

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

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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		768
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	156.8
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.6
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	5.46
				277V	18.57
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.987
				277V	0.850
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	5029±283	4969
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		83.4
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		13
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		96
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%		63.0%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	27.1
			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		0.083
(Goniophotometer – Section 4.2)			Non-Worst Case		0.160
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.6
(Goniophotometer – Section 4.2)			Non-Worst Case		19.0

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-04-02	STRP4H/MVS @20W5000K	-	250402002-S1
2	Goniophotometer Test	2025-04-02	STRP4H/MVS @20W5000K	-	250402002-S1
3	THD and PF Test	2025-04-02	STRP4H/MVS @20W5000K	-	250402002-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. STRP4H/MVS @20W5000K, 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.	STRP4H/MVS @20W5000K	Sample ID	250402002-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

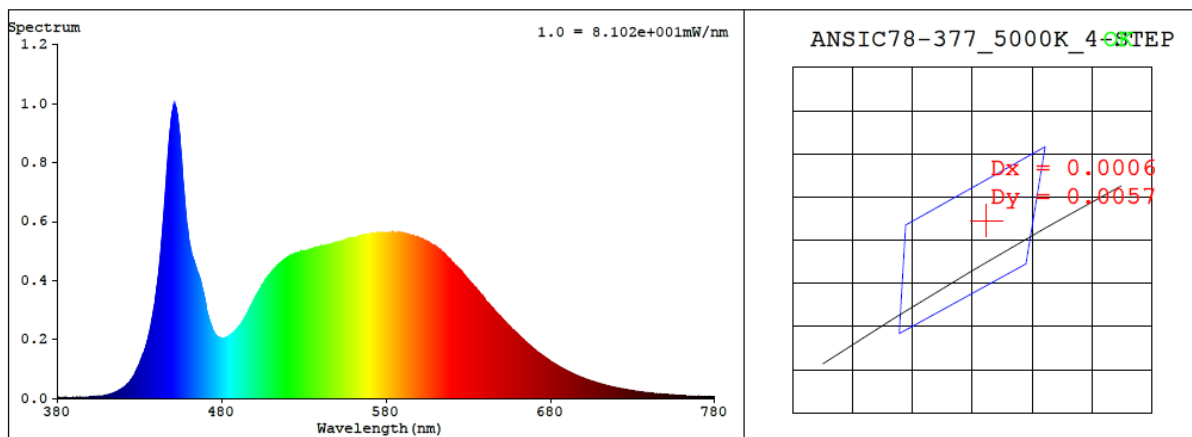
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.160	19.0	0.987
277.0	60	0.083	19.6	0.850

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4969	83.4	13	0.0026	1.3	84	96	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3466$ $y = 0.3581$ / $u' = 0.2099$ $v' = 0.4880$ ($duv=2.61e-03$)

