

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

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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		390
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	148.4
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.5
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.00
				277V	22.01
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.983
				277V	0.852
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3436
			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%		56.5%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	27.9
			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		0.083
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.5
(Goniophotometer – Section 4.2)			Non-Worst Case		9.8

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-03	STRP4 @10W3500K	-	241225005-S1
2	Goniophotometer Test	2025-01-03	STRP4 @10W3500K	-	241225005-S1
3	THD and PF Test	2025-01-03	STRP4 @10W3500K	-	241225005-S1

Remark (If any):

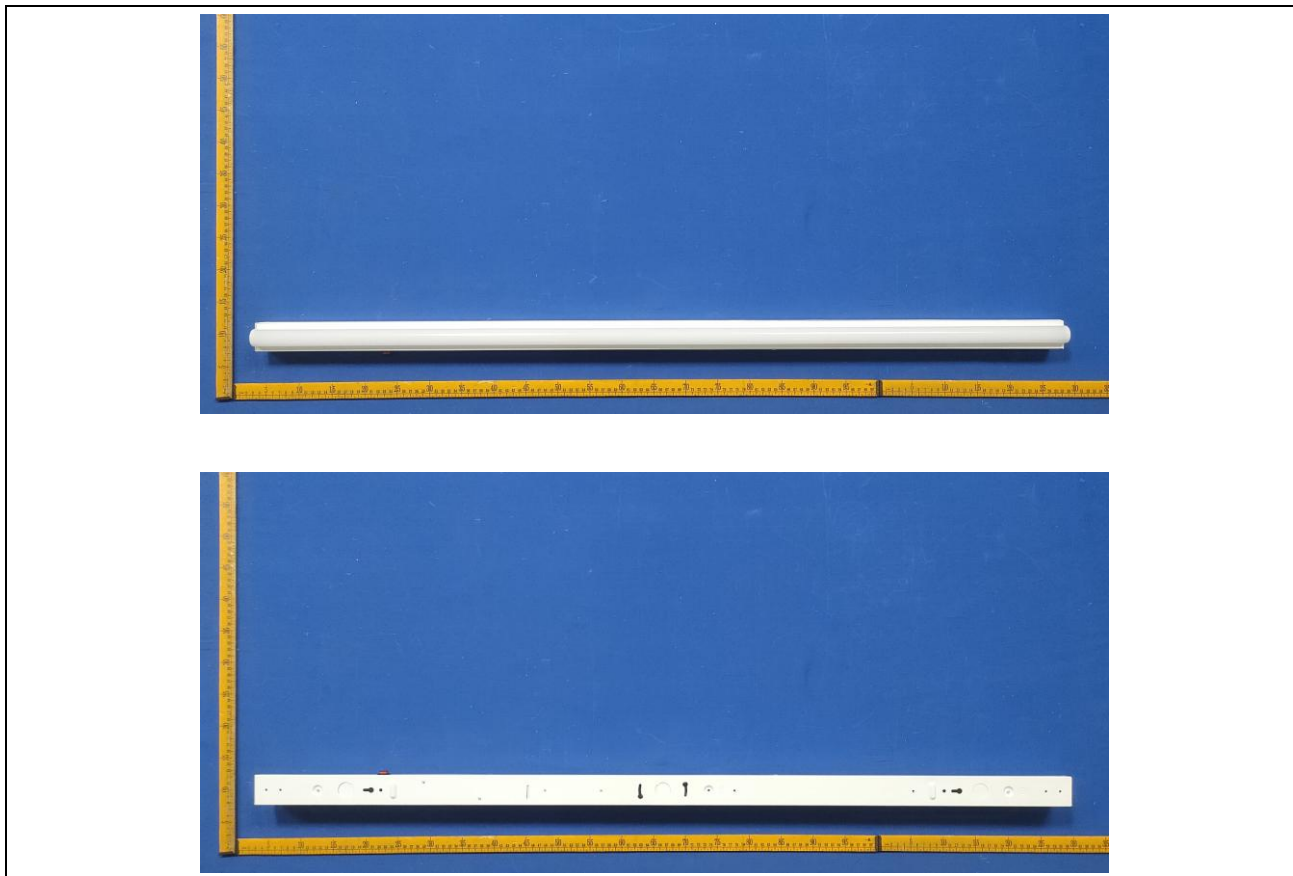
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
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3.0 Product Description

Luminaire Description: Model No. STRP4 @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 @10W3500K	Sample ID	241225005-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

