

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		751
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	144.4
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.4
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	6.22
				277V	10.47
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.993
				277V	0.927
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3447
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		83.7
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		10
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		94
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%		55.7%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	30.1
			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		0.041
(Goniophotometer – Section 4.2)			Non-Worst Case		0.084
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.4
(Goniophotometer – Section 4.2)			Non-Worst Case		10.0

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2024-12-26	STRP2 @10W3500K	-	241225003-S1
2	Goniophotometer Test	2024-12-26	STRP2 @10W3500K	-	241225003-S1
3	THD and PF Test	2024-12-26	STRP2 @10W3500K	-	241225003-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. STRP2 @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.	STRP2 @10W3500K	Sample ID	241225003-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

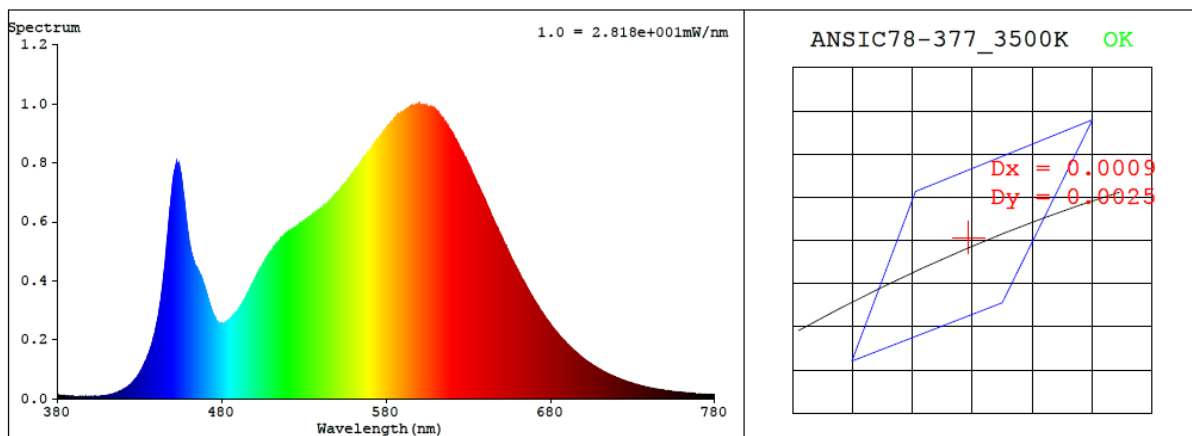
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.084	10.0	0.993
277.0	60	0.041	10.4	0.927

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
3447	83.7	10	0.0009	85	94	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4092$ $y = 0.3947$ / $u' = 0.2366$ $v' = 0.5135$ ($duv=8.68e-04$)