CCT= 4969K Prcp WL: $L_d=570.8nm$ Purity=11.4%

Peak WL: $L_p=451nm$ FWHM: $=18.7nm$ Ratio: R=15.8% G=79.8% B=4.3%

Render Index: $R_a = 83.4$ AvgR = 76.2 TM30: $R_f=84$ $R_g=96$

EEL: 0.09178 A++ Highest

R1 =82 R2 =88 R3 =92 R4 =83 R5 =81 R6 =83 R7 =89

R8 =69 R9 =13 R10=71 R11=82 R12=55 R13=83 R14=96 R15=77

4.1 Integrating Sphere Test

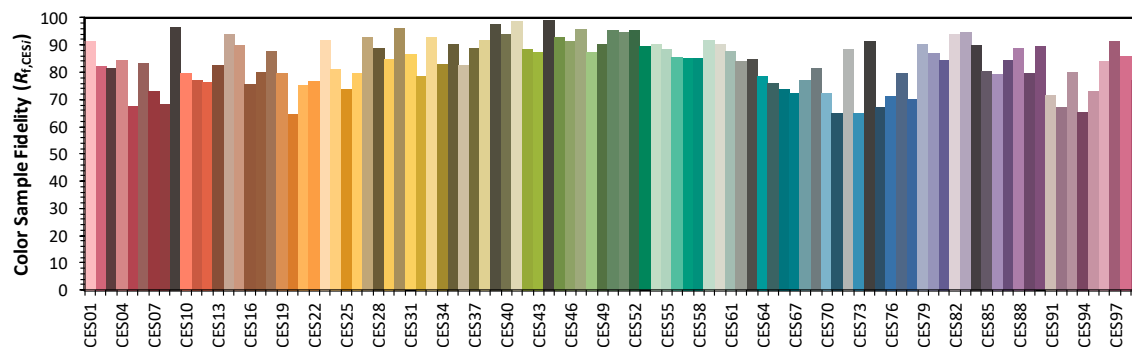
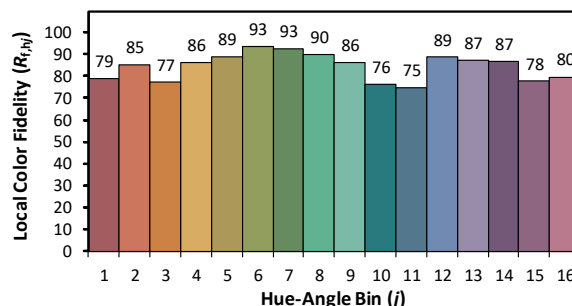
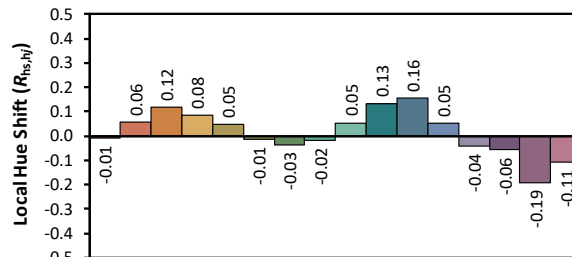
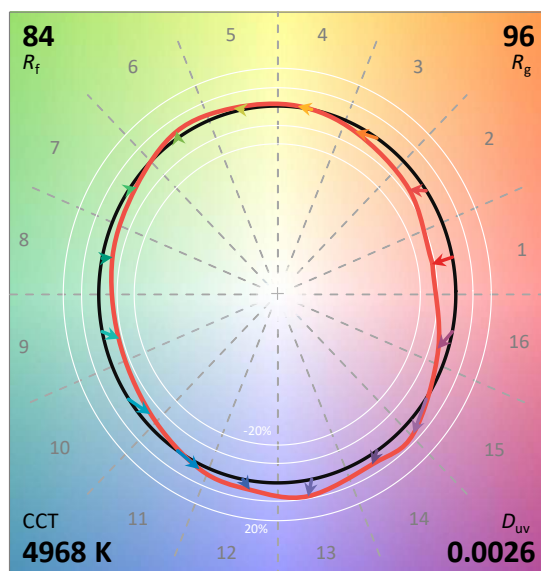
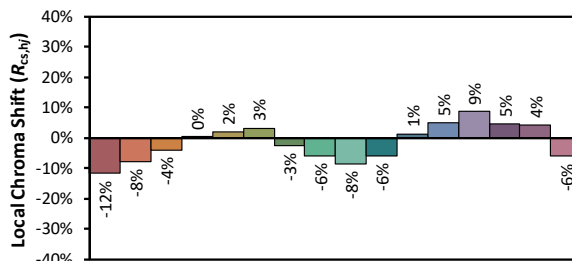
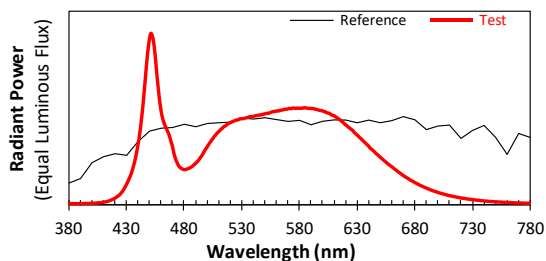
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/4/3

Model: STRP4H/MVS @20W5000K



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

x 0.3465
 y 0.3579
 u' 0.2100
 v' 0.4879

CIE 13.3-1995
(CRI)