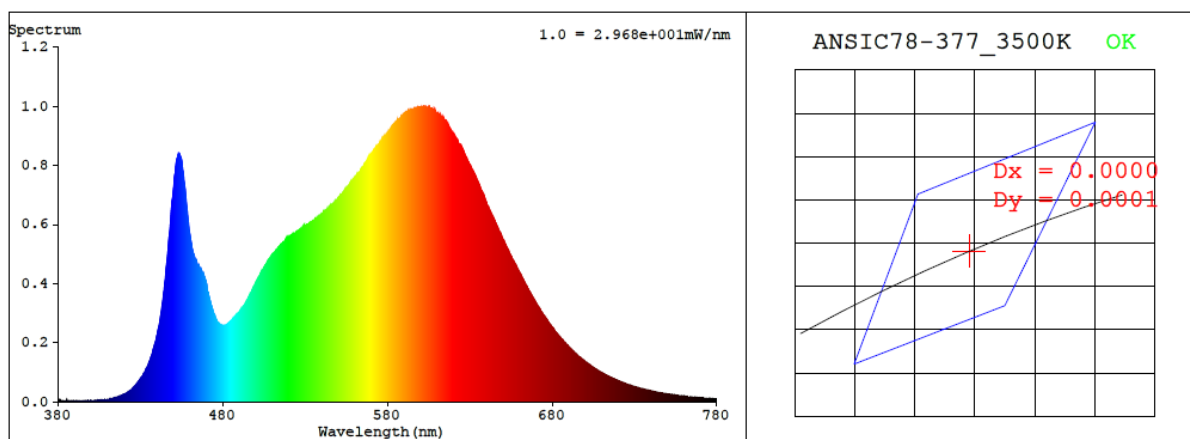
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at $25\pm1^{\circ}\text{C}$.</p> <p>The sample measurements 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	0.083	9.8	0.983
277.0	60	0.045	10.5	0.852

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
3436	84.1	12	0.0001	85	95	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4090$ $y = 0.3926$ / $u' = 0.2373$ $v' = 0.5126$ ($duv=3.74e-05$)

CCT= 3436K Prcp WL: $L_d=581.1nm$ Purity=40.6%

Peak WL: $L_p=602nm$ FWHM: $=144.0nm$ Ratio:R=20.7% G=76.0% B=3.3%

Render Index: $R_a = 84.1$ AvgR = 78.4 TM30:Rf=85 Rg=95

EEL: 0.09191 A++ Highest

R1 =83 R2 =92 R3 =96 R4 =82 R5 =83 R6 =90 R7 =84

R8 =63 R9 =12 R10=81 R11=81 R12=68 R13=85 R14=99 R15=76

4.1 Integrating Sphere Test

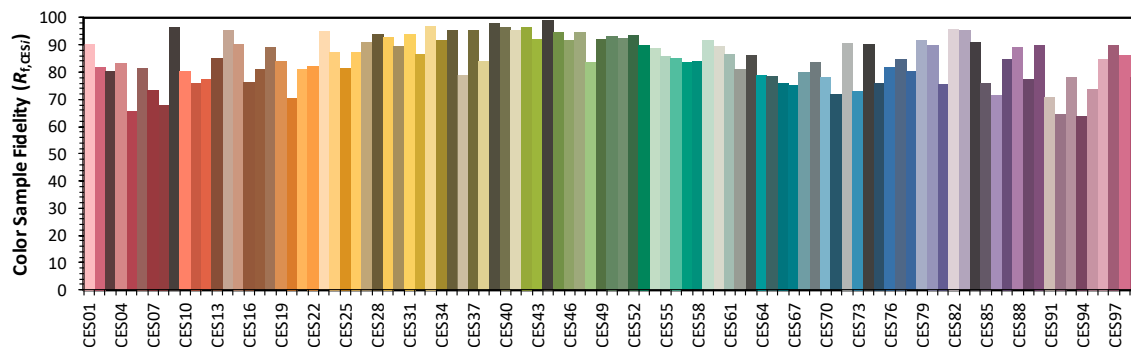
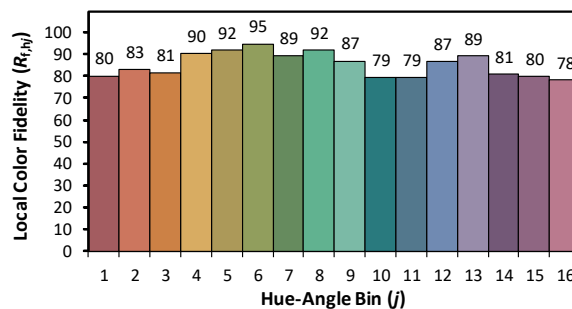
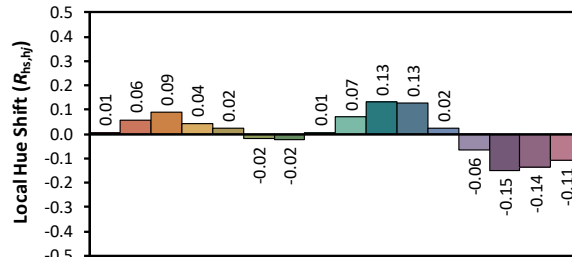
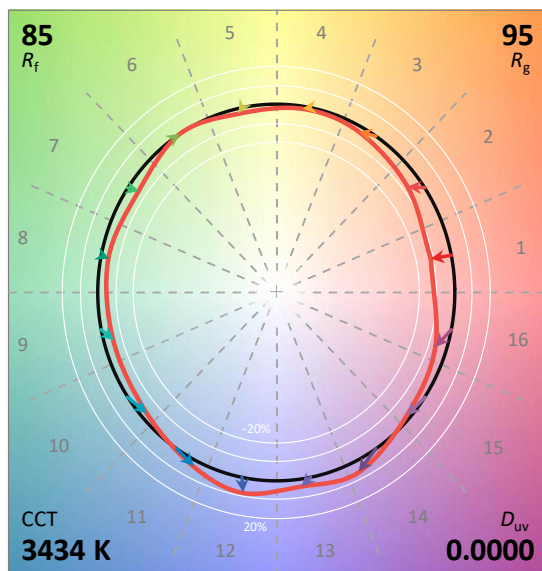
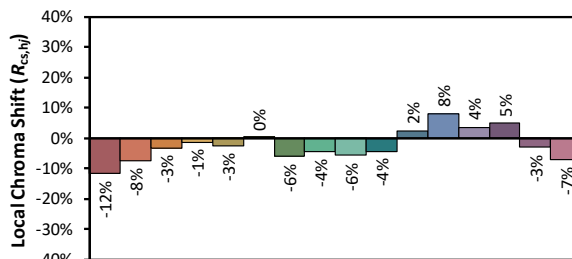
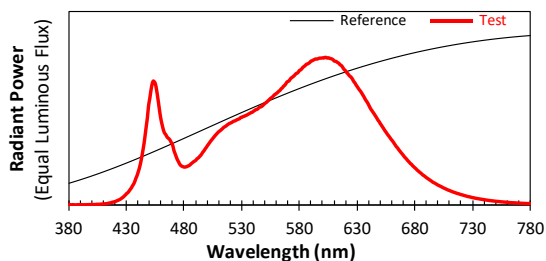
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/6

