

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		581
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	154.0
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.1
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	6.37
				277V	14.29
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.993
				277V	0.914
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	5029±283	4922
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		83.6
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		14
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%		56.3%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	29.4
			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		0.060
(Goniophotometer – Section 4.2)			Non-Worst Case		0.124
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		15.1
(Goniophotometer – Section 4.2)			Non-Worst Case		14.8

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-03	STRP4 @15W5000K	-	241225005-S1
2	Goniophotometer Test	2025-01-03	STRP4 @15W5000K	-	241225005-S1
3	THD and PF Test	2025-01-03	STRP4 @15W5000K	-	241225005-S1

Remark (If any):

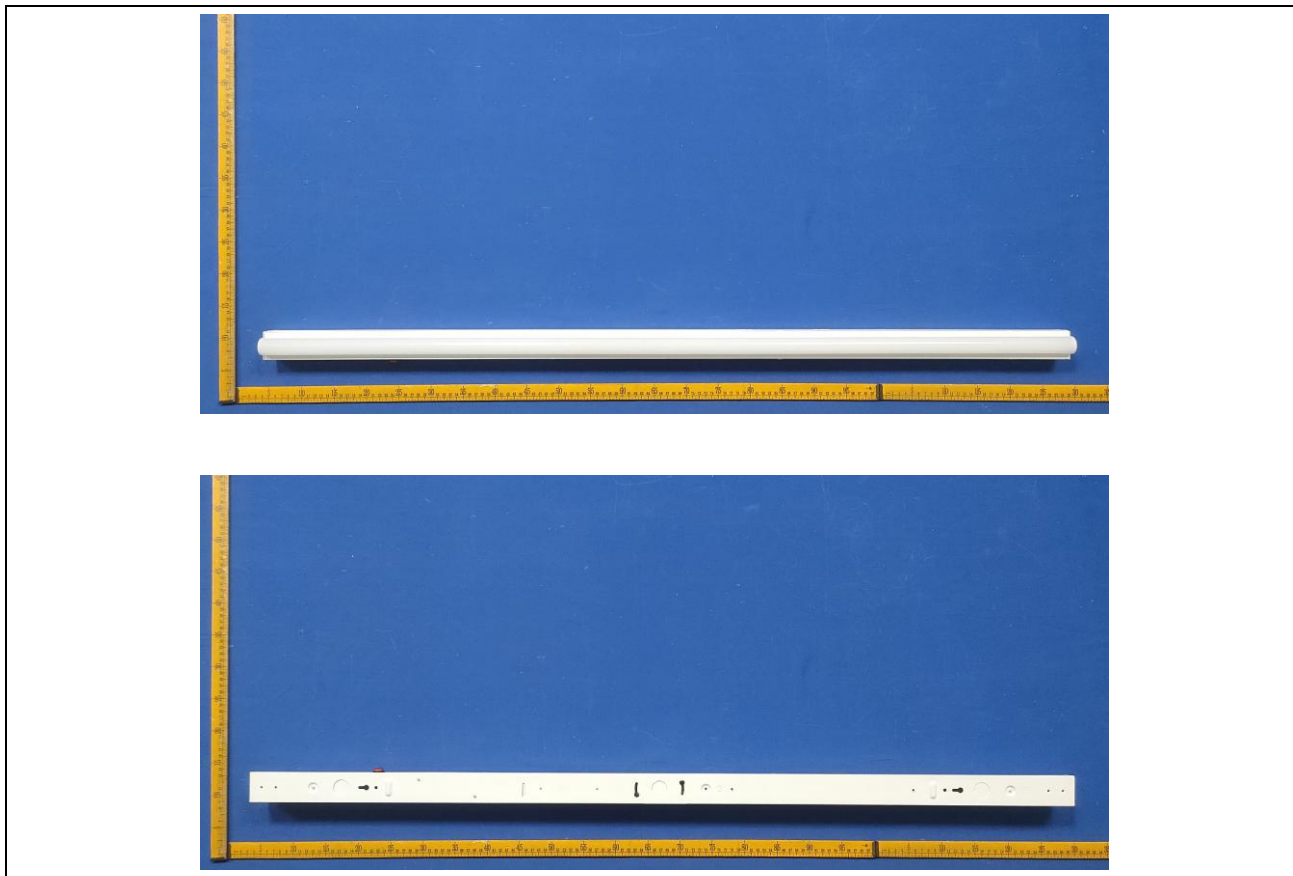
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2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. STRP4 @15W5000K, 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 @15W5000K	Sample ID	241225005-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