R_a 83
 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	5.00E-06	447	7.96E-04	514	4.52E-04	581	5.62E-04	648	2.86E-04	715	4.31E-05
381	4.30E-06	448	8.69E-04	515	4.56E-04	582	5.61E-04	649	2.81E-04	716	4.17E-05
382	3.80E-06	449	9.28E-04	516	4.59E-04	583	5.62E-04	650	2.75E-04	717	4.04E-05
383	4.10E-06	450	9.73E-04	517	4.65E-04	584	5.64E-04	651	2.69E-04	718	3.90E-05
384	3.40E-06	451	9.98E-04	518	4.71E-04	585	5.63E-04	652	2.63E-04	719	3.77E-05
385	3.50E-06	452	9.89E-04	519	4.74E-04	586	5.63E-04	653	2.57E-04	720	3.64E-05
386	3.40E-06	453	9.63E-04	520	4.77E-04	587	5.60E-04	654	2.51E-04	721	3.53E-05
387	3.50E-06	454	9.16E-04	521	4.80E-04	588	5.60E-04	655	2.45E-04	722	3.47E-05
388	3.30E-06	455	8.51E-04	522	4.84E-04	589	5.61E-04	656	2.39E-04	723	3.34E-05
389	3.40E-06	456	7.75E-04	523	4.86E-04	590	5.59E-04	657	2.34E-04	724	3.23E-05
390	3.70E-06	457	7.05E-04	524	4.89E-04	591	5.60E-04	658	2.29E-04	725	3.10E-05
391	3.80E-06	458	6.40E-04	525	4.92E-04	592	5.58E-04	659	2.24E-04	726	3.03E-05
392	3.60E-06	459	5.86E-04	526	4.92E-04	593	5.57E-04	660	2.19E-04	727	2.93E-05
393	3.80E-06	460	5.41E-04	527	4.94E-04	594	5.55E-04	661	2.13E-04	728	2.83E-05
394	4.60E-06	461	5.07E-04	528	4.99E-04	595	5.54E-04	662	2.08E-04	729	2.74E-05
395	4.40E-06	462	4.83E-04	529	4.99E-04	596	5.51E-04	663	2.03E-04	730	2.64E-05
396	4.10E-06	463	4.65E-04	530	5.00E-04	597	5.49E-04	664	1.97E-04	731	2.57E-05
397	4.30E-06	464	4.50E-04	531	5.00E-04	598	5.48E-04	665	1.92E-04	732	2.51E-05
398	4.80E-06	465	4.34E-04	532	5.01E-04	599	5.47E-04	666	1.87E-04	733	2.42E-05
399	5.30E-06	466	4.18E-04	533	5.04E-04	600	5.45E-04	667	1.82E-04	734	2.32E-05
400	5.80E-06	467	4.02E-04	534	5.05E-04	601	5.42E-04	668	1.77E-04	735	2.27E-05
401	6.20E-06	468	3.78E-04	535	5.07E-04	602	5.41E-04	669	1.72E-04	736	2.19E-05
402	6.10E-06	469	3.55E-04	536	5.10E-04	603	5.37E-04	670	1.68E-04	737	2.11E-05
403	6.50E-06	470	3.31E-04	537	5.12E-04	604	5.34E-04	671	1.63E-04	738	2.05E-05
404	6.90E-06	471	2.97E-04	538	5.11E-04	605	5.33E-04	672	1.58E-04	739	2.00E-05
405	8.00E-06	472	2.74E-04	539	5.13E-04	606	5.30E-04	673	1.55E-04	740	1.93E-05
406	8.10E-06	473	2.55E-04	540	5.14E-04	607	5.26E-04	674	1.51E-04	741	1.84E-05
407	8.80E-06	474	2.40E-04	541	5.16E-04	608	5.21E-04	675	1.46E-04	742	1.83E-05
408	9.50E-06	475	2.25E-04	542	5.17E-04	609	5.18E-04	676	1.42E-04	743	1.73E-05
409	1.02E-05	476	2.17E-04	543	5.19E-04	610	5.17E-04	677	1.38E-04	744	1.70E-05
410	1.19E-05	477	2.12E-04	544	5.19E-04	611	5.12E-04	678	1.34E-04	745	1.63E-05
411	1.28E-05	478	2.07E-04	545	5.21E-04	612	5.07E-04	679	1.30E-04	746	1.59E-05
412	1.44E-05	479	2.04E-04	546	5.22E-04	613	5.03E-04	680	1.26E-04	747	1.54E-05
413	1.62E-05	480	2.02E-04	547	5.23E-04	614	4.97E-04	681	1.23E-04	748	1.49E-05
