

Photometric Test Report

Relevant Standards

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

Prepared For

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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		599
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	159.7
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	6.42
				277V	14.01
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.992
				277V	0.912
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4085
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		85.1
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%		56.0%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	29.6
			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		0.059
(Goniophotometer – Section 4.2)			Non-Worst Case		0.123
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.0
(Goniophotometer – Section 4.2)			Non-Worst Case		14.6

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-04-03	STRP4/MVS @15W4000K	-	250402001-S1
2	Goniophotometer Test	2025-04-03	STRP4/MVS @15W4000K	-	250402001-S1
3	THD and PF Test	2025-04-03	STRP4/MVS @15W4000K	-	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 @15W4000K, 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 @15W4000K	Sample ID	250402001-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

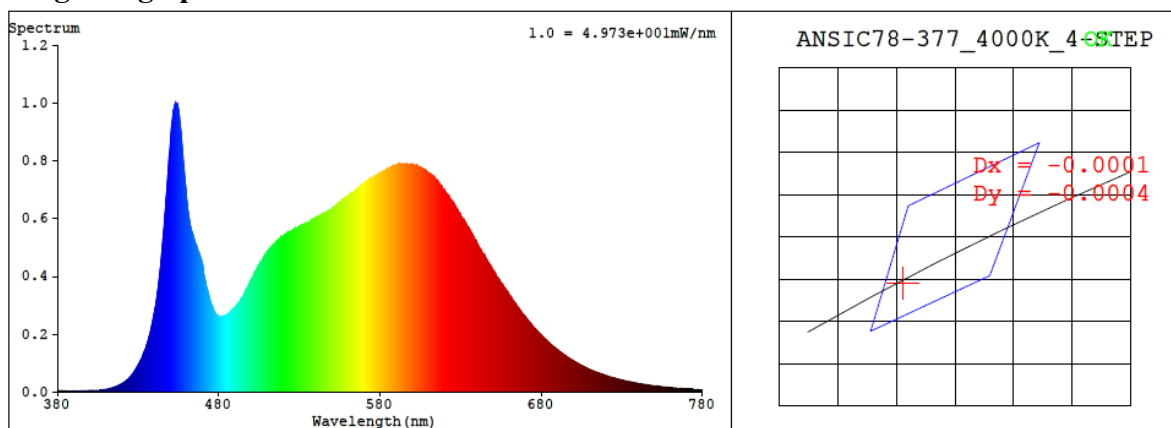
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.123	14.6	0.992
277.0	60	0.059	15.0	0.912

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4085	85.1	18	-0.0002	2.5	85	95	-11%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3767$ $y = 0.3740$ / $u' = 0.2237$ $v' = 0.4998$ ($duv = -1.70e-04$)

CCT= 4085K Prcp WL: $L_d = 578.8\text{nm}$ Purity=25.3%

Peak WL: $L_p = 453\text{nm}$ FWHM: $\approx 21.6\text{nm}$ Ratio: R=18.4% G=77.6% B=3.9%

