

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

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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		600
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Standard	Premium	146.2
		115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		8.2
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	5.96
			277V	16.91
Power Factor (THD & PF – Section 4.3)	ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.991
			277V	0.885
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)	ANSI/IES LM-79:2019	7 steps	5029±283	4915
		4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)	ANSI/IES LM-79:2019 CIE13.3-1995	≥80		83.5
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		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%		55.6%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Standard	Premium	29.3
		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		0.033
(Goniophotometer – Section 4.2)		Non-Worst Case		0.064
Power (Input Wattage – W)				
(Goniophotometer – Section 4.2)	ANSI/IES LM-79:2019	Worst Case		8.2
(Goniophotometer – Section 4.2)		Non-Worst Case		7.6

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-02	STRP2 @8W5000K	-	241225003-S1
2	Goniophotometer Test	2025-01-02	STRP2 @8W5000K	-	241225003-S1
3	THD and PF Test	2025-01-02	STRP2 @8W5000K	-	241225003-S1

Remark (If any):

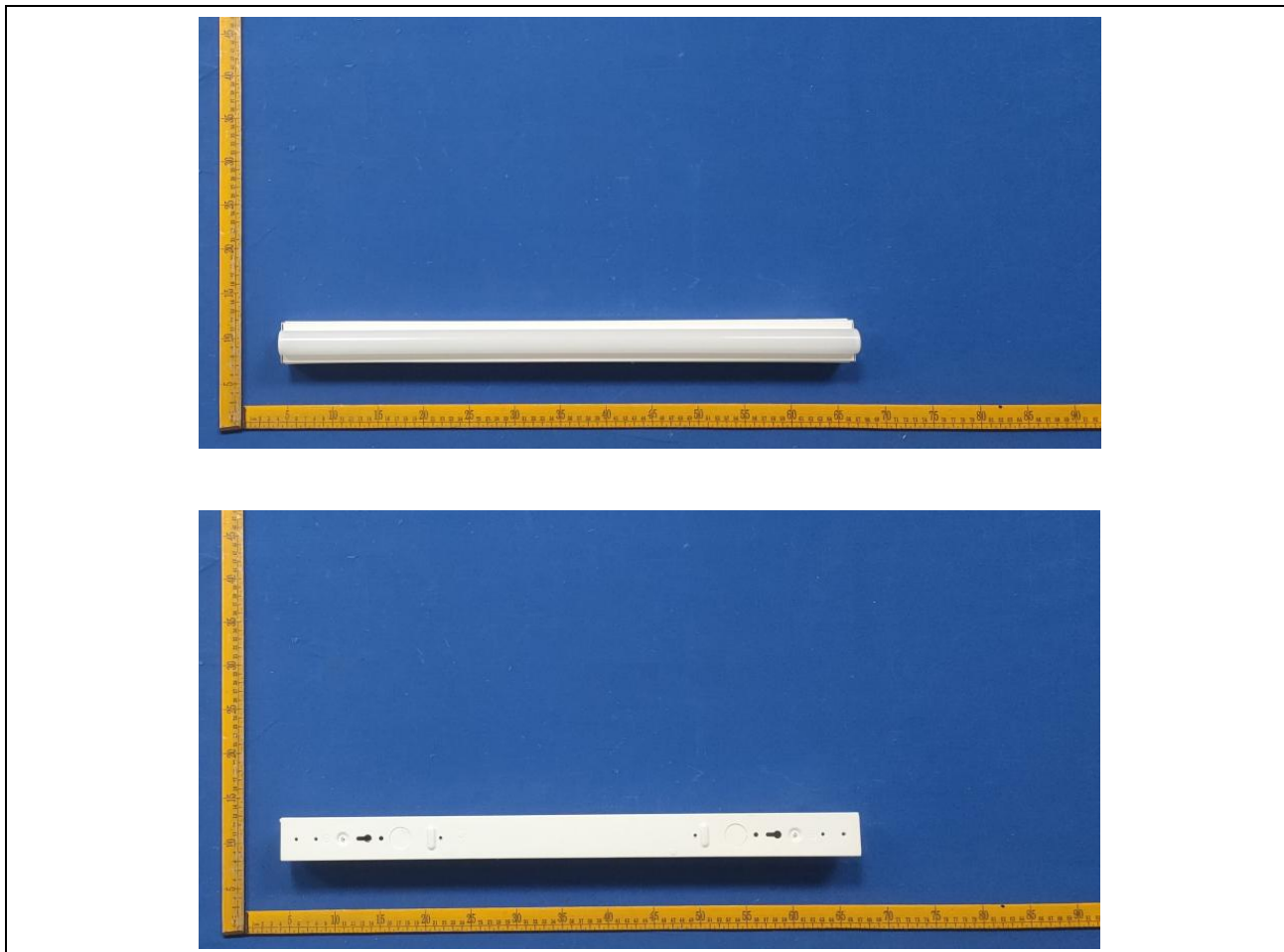
1. The results contained in this report pertain only to the tested samples.
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. STRP2 @8W5000K, 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.	STRP2 @8W5000K	Sample ID	241225003-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