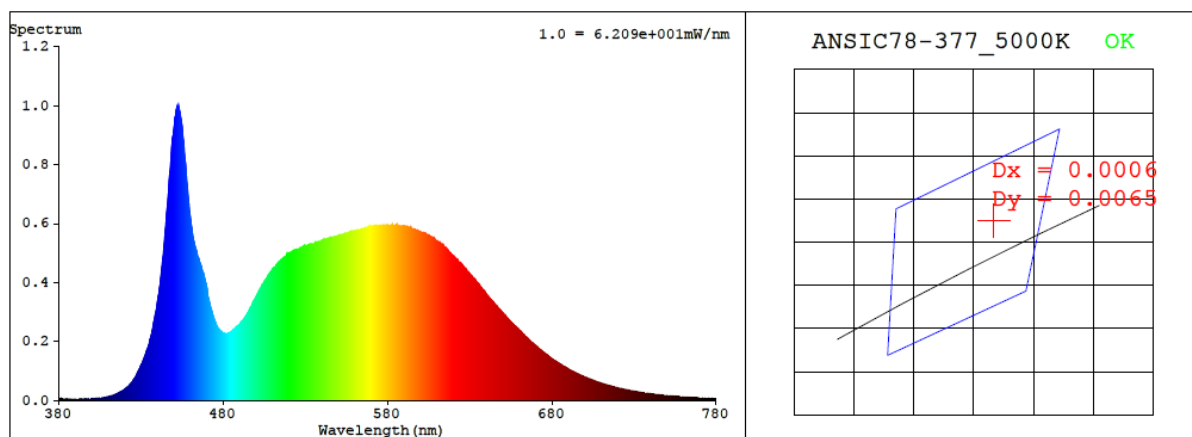
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.124	14.8	0.993
277.0	60	0.060	15.1	0.914

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
4922	83.6	14	0.0030	84	96	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3480$ $y = 0.3599$ / $u' = 0.2102$ $v' = 0.4891$ ($duv=2.99e-03$)

CCT= 4922K Prcp WL: $L_d=571.0nm$ Purity=12.4%

Peak WL: $L_p=453nm$ FWHM: $=20.6nm$ Ratio:R=15.9% G=79.7% B=4.4%

Render Index: $R_a = 83.6$ AvgR = 76.5 TM30:Rf=84 Rg=95

EEL: 0.08802 A++ Highest

R1 =82 R2 =89 R3 =93 R4 =82 R5 =81 R6 =83 R7 =89

R8 =69 R9 =14 R10=73 R11=81 R12=55 R13=84 R14=96 R15=77

4.1 Integrating Sphere Test

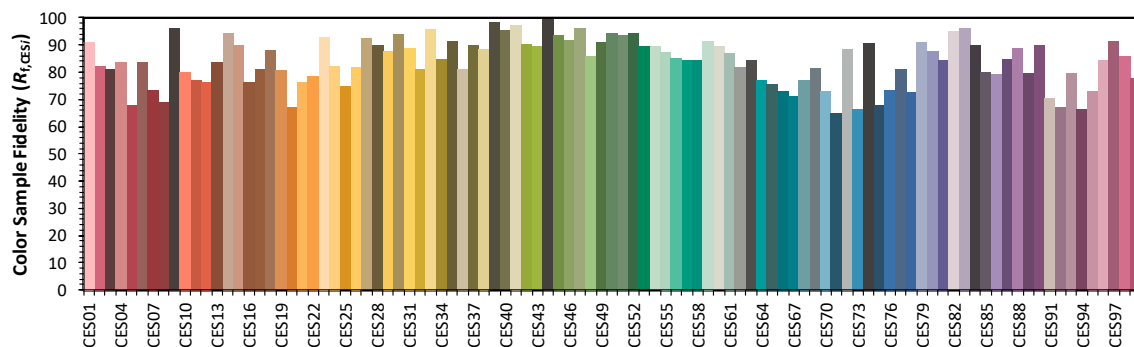
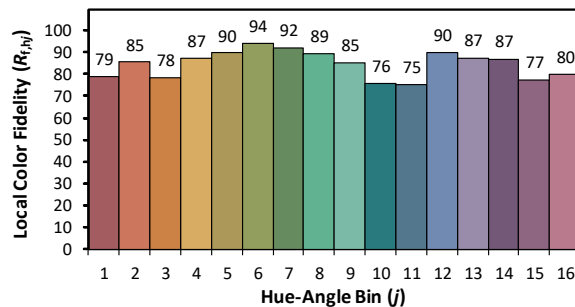
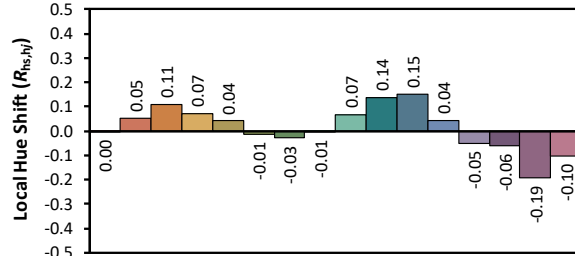
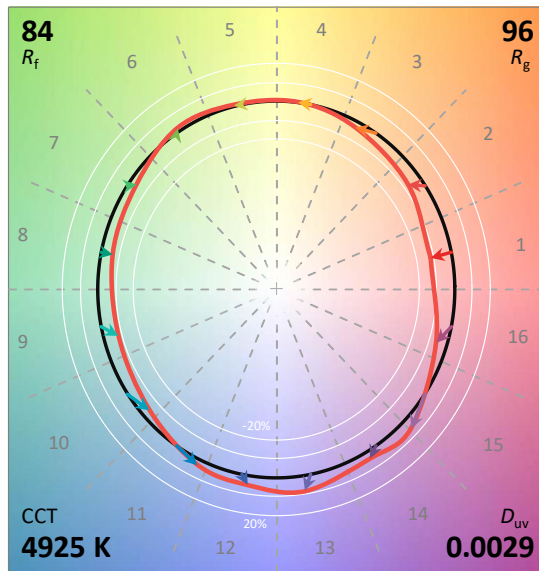
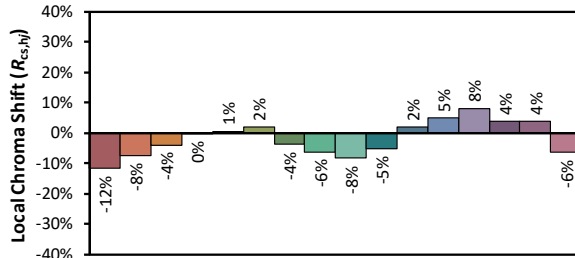
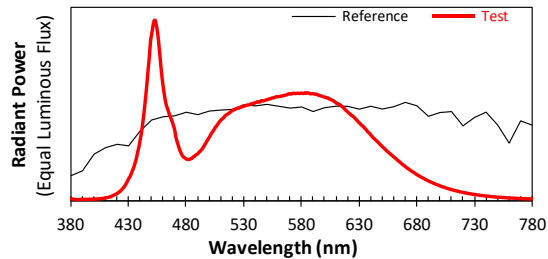
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/6