414	1.78E-05	481	2.03E-04	548	5.26E-04	615	4.94E-04	682	1.19E-04	749	1.44E-05
415	2.03E-05	482	2.05E-04	549	5.26E-04	616	4.87E-04	683	1.16E-04	750	1.39E-05
416	2.28E-05	483	2.08E-04	550	5.29E-04	617	4.81E-04	684	1.12E-04	751	1.36E-05
417	2.59E-05	484	2.09E-04	551	5.30E-04	618	4.76E-04	685	1.09E-04	752	1.29E-05
418	2.88E-05	485	2.14E-04	552	5.31E-04	619	4.70E-04	686	1.06E-04	753	1.27E-05
419	3.20E-05	486	2.17E-04	553	5.31E-04	620	4.63E-04	687	1.03E-04	754	1.25E-05
420	3.60E-05	487	2.22E-04	554	5.34E-04	621	4.59E-04	688	9.98E-05	755	1.21E-05
421	4.04E-05	488	2.28E-04	555	5.36E-04	622	4.52E-04	689	9.71E-05	756	1.15E-05
422	4.53E-05	489	2.34E-04	556	5.39E-04	623	4.48E-04	690	9.41E-05	757	1.11E-05
423	5.01E-05	490	2.40E-04	557	5.41E-04	624	4.42E-04	691	9.15E-05	758	1.08E-05
424	5.58E-05	491	2.47E-04	558	5.41E-04	625	4.36E-04	692	8.87E-05	759	1.04E-05
425	6.37E-05	492	2.54E-04	559	5.44E-04	626	4.32E-04	693	8.57E-05	760	1.01E-05
426	7.20E-05	493	2.63E-04	560	5.44E-04	627	4.23E-04	694	8.28E-05	761	9.80E-06
427	8.10E-05	494	2.73E-04	561	5.46E-04	628	4.16E-04	695	8.06E-05	762	9.60E-06
428	9.25E-05	495	2.82E-04	562	5.45E-04	629	4.10E-04	696	7.80E-05	763	9.30E-06
429	1.05E-04	496	2.93E-04	563	5.49E-04	630	4.03E-04	697	7.55E-05	764	9.10E-06
430	1.17E-04	497	3.05E-04	564	5.49E-04	631	3.97E-04	698	7.33E-05	765	8.60E-06
431	1.32E-04	498	3.17E-04	565	5.51E-04	632	3.90E-04	699	7.14E-05	766	8.50E-06
432	1.47E-04	499	3.27E-04	566	5.52E-04	633	3.85E-04	700	6.90E-05	767	8.20E-06
433	1.62E-04	500	3.37E-04	567	5.55E-04	634	3.77E-04	701	6.64E-05	768	7.90E-06
434	1.79E-04	501	3.48E-04	568	5.54E-04	635	3.72E-04	702	6.47E-05	769	7.60E-06
435	2.00E-04	502	3.58E-04	569	5.57E-04	636	3.65E-04	703	6.28E-05	770	7.40E-06
436	2.24E-04	503	3.67E-04	570	5.57E-04	637	3.59E-04	704	6.07E-05	771	7.30E-06
437	2.51E-04	504	3.77E-04	571	5.60E-04	638	3.51E-04	705	5.89E-05	772	6.90E-06
438	2.80E-04	505	3.86E-04	572	5.58E-04	639	3.46E-04	706	5.73E-05	773	6.90E-06
439	3.15E-04	506	3.96E-04	573	5.59E-04	640	3.38E-04	707	5.54E-05	774	6.70E-06
440	3.54E-04	507	4.03E-04	574	5.62E-04	641	3.29E-04	708	5.34E-05	775	6.30E-06
441	3.97E-04	508	4.12E-04	575	5.62E-04	642	3.24E-04	709	5.18E-05	776	6.10E-06
442	4.46E-04	509	4.18E-04	576	5.61E-04	643	3.18E-04	710	5.00E-05	777	6.20E-06
443	5.05E-04	510	4.26E-04	577	5.60E-04	644	3.11E-04	711	4.89E-05	778	5.90E-06
444	5.69E-04	511	4.32E-04	578	5.62E-04	645	3.06E-04	712	4.71E-05	779	5.90E-06
445	6.41E-04	512	4.40E-04	579	5.61E-04	646	2.98E-04	713	4.61E-05	780	5.90E-06
446	7.18E-04	513	4.44E-04	580	5.60E-04	647	2.93E-04	714	4.43E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4H/MVS @20W5000K	Sample ID	250402002-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.8	Humidity (%RH)	42.9