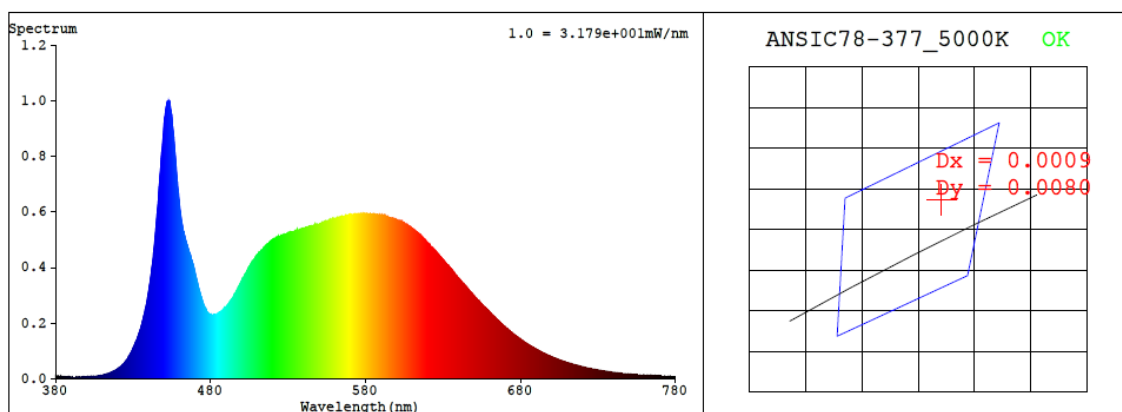
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.064	7.6	0.991
277.0	60	0.033	8.2	0.885

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
4915	83.5	14	0.0036	84	95	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3485$ $y = 0.3615$ / $u' = 0.2099$ $v' = 0.4899$ ($duv=3.58e-03$)

CCT= 4915K Prcp WL: Ld=570.8nm Purity=13.0%

Peak WL: Lp=453nm FWHM: =19.9nm Ratio:R=15.9% G=79.7% B=4.4%

Render Index: Ra = 83.5 AvgR = 76.4 TM30:Rf=84 Rg=95

EEL: 0.09224 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=97 R15=76

4.1 Integrating Sphere Test

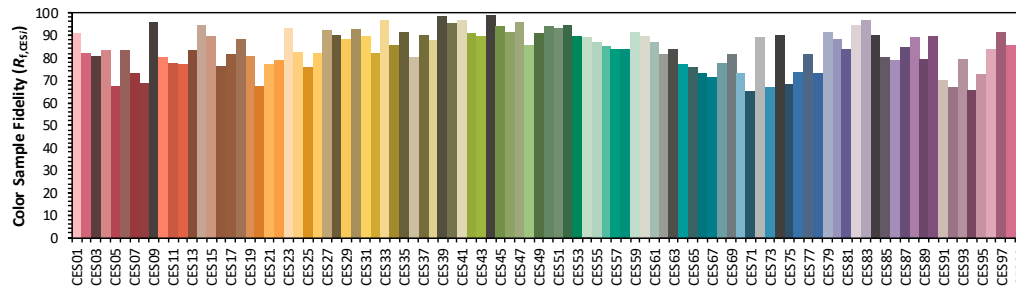
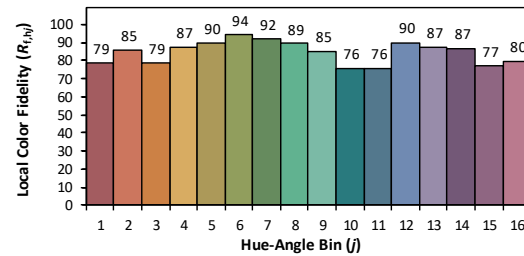
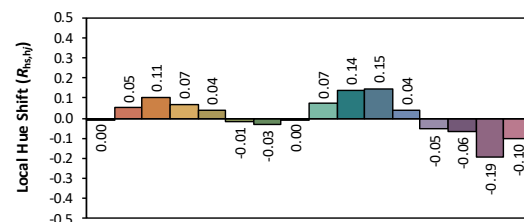
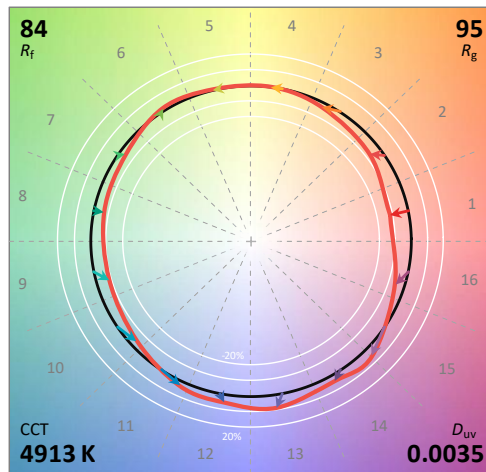
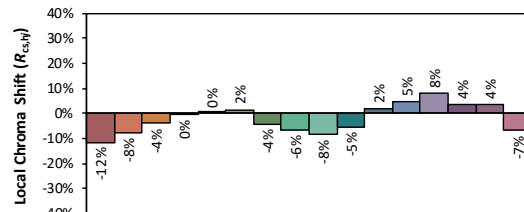
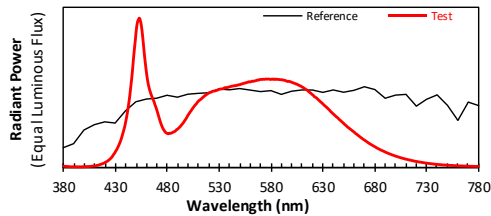
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/4

