

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: 2025-01-06

Review by:

Vincent Yuan

Technical Lead: Vincent Yuan

Issue Date: 2025-01-06

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		1124
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	160.5
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		28.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	7.91
				277V	10.64
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.993
				277V	0.917
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4095
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		85.0
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		18
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%		-11%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	≥40%		63.3%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	28.3
			N/A	<22	
Input Voltage (V)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Cast		120.0
(Goniophotometer – Section 4.2)			Non-Worst Case		277.0
Input Current (A)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		0.235
(Goniophotometer – Section 4.2)			Non-Worst Case		0.109
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		28.0
(Goniophotometer – Section 4.2)			Non-Worst Case		27.6

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-05	STRP4H @30W4000K	-	241225006-S1
2	Goniophotometer Test	2025-01-05	STRP4H @30W4000K	-	241225006-S1
3	THD and PF Test	2025-01-05	STRP4H @30W4000K	-	241225006-S1

Remark (If any):

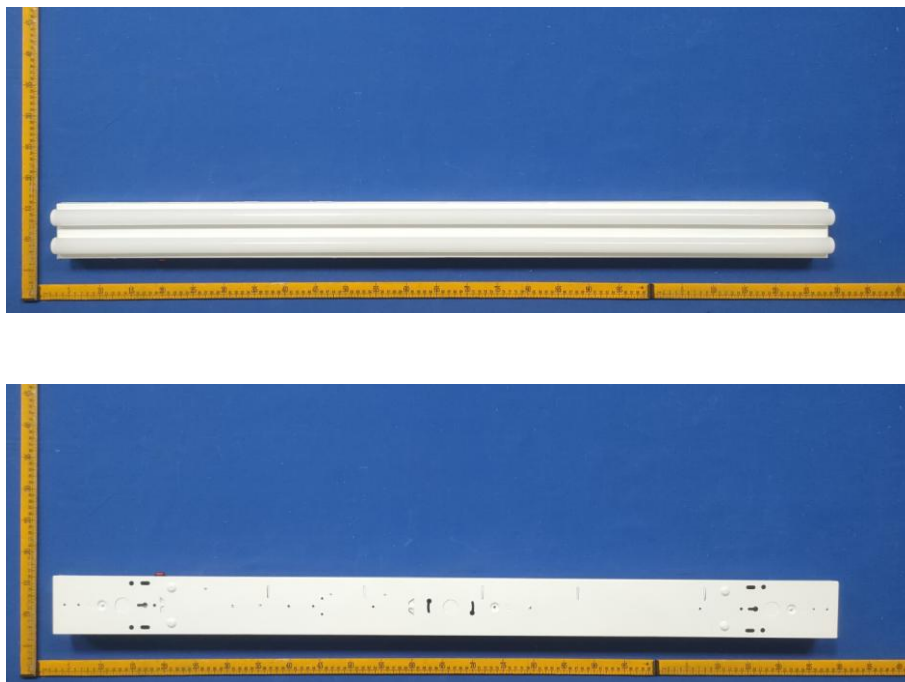
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3.0 Product Description

Luminaire Description: Model No. STRP4H @30W4000K, 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 @30W4000K	Sample ID	241225006-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

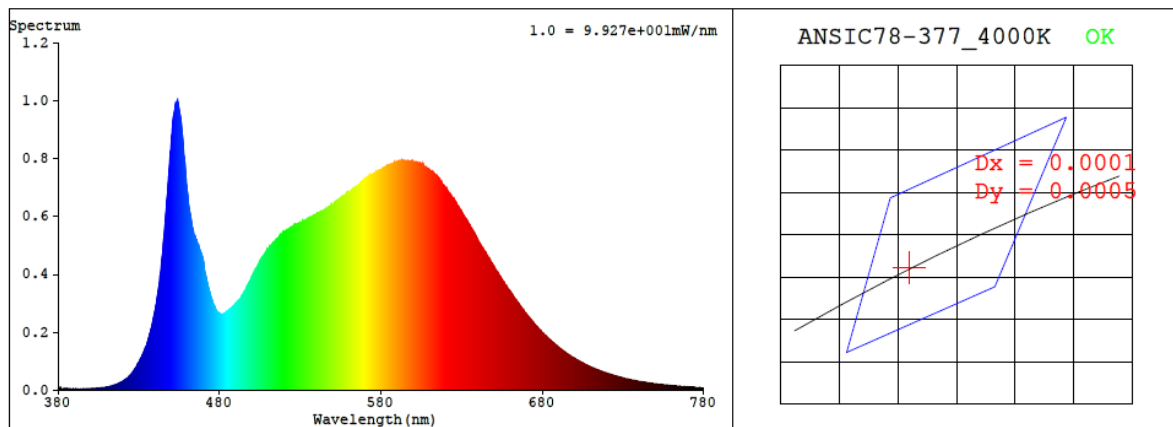
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.235	28.0	0.993
277.0	60	0.109	27.6	0.917

