

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		779
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	152.7
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.2
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	8.64
				277V	21.81
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.983
				277V	0.844
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4071
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		85.0
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		18
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		85
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		95
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-11%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	≥40%		62.6%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	26.8
			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		0.044
(Goniophotometer – Section 4.2)			Non-Worst Case		0.081
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.2
(Goniophotometer – Section 4.2)			Non-Worst Case		9.5

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-02	STRP2H @10W4000K	-	241225004-S1
2	Goniophotometer Test	2025-01-02	STRP2H @10W4000K	-	241225004-S1
3	THD and PF Test	2025-01-02	STRP2H @10W4000K	-	241225004-S1

Remark (If any):

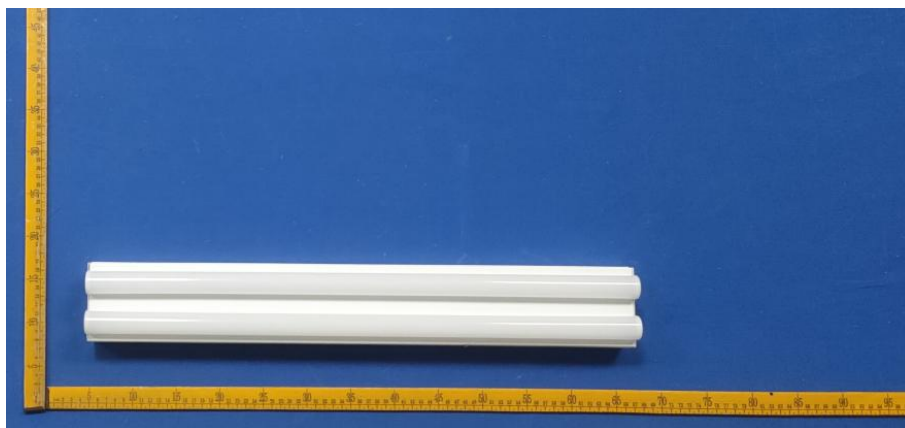
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
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3.0 Product Description

Luminaire Description: Model No. STRP2H @10W4000K, 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.	STRP2H @10W4000K	Sample ID	241225004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

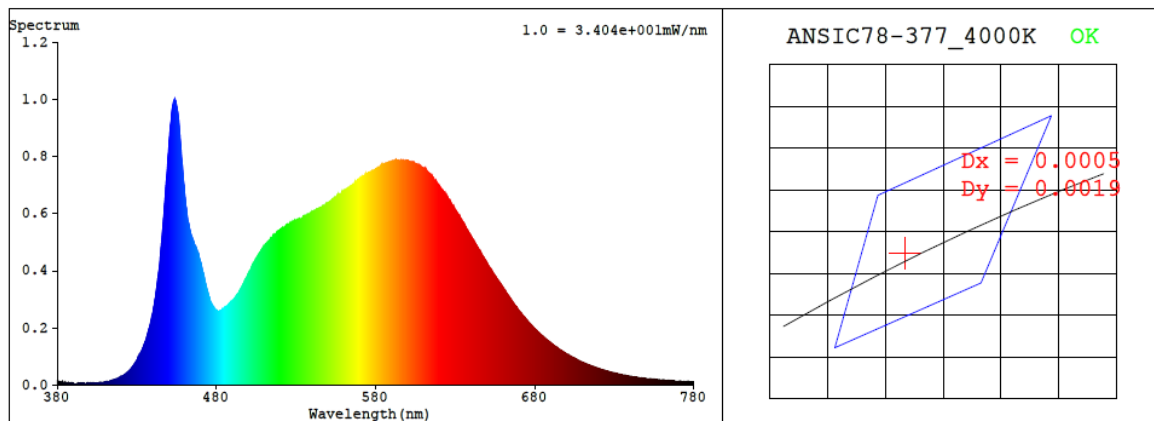
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.081	9.5	0.983
277.0	60	0.044	10.2	0.844

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
4071	85.0	18	0.0007	85	95	-11%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3778$ $y = 0.3767$ / $u' = 0.2234$ $v' = 0.5012$ ($duv=7.31e-04$)