Model: STRP2 @8W5000K



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

x 0.3484
 y 0.3614
 u' 0.2099
 v' 0.4898

CIE 13.3-1995
(CRI)
 R_a 84
 R_g 13

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	1.10E-05	447	7.11E-04	514	4.69E-04	581	5.94E-04	648	3.11E-04	715	5.04E-05
381	9.70E-06	448	7.86E-04	515	4.74E-04	582	5.91E-04	649	3.05E-04	716	4.85E-05
382	8.60E-06	449	8.52E-04	516	4.82E-04	583	5.94E-04	650	2.98E-04	717	4.68E-05
383	9.00E-06	450	9.24E-04	517	4.85E-04	584	5.90E-04	651	2.91E-04	718	4.55E-05
384	8.10E-06	451	9.71E-04	518	4.91E-04	585	5.93E-04	652	2.86E-04	719	4.36E-05
385	7.40E-06	452	9.91E-04	519	4.95E-04	586	5.91E-04	653	2.80E-04	720	4.27E-05
386	6.80E-06	453	1.00E-03	520	5.00E-04	587	5.91E-04	654	2.73E-04	721	4.13E-05
387	6.30E-06	454	9.80E-04	521	5.04E-04	588	5.90E-04	655	2.68E-04	722	4.03E-05
388	6.50E-06	455	9.42E-04	522	5.05E-04	589	5.89E-04	656	2.62E-04	723	3.87E-05
389	6.50E-06	456	8.84E-04	523	5.10E-04	590	5.88E-04	657	2.57E-04	724	3.76E-05
390	5.90E-06	457	8.13E-04	524	5.11E-04	591	5.89E-04	658	2.51E-04	725	3.68E-05
391	6.50E-06	458	7.43E-04	525	5.13E-04	592	5.86E-04	659	2.46E-04	726	3.56E-05
392	6.40E-06	459	6.81E-04	526	5.14E-04	593	5.85E-04	660	2.40E-04	727	3.43E-05
393	6.60E-06	460	6.25E-04	527	5.17E-04	594	5.83E-04	661	2.35E-04	728	3.33E-05
394	6.10E-06	461	5.79E-04	528	5.18E-04	595	5.80E-04	662	2.28E-04	729	3.21E-05
395	6.50E-06	462	5.44E-04	529	5.22E-04	596	5.77E-04	663	2.24E-04	730	3.11E-05
396	6.00E-06	463	5.17E-04	530	5.24E-04	597	5.78E-04	664	2.18E-04	731	3.01E-05
397	6.40E-06	464	4.96E-04	531	5.26E-04	598	5.76E-04	665	2.12E-04	732	2.92E-05
398	7.00E-06	465	4.76E-04	532	5.27E-04	599	5.75E-04	666	2.07E-04	733	2.85E-05
399	6.90E-06	466	4.58E-04	533	5.28E-04	600	5.72E-04	667	2.02E-04	734	2.77E-05
400	7.30E-06	467	4.44E-04	534	5.30E-04	601	5.69E-04	668	1.96E-04	735	2.66E-05
401	7.90E-06	468	4.21E-04	535	5.34E-04	602	5.67E-04	669	1.91E-04	736	2.59E-05
402	7.80E-06	469	4.03E-04	536	5.36E-04	603	5.64E-04	670	1.87E-04	737	2.50E-05
403	8.10E-06	470	3.81E-04	537	5.34E-04	604	5.60E-04	671	1.82E-04	738	2.44E-05
404	8.20E-06	471	3.57E-04	538	5.38E-04	605	5.60E-04	672	1.77E-04	739	2.35E-05
405	8.90E-06	472	3.34E-04	539	5.39E-04	606	5.55E-04	673	1.72E-04	740	2.29E-05
406	9.00E-06	473	3.11E-04	540	5.41E-04	607	5.52E-04	674	1.67E-04	741	2.22E-05
407	1.03E-05	474	2.91E-04	541	5.43E-04	608	5.48E-04	675	1.62E-04	742	2.17E-05
408	1.10E-05	475	2.73E-04	542	5.45E-04	609	5.46E-04	676	1.59E-04	743	2.08E-05
409	1.19E-05	476	2.59E-04	543	5.46E-04	610	5.40E-04	677	1.54E-04	744	2.05E-05
410	1.25E-05	477	2.48E-04	544	5.48E-04	611	5.37E-04	678	1.50E-04	745	1.97E-05
411	1.38E-05	478	2.38E-04	545	5.49E-04	612	5.32E-04	679	1.46E-04	746	1.89E-05
412	1.56E-05	479	2.32E-04	546	5.49E-04	613	5.28E-04	680	1.42E-04	747	1.85E-05
413	1.73E-05	480	2.30E-04	547	5.52E-04	614	5.23E-04	681	1.38E-04	748	1.85E-05