CCT= 3447K Prcp WL: $L_d=580.7nm$ Purity=41.3%

Peak WL: $L_p=600nm$ FWHM: $=144.5nm$ Ratio:R=20.6% G=76.2% B=3.2%

Render Index: $R_a = 83.7$ AvgR = 77.7 TM30:Rf=85 Rg=95

EEL: 0.09172 A++ Highest

R1 =82 R2 =91 R3 =97 R4 =82 R5 =82 R6 =89 R7 =85

R8 =62 R9 =10 R10=80 R11=81 R12=67 R13=85 R14=99 R15=75

4.1 Integrating Sphere Test

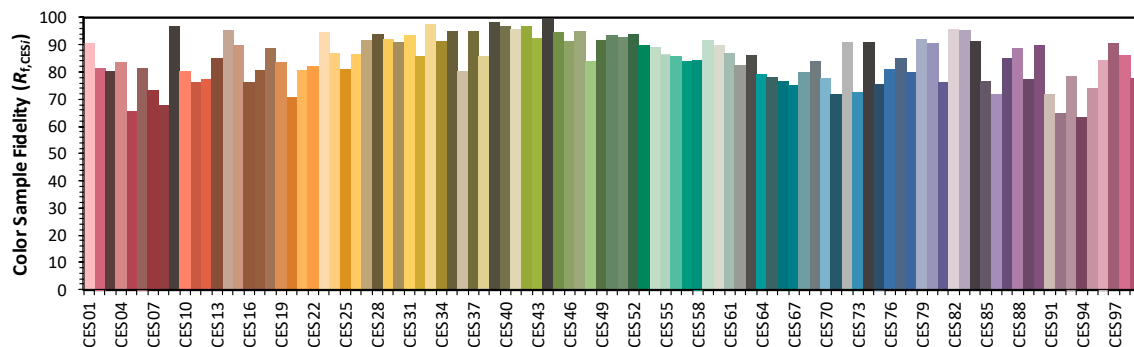
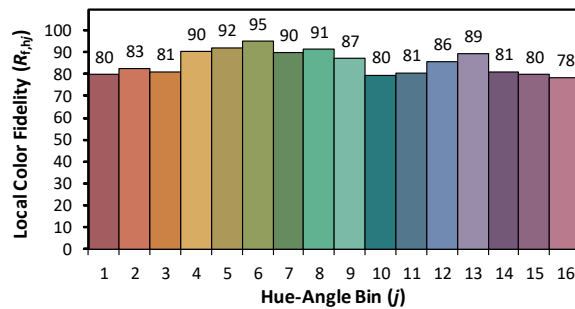
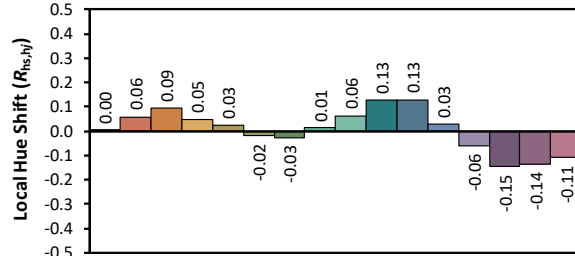
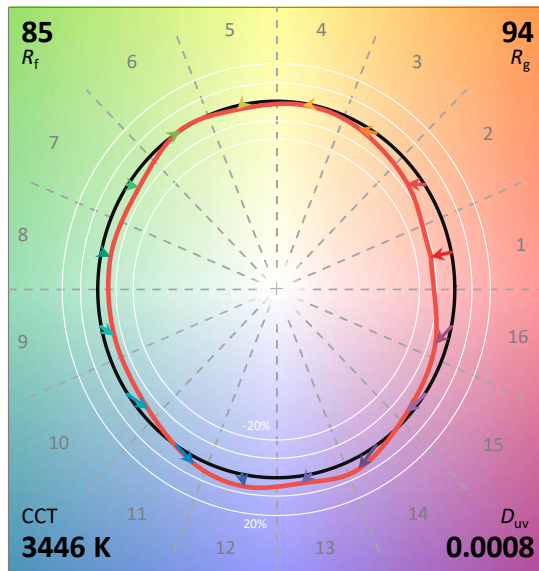
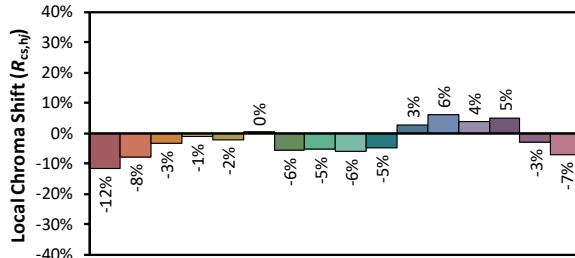
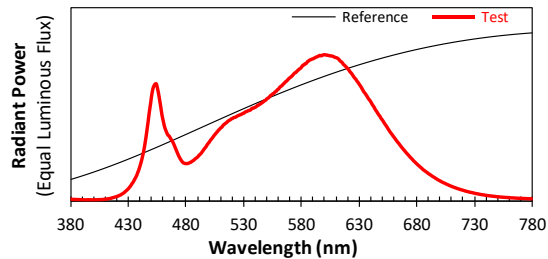
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2024/12/30

Model: STRP2 @10W3500K



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

x 0.4092
 y 0.3945
 u' 0.2367
 v' 0.5134

CIE 13.3-1995
(CRI)