Model: STRP4 @10W3500K



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

x 0.4090
 y 0.3925
 u' 0.2374
 v' 0.5125

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	4.60E-06	447	5.33E-04	514	5.25E-04	581	9.16E-04	648	5.75E-04	715	8.44E-05
381	3.70E-06	448	5.92E-04	515	5.30E-04	582	9.24E-04	649	5.65E-04	716	8.16E-05
382	2.30E-06	449	6.72E-04	516	5.35E-04	583	9.33E-04	650	5.52E-04	717	7.91E-05
383	3.60E-06	450	7.18E-04	517	5.41E-04	584	9.39E-04	651	5.41E-04	718	7.70E-05
384	2.90E-06	451	7.72E-04	518	5.47E-04	585	9.46E-04	652	5.28E-04	719	7.41E-05
385	2.90E-06	452	8.15E-04	519	5.52E-04	586	9.53E-04	653	5.17E-04	720	7.17E-05
386	1.30E-06	453	8.39E-04	520	5.56E-04	587	9.56E-04	654	5.04E-04	721	6.96E-05
387	3.20E-06	454	8.34E-04	521	5.59E-04	588	9.61E-04	655	4.94E-04	722	6.74E-05
388	3.10E-06	455	8.19E-04	522	5.64E-04	589	9.67E-04	656	4.82E-04	723	6.50E-05
389	3.30E-06	456	7.78E-04	523	5.69E-04	590	9.75E-04	657	4.71E-04	724	6.30E-05
390	3.00E-06	457	7.27E-04	524	5.70E-04	591	9.77E-04	658	4.61E-04	725	6.05E-05
391	3.70E-06	458	6.71E-04	525	5.75E-04	592	9.82E-04	659	4.50E-04	726	5.83E-05
392	2.50E-06	459	6.16E-04	526	5.79E-04	593	9.86E-04	660	4.40E-04	727	5.72E-05
393	2.90E-06	460	5.71E-04	527	5.82E-04	594	9.89E-04	661	4.30E-04	728	5.53E-05
394	3.00E-06	461	5.37E-04	528	5.86E-04	595	9.89E-04	662	4.18E-04	729	5.30E-05
395	3.20E-06	462	5.06E-04	529	5.94E-04	596	9.91E-04	663	4.07E-04	730	5.14E-05
396	3.50E-06	463	4.87E-04	530	5.95E-04	597	9.94E-04	664	3.95E-04	731	5.01E-05
397	3.80E-06	464	4.77E-04	531	5.99E-04	598	9.95E-04	665	3.87E-04	732	4.80E-05
398	4.40E-06	465	4.62E-04	532	6.01E-04	599	9.95E-04	666	3.75E-04	733	4.66E-05
399	3.80E-06	466	4.54E-04	533	6.06E-04	600	9.97E-04	667	3.66E-04	734	4.52E-05
400	3.20E-06	467	4.47E-04	534	6.09E-04	601	9.95E-04	668	3.56E-04	735	4.41E-05
401	3.90E-06	468	4.35E-04	535	6.13E-04	602	1.00E-03	669	3.47E-04	736	4.23E-05
402	4.90E-06	469	4.19E-04	536	6.18E-04	603	9.99E-04	670	3.37E-04	737	4.11E-05
403	4.30E-06	470	4.04E-04	537	6.22E-04	604	9.95E-04	671	3.26E-04	738	3.98E-05
404	6.20E-06	471	3.70E-04	538	6.26E-04	605	9.97E-04	672	3.18E-04	739	3.87E-05
405	5.70E-06	472	3.49E-04	539	6.29E-04	606	9.94E-04	673	3.09E-04	740	3.72E-05
406	6.10E-06	473	3.28E-04	540	6.35E-04	607	9.92E-04	674	3.00E-04	741	3.60E-05
407	6.70E-06	474	3.08E-04	541	6.40E-04	608	9.89E-04	675	2.92E-04	742	3.47E-05
408	7.40E-06	475	2.94E-04	542	6.46E-04	609	9.84E-04	676	2.83E-04	743	3.36E-05
409	8.00E-06	476	2.78E-04	543	6.48E-04	610	9.75E-04	677	2.77E-04	744	3.21E-05
410	8.60E-06	477	2.69E-04	544	6.54E-04	611	9.74E-04	678	2.67E-04	745	3.13E-05
411	9.30E-06	478	2.63E-04	545	6.62E-04	612	9.71E-04	679	2.60E-04	746	3.05E-05
412	1.01E-05	479	2.60E-04	546	6.64E-04	613	9.65E-04	680	2.53E-04	747	2.95E-05