414	1.88E-05	481	2.27E-04	548	5.52E-04	615	5.19E-04	682	1.34E-04	749	1.78E-05
415	2.16E-05	482	2.31E-04	549	5.55E-04	616	5.13E-04	683	1.30E-04	750	1.72E-05
416	2.36E-05	483	2.30E-04	550	5.56E-04	617	5.06E-04	684	1.27E-04	751	1.68E-05
417	2.64E-05	484	2.33E-04	551	5.58E-04	618	5.01E-04	685	1.23E-04	752	1.62E-05
418	2.90E-05	485	2.35E-04	552	5.61E-04	619	4.95E-04	686	1.19E-04	753	1.58E-05
419	3.19E-05	486	2.40E-04	553	5.62E-04	620	4.89E-04	687	1.16E-04	754	1.55E-05
420	3.60E-05	487	2.43E-04	554	5.65E-04	621	4.84E-04	688	1.13E-04	755	1.53E-05
421	4.00E-05	488	2.48E-04	555	5.67E-04	622	4.75E-04	689	1.10E-04	756	1.47E-05
422	4.37E-05	489	2.56E-04	556	5.68E-04	623	4.72E-04	690	1.07E-04	757	1.44E-05
423	4.92E-05	490	2.59E-04	557	5.71E-04	624	4.67E-04	691	1.03E-04	758	1.40E-05
424	5.48E-05	491	2.66E-04	558	5.73E-04	625	4.60E-04	692	1.01E-04	759	1.40E-05
425	6.12E-05	492	2.72E-04	559	5.76E-04	626	4.53E-04	693	9.73E-05	760	1.33E-05
426	6.84E-05	493	2.81E-04	560	5.74E-04	627	4.47E-04	694	9.43E-05	761	1.30E-05
427	7.71E-05	494	2.89E-04	561	5.76E-04	628	4.40E-04	695	9.18E-05	762	1.28E-05
428	8.82E-05	495	2.98E-04	562	5.79E-04	629	4.35E-04	696	8.92E-05	763	1.23E-05
429	9.75E-05	496	3.07E-04	563	5.78E-04	630	4.28E-04	697	8.63E-05	764	1.24E-05
430	1.10E-04	497	3.18E-04	564	5.80E-04	631	4.21E-04	698	8.40E-05	765	1.19E-05
431	1.21E-04	498	3.28E-04	565	5.82E-04	632	4.15E-04	699	8.17E-05	766	1.17E-05
432	1.35E-04	499	3.40E-04	566	5.84E-04	633	4.09E-04	700	7.91E-05	767	1.13E-05
433	1.50E-04	500	3.53E-04	567	5.87E-04	634	4.03E-04	701	7.66E-05	768	1.13E-05
434	1.66E-04	501	3.63E-04	568	5.86E-04	635	3.96E-04	702	7.45E-05	769	1.11E-05
435	1.84E-04	502	3.73E-04	569	5.89E-04	636	3.90E-04	703	7.23E-05	770	1.05E-05
436	2.06E-04	503	3.82E-04	570	5.91E-04	637	3.82E-04	704	7.00E-05	771	1.04E-05
437	2.30E-04	504	3.93E-04	571	5.91E-04	638	3.74E-04	705	6.80E-05	772	1.02E-05
438	2.56E-04	505	4.03E-04	572	5.91E-04	639	3.68E-04	706	6.57E-05	773	1.00E-05
439	2.83E-04	506	4.12E-04	573	5.92E-04	640	3.62E-04	707	6.39E-05	774	9.70E-06
440	3.18E-04	507	4.21E-04	574	5.91E-04	641	3.55E-04	708	6.20E-05	775	9.60E-06
441	3.55E-04	508	4.28E-04	575	5.93E-04	642	3.49E-04	709	6.02E-05	776	9.30E-06
442	3.99E-04	509	4.38E-04	576	5.92E-04	643	3.42E-04	710	5.79E-05	777	9.30E-06
443	4.46E-04	510	4.45E-04	577	5.93E-04	644	3.37E-04	711	5.66E-05	778	9.10E-06
444	5.02E-04	511	4.52E-04	578	5.93E-04	645	3.30E-04	712	5.51E-05	779	9.00E-06
445	5.66E-04	512	4.56E-04	579	5.91E-04	646	3.23E-04	713	5.34E-05	780	9.00E-06
446	6.30E-04	513	4.63E-04	580	5.91E-04	647	3.17E-04	714	5.13E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP2 @8W5000K	Sample ID	241225003-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.7	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 $25\pm1^{\circ}\text{C}$, 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	0.033	8.2	0.885
NON-WORST CASE	120.0	60	0.064	7.6	0.991