R_a 84
 R_g 10

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	1.28E-05	447	5.48E-04	514	5.30E-04	581	9.25E-04	648	5.77E-04	715	8.47E-05
381	1.06E-05	448	6.10E-04	515	5.35E-04	582	9.28E-04	649	5.63E-04	716	8.24E-05
382	1.00E-05	449	6.63E-04	516	5.44E-04	583	9.37E-04	650	5.53E-04	717	7.94E-05
383	9.90E-06	450	7.22E-04	517	5.49E-04	584	9.38E-04	651	5.41E-04	718	7.70E-05
384	1.00E-05	451	7.64E-04	518	5.53E-04	585	9.50E-04	652	5.28E-04	719	7.47E-05
385	8.40E-06	452	7.86E-04	519	5.59E-04	586	9.55E-04	653	5.17E-04	720	7.23E-05
386	9.20E-06	453	7.98E-04	520	5.63E-04	587	9.62E-04	654	5.05E-04	721	7.01E-05
387	8.70E-06	454	7.99E-04	521	5.68E-04	588	9.65E-04	655	4.92E-04	722	6.72E-05
388	7.70E-06	455	7.69E-04	522	5.70E-04	589	9.69E-04	656	4.80E-04	723	6.55E-05
389	8.90E-06	456	7.30E-04	523	5.73E-04	590	9.70E-04	657	4.68E-04	724	6.32E-05
390	7.30E-06	457	6.83E-04	524	5.79E-04	591	9.76E-04	658	4.58E-04	725	6.14E-05
391	7.30E-06	458	6.34E-04	525	5.82E-04	592	9.79E-04	659	4.47E-04	726	5.91E-05
392	7.20E-06	459	5.83E-04	526	5.86E-04	593	9.83E-04	660	4.36E-04	727	5.77E-05
393	6.40E-06	460	5.46E-04	527	5.89E-04	594	9.86E-04	661	4.26E-04	728	5.60E-05
394	7.30E-06	461	5.11E-04	528	5.92E-04	595	9.91E-04	662	4.15E-04	729	5.43E-05
395	8.00E-06	462	4.87E-04	529	5.98E-04	596	9.93E-04	663	4.04E-04	730	5.19E-05
396	6.70E-06	463	4.67E-04	530	5.99E-04	597	9.90E-04	664	3.95E-04	731	5.03E-05
397	7.90E-06	464	4.50E-04	531	6.06E-04	598	9.95E-04	665	3.85E-04	732	4.92E-05
398	6.30E-06	465	4.44E-04	532	6.09E-04	599	9.97E-04	666	3.74E-04	733	4.74E-05
399	7.10E-06	466	4.31E-04	533	6.13E-04	600	9.99E-04	667	3.64E-04	734	4.59E-05
400	7.50E-06	467	4.18E-04	534	6.17E-04	601	9.96E-04	668	3.55E-04	735	4.41E-05
401	7.90E-06	468	4.06E-04	535	6.19E-04	602	9.96E-04	669	3.46E-04	736	4.28E-05
402	6.50E-06	469	3.90E-04	536	6.23E-04	603	9.93E-04	670	3.36E-04	737	4.17E-05
403	8.40E-06	470	3.71E-04	537	6.33E-04	604	9.93E-04	671	3.27E-04	738	4.04E-05
404	8.30E-06	471	3.52E-04	538	6.32E-04	605	9.90E-04	672	3.18E-04	739	3.94E-05
405	8.60E-06	472	3.33E-04	539	6.37E-04	606	9.90E-04	673	3.10E-04	740	3.76E-05
406	8.50E-06	473	3.15E-04	540	6.41E-04	607	9.87E-04	674	3.00E-04	741	3.66E-05
407	9.20E-06	474	2.98E-04	541	6.46E-04	608	9.84E-04	675	2.92E-04	742	3.55E-05
408	1.00E-05	475	2.84E-04	542	6.54E-04	609	9.80E-04	676	2.84E-04	743	3.47E-05
409	1.08E-05	476	2.72E-04	543	6.55E-04	610	9.78E-04	677	2.75E-04	744	3.35E-05
410	1.18E-05	477	2.63E-04	544	6.61E-04	611	9.75E-04	678	2.67E-04	745	3.26E-05
411	1.26E-05	478	2.58E-04	545	6.66E-04	612	9.69E-04	679	2.60E-04	746	3.18E-05
412	1.39E-05	479	2.55E-04	546	6.72E-04	613	9.60E-04	680	2.52E-04	747	3.07E-05
413	1.52E-05	480	2.55E-04	547	6.78E-04	614	9.52E-04	681	2.45E-04	748	3.00E-05
414	1.64E-05	481	2.55E-04	548	6.84E-04	615	9.47E-04	682	2.38E-04	749	2.91E-05