413	1.09E-05	480	2.58E-04	547	6.68E-04	614	9.60E-04	681	2.46E-04	748	2.85E-05
414	1.31E-05	481	2.59E-04	548	6.74E-04	615	9.50E-04	682	2.37E-04	749	2.76E-05
415	1.46E-05	482	2.60E-04	549	6.82E-04	616	9.46E-04	683	2.31E-04	750	2.67E-05
416	1.59E-05	483	2.64E-04	550	6.89E-04	617	9.37E-04	684	2.24E-04	751	2.59E-05
417	1.88E-05	484	2.68E-04	551	6.94E-04	618	9.25E-04	685	2.18E-04	752	2.52E-05
418	2.08E-05	485	2.73E-04	552	7.02E-04	619	9.15E-04	686	2.11E-04	753	2.44E-05
419	2.23E-05	486	2.81E-04	553	7.09E-04	620	9.07E-04	687	2.04E-04	754	2.35E-05
420	2.46E-05	487	2.87E-04	554	7.17E-04	621	8.96E-04	688	1.99E-04	755	2.26E-05
421	2.79E-05	488	2.94E-04	555	7.23E-04	622	8.88E-04	689	1.93E-04	756	2.20E-05
422	3.13E-05	489	2.99E-04	556	7.30E-04	623	8.77E-04	690	1.86E-04	757	2.14E-05
423	3.44E-05	490	3.04E-04	557	7.36E-04	624	8.70E-04	691	1.81E-04	758	2.08E-05
424	3.85E-05	491	3.14E-04	558	7.46E-04	625	8.63E-04	692	1.75E-04	759	2.02E-05
425	4.31E-05	492	3.19E-04	559	7.50E-04	626	8.51E-04	693	1.70E-04	760	1.96E-05
426	4.91E-05	493	3.27E-04	560	7.57E-04	627	8.36E-04	694	1.65E-04	761	1.89E-05
427	5.46E-05	494	3.35E-04	561	7.63E-04	628	8.27E-04	695	1.59E-04	762	1.79E-05
428	6.25E-05	495	3.45E-04	562	7.71E-04	629	8.13E-04	696	1.53E-04	763	1.74E-05
429	6.98E-05	496	3.58E-04	563	7.76E-04	630	8.02E-04	697	1.50E-04	764	1.69E-05
430	7.87E-05	497	3.67E-04	564	7.88E-04	631	7.90E-04	698	1.46E-04	765	1.65E-05
431	8.48E-05	498	3.80E-04	565	7.93E-04	632	7.79E-04	699	1.41E-04	766	1.61E-05
432	9.42E-05	499	3.90E-04	566	8.04E-04	633	7.69E-04	700	1.36E-04	767	1.57E-05
433	1.06E-04	500	4.02E-04	567	8.10E-04	634	7.57E-04	701	1.33E-04	768	1.50E-05
434	1.16E-04	501	4.13E-04	568	8.20E-04	635	7.44E-04	702	1.28E-04	769	1.45E-05
435	1.30E-04	502	4.24E-04	569	8.32E-04	636	7.31E-04	703	1.25E-04	770	1.41E-05
436	1.42E-04	503	4.34E-04	570	8.37E-04	637	7.15E-04	704	1.20E-04	771	1.35E-05
437	1.59E-04	504	4.44E-04	571	8.42E-04	638	7.04E-04	705	1.16E-04	772	1.33E-05
438	1.81E-04	505	4.54E-04	572	8.54E-04	639	6.92E-04	706	1.13E-04	773	1.26E-05
439	2.00E-04	506	4.64E-04	573	8.62E-04	640	6.77E-04	707	1.09E-04	774	1.23E-05
440	2.24E-04	507	4.73E-04	574	8.67E-04	641	6.61E-04	708	1.06E-04	775	1.22E-05
441	2.50E-04	508	4.82E-04	575	8.74E-04	642	6.47E-04	709	1.02E-04	776	1.18E-05
442	2.82E-04	509	4.90E-04	576	8.82E-04	643	6.37E-04	710	9.92E-05	777	1.12E-05
443	3.21E-04	510	4.98E-04	577	8.90E-04	644	6.25E-04	711	9.58E-05	778	1.12E-05
444	3.66E-04	511	5.03E-04	578	8.94E-04	645	6.14E-04	712	9.28E-05	779	1.11E-05
445	4.13E-04	512	5.10E-04	579	9.02E-04	646	6.01E-04	713	8.98E-05	780	1.12E-05
446	4.71E-04	513	5.17E-04	580	9.12E-04	647	5.89E-04	714	8.71E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4 @10W3500K	Sample ID	241225005-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.8	Humidity (%RH)	41.3

Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using a type C goniophotometer and software.</p> <p>The ambient temperature shall be maintained at $25 \pm 1^\circ\text{C}$, measured at a point not more than 1 m from the sample and at the same height as the sample.</p> <p>The voltage of an AC power supply (RMS voltage) or DC power supply (instantaneous voltage) applied to the device under test shall be regulated to within ± 0.2 percent under load.</p> <p>The samples were operated at rated voltage and was stabilized before measurement. Luminous flux, luminaire efficacy, zonal lumen were calculated from the software taken at 1.0° vertical intervals and 15° horizontal intervals.</p>

Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	277.0	60	0.045	10.5	0.852
NON-WORST CASE	120.0	60	0.083	9.8	0.983

Test Result

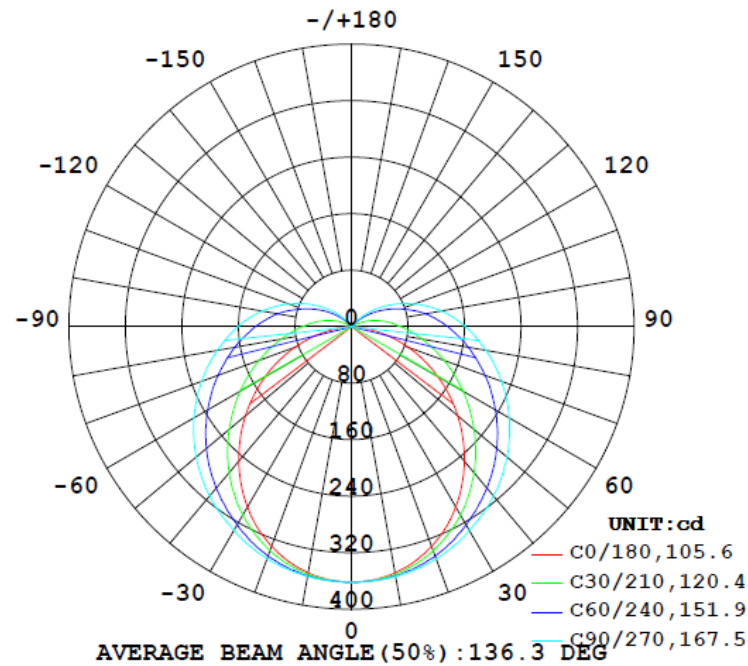
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
1558	390	160.6	160.6	106.0	167.5	148.4