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
4095	85.0	18	0.0002	85	95	-11%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3765$ $y = 0.3747$ / $u' = 0.2233$ $v' = 0.5001$ ($duv = 1.94e-04$)

CCT= 4095K Prcp WL: $L_d = 578.6\text{nm}$ Purity=25.4%

Peak WL: $L_p = 454\text{nm}$ FWHM: $\approx 21.8\text{nm}$ Ratio: R=18.3% G=77.7% B=4.0%

Render Index: $R_a = 85.0$ AvgR = 79.0 TM30: $R_f = 85$ $R_g = 95$

EEL: 0.08359 A++ Highest

R1=84 R2=92 R3=96 R4=83 R5=83 R6=88 R7=87

R8=68 R9=18 R10=79 R11=82 R12=62 R13=86 R14=98 R15=78

4.1 Integrating Sphere Test

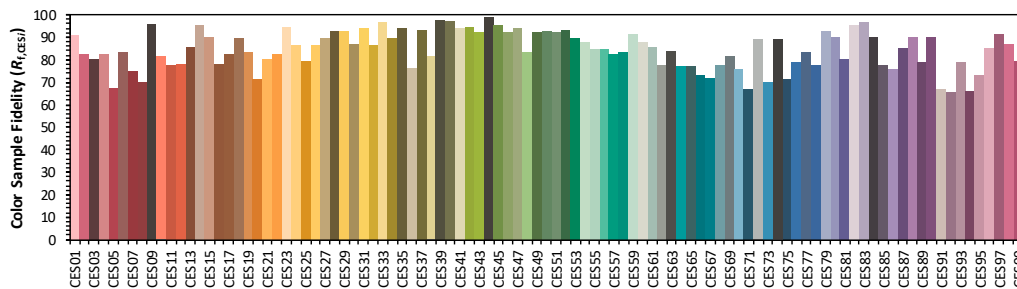
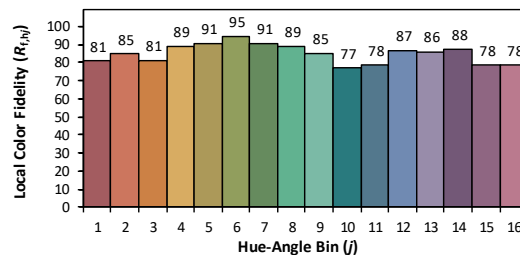
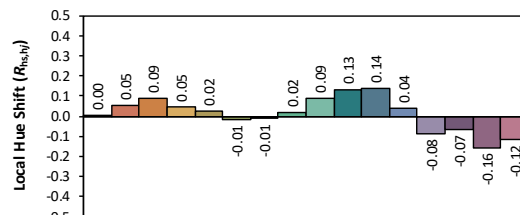
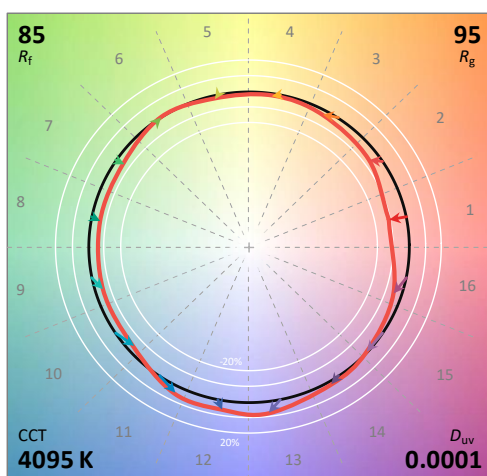
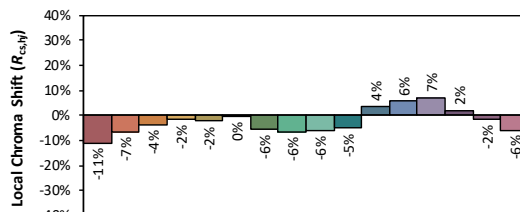
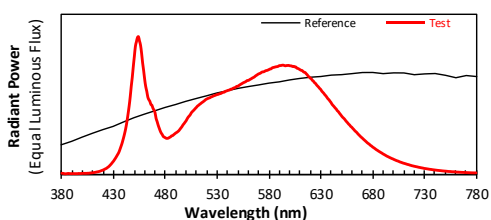
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/6