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	0.083	19.6	0.850
NON-WORST CASE	120.0	60	0.160	19.0	0.987

Test Result

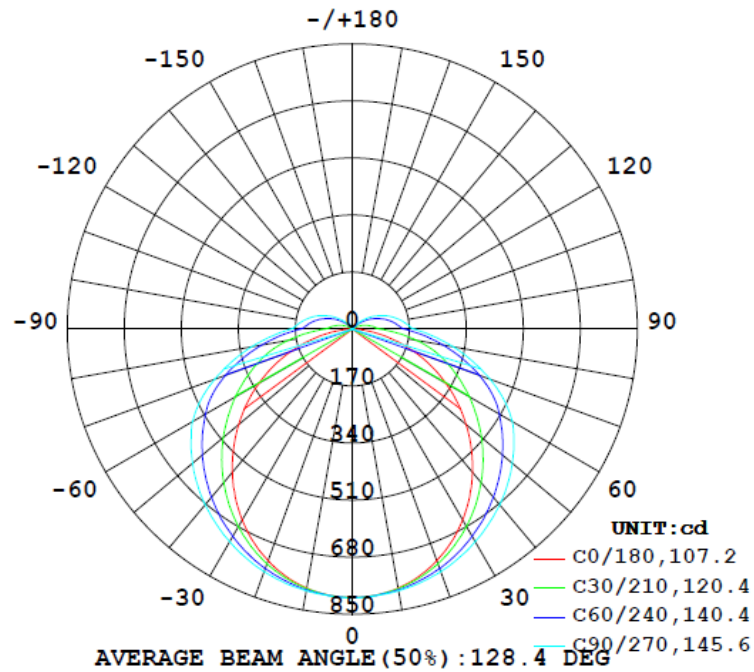
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
3073	768	160.7	160.7	107.4	145.4	156.8