Model: STRP4 @15W5000K



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

x 0.3479
 y 0.3598
 u' 0.2102
 v' 0.4890

CIE 13.3-1995
(CRI)

R_a 84
 R_g 14

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	7.10E-06	447	7.32E-04	514	4.70E-04	581	5.92E-04	648	3.10E-04	715	5.02E-05
381	6.20E-06	448	7.98E-04	515	4.75E-04	582	5.93E-04	649	3.04E-04	716	4.88E-05
382	5.70E-06	449	8.84E-04	516	4.79E-04	583	5.97E-04	650	2.97E-04	717	4.70E-05
383	4.40E-06	450	9.22E-04	517	4.83E-04	584	5.93E-04	651	2.91E-04	718	4.54E-05
384	3.40E-06	451	9.62E-04	518	4.88E-04	585	5.95E-04	652	2.86E-04	719	4.44E-05
385	3.40E-06	452	9.94E-04	519	4.94E-04	586	5.95E-04	653	2.79E-04	720	4.30E-05
386	2.30E-06	453	9.98E-04	520	4.97E-04	587	5.92E-04	654	2.73E-04	721	4.14E-05
387	3.60E-06	454	9.71E-04	521	5.01E-04	588	5.91E-04	655	2.67E-04	722	4.04E-05
388	3.90E-06	455	9.34E-04	522	5.03E-04	589	5.91E-04	656	2.62E-04	723	3.90E-05
389	4.30E-06	456	8.79E-04	523	5.07E-04	590	5.92E-04	657	2.56E-04	724	3.76E-05
390	3.50E-06	457	8.11E-04	524	5.10E-04	591	5.89E-04	658	2.51E-04	725	3.69E-05
391	4.30E-06	458	7.42E-04	525	5.11E-04	592	5.89E-04	659	2.45E-04	726	3.56E-05
392	4.20E-06	459	6.80E-04	526	5.12E-04	593	5.87E-04	660	2.40E-04	727	3.44E-05
393	4.40E-06	460	6.28E-04	527	5.15E-04	594	5.86E-04	661	2.35E-04	728	3.32E-05
394	4.20E-06	461	5.85E-04	528	5.17E-04	595	5.81E-04	662	2.29E-04	729	3.22E-05
395	4.50E-06	462	5.47E-04	529	5.23E-04	596	5.80E-04	663	2.23E-04	730	3.11E-05
396	5.00E-06	463	5.21E-04	530	5.22E-04	597	5.78E-04	664	2.18E-04	731	3.03E-05
397	5.00E-06	464	5.03E-04	531	5.25E-04	598	5.76E-04	665	2.12E-04	732	2.91E-05
398	5.50E-06	465	4.82E-04	532	5.26E-04	599	5.74E-04	666	2.07E-04	733	2.84E-05
399	5.30E-06	466	4.64E-04	533	5.28E-04	600	5.72E-04	667	2.01E-04	734	2.75E-05
400	5.30E-06	467	4.50E-04	534	5.29E-04	601	5.69E-04	668	1.96E-04	735	2.67E-05
401	6.00E-06	468	4.32E-04	535	5.31E-04	602	5.69E-04	669	1.92E-04	736	2.59E-05
402	6.30E-06	469	4.11E-04	536	5.34E-04	603	5.67E-04	670	1.86E-04	737	2.49E-05
403	7.00E-06	470	3.87E-04	537	5.35E-04	604	5.62E-04	671	1.81E-04	738	2.42E-05
404	6.90E-06	471	3.49E-04	538	5.38E-04	605	5.61E-04	672	1.76E-04	739	2.33E-05
405	8.10E-06	472	3.26E-04	539	5.38E-04	606	5.56E-04	673	1.72E-04	740	2.27E-05
406	8.30E-06	473	3.06E-04	540	5.42E-04	607	5.54E-04	674	1.67E-04	741	2.21E-05
407	9.20E-06	474	2.84E-04	541	5.44E-04	608	5.49E-04	675	1.63E-04	742	2.13E-05
408	1.00E-05	475	2.69E-04	542	5.46E-04	609	5.46E-04	676	1.59E-04	743	2.05E-05
409	1.14E-05	476	2.54E-04	543	5.44E-04	610	5.39E-04	677	1.55E-04	744	2.00E-05
410	1.28E-05	477	2.43E-04	544	5.46E-04	611	5.37E-04	678	1.50E-04	745	1.93E-05
411	1.36E-05	478	2.38E-04	545	5.52E-04	612	5.34E-04	679	1.46E-04	746	1.87E-05
412	1.47E-05	479	2.33E-04	546	5.52E-04	613	5.30E-04	680	1.42E-04	747	1.82E-05
413	1.65E-05	480	2.28E-04	547	5.51E-04	614	5.26E-04	681	1.38E-04	748	1.74E-05