Model: STRP4H @30W4000K



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

x 0.3765
 y 0.3745
 u' 0.2234
 v' 0.5000

CIE 13.3-1995
(CRI)
 R_a 85
 R_g 18

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	6.40E-06	447	6.38E-04	514	5.13E-04	581	7.65E-04	648	4.45E-04	715	6.91E-05
381	6.00E-06	448	7.04E-04	515	5.19E-04	582	7.66E-04	649	4.35E-04	716	6.61E-05
382	4.30E-06	449	7.84E-04	516	5.24E-04	583	7.72E-04	650	4.25E-04	717	6.42E-05
383	2.30E-06	450	8.57E-04	517	5.30E-04	584	7.76E-04	651	4.16E-04	718	6.17E-05
384	2.90E-06	451	9.29E-04	518	5.36E-04	585	7.77E-04	652	4.09E-04	719	6.01E-05
385	3.80E-06	452	9.63E-04	519	5.43E-04	586	7.80E-04	653	4.01E-04	720	5.81E-05
386	5.10E-06	453	9.94E-04	520	5.47E-04	587	7.81E-04	654	3.91E-04	721	5.66E-05
387	4.70E-06	454	1.00E-03	521	5.51E-04	588	7.83E-04	655	3.82E-04	722	5.47E-05
388	3.60E-06	455	9.68E-04	522	5.54E-04	589	7.85E-04	656	3.74E-04	723	5.34E-05
389	4.00E-06	456	9.38E-04	523	5.56E-04	590	7.89E-04	657	3.64E-04	724	5.14E-05
390	2.90E-06	457	8.80E-04	524	5.61E-04	591	7.90E-04	658	3.57E-04	725	4.97E-05
391	4.40E-06	458	8.10E-04	525	5.64E-04	592	7.91E-04	659	3.48E-04	726	4.83E-05
392	3.70E-06	459	7.53E-04	526	5.68E-04	593	7.93E-04	660	3.42E-04	727	4.66E-05
393	3.60E-06	460	6.89E-04	527	5.71E-04	594	7.93E-04	661	3.33E-04	728	4.52E-05
394	3.90E-06	461	6.37E-04	528	5.73E-04	595	7.90E-04	662	3.25E-04	729	4.38E-05
395	3.50E-06	462	6.03E-04	529	5.77E-04	596	7.88E-04	663	3.16E-04	730	4.17E-05
396	4.90E-06	463	5.62E-04	530	5.79E-04	597	7.90E-04	664	3.09E-04	731	4.08E-05
397	4.60E-06	464	5.42E-04	531	5.81E-04	598	7.91E-04	665	3.02E-04	732	3.96E-05
398	4.50E-06	465	5.30E-04	532	5.84E-04	599	7.91E-04	666	2.93E-04	733	3.84E-05
399	5.10E-06	466	5.07E-04	533	5.86E-04	600	7.89E-04	667	2.85E-04	734	3.71E-05
400	5.20E-06	467	5.01E-04	534	5.89E-04	601	7.88E-04	668	2.78E-04	735	3.57E-05
401	6.10E-06	468	4.79E-04	535	5.93E-04	602	7.87E-04	669	2.70E-04	736	3.48E-05
402	5.80E-06	469	4.66E-04	536	5.96E-04	603	7.83E-04	670	2.64E-04	737	3.39E-05
403	6.00E-06	470	4.47E-04	537	5.97E-04	604	7.85E-04	671	2.56E-04	738	3.25E-05
404	6.00E-06	471	4.06E-04	538	6.03E-04	605	7.80E-04	672	2.50E-04	739	3.15E-05
405	6.70E-06	472	3.83E-04	539	6.05E-04	606	7.80E-04	673	2.43E-04	740	3.05E-05
406	6.80E-06	473	3.57E-04	540	6.08E-04	607	7.71E-04	674	2.36E-04	741	2.96E-05
407	8.00E-06	474	3.35E-04	541	6.11E-04	608	7.69E-04	675	2.29E-04	742	2.86E-05
408	8.90E-06	475	3.15E-04	542	6.12E-04	609	7.65E-04	676	2.23E-04	743	2.77E-05
409	9.40E-06	476	2.99E-04	543	6.18E-04	610	7.60E-04	677	2.18E-04	744	2.70E-05
410	1.03E-05	477	2.88E-04	544	6.19E-04	611	7.56E-04	678	2.10E-04	745	2.60E-05
411	1.18E-05	478	2.74E-04	545	6.23E-04	612	7.54E-04	679	2.05E-04	746	2.54E-05
412	1.29E-05	479	2.69E-04	546	6.27E-04	613	7.47E-04	680	1.99E-04	747	2.43E-05