Zonal Lumen Requirement	UGR	
(0° - 60°)	Crosswise	Endwise
63.0%	21.5	27.1

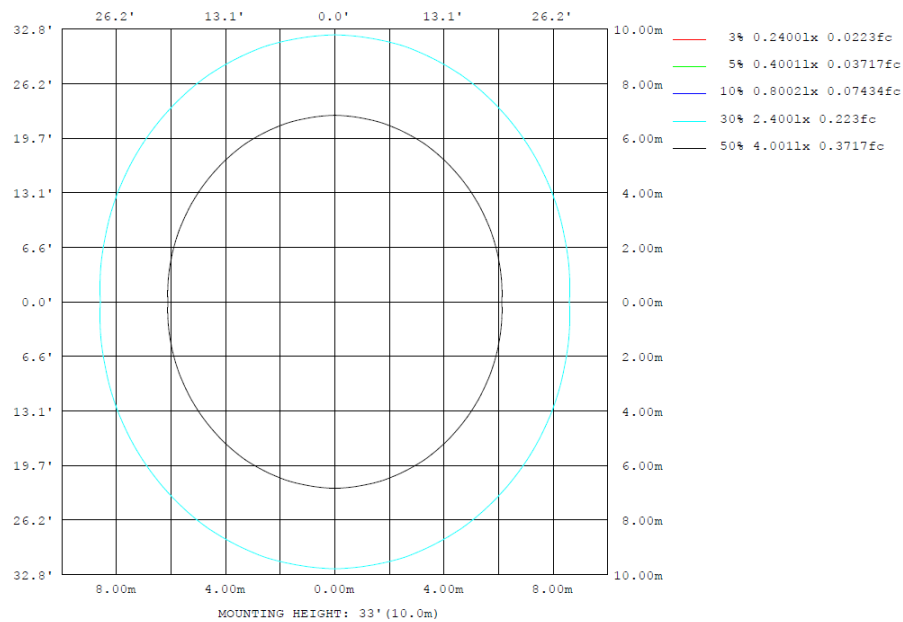
4.2 Goniophotometer Test

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	784.2	787.0	792.0	787.0	784.2	787.0	792.0	787.0	0- 10	75.78	75.78	2.47, 2.47
20	735.0	750.9	769.2	750.9	735.0	750.9	769.2	750.9	10- 20	218.2	294.0	9.57, 9.57
30	657.2	696.2	732.1	696.2	657.2	696.2	732.1	696.2	20- 30	335.1	629.1	20.5, 20.5
40	557.1	624.7	683.5	624.7	557.1	624.7	683.5	624.7	30- 40	414.5	1044	34, 34
50	443.0	543.9	622.3	543.9	443.0	543.9	622.3	543.9	40- 50	450.5	1494	48.6, 48.6
60	321.0	456.7	550.0	456.7	321.0	456.7	550.0	456.7	50- 60	442.9	1937	63, 63
70	194.9	362.1	436.8	362.1	194.9	362.1	436.8	362.1	60- 70	392.9	2330	75.8, 75.8
80	75.43	238.8	305.3	238.8	75.43	238.8	305.3	238.8	70- 80	297.4	2627	85.5, 85.5
90	3.609	122.8	183.3	122.8	3.609	122.8	183.3	122.8	80- 90	178.1	2805	91.3, 91.3
100	3.168	92.58	148.1	92.58	3.168	92.58	148.1	92.58	90-100	105.0	2911	94.7, 94.7
110	3.900	64.27	114.2	64.27	3.900	64.27	114.2	64.27	100-110	76.16	2987	97.2, 97.2
120	4.099	37.08	77.83	37.08	4.099	37.08	77.83	37.08	110-120	48.30	3035	98.8, 98.8
130	4.164	12.76	44.03	12.76	4.164	12.76	44.03	12.76	120-130	24.99	3060	99.6, 99.6
140	4.044	2.034	14.26	2.034	4.044	2.034	14.26	2.034	130-140	9.077	3069	99.9, 99.9
150	3.924	1.859	1.346	1.859	3.924	1.859	1.346	1.859	140-150	1.877	3071	99.9, 99.9
160	3.495	1.617	1.415	1.617	3.495	1.617	1.415	1.617	150-160	0.9924	3072	100, 100
170	4.318	1.575	1.413	1.575	4.318	1.575	1.413	1.575	160-170	0.5952	3073	100, 100
180	4.507	1.848	1.509	1.848	4.507	1.848	1.509	1.848	170-180	0.2264	3073	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	75.78	0-10	75.78	2.47%
10-20	218.22	0-20	294.00	9.57%
20-30	335.14	0-30	629.14	20.48%
30-40	414.49	0-40	1043.63	33.97%
40-50	450.52	0-50	1494.15	48.63%
50-60	442.92	0-60	1937.07	63.04%
60-70	392.87	0-70	2329.94	75.83%
70-80	297.40	0-80	2627.34	85.51%
80-90	178.15	0-90	2805.49	91.31%
90-100	105.03	0-100	2910.52	94.73%
100-110	76.16	0-110	2986.68	97.21%
110-120	48.30	0-120	3034.98	98.78%
120-130	24.99	0-130	3059.97	99.59%
130-140	9.08	0-140	3069.05	99.89%
140-150	1.88	0-150	3070.93	99.95%
150-160	0.99	0-160	3071.92	99.98%
160-170	0.60	0-170	3072.52	100.00%
170-180	0.23	0-180	3072.75	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	Y=2H	UGR Viewed Crosswise					UGR Viewed Endwise			
		13.2	14.7	13.7	15.2	15.8	16.3	17.9	16.8	18.4
	3H	14.8	16.2	15.3	16.7	17.2	19.0	20.4	19.5	20.9
	4H	15.3	16.6	15.8	17.1	17.7	20.3	21.6	20.8	22.1
	6H	15.6	16.8	16.2	17.4	18.0	21.5	22.7	22.0	23.3
	8H	15.7	16.9	16.2	17.4	18.0	22.1	23.3	22.6	23.8
	12H	15.7	16.8	16.3	17.4	18.0	22.7	23.9	23.3	24.4
4H	2H	14.5	15.8	15.0	16.3	16.9	16.8	18.1	17.3	18.7
	3H	16.3	17.5	16.9	18.0	18.6	19.7	20.9	20.3	21.4
	4H	17.0	18.1	17.6	18.6	19.3	21.1	22.2	21.7	22.7
	6H	17.5	18.4	18.1	19.0	19.7	22.5	23.5	23.1	24.1
	8H	17.6	18.5	18.2	19.1	19.7	23.2	24.1	23.8	24.7
	12H	17.7	18.5	18.3	19.1	19.8	24.0	24.8	24.6	25.4
8H	4H	18.0	18.8	18.6	19.4	20.1	21.4	22.2	22.0	22.8
	6H	18.7	19.4	19.3	20.1	20.7	23.0	23.7	23.6	24.3
	8H	18.9	19.6	19.6	20.3	20.9	23.8	24.5	24.4	25.1
	12H	19.1	19.7	19.7	20.3	21.1	24.7	25.3	25.4	26.0
12H	4H	18.2	19.0	18.8	19.6	20.3	21.4	22.2	22.0	22.8
	6H	19.1	19.7	19.7	20.3	21.1	23.0	23.7	23.7	24.3
	8H	19.4	20.0	20.1	20.6	21.4	23.9	24.5	24.6	25.1