415	1.86E-05	482	2.57E-04	549	6.89E-04	616	9.35E-04	683	2.30E-04	750	2.82E-05
416	2.15E-05	483	2.61E-04	550	6.98E-04	617	9.27E-04	684	2.24E-04	751	2.78E-05
417	2.28E-05	484	2.65E-04	551	7.03E-04	618	9.20E-04	685	2.16E-04	752	2.66E-05
418	2.57E-05	485	2.70E-04	552	7.09E-04	619	9.12E-04	686	2.10E-04	753	2.60E-05
419	2.80E-05	486	2.75E-04	553	7.19E-04	620	9.03E-04	687	2.04E-04	754	2.53E-05
420	3.08E-05	487	2.82E-04	554	7.24E-04	621	8.94E-04	688	1.98E-04	755	2.46E-05
421	3.34E-05	488	2.89E-04	555	7.31E-04	622	8.81E-04	689	1.93E-04	756	2.42E-05
422	3.76E-05	489	2.94E-04	556	7.35E-04	623	8.74E-04	690	1.86E-04	757	2.36E-05
423	4.05E-05	490	3.01E-04	557	7.44E-04	624	8.63E-04	691	1.81E-04	758	2.31E-05
424	4.60E-05	491	3.11E-04	558	7.49E-04	625	8.50E-04	692	1.76E-04	759	2.27E-05
425	5.03E-05	492	3.18E-04	559	7.59E-04	626	8.40E-04	693	1.70E-04	760	2.21E-05
426	5.60E-05	493	3.26E-04	560	7.64E-04	627	8.31E-04	694	1.65E-04	761	2.11E-05
427	6.26E-05	494	3.37E-04	561	7.75E-04	628	8.18E-04	695	1.61E-04	762	2.06E-05
428	7.00E-05	495	3.48E-04	562	7.82E-04	629	8.09E-04	696	1.55E-04	763	2.04E-05
429	7.70E-05	496	3.60E-04	563	7.88E-04	630	7.96E-04	697	1.50E-04	764	1.99E-05
430	8.56E-05	497	3.69E-04	564	7.97E-04	631	7.85E-04	698	1.46E-04	765	1.93E-05
431	9.55E-05	498	3.82E-04	565	8.04E-04	632	7.72E-04	699	1.41E-04	766	1.88E-05
432	1.06E-04	499	3.93E-04	566	8.13E-04	633	7.58E-04	700	1.37E-04	767	1.84E-05
433	1.19E-04	500	4.02E-04	567	8.19E-04	634	7.45E-04	701	1.32E-04	768	1.80E-05
434	1.29E-04	501	4.15E-04	568	8.27E-04	635	7.35E-04	702	1.28E-04	769	1.74E-05
435	1.44E-04	502	4.23E-04	569	8.36E-04	636	7.23E-04	703	1.24E-04	770	1.74E-05
436	1.59E-04	503	4.34E-04	570	8.42E-04	637	7.11E-04	704	1.21E-04	771	1.70E-05
437	1.75E-04	504	4.45E-04	571	8.48E-04	638	6.98E-04	705	1.17E-04	772	1.66E-05
438	1.95E-04	505	4.55E-04	572	8.56E-04	639	6.88E-04	706	1.13E-04	773	1.62E-05
439	2.16E-04	506	4.64E-04	573	8.65E-04	640	6.77E-04	707	1.10E-04	774	1.58E-05
440	2.42E-04	507	4.73E-04	574	8.73E-04	641	6.62E-04	708	1.06E-04	775	1.54E-05
441	2.69E-04	508	4.84E-04	575	8.77E-04	642	6.50E-04	709	1.03E-04	776	1.51E-05
442	3.02E-04	509	4.91E-04	576	8.86E-04	643	6.38E-04	710	9.93E-05	777	1.47E-05
443	3.38E-04	510	4.99E-04	577	8.93E-04	644	6.23E-04	711	9.63E-05	778	1.47E-05
444	3.82E-04	511	5.05E-04	578	9.00E-04	645	6.12E-04	712	9.33E-05	779	1.45E-05
445	4.32E-04	512	5.17E-04	579	9.05E-04	646	5.99E-04	713	9.04E-05	780	1.45E-05
446	4.90E-04	513	5.23E-04	580	9.14E-04	647	5.87E-04	714	8.74E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP2 @10W3500K	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 $25 \pm 1^\circ\text{C}$, 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	0.041	10.4	0.927
NON-WORST CASE	120.0	60	0.084	10.0	0.993