CCT= 4071K Prcp WL: Ld=578.4nm Purity=26.4%

Peak WL: Lp=454nm FWHM: =20.4nm Ratio:R=18.4% G=77.7% B=3.9%

Render Index: Ra = 85.0 AvgR = 78.9 TM30:Rf=85 Rg=95

EEL: 0.08989 A++ Highest

R1 =84 R2 =92 R3 =96 R4 =83 R5 =83 R6 =88 R7 =87

R8 =68 R9 =18 R10=79 R11=82 R12=62 R13=86 R14=98 R15=78

4.1 Integrating Sphere Test

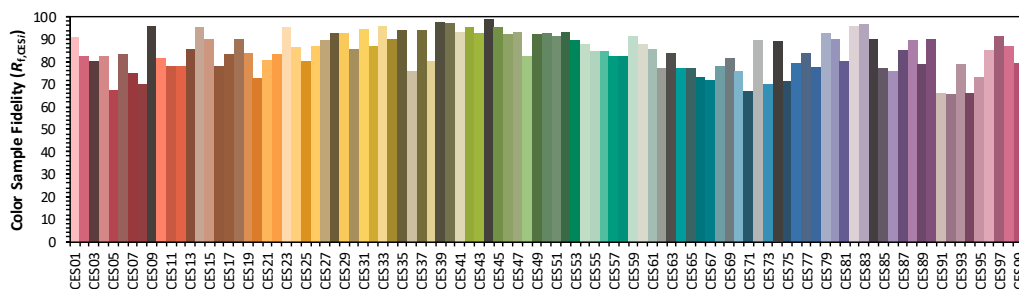
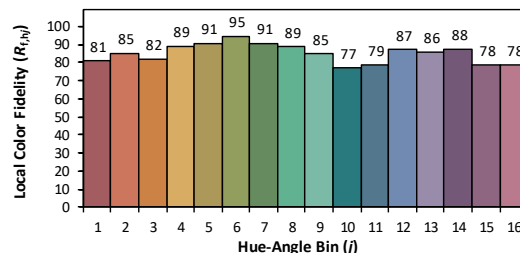
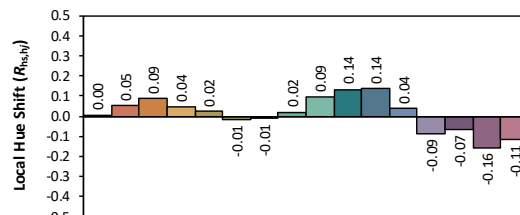
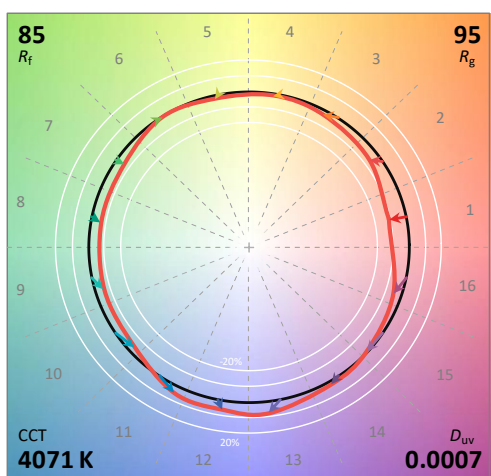
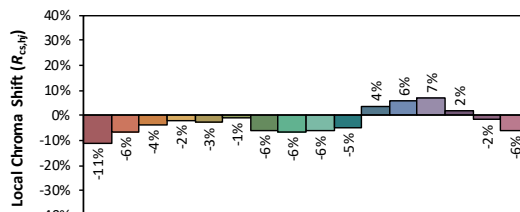
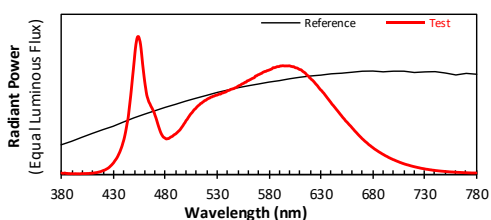
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/4