Render Index: $R_a = 85.1$ AvgR = 79.1 TM30: $R_f = 85$ $R_g = 95$

EEL: 0.08990 A++ Highest

R1 =84	R2 =92	R3 =96	R4 =83	R5 =84	R6 =88	R7 =87
R8 =68	R9 =18	R10=80	R11=82	R12=62	R13=86	R14=98 R15=79

4.1 Integrating Sphere Test

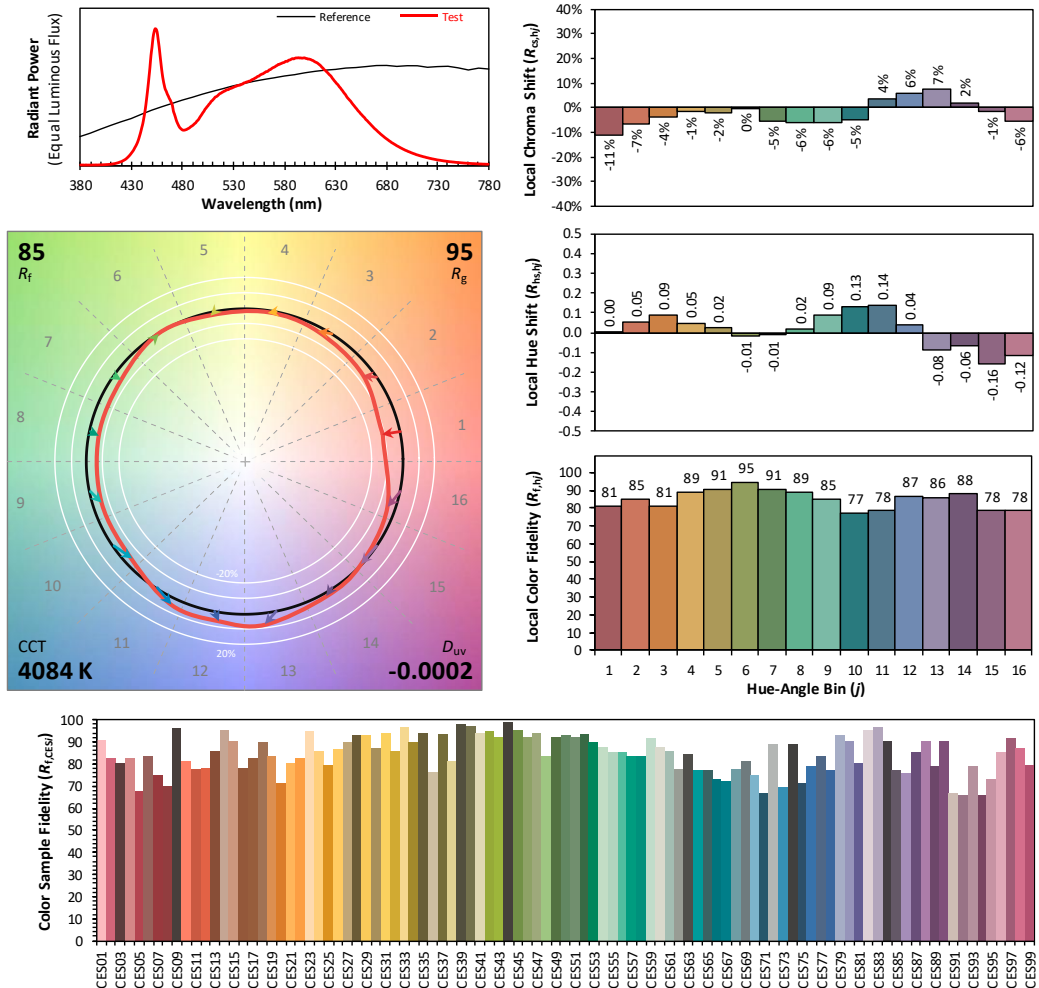
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/4/3