Test Result

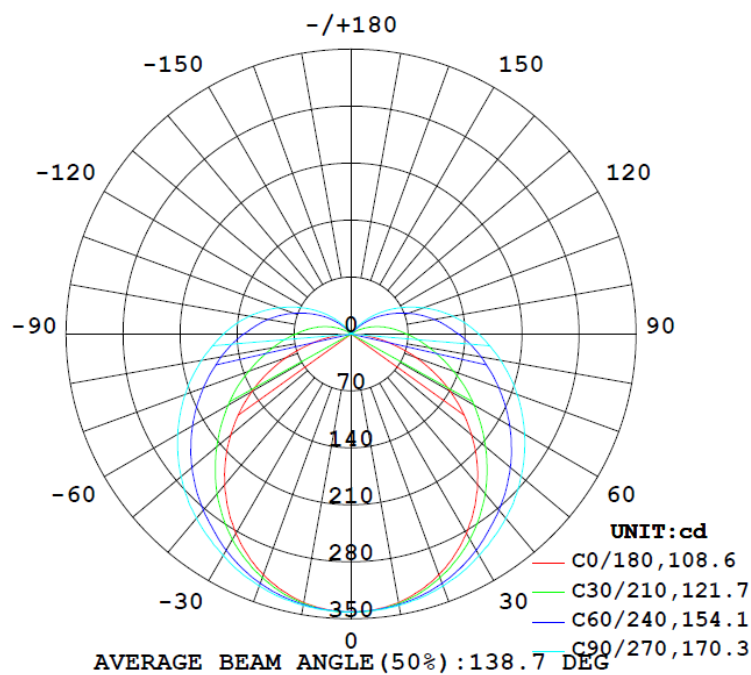
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
1502	751	160.7	160.7	108.5	170.2	144.4