Test Result

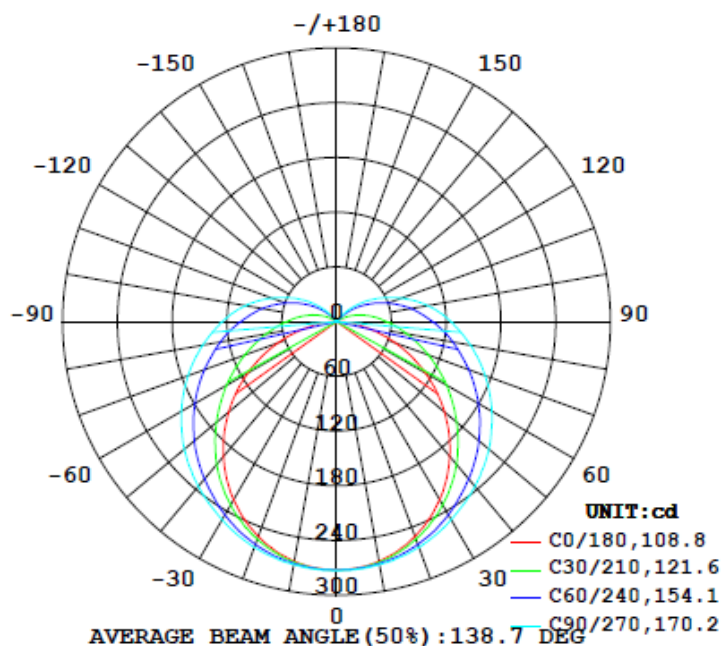
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
1199	600	163.4	163.4	109.4	170.2	146.2