Model: STRP4/MVS @15W4000K



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

x 0.3767
 y 0.3739
 u' 0.2238
 v' 0.4998

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	3.80E-06	447	6.44E-04	514	5.08E-04	581	7.61E-04	648	4.41E-04	715	6.71E-05
381	3.30E-06	448	7.19E-04	515	5.15E-04	582	7.63E-04	649	4.31E-04	716	6.48E-05
382	3.20E-06	449	8.05E-04	516	5.22E-04	583	7.62E-04	650	4.22E-04	717	6.29E-05
383	3.30E-06	450	8.65E-04	517	5.27E-04	584	7.70E-04	651	4.14E-04	718	6.13E-05
384	2.20E-06	451	9.34E-04	518	5.30E-04	585	7.71E-04	652	4.03E-04	719	5.89E-05
385	3.70E-06	452	9.76E-04	519	5.36E-04	586	7.75E-04	653	3.95E-04	720	5.70E-05
386	3.10E-06	453	1.00E-03	520	5.39E-04	587	7.79E-04	654	3.87E-04	721	5.55E-05
387	2.70E-06	454	9.97E-04	521	5.44E-04	588	7.82E-04	655	3.77E-04	722	5.34E-05
388	3.10E-06	455	9.78E-04	522	5.46E-04	589	7.80E-04	656	3.70E-04	723	5.17E-05
389	2.80E-06	456	9.25E-04	523	5.53E-04	590	7.83E-04	657	3.61E-04	724	5.02E-05
390	2.50E-06	457	8.68E-04	524	5.54E-04	591	7.87E-04	658	3.54E-04	725	4.83E-05
391	3.20E-06	458	8.01E-04	525	5.55E-04	592	7.87E-04	659	3.46E-04	726	4.70E-05
392	3.20E-06	459	7.34E-04	526	5.60E-04	593	7.87E-04	660	3.36E-04	727	4.54E-05
393	3.20E-06	460	6.73E-04	527	5.63E-04	594	7.88E-04	661	3.30E-04	728	4.40E-05
394	3.30E-06	461	6.26E-04	528	5.66E-04	595	7.86E-04	662	3.22E-04	729	4.24E-05
395	3.90E-06	462	5.88E-04	529	5.69E-04	596	7.87E-04	663	3.13E-04	730	4.07E-05
396	3.40E-06	463	5.58E-04	530	5.72E-04	597	7.85E-04	664	3.06E-04	731	3.97E-05
397	3.40E-06	464	5.43E-04	531	5.76E-04	598	7.86E-04	665	2.98E-04	732	3.86E-05
398	4.10E-06	465	5.23E-04	532	5.79E-04	599	7.87E-04	666	2.90E-04	733	3.76E-05
399	4.20E-06	466	5.08E-04	533	5.81E-04	600	7.87E-04	667	2.82E-04	734	3.62E-05
400	4.60E-06	467	4.90E-04	534	5.85E-04	601	7.83E-04	668	2.74E-04	735	3.50E-05
401	4.80E-06	468	4.77E-04	535	5.86E-04	602	7.83E-04	669	2.67E-04	736	3.38E-05
402	4.90E-06	469	4.59E-04	536	5.88E-04	603	7.79E-04	670	2.61E-04	737	3.27E-05
403	5.40E-06	470	4.41E-04	537	5.90E-04	604	7.79E-04	671	2.54E-04	738	3.18E-05
404	5.60E-06	471	3.98E-04	538	5.95E-04	605	7.77E-04	672	2.46E-04	739	3.06E-05
405	6.40E-06	472	3.77E-04	539	5.96E-04	606	7.75E-04	673	2.40E-04	740	2.98E-05
406	6.50E-06	473	3.53E-04	540	6.03E-04	607	7.70E-04	674	2.33E-04	741	2.87E-05
407	7.10E-06	474	3.28E-04	541	6.05E-04	608	7.68E-04	675	2.26E-04	742	2.76E-05
408	7.60E-06	475	3.10E-04	542	6.08E-04	609	7.63E-04	676	2.20E-04	743	2.69E-05
409	8.60E-06	476	2.94E-04	543	6.11E-04	610	7.59E-04	677	2.14E-04	744	2.64E-05
410	9.50E-06	477	2.80E-04	544	6.13E-04	611	7.55E-04	678	2.08E-04	745	2.53E-05
411	1.03E-05	478	2.71E-04	545	6.17E-04	612	7.52E-04	679	2.02E-04	746	2.49E-05
412	1.18E-05	479	2.65E-04	546	6.17E-04	613	7.46E-04	680	1.96E-04	747	2.38E-05