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
55.7%	22.0	30.1

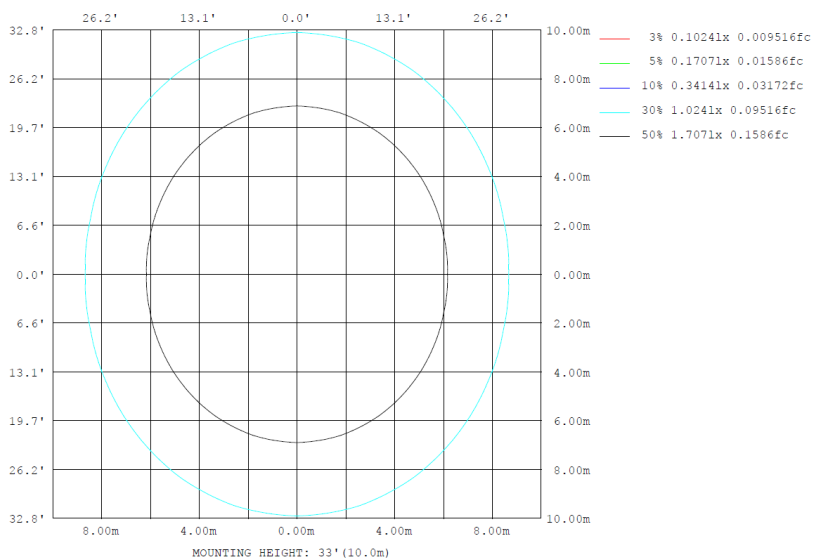
4.2 Goniophotometer Test

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	335.2	337.2	338.5	337.2	335.2	337.2	338.5	337.2	0- 10	32.39	32.39	2.16,2.16
20	314.7	322.8	329.6	322.8	314.7	322.8	329.6	322.8	10- 20	93.47	125.9	8.38,8.38
30	283.1	299.4	314.3	299.4	283.1	299.4	314.3	299.4	20- 30	143.8	269.7	18.18
40	241.5	269.1	295.7	269.1	241.5	269.1	295.7	269.1	30- 40	178.3	448.0	29.8,29.8
50	193.0	236.3	272.8	236.3	193.0	236.3	272.8	236.3	40- 50	194.9	642.8	42.8,42.8
60	140.3	201.3	246.1	201.3	140.3	201.3	246.1	201.3	50- 60	193.6	836.4	55.7,55.7
70	85.01	166.2	217.0	166.2	85.01	166.2	217.0	166.2	60- 70	176.8	1013	67.5,67.5
80	33.57	133.4	186.5	133.4	33.57	133.4	186.5	133.4	70- 80	149.3	1163	77.4,77.4
90	3.323	103.8	156.6	103.8	3.323	103.8	156.6	103.8	80- 90	118.0	1281	85.3,85.3
100	2.319	78.17	127.0	78.17	2.319	78.17	127.0	78.17	90-100	89.75	1370	91.3,91.3
110	2.319	52.42	94.60	52.42	2.319	52.42	94.60	52.42	100-110	63.26	1434	95.5,95.5
120	2.319	29.18	63.05	29.18	2.319	29.18	63.05	29.18	110-120	38.96	1473	98.1,98.1
130	2.319	8.775	34.99	8.775	2.319	8.775	34.99	8.775	120-130	19.58	1492	99.4,99.4
140	2.319	1.987	9.682	1.987	2.319	1.987	9.682	1.987	130-140	6.720	1499	99.8,99.8
150	2.319	1.662	1.196	1.662	2.319	1.662	1.196	1.662	140-150	1.362	1500	99.9,99.9
160	2.319	1.438	1.155	1.438	2.319	1.438	1.155	1.438	150-160	0.7345	1501	100,100
170	2.564	1.438	1.114	1.438	2.564	1.438	1.114	1.438	160-170	0.4273	1501	100,100
180	2.807	1.438	1.085	1.438	2.807	1.438	1.085	1.438	170-180	0.1446	1502	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm) Percent	
0-10	32.39	0-10	32.39 2.16%
10-20	93.47	0-20	125.86 8.38%
20-30	143.82	0-30	269.68 17.96%
30-40	178.29	0-40	447.97 29.84%
40-50	194.87	0-50	642.84 42.82%
50-60	193.61	0-60	836.45 55.71%
60-70	176.84	0-70	1013.29 67.49%
70-80	149.29	0-80	1162.58 77.43%
80-90	118.05	0-90	1280.63 85.29%
90-100	89.75	0-100	1370.38 91.27%
100-110	63.26	0-110	1433.64 95.49%
110-120	38.96	0-120	1472.60 98.08%
120-130	19.58	0-130	1492.18 99.38%
130-140	6.72	0-140	1498.90 99.83%
140-150	1.36	0-150	1500.26 99.92%
150-160	0.73	0-160	1500.99 99.97%
160-170	0.43	0-170	1501.42 100.00%
170-180	0.15	0-180	1501.57 100.01%

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	19.7	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	18.6	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	20.7	21.8	22.5	25.9	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	20.6	21.4	21.3	22.1	22.9	29.8	30.5	30.4	31.2	32.0
8H	4H	21.3	22.1	21.9	22.8	23.6	26.0	26.9	26.7	27.5	28.3
	6H	22.0	22.7	22.6	23.4	24.2	28.0	28.7	28.7	29.5	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	22.8	23.4	23.5	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	17.9	19.3	18.5	19.9	20.6	22.0	23.4	22.6	24.0	24.7
	3H	19.3	20.6	19.9	21.2	21.9	25.0	26.3	25.6	26.9	27.6
	4H	19.7	21.0	20.3	21.6	22.3	26.6	27.8	27.2	28.4	29.1
	6H	20.0	21.1	20.6	21.8	22.5	28.2	29.4	28.8	30.0	30.7
	8H	20.0	21.2	20.7	21.8	22.5	29.1	30.2	29.7	30.8	31.6
	12H	20.0	21.1	20.7	21.8	22.5	30.0	31.1	30.6	31.7	32.5
4H	2H	19.2	20.5	19.8	21.1	21.8	22.3	23.6	22.9	24.2	24.9
	3H	20.9	22.0	21.5	22.6	23.4	25.6	26.6	26.2	27.3	28.0
	4H	21.5	22.5	22.1	23.2	23.9	27.3	28.2	27.9	28.9	29.7
	6H	21.9	22.8	22.6	23.5	24.2	29.1	30.0	29.7	30.7	31.4
	8H	22.0	22.8	22.7	23.5	24.3	30.1	30.9	30.7	31.6	32.4
	12H	22.0	22.8	22.7	23.5	24.3	31.2	31.9	31.8	32.6	33.4
8H	4H	22.7	23.5	23.3	24.2	25.0	27.4	28.3	28.1	28.9	29.7
	6H	23.4	24.1	24.0	24.8	25.6	29.4	30.1	30.1	30.9	31.6
	8H	23.6	24.2	24.3	24.9	25.7	30.5	31.2	31.2	31.9	32.7
	12H	23.7	24.3	24.4	25.0	25.9	31.8	32.4	32.5	33.1	33.9
12H	4H	23.1	23.8	23.7	24.5	25.3	27.4	28.2	28.1	28.9	29.7
	6H	23.9	24.5	24.6	25.2	26.1	29.5	30.1	30.2	30.8	31.6
	8H	24.2	24.8	24.9	25.5	26.4	30.6	31.2	31.3	31.9	32.8