414	1.89E-05	481	2.26E-04	548	5.53E-04	615	5.20E-04	682	1.34E-04	749	1.70E-05
415	2.12E-05	482	2.25E-04	549	5.56E-04	616	5.15E-04	683	1.30E-04	750	1.64E-05
416	2.42E-05	483	2.27E-04	550	5.58E-04	617	5.08E-04	684	1.27E-04	751	1.62E-05
417	2.69E-05	484	2.30E-04	551	5.59E-04	618	5.01E-04	685	1.23E-04	752	1.57E-05
418	3.05E-05	485	2.32E-04	552	5.62E-04	619	4.96E-04	686	1.20E-04	753	1.50E-05
419	3.32E-05	486	2.40E-04	553	5.63E-04	620	4.90E-04	687	1.16E-04	754	1.48E-05
420	3.71E-05	487	2.43E-04	554	5.66E-04	621	4.83E-04	688	1.14E-04	755	1.43E-05
421	4.16E-05	488	2.50E-04	555	5.67E-04	622	4.78E-04	689	1.10E-04	756	1.37E-05
422	4.58E-05	489	2.53E-04	556	5.69E-04	623	4.73E-04	690	1.07E-04	757	1.33E-05
423	5.16E-05	490	2.58E-04	557	5.72E-04	624	4.68E-04	691	1.03E-04	758	1.28E-05
424	5.82E-05	491	2.66E-04	558	5.74E-04	625	4.63E-04	692	1.01E-04	759	1.25E-05
425	6.50E-05	492	2.71E-04	559	5.74E-04	626	4.57E-04	693	9.80E-05	760	1.22E-05
426	7.31E-05	493	2.79E-04	560	5.75E-04	627	4.49E-04	694	9.50E-05	761	1.17E-05
427	8.20E-05	494	2.87E-04	561	5.76E-04	628	4.44E-04	695	9.23E-05	762	1.15E-05
428	9.40E-05	495	2.96E-04	562	5.77E-04	629	4.36E-04	696	8.92E-05	763	1.10E-05
429	1.05E-04	496	3.07E-04	563	5.78E-04	630	4.29E-04	697	8.67E-05	764	1.07E-05
430	1.19E-04	497	3.18E-04	564	5.80E-04	631	4.23E-04	698	8.45E-05	765	1.04E-05
431	1.29E-04	498	3.29E-04	565	5.82E-04	632	4.16E-04	699	8.20E-05	766	1.01E-05
432	1.42E-04	499	3.40E-04	566	5.83E-04	633	4.11E-04	700	7.92E-05	767	9.80E-06
433	1.59E-04	500	3.50E-04	567	5.85E-04	634	4.05E-04	701	7.67E-05	768	9.40E-06
434	1.74E-04	501	3.61E-04	568	5.87E-04	635	3.98E-04	702	7.46E-05	769	9.10E-06
435	1.95E-04	502	3.73E-04	569	5.91E-04	636	3.91E-04	703	7.24E-05	770	8.80E-06
436	2.15E-04	503	3.81E-04	570	5.90E-04	637	3.82E-04	704	7.04E-05	771	8.60E-06
437	2.41E-04	504	3.91E-04	571	5.89E-04	638	3.76E-04	705	6.81E-05	772	8.40E-06
438	2.71E-04	505	4.02E-04	572	5.93E-04	639	3.70E-04	706	6.61E-05	773	8.00E-06
439	2.98E-04	506	4.10E-04	573	5.94E-04	640	3.61E-04	707	6.41E-05	774	7.90E-06
440	3.35E-04	507	4.20E-04	574	5.92E-04	641	3.55E-04	708	6.20E-05	775	7.50E-06
441	3.70E-04	508	4.28E-04	575	5.92E-04	642	3.47E-04	709	6.03E-05	776	7.30E-06
442	4.16E-04	509	4.37E-04	576	5.93E-04	643	3.41E-04	710	5.84E-05	777	7.20E-06
443	4.67E-04	510	4.44E-04	577	5.93E-04	644	3.36E-04	711	5.67E-05	778	6.80E-06
444	5.26E-04	511	4.50E-04	578	5.92E-04	645	3.30E-04	712	5.48E-05	779	6.80E-06
445	5.89E-04	512	4.55E-04	579	5.93E-04	646	3.23E-04	713	5.32E-05	780	6.80E-06
446	6.58E-04	513	4.63E-04	580	5.94E-04	647	3.17E-04	714	5.15E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4 @15W5000K	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±1°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	0.060	15.1	0.914
NON-WORST CASE	120.0	60	0.124	14.8	0.993