413	1.47E-05	480	2.65E-04	547	6.29E-04	614	7.42E-04	681	1.93E-04	748	2.36E-05
414	1.63E-05	481	2.61E-04	548	6.34E-04	615	7.40E-04	682	1.88E-04	749	2.28E-05
415	1.77E-05	482	2.61E-04	549	6.39E-04	616	7.31E-04	683	1.82E-04	750	2.22E-05
416	1.97E-05	483	2.63E-04	550	6.39E-04	617	7.23E-04	684	1.77E-04	751	2.17E-05
417	2.19E-05	484	2.68E-04	551	6.45E-04	618	7.13E-04	685	1.72E-04	752	2.08E-05
418	2.50E-05	485	2.71E-04	552	6.50E-04	619	7.07E-04	686	1.67E-04	753	2.01E-05
419	2.78E-05	486	2.79E-04	553	6.55E-04	620	6.98E-04	687	1.63E-04	754	1.93E-05
420	3.08E-05	487	2.81E-04	554	6.59E-04	621	6.93E-04	688	1.58E-04	755	1.92E-05
421	3.46E-05	488	2.87E-04	555	6.64E-04	622	6.82E-04	689	1.54E-04	756	1.84E-05
422	3.86E-05	489	2.93E-04	556	6.68E-04	623	6.77E-04	690	1.48E-04	757	1.75E-05
423	4.21E-05	490	2.99E-04	557	6.71E-04	624	6.66E-04	691	1.44E-04	758	1.74E-05
424	4.80E-05	491	3.04E-04	558	6.75E-04	625	6.60E-04	692	1.40E-04	759	1.71E-05
425	5.34E-05	492	3.10E-04	559	6.81E-04	626	6.49E-04	693	1.35E-04	760	1.64E-05
426	6.06E-05	493	3.16E-04	560	6.82E-04	627	6.41E-04	694	1.31E-04	761	1.55E-05
427	6.86E-05	494	3.26E-04	561	6.86E-04	628	6.33E-04	695	1.27E-04	762	1.50E-05
428	7.70E-05	495	3.36E-04	562	6.91E-04	629	6.24E-04	696	1.24E-04	763	1.48E-05
429	8.68E-05	496	3.46E-04	563	6.95E-04	630	6.17E-04	697	1.20E-04	764	1.42E-05
430	9.59E-05	497	3.59E-04	564	7.00E-04	631	6.05E-04	698	1.16E-04	765	1.39E-05
431	1.08E-04	498	3.68E-04	565	7.03E-04	632	5.96E-04	699	1.13E-04	766	1.33E-05
432	1.19E-04	499	3.78E-04	566	7.08E-04	633	5.88E-04	700	1.10E-04	767	1.30E-05
433	1.32E-04	500	3.88E-04	567	7.14E-04	634	5.78E-04	701	1.06E-04	768	1.28E-05
434	1.45E-04	501	4.02E-04	568	7.19E-04	635	5.70E-04	702	1.03E-04	769	1.23E-05
435	1.58E-04	502	4.15E-04	569	7.25E-04	636	5.59E-04	703	9.95E-05	770	1.18E-05
436	1.78E-04	503	4.23E-04	570	7.29E-04	637	5.49E-04	704	9.67E-05	771	1.15E-05
437	2.00E-04	504	4.32E-04	571	7.32E-04	638	5.41E-04	705	9.43E-05	772	1.11E-05
438	2.22E-04	505	4.46E-04	572	7.36E-04	639	5.31E-04	706	9.07E-05	773	1.08E-05
439	2.49E-04	506	4.55E-04	573	7.42E-04	640	5.21E-04	707	8.76E-05	774	1.04E-05
440	2.77E-04	507	4.62E-04	574	7.44E-04	641	5.08E-04	708	8.53E-05	775	1.00E-05
441	3.09E-04	508	4.70E-04	575	7.45E-04	642	4.99E-04	709	8.23E-05	776	9.70E-06
442	3.45E-04	509	4.79E-04	576	7.49E-04	643	4.91E-04	710	7.99E-05	777	9.60E-06
443	3.90E-04	510	4.87E-04	577	7.53E-04	644	4.81E-04	711	7.77E-05	778	9.30E-06
444	4.42E-04	511	4.95E-04	578	7.54E-04	645	4.74E-04	712	7.56E-05	779	9.30E-06
445	4.97E-04	512	5.01E-04	579	7.57E-04	646	4.62E-04	713	7.30E-05	780	9.30E-06
446	5.61E-04	513	5.08E-04	580	7.61E-04	647	4.56E-04	714	7.06E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4H @30W4000K	Sample ID	241225006-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	25.0	Humidity (%RH)	42.1