Maximum UGR = 33.9

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	341	342	342	342	341	341	341	341	341	342	342	342	341	342	342	342	341	341	341
5	340	341	340	341	340	341	341	341	340	341	340	341	340	341	340	341	340	341	341
10	335	336	336	337	337	337	339	339	337	337	336	336	335	336	336	337	337	339	339
15	326	327	329	331	333	334	335	334	333	331	329	327	326	327	329	331	333	334	335
20	315	316	319	323	326	329	330	329	326	323	319	316	315	316	319	323	326	329	330
25	300	302	306	312	318	321	323	321	318	312	306	302	300	302	306	312	318	321	323
30	283	285	292	299	307	313	314	313	307	299	292	285	283	285	292	299	307	313	314
35	263	266	275	285	295	303	305	303	295	285	275	266	263	266	275	285	295	303	305
40	241	246	256	269	283	292	296	292	283	269	256	246	241	246	256	269	283	292	296
45	218	223	236	253	269	281	285	281	269	253	236	223	218	223	236	253	269	281	285
50	193	200	215	236	255	268	273	268	255	236	215	200	193	200	215	236	255	268	273
55	167	175	195	219	240	254	260	254	240	219	195	175	167	175	195	219	240	254	260
60	140	151	174	201	225	240	246	240	225	201	174	151	140	151	174	201	225	240	246
65	113	125	154	183	209	226	232	226	209	183	154	125	113	125	154	183	209	226	232
70	85.0	101	134	166	193	211	217	211	193	166	134	101	85.0	101	134	166	193	211	217
75	58.0	78.9	115	150	177	196	202	196	177	150	115	78.9	58.0	78.9	115	150	177	196	202
80	33.6	58.7	97.7	133	162	181	187	181	162	133	97.7	58.7	33.6	58.7	97.7	133	162	181	187
85	13.6	42.0	82.5	119	147	165	171	165	147	119	82.5	42.0	13.6	42.0	82.5	119	147	165	171
90	3.32	29.4	68.3	104	132	150	157	150	132	104	68.3	29.4	3.32	29.4	68.3	104	132	150	157
95	2.42	20.6	56.9	90.9	117	135	142	135	117	90.9	56.9	20.6	2.42	20.6	56.9	90.9	117	135	142
100	2.32	13.1	45.6	78.2	104	120	127	120	104	78.2	45.6	13.1	2.32	13.1	45.6	78.2	104	120	127
105	2.32	6.93	35.5	65.0	89.2	105	111	105	89.2	65.0	35.5	6.93	2.32	6.93	35.5	65.0	89.2	105	111
110	2.32	2.92	25.6	52.4	74.6	88.9	94.6	88.9	74.6	52.4	25.6	2.92	2.32	2.92	25.6	52.4	74.6	88.9	94.6
115	2.32	2.61	16.5	40.6	60.7	73.5	78.6	73.5	60.7	40.6	16.5	2.61	2.32	2.61	16.5	40.6	60.7	73.5	78.6
120	2.32	2.46	8.33	29.2	47.0	59.1	63.1	59.1	47.0	29.2	8.33	2.46	2.32	2.46	8.33	29.2	47.0	59.1	63.1
125	2.32	2.41	2.90	18.3	34.4	44.9	48.4	44.9	34.4	18.3	2.90	2.41	2.32	2.41	2.90	18.3	34.4	44.9	48.4
130	2.32	2.37	2.47	8.78	22.4	31.7	35.0	31.7	22.4	8.78	2.47	2.37	2.32	2.37	2.47	8.78	22.4	31.7	35.0
135	2.32	2.32	2.23	2.41	11.2	19.2	22.0	19.2	11.2	2.41	2.23	2.32	2.32	2.32	2.23	2.41	11.2	19.2	22.0
140	2.32	2.27	2.05	1.99	2.66	7.61	9.68	7.61	2.66	1.99	2.05	2.27	2.32	2.27	2.05	1.99	2.66	7.61	9.68
145	2.32	2.23	1.97	1.73	1.66	1.33	1.58	1.33	1.66	1.73	1.97	2.23	2.32	2.23	1.97	1.73	1.66	1.33	1.58
150	2.32	2.19	1.97	1.66	1.56	0.96	1.20	0.96	1.56	1.66	1.97	2.19	2.32	2.19	1.97	1.66	1.56	0.96	1.20
155	2.32	2.06	1.68	1.49	1.33	0.99	1.18	0.99	1.33	1.49	1.68	2.06	2.32	2.06	1.68	1.49	1.33	0.99	1.18
160	2.32	1.94	1.66	1.44	1.27	1.01	1.15	1.01	1.27	1.44	1.66	1.94	2.32	1.94	1.66	1.44	1.27	1.01	1.15
165	2.44	1.90	1.63	1.44	1.25	1.04	1.13	1.04	1.25	1.44	1.63	1.90	2.44	1.90	1.63	1.44	1.25	1.04	1.13
170	2.56	1.87	1.60	1.44	1.23	1.06	1.11	1.06	1.23	1.44	1.60	1.87	2.56	1.87	1.60	1.44	1.23	1.06	1.11
175	2.81	1.83	1.57	1.44	1.21	1.20	1.09	1.20	1.21	1.44	1.57	1.83	2.81	1.83	1.57	1.44	1.21	1.20	1.09
180	2.81	1.82	1.56	1.44	1.20	1.55	1.08	1.55	1.20	1.44	1.56	1.82	2.81	1.82	1.56	1.44	1.20	1.55	1.08