Test Result

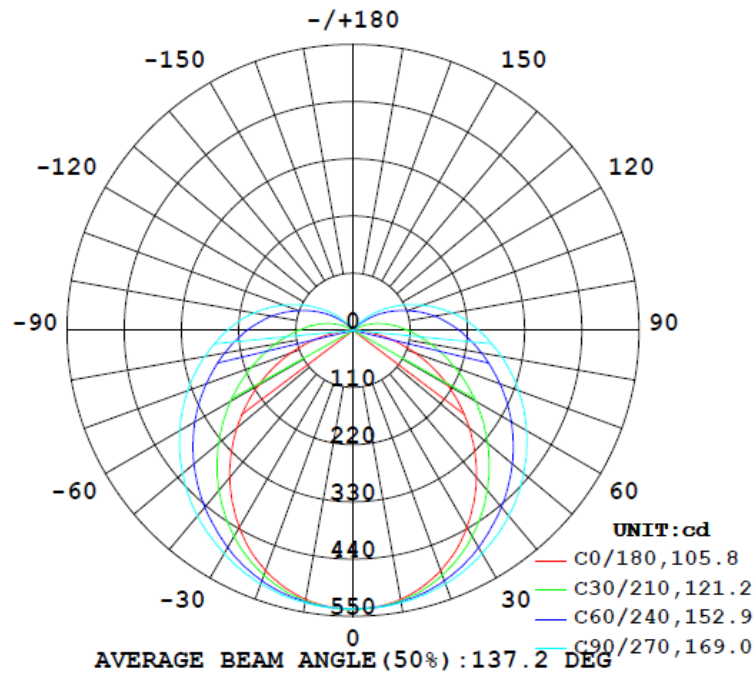
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
2325	581	160.7	160.7	106.1	168.9	154.0