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	120.0	60	0.235	28.0	0.993
NON-WORST CASE	277.0	60	0.109	27.6	0.917

Test Result

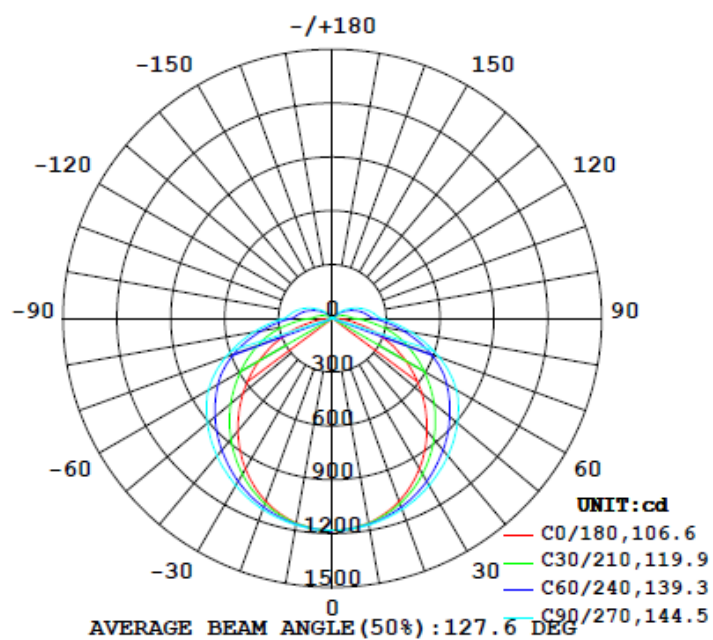
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
4495	1124	160.5	160.5	106.6	144.3	160.5