413	1.27E-05	480	2.59E-04	547	6.22E-04	614	7.40E-04	681	1.91E-04	748	2.30E-05
414	1.45E-05	481	2.58E-04	548	6.27E-04	615	7.34E-04	682	1.85E-04	749	2.22E-05
415	1.63E-05	482	2.59E-04	549	6.30E-04	616	7.26E-04	683	1.79E-04	750	2.15E-05
416	1.85E-05	483	2.61E-04	550	6.33E-04	617	7.18E-04	684	1.75E-04	751	2.10E-05
417	2.04E-05	484	2.63E-04	551	6.39E-04	618	7.11E-04	685	1.69E-04	752	2.03E-05
418	2.34E-05	485	2.68E-04	552	6.42E-04	619	7.01E-04	686	1.64E-04	753	1.97E-05
419	2.60E-05	486	2.72E-04	553	6.48E-04	620	6.97E-04	687	1.60E-04	754	1.89E-05
420	2.86E-05	487	2.77E-04	554	6.52E-04	621	6.89E-04	688	1.55E-04	755	1.84E-05
421	3.24E-05	488	2.83E-04	555	6.54E-04	622	6.82E-04	689	1.51E-04	756	1.76E-05
422	3.63E-05	489	2.88E-04	556	6.61E-04	623	6.74E-04	690	1.46E-04	757	1.72E-05
423	4.06E-05	490	2.93E-04	557	6.65E-04	624	6.65E-04	691	1.42E-04	758	1.66E-05
424	4.49E-05	491	3.00E-04	558	6.69E-04	625	6.59E-04	692	1.38E-04	759	1.64E-05
425	5.11E-05	492	3.07E-04	559	6.71E-04	626	6.51E-04	693	1.34E-04	760	1.55E-05
426	5.79E-05	493	3.13E-04	560	6.77E-04	627	6.39E-04	694	1.29E-04	761	1.50E-05
427	6.56E-05	494	3.24E-04	561	6.81E-04	628	6.30E-04	695	1.26E-04	762	1.47E-05
428	7.34E-05	495	3.30E-04	562	6.87E-04	629	6.20E-04	696	1.22E-04	763	1.43E-05
429	8.26E-05	496	3.40E-04	563	6.87E-04	630	6.11E-04	697	1.18E-04	764	1.38E-05
430	9.25E-05	497	3.53E-04	564	6.91E-04	631	6.02E-04	698	1.14E-04	765	1.34E-05
431	1.03E-04	498	3.64E-04	565	6.99E-04	632	5.95E-04	699	1.10E-04	766	1.33E-05
432	1.14E-04	499	3.75E-04	566	7.02E-04	633	5.86E-04	700	1.08E-04	767	1.26E-05
433	1.28E-04	500	3.87E-04	567	7.06E-04	634	5.75E-04	701	1.04E-04	768	1.23E-05
434	1.41E-04	501	3.97E-04	568	7.12E-04	635	5.67E-04	702	1.01E-04	769	1.19E-05
435	1.56E-04	502	4.10E-04	569	7.16E-04	636	5.56E-04	703	9.84E-05	770	1.15E-05
436	1.73E-04	503	4.19E-04	570	7.20E-04	637	5.48E-04	704	9.47E-05	771	1.10E-05
437	1.95E-04	504	4.29E-04	571	7.24E-04	638	5.36E-04	705	9.19E-05	772	1.07E-05
438	2.20E-04	505	4.37E-04	572	7.30E-04	639	5.27E-04	706	8.90E-05	773	1.06E-05
439	2.47E-04	506	4.48E-04	573	7.33E-04	640	5.18E-04	707	8.62E-05	774	1.02E-05
440	2.77E-04	507	4.56E-04	574	7.40E-04	641	5.05E-04	708	8.38E-05	775	9.60E-06
441	3.07E-04	508	4.68E-04	575	7.39E-04	642	4.95E-04	709	8.06E-05	776	9.60E-06
442	3.47E-04	509	4.74E-04	576	7.45E-04	643	4.87E-04	710	7.79E-05	777	9.30E-06
443	3.91E-04	510	4.82E-04	577	7.46E-04	644	4.78E-04	711	7.60E-05	778	8.80E-06
444	4.44E-04	511	4.90E-04	578	7.51E-04	645	4.70E-04	712	7.34E-05	779	8.80E-06
445	5.07E-04	512	5.00E-04	579	7.53E-04	646	4.60E-04	713	7.11E-05	780	8.80E-06
446	5.72E-04	513	5.03E-04	580	7.55E-04	647	4.50E-04	714	6.91E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4/MVS @15W4000K	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	0.059	15.0	0.912
NON-WORST CASE	120.0	60	0.123	14.6	0.992