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
56.3%	21.1	29.4

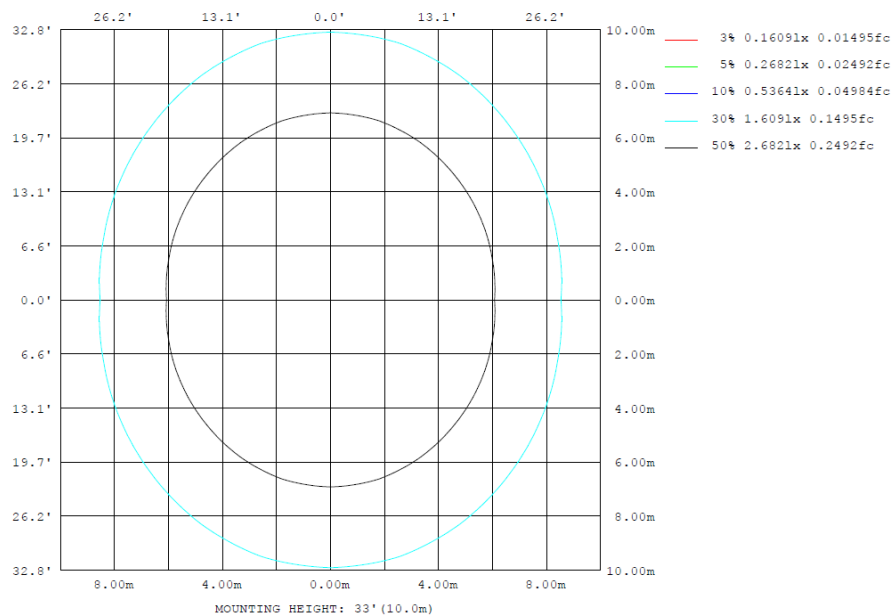
4.2 Goniophotometer Test

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	524.8	529.2	531.7	529.2	524.8	529.2	531.7	529.2	0- 10	50.85	50.85	2.19,2.19
20	491.9	506.6	518.9	506.6	491.9	506.6	518.9	506.6	10- 20	146.8	197.7	8.5,8.5
30	437.6	469.6	496.0	469.6	437.6	469.6	496.0	469.6	20- 30	225.9	423.6	18.2,18.2
40	368.8	422.0	465.7	422.0	368.8	422.0	465.7	422.0	30- 40	279.5	703.1	30.2,30.2
50	292.0	369.1	428.5	369.1	292.0	369.1	428.5	369.1	40- 50	304.7	1008	43.3,43.3
60	209.9	314.2	385.1	314.2	209.9	314.2	385.1	314.2	50- 60	301.9	1310	56.3,56.3
70	127.2	258.2	338.3	258.2	127.2	258.2	338.3	258.2	60- 70	275.0	1585	68.2,68.2
80	49.69	205.8	290.0	205.8	49.69	205.8	290.0	205.8	70- 80	231.6	1816	78.1,78.1
90	3.466	160.5	241.8	160.5	3.466	160.5	241.8	160.5	80- 90	182.0	1998	85.9,85.9
100	2.190	118.4	194.3	118.4	2.190	118.4	194.3	118.4	90-100	137.7	2136	91.9,91.9
110	2.717	77.44	142.3	77.44	2.717	77.44	142.3	77.44	100-110	94.89	2231	95.9,95.9
120	2.760	40.43	93.35	40.43	2.760	40.43	93.35	40.43	110-120	56.86	2288	98.4,98.4
130	2.812	9.103	48.48	9.103	2.812	9.103	48.48	9.103	120-130	26.93	2315	99.5,99.5
140	2.812	1.505	10.27	1.505	2.812	1.505	10.27	1.505	130-140	7.950	2323	99.9,99.9
150	2.812	1.323	1.113	1.323	2.812	1.323	1.113	1.323	140-150	1.215	2324	99.9,99.9
160	2.812	1.321	1.113	1.321	2.812	1.321	1.113	1.321	150-160	0.7534	2325	100,100
170	3.447	1.357	1.139	1.357	3.447	1.357	1.139	1.357	160-170	0.4689	2325	100,100
180	3.992	1.368	1.302	1.368	3.992	1.368	1.302	1.368	170-180	0.1682	2325	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	50.85	0-10	50.85	2.19%
10-20	146.84	0-20	197.69	8.50%
20-30	225.88	0-30	423.57	18.22%
30-40	279.50	0-40	703.07	30.24%
40-50	304.70	0-50	1007.77	43.34%
50-60	301.88	0-60	1309.65	56.33%
60-70	275.00	0-70	1584.65	68.16%
70-80	231.59	0-80	1816.24	78.12%
80-90	182.03	0-90	1998.27	85.95%
90-100	137.72	0-100	2135.99	91.87%
100-110	94.89	0-110	2230.88	95.95%
110-120	56.86	0-120	2287.74	98.40%
120-130	26.93	0-130	2314.67	99.55%
130-140	7.95	0-140	2322.62	99.90%
140-150	1.21	0-150	2323.83	99.95%
150-160	0.75	0-160	2324.58	99.98%
160-170	0.47	0-170	2325.05	100.00%
170-180	0.17	0-180	2325.22	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	14.1	15.6	14.7	16.2	16.8	18.4	19.8	18.9	20.4	21.0
	3H	15.5	16.8	16.1	17.4	18.1	21.4	22.7	22.0	23.3	24.0
	4H	15.9	17.2	16.5	17.8	18.5	22.9	24.2	23.5	24.8	25.5
	6H	16.2	17.4	16.8	18.0	18.7	24.6	25.8	25.2	26.4	27.1
	8H	16.2	17.4	16.8	18.0	18.7	25.5	26.6	26.1	27.2	28.0
	12H	16.2	17.3	16.9	17.9	18.7	26.5	27.6	27.1	28.2	28.9
4H	2H	15.5	16.8	16.1	17.4	18.0	18.7	20.0	19.3	20.6	21.2
	3H	17.1	18.2	17.8	18.9	19.6	21.9	23.0	22.5	23.6	24.4
	4H	17.8	18.8	18.4	19.4	20.1	23.6	24.6	24.2	25.3	26.0
	6H	18.1	19.0	18.8	19.7	20.4	25.5	26.4	26.1	27.0	27.8
	8H	18.2	19.1	18.9	19.7	20.5	26.5	27.3	27.1	28.0	28.7
	12H	18.3	19.0	18.9	19.7	20.5	27.6	28.4	28.3	29.1	29.8
8H	4H	18.9	19.8	19.6	20.4	21.2	23.8	24.6	24.4	25.3	26.0
	6H	19.6	20.3	20.3	21.0	21.8	25.8	26.5	26.5	27.2	28.0
	8H	19.8	20.5	20.5	21.2	22.0	26.9	27.6	27.6	28.3	29.1
	12H	20.0	20.5	20.7	21.2	22.1	28.2	28.8	28.9	29.5	30.3
12H	4H	19.3	20.1	20.0	20.8	21.6	23.8	24.6	24.5	25.2	26.0
	6H	20.2	20.8	20.8	21.5	22.3	25.8	26.5	26.5	27.2	28.0
	8H	20.5	21.1	21.2	21.8	22.6	27.0	27.6	27.7	28.3	29.1