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
63.3%	22.8	28.3

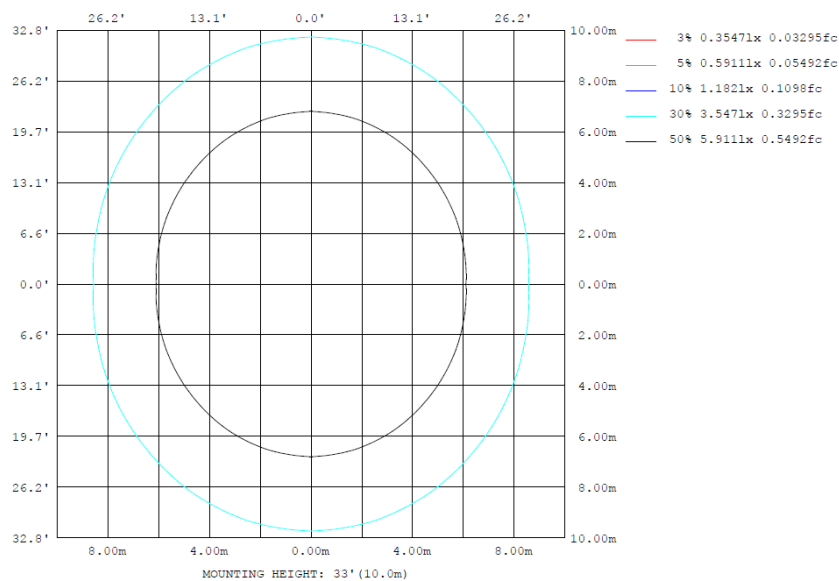
4.2 Goniophotometer Test

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	Φ zone	Φ total	Σlum, lamp
10	1159	1162	1170	1162	1159	1162	1170	1162	0- 10	111.9	111.9	2.49, 2.49
20	1085	1108	1134	1108	1085	1108	1134	1108	10- 20	322.1	434.0	9.66, 9.66
30	969.0	1025	1077	1025	969.0	1025	1077	1025	20- 30	494.0	928.0	20.6, 20.6
40	819.3	917.9	1001	917.9	819.3	917.9	1001	917.9	30- 40	609.5	1538	34.2, 34.2
50	650.1	796.5	908.5	796.5	650.1	796.5	908.5	796.5	40- 50	660.8	2198	48.9, 48.9
60	470.4	666.5	797.1	666.5	470.4	666.5	797.1	666.5	50- 60	647.6	2846	63.3, 63.3
70	287.7	526.6	632.6	526.6	287.7	526.6	632.6	526.6	60- 70	572.3	3418	76, 76
80	114.6	350.4	445.0	350.4	114.6	350.4	445.0	350.4	70- 80	434.0	3852	85.7, 85.7
90	6.854	181.6	269.0	181.6	6.854	181.6	269.0	181.6	80- 90	262.5	4115	91.5, 91.5
100	4.794	134.5	217.1	134.5	4.794	134.5	217.1	134.5	90-100	153.4	4268	95, 95
110	5.972	91.30	164.6	91.30	5.972	91.30	164.6	91.30	100-110	109.6	4378	97.4, 97.4
120	6.242	49.39	109.7	49.39	6.242	49.39	109.7	49.39	110-120	67.77	4446	98.9, 98.9
130	6.243	12.63	58.04	12.63	6.243	12.63	58.04	12.63	120-130	33.37	4479	99.6, 99.6
140	6.152	2.918	13.37	2.918	6.152	2.918	13.37	2.918	130-140	10.88	4490	99.9, 99.9
150	6.064	2.551	1.681	2.551	6.064	2.551	1.681	2.551	140-150	2.452	4492	99.9, 99.9
160	5.248	2.278	1.679	2.278	5.248	2.278	1.679	2.278	150-160	1.411	4494	100, 100
170	6.513	2.642	2.234	2.642	6.513	2.642	2.234	2.642	160-170	0.8620	4494	100, 100
180	6.876	3.006	2.612	3.006	6.876	3.006	2.612	3.006	170-180	0.3542	4495	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	111.92	0-10	111.92	2.49%
10-20	322.10	0-20	434.02	9.66%
20-30	493.96	0-30	927.98	20.65%
30-40	609.52	0-40	1537.50	34.21%
40-50	660.85	0-50	2198.35	48.91%
50-60	647.61	0-60	2845.96	63.32%
60-70	572.26	0-70	3418.22	76.05%
70-80	433.99	0-80	3852.21	85.71%
80-90	262.46	0-90	4114.67	91.55%
90-100	153.45	0-100	4268.12	94.96%
100-110	109.61	0-110	4377.73	97.40%
110-120	67.77	0-120	4445.50	98.91%
120-130	33.37	0-130	4478.87	99.65%
130-140	10.88	0-140	4489.75	99.89%
140-150	2.45	0-150	4492.20	99.95%
150-160	1.41	0-160	4493.61	99.98%
160-170	0.86	0-170	4494.47	100.00%
170-180	0.36	0-180	4494.83	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	30
Walls	50	30	50	30	30	50	30	50	30	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20	20
Room Size											
X=2H Y=2H		UGR Viewed Crosswise					UGR Viewed Endwise				
		13.1	14.7	13.6	15.2	15.7	16.2	17.7	16.7	18.2	18.8
3H		14.7	16.1	15.2	16.6	17.2	18.9	20.3	19.4	20.8	21.3
4H		15.2	16.5	15.8	17.1	17.6	20.1	21.4	20.6	22.0	22.5
6H		15.6	16.8	16.1	17.3	17.9	21.3	22.6	21.9	23.1	23.7
8H		15.6	16.8	16.2	17.4	18.0	22.0	23.1	22.5	23.7	24.3
12H		15.7	16.8	16.2	17.3	18.0	22.6	23.7	23.2	24.3	24.9
4H		2H	14.4	15.7	14.9	16.2	16.8	16.7	18.0	17.2	18.5
		3H	16.3	17.4	16.8	18.0	18.6	19.6	20.7	20.1	21.3
		4H	16.9	18.0	17.5	18.6	19.2	21.0	22.0	21.5	22.6
		6H	17.4	18.3	18.0	18.9	19.6	22.4	23.3	23.0	23.9
		8H	17.6	18.4	18.2	19.0	19.7	23.1	24.0	23.7	24.6
		12H	17.6	18.4	18.2	19.0	19.7	23.9	24.7	24.5	25.3
8H		4H	17.9	18.8	18.5	19.4	20.0	21.2	22.1	21.8	22.7
		6H	18.6	19.4	19.2	20.0	20.7	22.8	23.6	23.5	24.2
		8H	18.9	19.5	19.5	20.2	20.9	23.7	24.3	24.3	25.0
		12H	19.0	19.6	19.7	20.3	21.0	24.6	25.2	25.3	25.8
12H		4H	18.1	18.9	18.7	19.5	20.2	21.3	22.0	21.9	22.7
		6H	19.0	19.7	19.6	20.3	21.0	22.9	23.6	23.5	24.2
		8H	19.3	19.9	20.0	20.6	21.3	23.8	24.4	24.4	25.0

Maximum UGR = 26.6

UGR – Corrected Table:

UGR TABLE - CORRECTED

Reflectances											
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30	30
Walls	50	30	50	30	30	50	30	50	30	30	30
Floor Cavity	20	20	20	20	20	20	20	20	20	20	20
Room Size											
X=2H Y=2H		UGR Viewed Crosswise					UGR Viewed Endwise				
		18.3	19.9	18.8	20.4	20.9	21.4	22.9	21.9	23.4	24.0
3H		19.9	21.3	20.4	21.8	22.4	24.1	25.5	24.6	26.0	26.5
4H		20.4	21.7	21.0	22.3	22.8	25.3	26.6	25.8	27.2	27.7
6H		20.8	22.0	21.3	22.5	23.1	26.5	27.8	27.1	28.3	28.9
8H		20.8	22.0	21.4	22.6	23.2	27.2	28.3	27.7	28.9	29.5
12H		20.9	22.0	21.4	22.5	23.2	27.8	28.9	28.4	29.5	30.1
4H		2H	19.6	20.9	20.1	21.4	22.0	21.9	23.2	22.4	23.7
		3H	21.5	22.6	22.0	23.2	23.8	24.8	25.9	25.3	26.5
		4H	22.1	23.2	22.7	23.8	24.4	26.2	27.2	26.7	27.8
		6H	22.6	23.5	23.2	24.1	24.8	27.6	28.5	28.2	29.1
		8H	22.8	23.6	23.4	24.2	24.9	28.3	29.2	28.9	29.8
		12H	22.8	23.6	23.4	24.2	24.9	29.1	29.9	29.7	30.5
8H		4H	23.1	24.0	23.7	24.6	25.2	26.4	27.3	27.0	27.9
		6H	23.8	24.6	24.4	25.2	25.9	28.0	28.8	28.7	29.4
		8H	24.1	24.7	24.7	25.4	26.1	28.9	29.5	29.5	30.2
		12H	24.2	24.8	24.9	25.5	26.2	29.8	30.4	30.5	31.0
12H		4H	23.3	24.1	23.9	24.7	25.4	26.5	27.2	27.1	27.9
		6H	24.2	24.9	24.8	25.5	26.2	28.1	28.8	28.7	29.4
		8H	24.5	25.1	25.2	25.8	26.5	29.0	29.6	29.6	30.2