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
56.5%	19.7	27.9

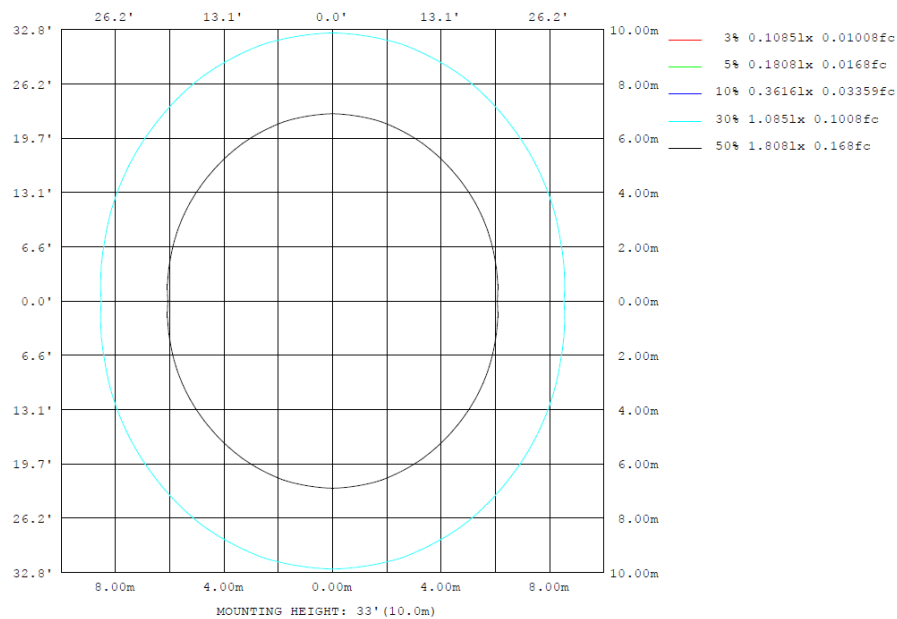
4.2 Goniophotometer Test

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	%lum, lamp
10	353.8	356.0	359.0	356.0	353.8	356.0	359.0	356.0	0- 10	34.28	34.28	2.2,2.2
20	330.9	340.6	349.7	340.6	330.9	340.6	349.7	340.6	10- 20	98.91	133.2	8.55,8.55
30	294.7	315.5	332.8	315.5	294.7	315.5	332.8	315.5	20- 30	151.9	285.1	18.3,18.3
40	248.5	282.6	312.7	282.6	248.5	282.6	312.7	282.6	30- 40	187.8	472.9	30.4,30.4
50	196.2	247.2	287.0	247.2	196.2	247.2	287.0	247.2	40- 50	204.4	677.4	43.5,43.5
60	141.1	209.9	257.7	209.9	141.1	209.9	257.7	209.9	50- 60	202.2	879.6	56.5,56.5
70	85.66	172.3	225.8	172.3	85.66	172.3	225.8	172.3	60- 70	183.9	1063	68.3,68.3
80	33.25	137.5	193.0	137.5	33.25	137.5	193.0	137.5	70- 80	154.7	1218	78.2,78.2
90	2.746	106.9	161.1	106.9	2.746	106.9	161.1	106.9	80- 90	121.4	1340	86,86
100	1.903	78.68	128.8	78.68	1.903	78.68	128.8	78.68	90-100	91.82	1431	91.9,91.9
110	1.962	51.46	94.38	51.46	1.962	51.46	94.38	51.46	100-110	63.22	1495	95.9,95.9
120	2.098	27.27	61.62	27.27	2.098	27.27	61.62	27.27	110-120	37.83	1532	98.4,98.4
130	2.329	6.263	32.22	6.263	2.329	6.263	32.22	6.263	120-130	18.02	1550	99.5,99.5
140	2.261	1.234	6.860	1.234	2.261	1.234	6.860	1.234	130-140	5.448	1556	99.9,99.9
150	2.190	1.073	0.9106	1.073	2.190	1.073	0.9106	1.073	140-150	0.9592	1557	99.9,99.9
160	2.176	0.9689	0.8506	0.9689	2.176	0.9689	0.8506	0.9689	150-160	0.6032	1557	100,100
170	2.368	1.050	0.7906	1.050	2.368	1.050	0.7906	1.050	160-170	0.3626	1558	100,100
180	2.645	1.191	0.7487	1.191	2.645	1.191	0.7487	1.191	170-180	0.1245	1558	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	34.28	0-10	34.28	2.20%
10-20	98.91	0-20	133.19	8.55%
20-30	151.94	0-30	285.13	18.30%
30-40	187.79	0-40	472.92	30.36%
40-50	204.43	0-50	677.35	43.48%
50-60	202.20	0-60	879.55	56.46%
60-70	183.88	0-70	1063.43	68.27%
70-80	154.66	0-80	1218.09	78.19%
80-90	121.43	0-90	1339.52	85.99%
90-100	91.82	0-100	1431.34	91.88%
100-110	63.22	0-110	1494.56	95.94%
110-120	37.83	0-120	1532.39	98.37%
120-130	18.02	0-130	1550.41	99.53%
130-140	5.45	0-140	1555.86	99.88%
140-150	0.96	0-150	1556.82	99.94%
150-160	0.60	0-160	1557.42	99.98%
160-170	0.36	0-170	1557.78	100.00%
170-180	0.13	0-180	1557.91	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			
		14.1	15.6	14.7	16.2	16.8	18.4	19.8	18.9	20.4
	3H	15.5	16.8	16.1	17.4	18.1	21.4	22.7	21.9	23.3
	4H	15.9	17.2	16.5	17.8	18.5	22.9	24.2	23.5	24.8
	6H	16.2	17.4	16.8	18.0	18.7	24.6	25.7	25.2	26.4
	8H	16.2	17.4	16.8	18.0	18.7	25.4	26.6	26.1	27.2
	12H	16.2	17.3	16.9	18.0	18.7	26.4	27.5	27.1	28.2
4H	2H	15.5	16.8	16.1	17.3	18.0	18.7	19.9	19.3	20.5
	3H	17.1	18.2	17.8	18.9	19.6	21.9	23.0	22.5	23.6
	4H	17.8	18.8	18.4	19.4	20.1	23.6	24.6	24.2	25.2
	6H	18.1	19.0	18.8	19.7	20.4	25.4	26.3	26.1	27.0
	8H	18.2	19.1	18.9	19.7	20.5	26.4	27.3	27.1	27.9
	12H	18.3	19.0	18.9	19.7	20.5	27.6	28.3	28.2	29.0
8H	4H	18.9	19.8	19.6	20.4	21.2	23.8	24.6	24.4	25.3
	6H	19.6	20.3	20.3	21.0	21.8	25.8	26.5	26.4	27.2
	8H	19.8	20.5	20.5	21.2	21.9	26.9	27.5	27.6	28.3
	12H	19.9	20.5	20.6	21.2	22.1	28.2	28.8	28.9	29.5
12H	4H	19.3	20.1	20.0	20.8	21.5	23.8	24.5	24.4	25.2
	6H	20.1	20.8	20.8	21.5	22.3	25.8	26.5	26.5	27.1
	8H	20.5	21.1	21.2	21.8	22.6	27.0	27.6	27.7	28.3