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		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	17.0	18.5	17.6	19.1	19.7	21.3	22.7	21.8	23.3	23.9
	3H	18.4	19.7	19.0	20.3	21.0	24.3	25.6	24.9	26.2	26.9
	4H	18.8	20.1	19.4	20.7	21.4	25.8	27.1	26.4	27.7	28.4
	6H	19.1	20.3	19.7	20.9	21.6	27.5	28.7	28.1	29.3	30.0
	8H	19.1	20.3	19.7	20.9	21.6	28.4	29.5	29.0	30.1	30.9
	12H	19.1	20.2	19.8	20.8	21.6	29.4	30.5	30.0	31.1	31.8
4H	2H	18.4	19.7	19.0	20.3	20.9	21.6	22.9	22.2	23.5	24.1
	3H	20.0	21.1	20.7	21.8	22.5	24.8	25.9	25.4	26.5	27.3
	4H	20.7	21.7	21.3	22.3	23.0	26.5	27.5	27.1	28.2	28.9
	6H	21.0	21.9	21.7	22.6	23.3	28.4	29.3	29.0	29.9	30.7
	8H	21.1	22.0	21.8	22.6	23.4	29.4	30.2	30.0	30.9	31.6
	12H	21.2	21.9	21.8	22.6	23.4	30.5	31.3	31.2	32.0	32.7
8H	4H	21.8	22.7	22.5	23.3	24.1	26.7	27.5	27.3	28.2	28.9
	6H	22.5	23.2	23.2	23.9	24.7	28.7	29.4	29.4	30.1	30.9
	8H	22.7	23.4	23.4	24.1	24.9	29.8	30.5	30.5	31.2	32.0
	12H	22.9	23.4	23.6	24.1	25.0	31.1	31.7	31.8	32.4	33.2
12H	4H	22.2	23.0	22.9	23.7	24.5	26.7	27.5	27.4	28.1	28.9
	6H	23.1	23.7	23.7	24.4	25.2	28.7	29.4	29.4	30.1	30.9
	8H	23.4	24.0	24.1	24.7	25.5	29.9	30.5	30.6	31.2	32.0