Test Result

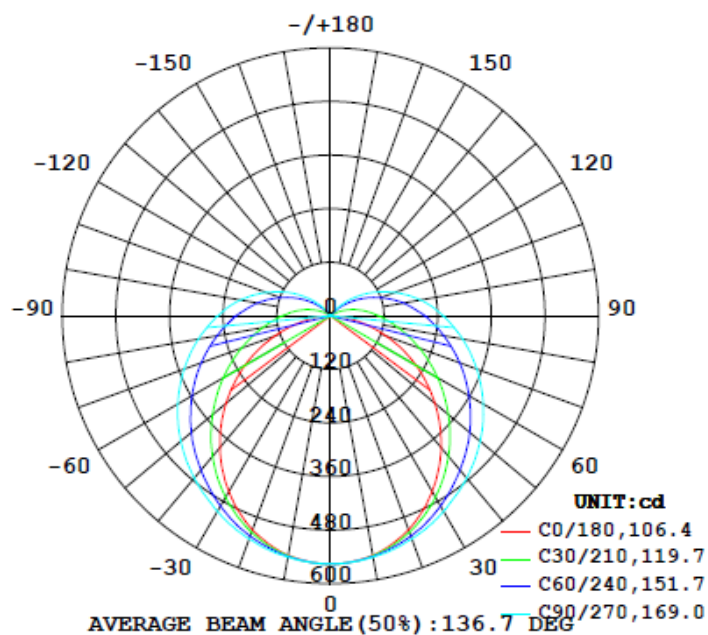
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
2396	599	159.7	159.7	106.3	169.0	159.7