Model: STRP2H @10W4000K



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

x 0.3778
 y 0.3765
 u' 0.2235
 v' 0.5011

CIE 13.3-1995
(CRI)
 R_a 85
 R_g 18

4.1 Integrating Sphere Test

Spectral Distribution over Visible Wavelength											
WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)
380	1.19E-05	447	6.06E-04	514	5.14E-04	581	7.58E-04	648	4.45E-04	715	6.83E-05
381	9.20E-06	448	6.83E-04	515	5.17E-04	582	7.61E-04	649	4.35E-04	716	6.61E-05
382	1.06E-05	449	7.56E-04	516	5.24E-04	583	7.65E-04	650	4.26E-04	717	6.38E-05
383	1.16E-05	450	8.33E-04	517	5.29E-04	584	7.72E-04	651	4.16E-04	718	6.18E-05
384	8.60E-06	451	9.09E-04	518	5.35E-04	585	7.72E-04	652	4.08E-04	719	5.98E-05
385	9.40E-06	452	9.62E-04	519	5.37E-04	586	7.74E-04	653	4.00E-04	720	5.80E-05
386	6.60E-06	453	9.93E-04	520	5.43E-04	587	7.77E-04	654	3.89E-04	721	5.63E-05
387	8.40E-06	454	9.97E-04	521	5.48E-04	588	7.80E-04	655	3.82E-04	722	5.45E-05
388	5.80E-06	455	9.76E-04	522	5.52E-04	589	7.80E-04	656	3.74E-04	723	5.29E-05
389	7.30E-06	456	9.40E-04	523	5.54E-04	590	7.81E-04	657	3.66E-04	724	5.11E-05
390	6.90E-06	457	8.74E-04	524	5.61E-04	591	7.85E-04	658	3.57E-04	725	4.97E-05
391	6.20E-06	458	8.00E-04	525	5.61E-04	592	7.85E-04	659	3.50E-04	726	4.78E-05
392	6.40E-06	459	7.34E-04	526	5.66E-04	593	7.86E-04	660	3.41E-04	727	4.61E-05
393	7.10E-06	460	6.73E-04	527	5.67E-04	594	7.86E-04	661	3.33E-04	728	4.48E-05
394	6.50E-06	461	6.22E-04	528	5.71E-04	595	7.85E-04	662	3.24E-04	729	4.36E-05
395	6.30E-06	462	5.75E-04	529	5.73E-04	596	7.85E-04	663	3.15E-04	730	4.22E-05
396	6.40E-06	463	5.50E-04	530	5.75E-04	597	7.85E-04	664	3.08E-04	731	4.06E-05
397	6.00E-06	464	5.26E-04	531	5.79E-04	598	7.85E-04	665	3.00E-04	732	3.92E-05
398	6.40E-06	465	5.12E-04	532	5.82E-04	599	7.86E-04	666	2.91E-04	733	3.85E-05
399	7.50E-06	466	4.95E-04	533	5.81E-04	600	7.86E-04	667	2.83E-04	734	3.71E-05
400	7.30E-06	467	4.82E-04	534	5.86E-04	601	7.83E-04	668	2.76E-04	735	3.59E-05
401	7.40E-06	468	4.66E-04	535	5.90E-04	602	7.81E-04	669	2.68E-04	736	3.48E-05
402	8.00E-06	469	4.51E-04	536	5.91E-04	603	7.79E-04	670	2.60E-04	737	3.40E-05
403	7.80E-06	470	4.28E-04	537	5.95E-04	604	7.80E-04	671	2.54E-04	738	3.23E-05
404	8.30E-06	471	4.07E-04	538	5.96E-04	605	7.74E-04	672	2.47E-04	739	3.18E-05
405	8.40E-06	472	3.83E-04	539	6.00E-04	606	7.71E-04	673	2.40E-04	740	3.08E-05
406	8.50E-06	473	3.58E-04	540	6.06E-04	607	7.71E-04	674	2.34E-04	741	2.97E-05
407	9.50E-06	474	3.35E-04	541	6.08E-04	608	7.67E-04	675	2.28E-04	742	2.89E-05
408	9.80E-06	475	3.14E-04	542	6.10E-04	609	7.62E-04	676	2.20E-04	743	2.81E-05
409	1.02E-05	476	2.96E-04	543	6.16E-04	610	7.59E-04	677	2.14E-04	744	2.72E-05
410	1.08E-05	477	2.83E-04	544	6.17E-04	611	7.57E-04	678	2.09E-04	745	2.65E-05
411	1.24E-05	478	2.72E-04	545	6.20E-04	612	7.51E-04	679	2.02E-04	746	2.57E-05
412	1.33E-05	479	2.67E-04	546	6.21E-04	613	7.44E-04	680	1.97E-04	747	2.50E-05