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
55.6%	21.2	29.3

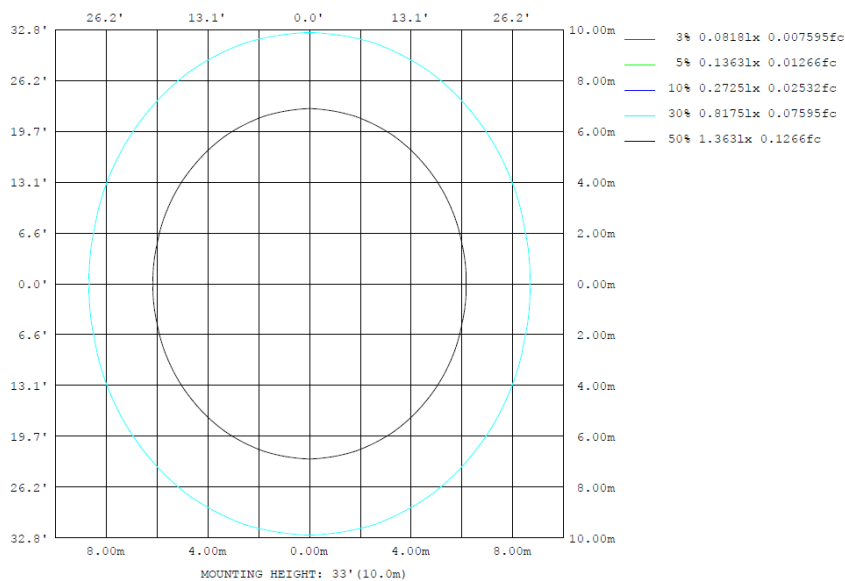
4.2 Goniophotometer Test

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	zone	total	lum, lamp
10	266.8	269.0	270.6	269.0	266.8	269.0	270.6	269.0	0- 10	25.84	25.84	2.16, 2.16
20	250.8	257.2	263.5	257.2	250.8	257.2	263.5	257.2	10- 20	74.54	100.4	8.37, 8.37
30	225.6	238.3	250.8	238.3	225.6	238.3	250.8	238.3	20- 30	114.6	215.0	17.9, 17.9
40	192.8	214.3	235.8	214.3	192.8	214.3	235.8	214.3	30- 40	142.1	357.1	29.8, 29.8
50	154.3	187.9	217.8	187.9	154.3	187.9	217.8	187.9	40- 50	155.3	512.4	42.7, 42.7
60	112.2	160.4	196.4	160.4	112.2	160.4	196.4	160.4	50- 60	154.4	666.8	55.6, 55.6
70	68.30	132.4	173.2	132.4	68.30	132.4	173.2	132.4	60- 70	141.1	807.9	67.4, 67.4
80	27.24	106.3	148.9	106.3	27.24	106.3	148.9	106.3	70- 80	119.2	927.0	77.3, 77.3
90	3.062	82.90	125.3	82.90	3.062	82.90	125.3	82.90	80- 90	94.32	1021	85.2, 85.2
100	2.271	62.46	101.4	62.46	2.271	62.46	101.4	62.46	90-100	71.76	1093	91.2, 91.2
110	2.271	41.94	75.49	41.94	2.271	41.94	75.49	41.94	100-110	50.63	1144	95.4, 95.4
120	2.271	23.52	50.49	23.52	2.271	23.52	50.49	23.52	110-120	31.26	1175	98.98
130	2.271	7.194	27.95	7.194	2.271	7.194	27.95	7.194	120-130	15.79	1191	99.3, 99.3
140	2.435	1.672	7.898	1.672	2.435	1.672	7.898	1.672	130-140	5.510	1196	99.8, 99.8
150	2.357	1.357	0.9301	1.357	2.357	1.357	0.9301	1.357	140-150	1.186	1197	99.9, 99.9
160	2.294	1.292	0.8979	1.292	2.294	1.292	0.8979	1.292	150-160	0.6409	1198	100, 100
170	2.361	1.208	0.8658	1.208	2.361	1.208	0.8658	1.208	160-170	0.3790	1199	100, 100
180	2.366	1.208	0.8433	1.208	2.366	1.208	0.8433	1.208	170-180	0.1272	1199	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	25.84	0-10	25.84	2.16%
10-20	74.54	0-20	100.38	8.38%
20-30	114.64	0-30	215.02	17.94%
30-40	142.07	0-40	357.09	29.79%
40-50	155.32	0-50	512.41	42.75%
50-60	154.37	0-60	666.78	55.63%
60-70	141.09	0-70	807.87	67.41%
70-80	119.18	0-80	927.05	77.35%
80-90	94.32	0-90	1021.37	85.22%
90-100	71.76	0-100	1093.13	91.21%
100-110	50.63	0-110	1143.76	95.43%
110-120	31.26	0-120	1175.02	98.04%
120-130	15.79	0-130	1190.81	99.36%
130-140	5.51	0-140	1196.32	99.82%
140-150	1.19	0-150	1197.51	99.91%
150-160	0.64	0-160	1198.15	99.97%
160-170	0.38	0-170	1198.53	100.00%
170-180	0.13	0-180	1198.66	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	16.5	17.9	17.1	18.5	19.2	20.6	22.0	21.2	22.6	23.3
	3H	17.9	19.2	18.5	19.8	20.5	23.6	24.9	24.2	25.5	26.2
	4H	18.3	19.6	18.9	20.2	20.9	25.2	26.4	25.8	27.0	27.7
	6H	18.6	19.8	19.2	20.4	21.1	26.8	28.0	27.4	28.6	29.3
	8H	18.6	19.8	19.3	20.4	21.1	27.7	28.8	28.3	29.4	30.2
	12H	18.7	19.7	19.3	20.4	21.1	28.6	29.7	29.2	30.3	31.1
4H	2H	17.8	19.1	18.4	19.7	20.4	20.9	22.2	21.5	22.8	23.5
	3H	19.5	20.6	20.1	21.2	22.0	24.2	25.2	24.8	25.9	26.6
	4H	20.1	21.1	20.8	21.8	22.5	25.8	26.8	26.5	27.5	28.3
	6H	20.5	21.4	21.2	22.1	22.8	27.7	28.6	28.3	29.3	30.0
	8H	20.6	21.4	21.3	22.1	22.9	28.7	29.5	29.3	30.2	31.0
	12H	20.7	21.4	21.3	22.1	22.9	29.7	30.5	30.4	31.2	32.0
8H	4H	21.3	22.1	21.9	22.8	23.6	26.0	26.8	26.7	27.5	28.3
	6H	21.9	22.7	22.6	23.4	24.2	28.0	28.7	28.7	29.4	30.2
	8H	22.2	22.8	22.9	23.5	24.3	29.1	29.8	29.8	30.5	31.3
	12H	22.3	22.9	23.0	23.6	24.5	30.4	31.0	31.1	31.7	32.5
12H	4H	21.7	22.4	22.3	23.1	23.9	26.0	26.8	26.7	27.5	28.3
	6H	22.5	23.1	23.2	23.8	24.7	28.1	28.7	28.8	29.4	30.2
	8H	22.9	23.4	23.6	24.1	25.0	29.2	29.8	29.9	30.5	31.4