Zonal Lumen Requirement	UGR	
(0° - 60°)	Crosswise	Endwise
56.0%	21.4	29.6

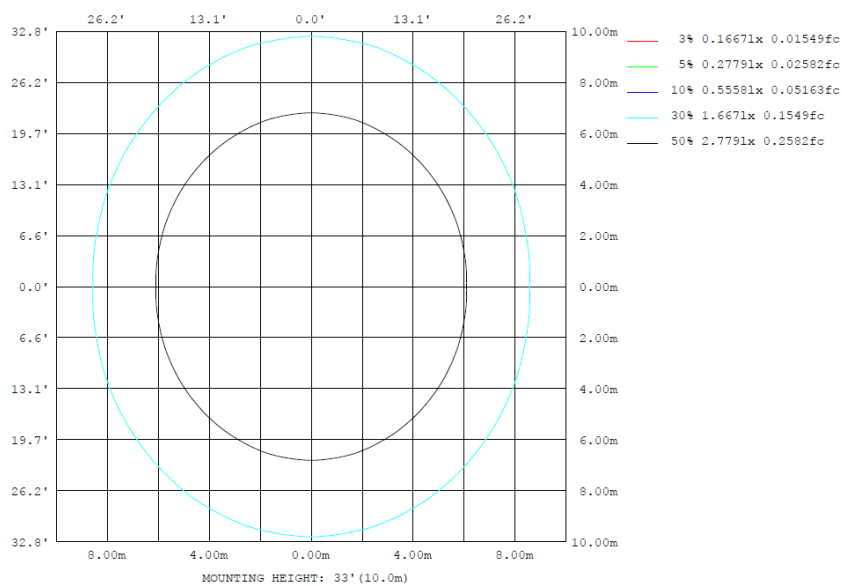
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	%lum, lamp
10	544.6	546.1	548.6	546.1	544.6	546.1	548.6	546.1	0- 10	52.61	52.61	2.2,2.2
20	510.1	520.3	532.1	520.3	510.1	520.3	532.1	520.3	10- 20	151.3	203.9	8.51,8.51
30	454.7	480.7	506.0	480.7	454.7	480.7	506.0	480.7	20- 30	231.8	435.6	18.2,18.2
40	385.1	429.9	474.3	429.9	385.1	429.9	474.3	429.9	30- 40	285.9	721.6	30.1,30.1
50	305.2	375.7	437.1	375.7	305.2	375.7	437.1	375.7	40- 50	311.3	1033	43.1,43.1
60	220.0	319.9	394.7	319.9	220.0	319.9	394.7	319.9	50- 60	308.5	1341	56,56
70	132.9	263.4	348.3	263.4	132.9	263.4	348.3	263.4	60- 70	281.3	1623	67.7,67.7
80	50.63	211.1	300.1	211.1	50.63	211.1	300.1	211.1	70- 80	237.3	1860	77.6,77.6
90	3.033	165.6	252.3	165.6	3.033	165.6	252.3	165.6	80- 90	187.3	2047	85.4,85.4
100	2.253	123.2	204.8	123.2	2.253	123.2	204.8	123.2	90-100	142.8	2190	91.4,91.4
110	2.721	82.60	152.9	82.60	2.721	82.60	152.9	82.60	100-110	100.5	2290	95.6,95.6
120	2.801	45.41	102.8	45.41	2.801	45.41	102.8	45.41	110-120	61.96	2352	98.2,98.2
130	2.881	13.47	56.48	13.47	2.881	13.47	56.48	13.47	120-130	30.82	2383	99.5,99.5
140	2.883	1.700	15.87	1.700	2.883	1.700	15.87	1.700	130-140	10.12	2393	99.9,99.9
150	2.880	1.407	0.9552	1.407	2.880	1.407	0.9552	1.407	140-150	1.482	2395	99.9,99.9
160	2.670	1.233	0.9552	1.233	2.670	1.233	0.9552	1.233	150-160	0.7223	2396	100,100
170	3.272	1.206	1.051	1.206	3.272	1.206	1.051	1.206	160-170	0.4180	2396	100,100
180	1.337	1.337	1.337	1.337	1.337	1.337	1.337	1.337	170-180	0.1466	2396	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	52.61	0-10	52.61	2.20%
10-20	151.26	0-20	203.87	8.51%
20-30	231.77	0-30	435.64	18.18%
30-40	285.93	0-40	721.57	30.12%
40-50	311.32	0-50	1032.89	43.11%
50-60	308.45	0-60	1341.34	55.98%
60-70	281.27	0-70	1622.61	67.72%
70-80	237.29	0-80	1859.90	77.63%
80-90	187.29	0-90	2047.19	85.44%
90-100	142.76	0-100	2189.95	91.40%
100-110	100.45	0-110	2290.40	95.60%
110-120	61.96	0-120	2352.36	98.18%
120-130	30.82	0-130	2383.18	99.47%
130-140	10.12	0-140	2393.30	99.89%
140-150	1.48	0-150	2394.78	99.95%
150-160	0.72	0-160	2395.50	99.98%
160-170	0.42	0-170	2395.92	100.00%
170-180	0.15	0-180	2396.07	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	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	18.3	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	25.6
	6H	16.3	17.5	17.0	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	17.5	17.0	18.1	18.9	26.7	27.7	27.3	28.4	29.1
4H	2H	15.6	16.9	16.2	17.5	18.2	18.8	20.0	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	18.4	19.2	19.0	19.9	20.6	26.6	27.5	27.3	28.2	28.9
	12H	18.4	19.2	19.1	19.9	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	21.2	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	19.5	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	22.5	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											