Maximum UGR = 31.8

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	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182	1182
5	1177	1175	1177	1177	1178	1179	1179	1179	1178	1177	1177	1175	1177	1175	1177	1178	1179	1179	1179
10	1159	1159	1161	1162	1166	1168	1170	1168	1166	1162	1161	1159	1159	1159	1161	1162	1166	1168	1170
15	1128	1131	1135	1139	1146	1152	1154	1152	1146	1139	1135	1131	1128	1131	1135	1139	1146	1152	1154
20	1085	1091	1100	1108	1121	1130	1134	1130	1121	1108	1100	1091	1085	1091	1100	1108	1121	1130	1134
25	1032	1042	1056	1069	1088	1102	1108	1102	1088	1069	1056	1042	1032	1042	1056	1069	1088	1102	1108
30	969	984	1003	1025	1050	1068	1077	1068	1050	1025	1003	984	969	984	1003	1025	1050	1068	1077
35	898	917	944	974	1006	1030	1039	1030	1006	974	944	917	898	917	944	974	1006	1030	1039
40	819	845	880	918	959	989	1001	989	959	918	880	845	819	845	880	918	959	989	1001
45	736	766	811	858	909	943	957	943	909	858	811	766	736	766	811	858	909	943	957
50	650	684	739	796	854	894	908	894	854	796	739	684	650	684	739	796	854	894	908
55	561	600	665	732	796	840	856	840	796	732	665	600	561	600	665	732	796	840	856
60	470	515	591	667	736	781	797	781	736	667	591	515	470	515	591	667	736	781	797
65	379	431	516	600	668	707	721	707	668	600	516	431	379	431	516	600	668	707	721
70	288	348	443	527	585	620	633	620	585	527	443	348	288	348	443	527	585	620	633
75	198	268	370	441	494	526	539	526	494	441	370	268	198	268	370	441	494	526	539
80	115	193	286	350	402	433	445	433	402	350	286	193	115	193	286	350	402	433	445
85	45.4	122	200	263	312	342	353	342	312	263	200	122	45.4	122	200	263	312	342	353
90	6.85	54.6	123	182	229	258	269	258	229	182	123	54.6	6.85	54.6	123	182	229	258	269
95	4.25	36.2	98.7	155	199	229	241	229	199	155	98.7	36.2	4.25	36.2	98.7	155	199	229	241
100	4.79	23.1	80.3	134	179	205	217	205	179	134	80.3	23.1	4.79	23.1	80.3	134	179	205	217
105	5.78	11.6	61.3	113	155	180	192	180	155	113	61.3	11.6	5.78	11.6	61.3	113	155	180	192
110	5.97	5.04	43.8	91.3	130	155	165	155	130	91.3	43.8	5.04	5.97	5.04	43.8	91.3	130	155	165
115	6.06	4.84	27.7	69.9	106	128	137	128	106	69.9	27.7	4.84	6.06	4.84	27.7	69.9	106	128	137
120	6.24	4.84	12.9	49.4	81.4	102	110	102	81.4	49.4	12.9	4.84	6.24	4.84	12.9	49.4	81.4	102	110
125	6.24	4.93	5.04	30.1	58.0	76.5	83.3	76.5	58.0	30.1	5.04	4.93	6.24	4.93	5.04	30.1	58.0	76.5	83.3
130	6.24	5.39	4.20	12.6	36.0	52.4	58.0	52.4	36.0	12.6	4.20	5.39	6.24	5.39	4.20	12.6	36.0	52.4	58.0
135	6.15	5.57	3.92	4.03	16.0	29.7	34.5	29.7	16.0	4.03	3.92	5.57	6.15	5.57	3.92	4.03	16.0	29.7	34.5
140	6.15	5.57	3.83	2.92	3.98	9.77	13.4	9.77	3.98	2.92	3.83	5.57	6.15	5.57	3.83	2.92	3.98	9.77	13.4
145	6.15	5.57	3.56	2.73	2.20	2.42	2.62	2.42	2.20	2.73	3.56	5.57	6.15	5.57	3.56	2.73	2.20	2.42	2.62
150	6.06	5.49	3.20	2.55	2.11	2.03	1.68	2.03	2.11	2.55	3.20	5.49	6.06	5.49	3.20	2.55	2.11	2.03	1.68
155	5.52	5.03	3.01	2.37	2.11	2.03	1.68	2.03	2.11	2.37	3.01	5.03	5.52	5.03	3.01	2.37	2.11	2.03	1.68
160	5.25	4.75	2.74	2.28	2.11	2.03	1.68	2.03	2.11	2.28	2.74	4.75	5.25	4.75	2.74	2.28	2.11	2.03	1.68
165	5.43	5.11	2.65	2.37	2.11	2.03	1.68	2.03	2.11	2.37	2.65	5.11	5.43	5.11	2.65	2.37	2.11	2.03	1.68
170	6.51	5.75	3.19	2.64	2.57	2.58	2.23	2.58	2.57	2.64	3.19	5.75	6.51	5.75	3.19	2.64	2.57	2.58	2.23
175	6.88	6.03	3.73	2.91	2.75	2.68	2.52	2.68	2.75	2.91	3.73	6.03	6.88	6.03	3.73	2.91	2.75	2.68	2.52
180	6.88	6.03	3.83	3.01	2.75	2.77	2.61	2.77	2.75	3.01	3.83	6.03	6.88	6.03	3.83	3.01	2.75	2.77	2.61

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	1182	1182	1182	1182	1182														
5	1179	1178	1177	1177	1175														
10	1168	1166	1162	1161	1159														
15	1152	1146	1139	1135	1131														
20	1130	1121	1108	1100	1091														
25	1102	1088	1069	1056	1042														
30	1068	1050	1025	1003	984														
35	1030	1006	974	944	917														
40	989	959	918	880	845														
45	943	909	858	811	766														
50	894	854	796	739	684														
55	840	796	732	665	600														
60	781	736	667	591	515														
65	707	668	600	516	431														
70	620	585	527	443	348														
75	526	494	441	370	268														
80	433	402	350	286	193														
85	342	312	263	200	122														
90	258	229	182	123	54.6														
95	229	199	155	98.7	36.2														
100	205	179	134	80.3	23.1														
105	180	155	113	61.3	11.6														
110	155	130	91.3	43.8	5.04														
115	128	106	69.9	27.7	4.84														
120	102	81.4	49.4	12.9	4.84														
125	76.5	58.0	30.1	5.04	4.93														
130	52.4	36.0	12.6	4.20	5.39														
135	29.7	16.0	4.03	3.92	5.57														
140	9.77	3.98	2.92	3.83	5.57														
145	2.42	2.20	2.73	3.56	5.57														
150	2.03	2.11	2.55	3.20	5.49														
155	2.03	2.11	2.37	3.01	5.03														
160	2.03	2.11	2.28	2.74	4.75														
165	2.03	2.11	2.37	2.65	5.11														
170	2.58	2.57	2.64	3.19	5.75														
175	2.68	2.75	2.91	3.73	6.03														
180	2.77	2.75	3.01	3.83	6.03														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4H @30W4000K	Sample ID	241225006-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	0.235	28.0	0.993	7.91
277.0	60	0.109	27.6	0.917	10.64

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*****