Maximum UGR = 32.5

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	17.1	18.5	17.7	19.1	19.8	21.2	22.6	21.8	23.2	23.9
	3H	18.5	19.8	19.1	20.4	21.1	24.2	25.5	24.8	26.1	26.8
	4H	18.9	20.2	19.5	20.8	21.5	25.8	27.0	26.4	27.6	28.3
	6H	19.2	20.4	19.8	21.0	21.7	27.4	28.6	28.0	29.2	29.9
	8H	19.2	20.4	19.9	21.0	21.7	28.3	29.4	28.9	30.0	30.8
	12H	19.3	20.3	19.9	21.0	21.7	29.2	30.3	29.8	30.9	31.7
4H	2H	18.4	19.7	19.0	20.3	21.0	21.5	22.8	22.1	23.4	24.1
	3H	20.1	21.2	20.7	21.8	22.6	24.8	25.8	25.4	26.5	27.2
	4H	20.7	21.7	21.4	22.4	23.1	26.4	27.4	27.1	28.1	28.9
	6H	21.1	22.0	21.8	22.7	23.4	28.3	29.2	28.9	29.9	30.6
	8H	21.2	22.0	21.9	22.7	23.5	29.3	30.1	29.9	30.8	31.6
	12H	21.3	22.0	21.9	22.7	23.5	30.3	31.1	31.0	31.8	32.6
8H	4H	21.9	22.7	22.5	23.4	24.2	26.6	27.4	27.3	28.1	28.9
	6H	22.5	23.3	23.2	24.0	24.8	28.6	29.3	29.3	30.0	30.8
	8H	22.8	23.4	23.5	24.1	24.9	29.7	30.4	30.4	31.1	31.9
	12H	22.9	23.5	23.6	24.2	25.1	31.0	31.6	31.7	32.3	33.1
12H	4H	22.3	23.0	22.9	23.7	24.5	26.6	27.4	27.3	28.1	28.9
	6H	23.1	23.7	23.8	24.4	25.3	28.7	29.3	29.4	30.0	30.8
	8H	23.5	24.0	24.2	24.7	25.6	29.8	30.4	30.5	31.1	32.0