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		UGR Viewed Crosswise				UGR Viewed Endwise					
X=2H	Y=2H	17.3	18.7	17.9	19.3	20.0	21.5	22.9	22.1	23.5	24.2
	3H	18.6	20.0	19.2	20.6	21.3	24.5	25.8	25.1	26.4	27.1
	4H	19.1	20.3	19.7	20.9	21.6	26.1	27.3	26.7	27.9	28.6
	6H	19.3	20.5	20.0	21.1	21.8	27.8	28.9	28.4	29.6	30.3
	8H	19.4	20.5	20.0	21.1	21.9	28.7	29.8	29.3	30.4	31.2
	12H	19.4	20.5	20.0	21.1	21.9	29.7	30.7	30.3	31.4	32.1
4H	2H	18.6	19.9	19.2	20.5	21.2	21.8	23.0	22.4	23.7	24.4
	3H	20.3	21.4	20.9	22.0	22.7	25.1	26.1	25.7	26.8	27.5
	4H	20.9	21.9	21.5	22.5	23.3	26.8	27.8	27.4	28.4	29.2
	6H	21.3	22.1	21.9	22.8	23.6	28.6	29.5	29.3	30.2	31.0
	8H	21.4	22.2	22.0	22.9	23.6	29.6	30.5	30.3	31.2	31.9
	12H	21.4	22.2	22.1	22.9	23.6	30.8	31.5	31.5	32.2	33.0
8H	4H	22.1	22.9	22.7	23.6	24.4	26.9	27.8	27.6	28.4	29.2
	6H	22.7	23.4	23.4	24.2	24.9	29.0	29.7	29.7	30.4	31.2
	8H	22.9	23.6	23.6	24.3	25.1	30.1	30.7	30.8	31.5	32.3
	12H	23.1	23.6	23.8	24.4	25.2	31.4	32.0	32.1	32.7	33.5
12H	4H	22.5	23.2	23.1	23.9	24.7	26.9	27.7	27.6	28.4	29.2
	6H	23.3	23.9	24.0	24.6	25.5	29.0	29.6	29.7	30.3	31.2
	8H	23.6	24.2	24.3	24.9	25.8	30.2	30.8	30.9	31.5	32.3