413	1.45E-05	480	2.62E-04	547	6.26E-04	614	7.40E-04	681	1.91E-04	748	2.44E-05
414	1.55E-05	481	2.58E-04	548	6.28E-04	615	7.34E-04	682	1.86E-04	749	2.37E-05
415	1.76E-05	482	2.60E-04	549	6.33E-04	616	7.26E-04	683	1.81E-04	750	2.30E-05
416	1.94E-05	483	2.61E-04	550	6.37E-04	617	7.16E-04	684	1.76E-04	751	2.23E-05
417	2.14E-05	484	2.65E-04	551	6.42E-04	618	7.13E-04	685	1.71E-04	752	2.17E-05
418	2.35E-05	485	2.71E-04	552	6.45E-04	619	7.02E-04	686	1.66E-04	753	2.14E-05
419	2.69E-05	486	2.74E-04	553	6.50E-04	620	6.96E-04	687	1.61E-04	754	2.03E-05
420	2.99E-05	487	2.78E-04	554	6.55E-04	621	6.88E-04	688	1.57E-04	755	2.01E-05
421	3.24E-05	488	2.85E-04	555	6.58E-04	622	6.82E-04	689	1.52E-04	756	1.94E-05
422	3.54E-05	489	2.90E-04	556	6.62E-04	623	6.75E-04	690	1.48E-04	757	1.92E-05
423	3.99E-05	490	2.95E-04	557	6.67E-04	624	6.66E-04	691	1.44E-04	758	1.87E-05
424	4.38E-05	491	3.02E-04	558	6.68E-04	625	6.57E-04	692	1.39E-04	759	1.80E-05
425	4.88E-05	492	3.09E-04	559	6.77E-04	626	6.49E-04	693	1.35E-04	760	1.77E-05
426	5.49E-05	493	3.16E-04	560	6.79E-04	627	6.41E-04	694	1.31E-04	761	1.72E-05
427	6.24E-05	494	3.23E-04	561	6.83E-04	628	6.30E-04	695	1.27E-04	762	1.68E-05
428	6.94E-05	495	3.33E-04	562	6.86E-04	629	6.21E-04	696	1.23E-04	763	1.66E-05
429	7.78E-05	496	3.44E-04	563	6.91E-04	630	6.12E-04	697	1.20E-04	764	1.61E-05
430	8.65E-05	497	3.54E-04	564	6.95E-04	631	6.06E-04	698	1.16E-04	765	1.60E-05
431	9.80E-05	498	3.67E-04	565	6.98E-04	632	5.96E-04	699	1.12E-04	766	1.54E-05
432	1.08E-04	499	3.77E-04	566	7.01E-04	633	5.88E-04	700	1.09E-04	767	1.52E-05
433	1.19E-04	500	3.91E-04	567	7.12E-04	634	5.78E-04	701	1.06E-04	768	1.46E-05
434	1.33E-04	501	3.99E-04	568	7.13E-04	635	5.68E-04	702	1.03E-04	769	1.43E-05
435	1.49E-04	502	4.11E-04	569	7.19E-04	636	5.58E-04	703	9.95E-05	770	1.40E-05
436	1.65E-04	503	4.22E-04	570	7.22E-04	637	5.49E-04	704	9.64E-05	771	1.39E-05
437	1.84E-04	504	4.34E-04	571	7.25E-04	638	5.39E-04	705	9.35E-05	772	1.34E-05
438	2.05E-04	505	4.43E-04	572	7.30E-04	639	5.29E-04	706	9.04E-05	773	1.31E-05
439	2.30E-04	506	4.51E-04	573	7.32E-04	640	5.19E-04	707	8.73E-05	774	1.29E-05
440	2.55E-04	507	4.61E-04	574	7.38E-04	641	5.09E-04	708	8.50E-05	775	1.26E-05
441	2.89E-04	508	4.70E-04	575	7.41E-04	642	5.01E-04	709	8.17E-05	776	1.20E-05
442	3.26E-04	509	4.76E-04	576	7.45E-04	643	4.91E-04	710	7.96E-05	777	1.22E-05
443	3.70E-04	510	4.85E-04	577	7.46E-04	644	4.83E-04	711	7.66E-05	778	1.20E-05
444	4.09E-04	511	4.93E-04	578	7.50E-04	645	4.73E-04	712	7.47E-05	779	1.21E-05
445	4.73E-04	512	5.00E-04	579	7.52E-04	646	4.64E-04	713	7.21E-05	780	1.21E-05
446	5.37E-04	513	5.05E-04	580	7.55E-04	647	4.54E-04	714	7.04E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP2H @10W4000K	Sample ID	241225004-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	0.044	10.2	0.844
NON-WORST CASE	120.0	60	0.081	9.5	0.983