Maximum UGR = 30.3

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			
		15.6	17.1	16.2	17.7	18.3	19.9	21.3	20.4	21.9
	3H	17.0	18.3	17.6	18.9	19.6	22.9	24.2	23.4	24.8
	4H	17.4	18.7	18.0	19.3	20.0	24.4	25.7	25.0	26.3
	6H	17.7	18.9	18.3	19.5	20.2	26.1	27.2	26.7	27.9
	8H	17.7	18.9	18.3	19.5	20.2	26.9	28.1	27.6	28.7
	12H	17.7	18.8	18.4	19.5	20.2	27.9	29.0	28.6	29.7
4H	2H	17.0	18.3	17.6	18.8	19.5	20.2	21.4	20.8	22.0
	3H	18.6	19.7	19.3	20.4	21.1	23.4	24.5	24.0	25.1
	4H	19.3	20.3	19.9	20.9	21.6	25.1	26.1	25.7	26.7
	6H	19.6	20.5	20.3	21.2	21.9	26.9	27.8	27.6	28.5
	8H	19.7	20.6	20.4	21.2	22.0	27.9	28.8	28.6	29.4
	12H	19.8	20.5	20.4	21.2	22.0	29.1	29.8	29.7	30.5
8H	4H	20.4	21.3	21.1	21.9	22.7	25.3	26.1	25.9	26.8
	6H	21.1	21.8	21.8	22.5	23.3	27.3	28.0	27.9	28.7
	8H	21.3	22.0	22.0	22.7	23.4	28.4	29.0	29.1	29.8
	12H	21.4	22.0	22.1	22.7	23.6	29.7	30.3	30.4	31.0
12H	4H	20.8	21.6	21.5	22.3	23.0	25.3	26.0	25.9	26.7
	6H	21.6	22.3	22.3	23.0	23.8	27.3	28.0	28.0	28.6
	8H	22.0	22.6	22.7	23.3	24.1	28.5	29.1	29.2	29.8