Maximum UGR = 33.5

4.2 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556
5	553	554	554	553	553	554	554	554	553	553	554	554	553	554	554	553	553	554	554
10	545	545	546	546	547	549	549	549	547	546	546	545	545	545	546	546	547	549	549
15	530	531	534	536	538	541	542	541	538	536	534	531	530	531	534	536	538	541	542
20	510	512	516	520	525	530	532	530	525	520	516	512	510	512	516	520	525	530	532
25	485	488	495	502	510	517	520	517	510	502	495	488	485	488	495	502	510	517	520
30	455	460	469	481	492	502	506	502	492	481	469	460	455	460	469	481	492	502	506
35	421	428	441	456	472	485	490	485	472	456	441	428	421	428	441	456	472	485	490
40	385	394	411	430	451	468	474	468	451	430	411	394	385	394	411	430	451	468	474
45	346	357	378	403	429	449	456	449	429	403	378	357	346	357	378	403	429	449	456
50	305	319	344	376	407	429	437	429	407	376	344	319	305	319	344	376	407	429	437
55	263	279	310	348	382	407	417	407	382	348	310	279	263	279	310	348	382	407	417
60	220	239	277	320	358	385	395	385	358	320	277	239	220	239	277	320	358	385	395
65	177	199	244	291	333	361	372	361	333	291	244	199	177	199	244	291	333	361	372
70	133	160	212	263	308	338	348	338	308	263	212	160	133	160	212	263	308	338	348
75	90.2	124	182	237	282	313	325	313	282	237	182	124	90.2	124	182	237	282	313	325
80	50.6	91.5	154	211	258	289	300	289	258	211	154	91.5	50.6	91.5	154	211	258	289	300
85	19.2	64.4	129	187	234	264	276	264	234	187	129	64.4	19.2	64.4	129	187	234	264	276
90	3.03	44.0	108	166	211	242	252	242	211	166	108	44.0	3.03	44.0	108	166	211	242	252
95	2.23	30.7	89.0	144	187	217	229	217	187	144	89.0	30.7	2.23	30.7	89.0	144	187	217	229
100	2.25	19.4	71.2	123	166	193	205	193	166	123	71.2	19.4	2.25	19.4	71.2	123	166	193	205
105	2.64	9.55	54.3	103	142	168	179	168	142	103	54.3	9.55	2.64	9.55	54.3	103	142	168	179
110	2.72	3.77	39.1	82.6	119	144	153	144	119	82.6	39.1	3.77	2.72	3.77	39.1	82.6	119	144	153
115	2.71	3.13	25.1	63.3	96.9	119	128	119	96.9	63.3	25.1	3.13	2.71	3.13	25.1	63.3	96.9	119	128
120	2.80	2.71	12.4	45.4	75.1	95.1	103	95.1	75.1	45.4	12.4	2.71	2.80	2.71	12.4	45.4	75.1	95.1	103
125	2.88	2.36	3.75	28.7	54.4	72.0	79.1	72.0	54.4	28.7	3.75	2.36	2.88	2.36	3.75	28.7	54.4	72.0	79.1
130	2.88	2.33	2.62	13.5	35.2	50.2	56.5	50.2	35.2	13.5	2.62	2.33	2.88	2.33	2.62	13.5	35.2	50.2	56.5
135	2.88	2.44	1.98	2.91	17.4	30.4	35.4	30.4	17.4	2.91	1.98	2.44	2.88	2.44	1.98	2.91	17.4	30.4	35.4
140	2.88	2.48	1.83	1.70	3.13	11.8	15.9	11.8	3.13	1.70	1.83	2.48	2.88	2.48	1.83	1.70	3.13	11.8	15.9
145	2.88	2.47	1.77	1.49	1.26	1.27	1.35	1.27	1.26	1.49	1.77	2.47	2.88	2.47	1.77	1.49	1.26	1.27	1.35
150	2.88	2.52	1.67	1.41	1.13	1.04	0.96	1.04	1.13	1.41	1.67	2.52	2.88	2.52	1.67	1.41	1.13	1.04	0.96
155	2.87	2.48	1.61	1.27	1.13	1.04	0.96	1.04	1.13	1.27	1.61	2.48	2.87	2.48	1.61	1.27	1.13	1.04	0.96
160	2.67	2.22	1.40	1.23	1.13	1.04	0.96	1.04	1.13	1.23	1.40	2.22	2.67	2.22	1.40	1.23	1.13	1.04	0.96
165	2.70	2.16	1.36	1.14	1.12	1.04	0.96	1.04	1.12	1.14	1.36	2.16	2.70	2.16	1.36	1.14	1.12	1.04	0.96
170	3.27	2.29	1.36	1.21	1.18	1.31	1.05	1.31	1.18	1.21	1.36	2.29	3.27	2.29	1.36	1.21	1.18	1.31	1.05
175	3.20	1.94	1.32	1.25	1.30	1.29	1.15	1.29	1.30	1.25	1.32	1.94	3.20	1.94	1.32	1.25	1.30	1.29	1.15
180	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	556	556	556	556	556														
5	554	553	553	554	554														
10	549	547	546	546	545														
15	541	538	536	534	531														
20	530	525	520	516	512														
25	517	510	502	495	488														
30	502	492	481	469	460														
35	485	472	456	441	428														
40	468	451	430	411	394														
45	449	429	403	378	357														
50	429	407	376	344	319														
55	407	382	348	310	279														
60	385	358	320	277	239														
65	361	333	291	244	199														
70	338	308	263	212	160														
75	313	282	237	182	124														
80	289	258	211	154	91.5														
85	264	234	187	129	64.4														
90	242	211	166	108	44.0														
95	217	187	144	89.0	30.7														
100	193	166	123	71.2	19.4														
105	168	142	103	54.3	9.55														
110	144	119	82.6	39.1	3.77														
115	119	96.9	63.3	25.1	3.13														
120	95.1	75.1	45.4	12.4	2.71														
125	72.0	54.4	28.7	3.75	2.36														
130	50.2	35.2	13.5	2.62	2.33														
135	30.4	17.4	2.91	1.98	2.44														
140	11.8	3.13	1.70	1.83	2.48														
145	1.27	1.26	1.49	1.77	2.47														
150	1.04	1.13	1.41	1.67	2.52														
155	1.04	1.13	1.27	1.61	2.48														
160	1.04	1.13	1.23	1.40	2.22														
165	1.04	1.12	1.14	1.36	2.16														
170	1.31	1.18	1.21	1.36	2.29														
175	1.29	1.30	1.25	1.32	1.94														
180	1.34	1.34	1.34	1.34	1.34														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4/MVS @15W4000K	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	0.123	14.6	0.992	6.42
277.0	60	0.059	15.0	0.912	14.01

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*****