Maximum UGR = 26.7

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	Y=2H	UGR Viewed Crosswise					UGR Viewed Endwise			
		17.1	18.6	17.6	19.1	19.7	20.2	21.8	20.7	22.3
	3H	18.7	20.1	19.2	20.6	21.1	22.9	24.3	23.4	24.8
	4H	19.2	20.5	19.7	21.0	21.6	24.2	25.5	24.7	26.0
	6H	19.5	20.7	20.1	21.3	21.9	25.4	26.6	25.9	27.2
	8H	19.6	20.8	20.1	21.3	21.9	26.0	27.2	26.5	27.7
	12H	19.6	20.7	20.2	21.3	21.9	26.6	27.8	27.2	28.3
4H	2H	18.4	19.7	18.9	20.2	20.8	20.7	22.0	21.2	22.6
	3H	20.2	21.4	20.8	21.9	22.5	23.6	24.8	24.2	25.3
	4H	20.9	22.0	21.5	22.5	23.2	25.0	26.1	25.6	26.6
	6H	21.4	22.3	22.0	22.9	23.6	26.4	27.4	27.0	28.0
	8H	21.5	22.4	22.1	23.0	23.6	27.1	28.0	27.7	28.6
	12H	21.6	22.4	22.2	23.0	23.7	27.9	28.7	28.5	29.3
8H	4H	21.9	22.7	22.5	23.3	24.0	25.3	26.1	25.9	26.7
	6H	22.6	23.3	23.2	24.0	24.6	26.9	27.6	27.5	28.2
	8H	22.8	23.5	23.5	24.2	24.8	27.7	28.4	28.3	29.0
	12H	23.0	23.6	23.6	24.2	25.0	28.6	29.2	29.3	29.9
12H	4H	22.1	22.9	22.7	23.5	24.2	25.3	26.1	25.9	26.7
	6H	23.0	23.6	23.6	24.2	25.0	26.9	27.6	27.6	28.2
	8H	23.3	23.9	24.0	24.5	25.3	27.8	28.4	28.5	29.0

