.7
135	1.60	1.50	1.33	1.97	11.6	20.2	23.8	20.2	11.6	1.97	1.33	1.50	1.60	1.50	1.33	1.97	11.6	20.2	23.8
140	1.68	1.49	1.22	1.09	2.16	7.86	10.6	7.86	2.16	1.09	1.22	1.49	1.68	1.49	1.22	1.09	2.16	7.86	10.6
145	1.68	1.48	1.21	1.03	0.95	0.91	0.97	0.91	0.95	1.03	1.21	1.48	1.68	1.48	1.21	1.03	0.95	0.91	0.97
150	1.67	1.48	1.23	0.86	0.91	0.86	0.77	0.86	0.91	0.86	1.23	1.48	1.67	1.48	1.23	0.86	0.91	0.86	0.77
155	1.67	1.44	1.02	0.85	0.85	0.85	0.77	0.85	0.85	0.85	1.02	1.44	1.67	1.44	1.02	0.85	0.85	0.85	0.77
160	1.66	1.41	0.96	0.77	0.85	0.87	0.77	0.87	0.85	0.77	0.96	1.41	1.66	1.41	0.96	0.77	0.85	0.87	0.77
165	1.65	1.37	0.91	0.78	0.84	0.77	0.77	0.77	0.84	0.78	0.91	1.37	1.65	1.37	0.91	0.78	0.84	0.77	0.77
170	2.08	1.38	1.01	0.81	0.92	0.77	0.77	0.77	0.92	0.81	1.01	1.38	2.08	1.38	1.01	0.81	0.92	0.77	0.77
175	1.99	1.40	1.02	0.90	0.96	0.93	0.77	0.93	0.96	0.90	1.02	1.40	1.99	1.40	1.02	0.90	0.96	0.93	0.77
180	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	370	370	370	370	370														
5	368	368	368	368	368														
10	365	364	363	363	362														
15	360	358	356	355	353														
20	353	349	346	343	340														
25	344	339	334	328	324														
30	334	327	320	312	306														
35	323	314	303	293	284														
40	312	300	286	273	261														
45	299	286	268	251	236														
50	285	270	250	229	211														
55	271	254	231	206	185														
60	256	238	212	184	158														
65	240	221	193	162	132														
70	224	204	175	141	106														
75	208	187	157	121	82.0														
80	192	171	140	102	60.5														
85	175	155	124	85.5	42.7														
90	160	140	110	71.6	29.5														
95	144	124	95.2	58.9	20.6														
100	128	110	81.5	47.1	12.9														
105	112	94.4	67.7	36.1	6.35														
110	95.1	78.8	54.6	26.1	2.44														
115	78.8	64.1	41.9	16.7	2.03														
120	62.9	49.7	30.3	8.29	1.75														
125	47.6	36.0	19.0	2.47	1.51														
130	33.5	23.4	8.87	1.72	1.50														
135	20.2	11.6	1.97	1.33	1.50														
140	7.86	2.16	1.09	1.22	1.49														
145	0.91	0.95	1.03	1.21	1.48														
150	0.86	0.91	0.86	1.23	1.48														
155	0.85	0.85	0.85	1.02	1.44														
160	0.87	0.85	0.77	0.96	1.41														
165	0.77	0.84	0.78	0.91	1.37														
170	0.77	0.92	0.81	1.01	1.38														
175	0.93	0.96	0.90	1.02	1.40														
180	0.29	0.29	0.29	0.29	0.29														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4/MVS @10W3500K	Sample ID	250402001-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±1°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	0.085	10.0	0.983	8.87
277.0	60	0.045	10.7	0.851	21.24

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*******