Maximum UGR = 33.2

4.2 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	536	536	536	536	535	536	535	536	535	536	536	536	536	536	536	536	535	536	535
5	533	535	535	535	534	535	535	535	534	535	535	535	533	535	535	535	534	535	535
10	525	527	528	529	530	533	532	533	530	529	528	527	525	527	528	529	530	533	532
15	511	514	517	520	523	527	527	523	520	517	514	511	514	517	520	523	527	527	527
20	492	497	501	507	512	518	519	518	512	507	501	497	492	497	501	507	512	518	519
25	467	473	481	490	499	506	508	506	499	490	481	473	467	473	481	490	499	506	508
30	438	447	458	470	482	493	496	493	482	470	458	447	438	447	458	470	482	493	496
35	405	415	431	446	463	477	482	477	463	446	431	415	405	415	431	446	463	477	482
40	369	382	402	422	444	461	466	461	444	422	402	382	369	382	402	422	444	461	466
45	331	346	370	396	422	443	448	443	422	396	370	346	331	346	370	396	422	443	448
50	292	309	338	369	400	422	428	422	400	369	338	309	292	309	338	369	400	422	428
55	251	272	305	342	376	400	407	400	376	342	305	272	251	272	305	342	376	400	407
60	210	232	272	314	352	377	385	377	352	314	272	232	210	232	272	314	352	377	385
65	169	194	240	286	326	353	363	353	326	286	240	194	169	194	240	286	326	353	363
70	127	157	208	258	301	329	338	329	301	258	208	157	127	157	208	258	301	329	338
75	87.2	122	179	232	275	305	314	305	275	232	179	122	87.2	122	179	232	275	305	314
80	49.7	90.4	152	206	251	280	290	280	251	206	152	90.4	49.7	90.4	152	206	251	280	290
85	19.3	63.8	127	182	226	255	266	255	226	182	127	63.8	19.3	63.8	127	182	226	255	266
90	3.47	43.9	106	161	204	232	242	232	204	161	106	43.9	3.47	43.9	106	161	204	232	242
95	2.25	29.9	86.9	139	181	209	219	209	181	139	86.9	29.9	2.25	29.9	86.9	139	181	209	219
100	2.19	18.1	68.5	118	159	183	194	183	159	118	68.5	18.1	2.19	18.1	68.5	118	159	183	194
105	2.45	8.16	51.6	97.7	135	158	168	158	135	97.7	51.6	8.16	2.45	8.16	51.6	97.7	135	158	168
110	2.72	2.38	36.0	77.4	112	134	142	134	112	77.4	36.0	2.38	2.72	2.38	36.0	77.4	112	134	142
115	2.72	2.39	21.8	58.2	89.6	109	117	109	89.6	58.2	21.8	2.39	2.72	2.39	21.8	58.2	89.6	109	117
120	2.76	2.41	9.11	40.4	68.0	86.3	93.4	86.3	68.0	40.4	9.11	2.41	2.76	2.41	9.11	40.4	68.0	86.3	93.4
125	2.81	2.43	2.10	24.0	47.9	63.4	70.0	63.4	47.9	24.0	2.10	2.43	2.81	2.43	2.10	24.0	47.9	63.4	70.0
130	2.81	2.45	1.95	9.10	29.4	42.9	48.5	42.9	29.4	9.10	1.95	2.45	2.81	2.45	1.95	9.10	29.4	42.9	48.5
135	2.81	2.52	1.71	1.65	12.2	24.2	28.7	24.2	12.2	1.65	1.71	2.52	2.81	2.52	1.71	1.65	12.2	24.2	28.7
140	2.81	2.61	1.60	1.50	1.38	6.78	10.3	6.78	1.38	1.50	1.60	2.61	2.81	2.61	1.60	1.50	1.38	6.78	10.3
145	2.81	2.62	1.63	1.40	1.25	1.29	1.12	1.29	1.25	1.40	1.63	2.62	2.81	2.62	1.63	1.40	1.25	1.29	1.12
150	2.81	2.59	1.59	1.32	1.19	1.28	1.11	1.28	1.19	1.32	1.59	2.59	2.81	2.59	1.59	1.32	1.19	1.28	1.11
155	2.81	2.57	1.55	1.30	1.13	1.26	1.11	1.26	1.13	1.30	1.55	2.57	2.81	2.57	1.55	1.30	1.13	1.26	1.11
160	2.81	2.53	1.45	1.32	1.16	1.25	1.11	1.25	1.16	1.32	1.45	2.53	2.81	2.53	1.45	1.32	1.16	1.25	1.11
165	2.94	2.65	1.45	1.34	1.20	1.23	1.11	1.23	1.20	1.34	1.45	2.65	2.94	2.65	1.45	1.34	1.20	1.23	1.11
170	3.45	2.81	1.46	1.36	1.23	1.22	1.14	1.22	1.23	1.36	1.46	2.81	3.45	2.81	1.46	1.36	1.23	1.22	1.14
175	3.95	2.76	1.46	1.37	1.27	1.20	1.20	1.27	1.37	1.46	2.76	3.95	2.76	1.46	1.37	1.27	1.20	1.20	1.20
180	3.99	2.74	1.46	1.37	1.28	1.20	1.30	1.20	1.28	1.37	1.46	2.74	3.99	2.74	1.46	1.37	1.28	1.20	1.30

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
0	536	535	536	536	536														
5	535	534	535	535	535														
10	533	530	529	528	527														
15	527	523	520	517	514														
20	518	512	507	501	497														
25	506	499	490	481	473														
30	493	482	470	458	447														
35	477	463	446	431	415														
40	461	444	422	402	382														
45	443	422	396	370	346														
50	422	400	369	338	309														
55	400	376	342	305	272														
60	377	352	314	272	232														
65	353	326	286	240	194														
70	329	301	258	208	157														
75	305	275	232	179	122														
80	280	251	206	152	90.4														
85	255	226	182	127	63.8														
90	232	204	161	106	43.9														
95	209	181	139	86.9	29.9														
100	183	159	118	68.5	18.1														
105	158	135	97.7	51.6	8.16														
110	134	112	77.4	36.0	2.38														
115	109	89.6	58.2	21.8	2.39														
120	86.3	68.0	40.4	9.11	2.41														
125	63.4	47.9	24.0	2.10	2.43														
130	42.9	29.4	9.10	1.95	2.45														
135	24.2	12.2	1.65	1.71	2.52														
140	6.78	1.38	1.50	1.60	2.61														
145	1.29	1.25	1.40	1.63	2.62														
150	1.28	1.19	1.32	1.59	2.59														
155	1.26	1.13	1.30	1.55	2.57														
160	1.25	1.16	1.32	1.45	2.53														
165	1.23	1.20	1.34	1.45	2.65														
170	1.22	1.23	1.36	1.46	2.81														
175	1.20	1.27	1.37	1.46	2.76														
180	1.20	1.28	1.37	1.46	2.74														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4 @15W5000K	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	0.124	14.8	0.993	6.37
277.0	60	0.060	15.1	0.914	14.29

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*****