Maximum UGR = 30.6

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	800	800	801	801	801	800	801	800	801	801	800	800	800	801	801	801	801	800	801
5	796	796	796	797	797	798	798	798	797	797	796	796	796	796	796	797	797	798	798
10	784	785	786	787	789	791	792	791	789	787	786	785	784	785	786	787	789	791	792
15	764	766	768	772	776	781	782	781	776	772	768	766	764	766	768	772	776	781	782
20	735	739	745	751	760	766	769	766	760	751	745	739	735	739	745	751	760	766	769
25	700	706	715	725	738	748	752	748	738	725	715	706	700	706	715	725	738	748	752
30	657	668	680	696	714	727	732	727	714	696	680	668	657	668	680	696	714	727	732
35	610	622	641	662	686	702	709	702	686	662	641	622	610	622	641	662	686	702	709
40	557	573	597	625	654	675	684	675	654	625	597	573	557	573	597	625	654	675	684
45	501	521	551	585	620	645	654	645	620	585	551	521	501	521	551	585	620	645	654
50	443	465	503	544	585	612	622	612	585	544	503	465	443	465	503	544	585	612	622
55	382	408	453	501	546	577	588	577	546	501	453	408	382	408	453	501	546	577	588
60	321	351	402	457	506	538	550	538	506	457	402	351	321	351	402	457	506	538	550
65	258	293	352	412	461	489	498	489	461	412	352	293	258	293	352	412	461	489	498
70	195	236	302	362	403	428	437	428	403	362	302	236	195	236	302	362	403	428	437
75	133	182	253	303	339	362	371	362	339	303	253	182	133	182	253	303	339	362	371
80	75.4	131	194	239	275	296	305	296	275	239	194	131	75.4	131	194	239	275	296	305
85	27.9	81.5	134	178	212	233	242	233	212	178	134	81.5	27.9	81.5	134	178	212	233	242
90	3.61	36.1	82.0	123	155	176	183	176	155	123	82.0	36.1	3.61	36.1	82.0	123	155	176	183
95	3.05	25.7	67.5	106	137	156	164	156	137	106	67.5	25.7	3.05	25.7	67.5	106	137	156	164
100	3.17	16.9	55.7	92.6	123	141	148	141	123	92.6	55.7	16.9	3.17	16.9	55.7	92.6	123	141	148
105	3.49	9.48	43.5	78.7	107	125	132	125	107	78.7	43.5	9.48	3.49	9.48	43.5	78.7	107	125	132
110	3.90	3.79	32.4	64.3	91.0	108	114	108	91.0	64.3	32.4	3.79	3.90	3.79	32.4	64.3	91.0	108	114
115	4.00	3.51	21.7	50.2	74.7	90.5	96.0	90.5	74.7	50.2	21.7	3.51	4.00	3.51	21.7	50.2	74.7	90.5	96.0
120	4.10	3.49	11.9	37.1	58.9	72.8	77.8	72.8	58.9	37.1	11.9	3.49	4.10	3.49	11.9	37.1	58.9	72.8	77.8
125	4.17	3.48	3.82	24.5	43.7	56.3	60.5	56.3	43.7	24.5	3.82	3.48	4.17	3.48	3.82	24.5	43.7	56.3	60.5
130	4.16	3.46	2.84	12.8	29.3	40.4	44.0	40.4	29.3	12.8	2.84	3.46	4.16	3.46	2.84	12.8	29.3	40.4	44.0
135	4.10	3.45	2.72	3.06	15.8	25.4	28.8	25.4	15.8	3.06	2.72	3.45	4.10	3.45	2.72	3.06	15.8	25.4	28.8
140	4.04	3.44	2.68	2.03	3.92	11.3	14.3	11.3	3.92	2.03	2.68	3.44	4.04	3.44	2.68	2.03	3.92	11.3	14.3
145	3.98	3.42	2.58	1.93	1.64	1.60	2.19	1.60	1.64	1.93	2.58	3.42	3.98	3.42	2.58	1.93	1.64	1.60	2.19
150	3.92	3.38	2.40	1.86	1.58	1.58	1.35	1.58	1.58	1.86	2.40	3.38	3.92	3.38	2.40	1.86	1.58	1.58	1.35
155	3.86	3.32	2.07	1.63	1.58	1.56	1.41	1.56	1.58	1.63	2.07	3.32	3.86	3.32	2.07	1.63	1.58	1.56	1.41
160	3.49	3.22	1.95	1.62	1.58	1.55	1.41	1.55	1.58	1.62	1.95	3.22	3.49	3.22	1.95	1.62	1.58	1.55	1.41
165	3.76	3.16	2.07	1.59	1.58	1.53	1.41	1.53	1.58	1.59	2.07	3.16	3.76	3.16	2.07	1.59	1.58	1.53	1.41
170	4.32	3.60	2.18	1.57	1.58	1.51	1.41	1.51	1.58	1.57	2.18	3.60	4.32	3.60	2.18	1.57	1.58	1.51	1.41
175	4.48	4.07	2.77	1.77	1.67	1.59	1.41	1.59	1.67	1.77	2.77	4.07	4.48	4.07	2.77	1.77	1.67	1.59	1.41
180	4.51	4.07	2.77	1.85	1.68	1.59	1.51	1.59	1.68	1.85	2.77	4.07	4.51	4.07	2.77	1.85	1.68	1.59	1.51

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	800	801	801	801	800														
5	798	797	797	796	796														
10	791	789	787	786	785														
15	781	776	772	768	766														
20	766	760	751	745	739														
25	748	738	725	715	706														
30	727	714	696	680	668														
35	702	686	662	641	622														
40	675	654	625	597	573														
45	645	620	585	551	521														
50	612	585	544	503	465														
55	577	546	501	453	408														
60	538	506	457	402	351														
65	489	461	412	352	293														
70	428	403	362	302	236														
75	362	339	303	253	182														
80	296	275	239	194	131														
85	233	212	178	134	81.5														
90	176	155	123	82.0	36.1														
95	156	137	106	67.5	25.7														
100	141	123	92.6	55.7	16.9														
105	125	107	78.7	43.5	9.48														
110	108	91.0	64.3	32.4	3.79														
115	90.5	74.7	50.2	21.7	3.51														
120	72.8	58.9	37.1	11.9	3.49														
125	56.3	43.7	24.5	3.82	3.48														
130	40.4	29.3	12.8	2.84	3.46														
135	25.4	15.8	3.06	2.72	3.45														
140	11.3	3.92	2.03	2.68	3.44														
145	1.60	1.64	1.93	2.58	3.42														
150	1.58	1.58	1.86	2.40	3.38														
155	1.56	1.58	1.63	2.07	3.32														
160	1.55	1.58	1.62	1.95	3.22														
165	1.53	1.58	1.59	2.07	3.16														
170	1.51	1.58	1.57	2.18	3.60														
175	1.59	1.67	1.77	2.77	4.07														
180	1.59	1.68	1.85	2.77	4.07														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4H/MVS @20W5000K	Sample ID	250402002-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	0.160	19.0	0.987	5.46
277.0	60	0.083	19.6	0.850	18.57

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*****