Maximum UGR = 33.1

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	272	272	272	272	272	273	273	273	272	272	272	272	272	272	272	272	272	273	273
5	271	271	271	271	272	272	272	272	272	271	271	271	271	271	271	271	272	272	272
10	267	268	268	269	269	270	271	270	269	269	268	268	267	268	268	268	269	270	271
15	260	261	262	264	266	267	268	267	266	264	262	261	260	261	262	264	266	267	268
20	251	252	254	257	260	262	263	262	260	257	254	252	251	252	254	257	260	262	263
25	239	241	244	249	253	256	258	256	253	249	244	241	239	241	244	249	253	256	258
30	226	227	232	238	245	249	251	249	245	238	232	227	226	227	232	238	245	249	251
35	210	212	219	227	235	241	244	241	235	227	219	212	210	212	219	227	235	241	244
40	193	195	204	214	225	233	236	233	225	214	204	195	193	195	204	214	225	233	236
45	174	178	188	201	215	224	227	224	215	201	188	178	174	178	188	201	215	224	227
50	154	160	172	188	203	214	218	214	203	188	172	160	154	160	172	188	203	214	218
55	133	140	155	174	192	203	207	203	192	174	155	140	133	140	155	174	192	203	207
60	112	120	139	160	179	192	196	192	179	160	139	120	112	120	139	160	179	192	196
65	90.4	100	123	146	167	180	185	180	167	146	123	100	90.4	100	123	146	167	180	185
70	68.3	81.1	107	132	154	168	173	168	154	132	107	81.1	68.3	81.1	107	132	154	168	173
75	46.8	63.1	91.9	119	141	156	161	156	141	119	91.9	63.1	46.8	63.1	91.9	119	141	156	161
80	27.2	46.9	78.3	106	129	144	149	144	129	106	78.3	46.9	27.2	46.9	78.3	106	129	144	149
85	11.5	33.7	65.9	94.6	117	132	137	132	117	94.6	65.9	33.7	11.5	33.7	65.9	94.6	117	132	137
90	3.06	23.6	54.7	82.9	105	120	125	120	105	82.9	54.7	23.6	3.06	23.6	54.7	82.9	105	120	125
95	2.31	16.5	45.6	72.4	93.7	108	114	108	93.7	72.4	45.6	16.5	2.31	16.5	45.6	72.4	93.7	108	114
100	2.27	10.8	36.7	62.5	82.7	95.5	101	95.5	82.7	62.5	36.7	10.8	2.27	10.8	36.7	62.5	82.7	95.5	101
105	2.27	5.83	28.6	52.0	71.1	83.5	88.6	83.5	71.1	52.0	28.6	5.83	2.27	5.83	28.6	52.0	71.1	83.5	88.6
110	2.27	2.63	20.6	41.9	59.6	71.0	75.5	71.0	59.6	41.9	20.6	2.63	2.27	2.63	20.6	41.9	59.6	71.0	75.5
115	2.27	2.37	13.4	32.6	48.4	58.8	62.7	58.8	48.4	32.6	13.4	2.37	2.27	2.37	13.4	32.6	48.4	58.8	62.7
120	2.27	2.28	6.93	23.5	37.4	47.1	50.5	47.1	37.4	23.5	6.93	2.28	2.27	2.28	6.93	23.5	37.4	47.1	50.5
125	2.27	2.27	2.44	15.0	27.6	35.8	38.8	35.8	27.6	15.0	2.44	2.27	2.27	2.27	2.44	15.0	27.6	35.8	38.8
130	2.27	2.26	2.11	7.19	18.0	25.2	27.9	25.2	18.0	7.19	2.11	2.26	2.27	2.26	2.11	7.19	18.0	25.2	27.9
135	2.27	2.22	2.03	2.24	8.95	15.3	17.6	15.3	8.95	2.24	2.03	2.22	2.27	2.22	2.03	2.24	8.95	15.3	17.6
140	2.43	2.14	1.91	1.67	2.14	6.09	7.90	6.09	2.14	1.67	1.91	2.14	2.43	2.14	1.91	1.67	2.14	6.09	7.90
145	2.40	2.08	1.72	1.59	1.40	1.22	1.14	1.22	1.40	1.59	1.72	2.08	2.40	2.08	1.72	1.59	1.40	1.22	1.14
150	2.36	2.07	1.62	1.36	1.19	0.89	0.93	0.89	1.19	1.36	1.62	2.07	2.36	2.07	1.62	1.36	1.19	0.89	0.93
155	2.32	1.88	1.51	1.30	1.09	0.84	0.91	0.84	1.09	1.30	1.51	1.88	2.32	1.88	1.51	1.30	1.09	0.84	0.91
160	2.29	1.75	1.47	1.29	1.10	0.86	0.90	0.86	1.10	1.29	1.47	1.75	2.29	1.75	1.47	1.29	1.10	0.86	0.90
165	2.33	1.70	1.43	1.25	1.14	0.88	0.88	0.88	1.14	1.25	1.43	1.70	2.33	1.70	1.43	1.25	1.14	0.88	0.88
170	2.36	1.66	1.41	1.21	1.18	0.90	0.87	0.90	1.18	1.21	1.41	1.66	2.36	1.66	1.41	1.21	1.18	0.90	0.87
175	2.36	1.61	1.40	1.24	1.12	0.93	0.85	0.93	1.12	1.24	1.40	1.61	2.36	1.61	1.40	1.24	1.12	0.93	0.85
180	2.37	1.60	1.40	1.21	1.12	0.94	0.84	0.94	1.12	1.21	1.40	1.60	2.37	1.60	1.40	1.21	1.12	0.94	0.84

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	273	272	272	272	272														
5	272	272	271	271	271														
10	270	269	269	268	268														
15	267	266	264	262	261														
20	262	260	257	254	252														
25	256	253	249	244	241														
30	249	245	238	232	227														
35	241	235	227	219	212														
40	233	225	214	204	195														
45	224	215	201	188	178														
50	214	203	188	172	160														
55	203	192	174	155	140														
60	192	179	160	139	120														
65	180	167	146	123	100														
70	168	154	132	107	81.1														
75	156	141	119	91.9	63.1														
80	144	129	106	78.3	46.9														
85	132	117	94.6	65.9	33.7														
90	120	105	82.9	54.7	23.6														
95	108	93.7	72.4	45.6	16.5														
100	95.5	82.7	62.5	36.7	10.8														
105	83.5	71.1	52.0	28.6	5.83														
110	71.0	59.6	41.9	20.6	2.63														
115	58.8	48.4	32.6	13.4	2.37														
120	47.1	37.4	23.5	6.93	2.28														
125	35.8	27.6	15.0	2.44	2.27														
130	25.2	18.0	7.19	2.11	2.26														
135	15.3	8.95	2.24	2.03	2.22														
140	6.09	2.14	1.67	1.91	2.14														
145	1.22	1.40	1.59	1.72	2.08														
150	0.89	1.19	1.36	1.62	2.07														
155	0.84	1.09	1.30	1.51	1.88														
160	0.86	1.10	1.29	1.47	1.75														
165	0.88	1.14	1.25	1.43	1.70														
170	0.90	1.18	1.21	1.41	1.66														
175	0.93	1.12	1.24	1.40	1.61														
180	0.94	1.12	1.21	1.40	1.60														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP2 @8W5000K	Sample ID	241225003-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	0.064	7.6	0.991	5.96
277.0	60	0.033	8.2	0.885	16.91

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*****