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	341	341	342	342	342														
5	341	340	341	340	341														
10	339	337	337	336	336														
15	334	333	331	329	327														
20	329	326	323	319	316														
25	321	318	312	306	302														
30	313	307	299	292	285														
35	303	295	285	275	266														
40	292	283	269	256	246														
45	281	269	253	236	223														
50	268	255	236	215	200														
55	254	240	219	195	175														
60	240	225	201	174	151														
65	226	209	183	154	125														
70	211	193	166	134	101														
75	196	177	150	115	78.9														
80	181	162	133	97.7	58.7														
85	165	147	119	82.5	42.0														
90	150	132	104	68.3	29.4														
95	135	117	90.9	56.9	20.6														
100	120	104	78.2	45.6	13.1														
105	105	89.2	65.0	35.5	6.93														
110	88.9	74.6	52.4	25.6	2.92														
115	73.5	60.7	40.6	16.5	2.61														
120	59.1	47.0	29.2	8.33	2.46														
125	44.9	34.4	18.3	2.90	2.41														
130	31.7	22.4	8.78	2.47	2.37														
135	19.2	11.2	2.41	2.23	2.32														
140	7.61	2.66	1.99	2.05	2.27														
145	1.33	1.66	1.73	1.97	2.23														
150	0.96	1.56	1.66	1.97	2.19														
155	0.99	1.33	1.49	1.68	2.06														
160	1.01	1.27	1.44	1.66	1.94														
165	1.04	1.25	1.44	1.63	1.90														
170	1.06	1.23	1.44	1.60	1.87														
175	1.20	1.21	1.44	1.57	1.83														
180	1.55	1.20	1.44	1.56	1.82														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP2 @10W3500K	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	0.084	10.0	0.993	6.22
277.0	60	0.041	10.4	0.927	10.47

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*****