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	362	362	362	361	361	361	361	361	361	361	362	362	362	362	362	361	361	361	361
5	360	360	360	360	361	361	361	361	361	360	360	360	360	360	360	360	361	361	361
10	354	355	356	356	358	359	359	359	358	356	356	355	354	355	356	356	358	359	359
15	344	347	348	350	353	355	355	355	353	350	348	347	344	347	348	350	353	355	355
20	331	334	337	341	346	349	350	349	346	341	337	334	331	334	337	341	346	349	350
25	315	319	324	329	336	341	342	341	336	329	324	319	315	319	324	329	336	341	342
30	295	301	308	315	324	331	333	331	324	315	308	301	295	301	308	315	324	331	333
35	273	280	290	300	311	320	323	320	311	300	290	280	273	280	290	300	311	320	323
40	248	257	270	283	298	309	313	309	298	283	270	257	248	257	270	283	298	309	313
45	223	232	248	265	284	296	301	296	284	265	248	232	223	232	248	265	284	296	301
50	196	208	226	247	268	282	287	282	268	247	226	208	196	208	226	247	268	282	287
55	169	182	204	229	252	268	273	268	252	229	204	182	169	182	204	229	252	268	273
60	141	156	182	210	235	252	258	252	235	210	182	156	141	156	182	210	235	252	258
65	113	130	160	191	218	236	242	236	218	191	160	130	113	130	160	191	218	236	242
70	85.7	105	139	172	201	220	226	220	201	172	139	105	85.7	105	139	172	201	220	226
75	58.3	81.6	120	155	184	203	210	203	184	155	120	81.6	58.3	81.6	120	155	184	203	210
80	33.3	60.4	101	137	168	187	193	187	168	137	101	60.4	33.3	60.4	101	137	168	187	193
85	13.1	42.7	84.5	122	152	170	177	170	152	122	84.5	42.7	13.1	42.7	84.5	122	152	170	177
90	2.75	29.6	70.4	107	137	155	161	155	137	107	70.4	29.6	2.75	29.6	70.4	107	137	155	161
95	1.97	20.2	57.9	92.9	121	139	146	139	121	92.9	57.9	20.2	1.97	20.2	57.9	92.9	121	139	146
100	1.90	12.4	45.8	78.7	106	122	129	122	106	78.7	45.8	12.4	1.90	12.4	45.8	78.7	106	122	129
105	1.86	5.80	34.5	64.8	89.9	105	111	105	89.9	64.8	34.5	5.80	1.86	5.80	34.5	64.8	89.9	105	111
110	1.96	2.20	24.5	51.5	74.3	88.8	94.4	88.8	74.3	51.5	24.5	2.20	1.96	2.20	24.5	51.5	74.3	88.8	94.4
115	2.10	1.93	14.9	38.8	59.4	72.0	77.5	72.0	59.4	38.8	14.9	1.93	2.10	1.93	14.9	38.8	59.4	72.0	77.5
120	2.10	1.93	6.26	27.3	45.2	56.8	61.6	56.8	45.2	27.3	6.26	1.93	2.10	1.93	6.26	27.3	45.2	56.8	61.6
125	2.36	1.93	1.89	16.2	32.0	42.0	46.3	42.0	32.0	16.2	1.89	1.93	2.36	1.93	1.89	16.2	32.0	42.0	46.3
130	2.33	1.93	1.72	6.26	19.6	28.4	32.2	28.4	19.6	6.26	1.72	1.93	2.33	1.93	1.72	6.26	19.6	28.4	32.2
135	2.30	1.93	1.67	1.70	8.27	15.8	19.1	15.8	8.27	1.70	1.67	1.93	2.30	1.93	1.67	1.70	8.27	15.8	19.1
140	2.26	1.93	1.56	1.23	1.12	4.42	6.86	4.42	1.12	1.23	1.56	1.93	2.26	1.93	1.56	1.23	1.12	4.42	6.86
145	2.23	1.93	1.43	1.08	1.10	1.10	0.85	1.10	1.10	1.08	1.43	1.93	2.23	1.93	1.43	1.08	1.10	1.10	0.85
150	2.19	1.93	1.35	1.07	1.09	1.07	0.91	1.07	1.09	1.07	1.35	1.93	2.19	1.93	1.35	1.07	1.09	1.07	0.91
155	2.14	1.93	1.29	0.95	1.07	1.05	0.88	1.05	1.07	0.95	1.29	1.93	2.14	1.93	1.29	0.95	1.07	1.05	0.88
160	2.18	1.93	1.19	0.97	1.06	1.02	0.85	1.02	1.06	0.97	1.19	1.93	2.18	1.93	1.19	0.97	1.06	1.02	0.85
165	2.27	1.91	1.19	0.99	1.04	0.99	0.82	0.99	1.04	0.99	1.19	1.91	2.27	1.91	1.19	0.99	1.04	0.99	0.82
170	2.37	1.88	1.19	1.05	1.03	0.97	0.79	0.97	1.03	1.05	1.19	1.88	2.37	1.88	1.19	1.05	1.03	0.97	0.79
175	2.65	1.85	1.19	1.19	1.02	0.94	0.76	0.94	1.02	1.19	1.19	1.85	2.65	1.85	1.19	1.19	1.02	0.94	0.76
180	2.65	1.84	1.19	1.19	1.11	0.93	0.75	0.93	1.11	1.19	1.19	1.84	2.65	1.84	1.19	1.19	1.11	0.93	0.75

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	361	361	361	362	362														
5	361	361	360	360	360														
10	359	358	356	356	355														
15	355	353	350	348	347														
20	349	346	341	337	334														
25	341	336	329	324	319														
30	331	324	315	308	301														
35	320	311	300	290	280														
40	309	298	283	270	257														
45	296	284	265	248	232														
50	282	268	247	226	208														
55	268	252	229	204	182														
60	252	235	210	182	156														
65	236	218	191	160	130														
70	220	201	172	139	105														
75	203	184	155	120	81.6														
80	187	168	137	101	60.4														
85	170	152	122	84.5	42.7														
90	155	137	107	70.4	29.6														
95	139	121	92.9	57.9	20.2														
100	122	106	78.7	45.8	12.4														
105	105	89.9	64.8	34.5	5.80														
110	88.8	74.3	51.5	24.5	2.20														
115	72.0	59.4	38.8	14.9	1.93														
120	56.8	45.2	27.3	6.26	1.93														
125	42.0	32.0	16.2	1.89	1.93														
130	28.4	19.6	6.26	1.72	1.93														
135	15.8	8.27	1.70	1.67	1.93														
140	4.42	1.12	1.23	1.56	1.93														
145	1.10	1.10	1.08	1.43	1.93														
150	1.07	1.09	1.07	1.35	1.93														
155	1.05	1.07	0.95	1.29	1.93														
160	1.02	1.06	0.97	1.19	1.93														
165	0.99	1.04	0.99	1.19	1.91														
170	0.97	1.03	1.05	1.19	1.88														
175	0.94	1.02	1.19	1.19	1.85														
180	0.93	1.11	1.19	1.19	1.84														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4 @10W3500K	Sample ID	241225005-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	0.083	9.8	0.983	9.00
277.0	60	0.045	10.5	0.852	22.01

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*****