Test Result

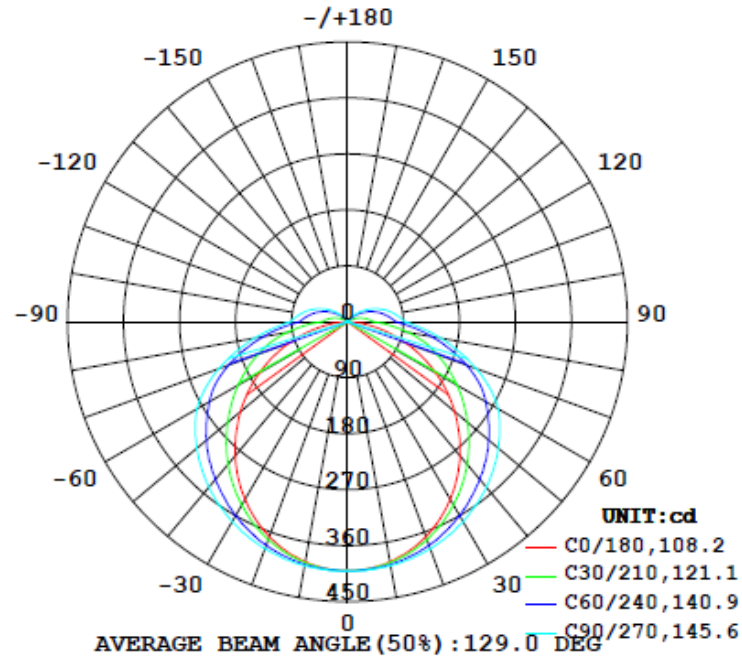
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
1557	779	162.5	162.5	108.7	145.5	152.7

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
62.6%	21.4	26.8

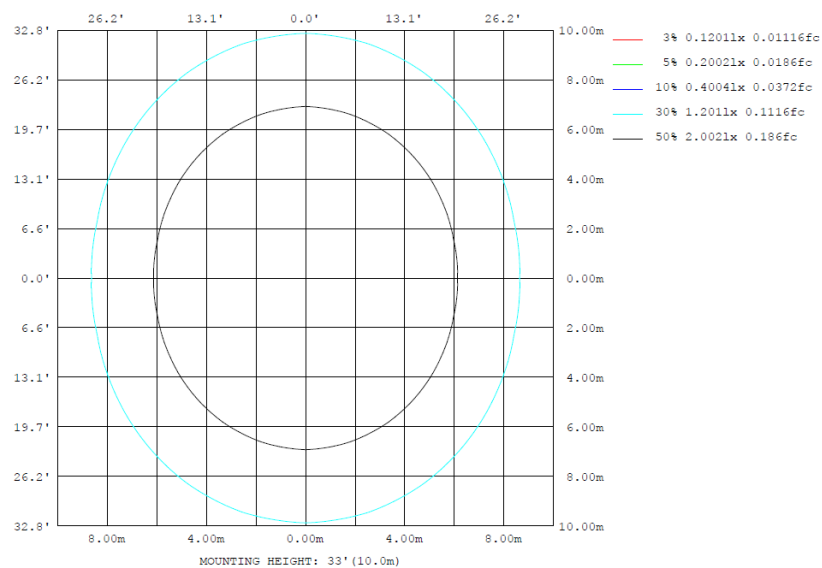
4.2 Goniophotometer Test

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	391.7	395.4	398.1	395.4	391.7	395.4	398.1	395.4	0- 10	37.96	37.96	2.44, 2.44
20	367.8	377.8	388.3	377.8	367.8	377.8	388.3	377.8	10- 20	109.5	147.4	9.47, 9.47
30	329.8	350.6	371.0	350.6	329.8	350.6	371.0	350.6	20- 30	168.3	315.8	20.3, 20.3
40	281.1	314.6	347.1	314.6	281.1	314.6	347.1	314.6	30- 40	208.6	524.3	33.7, 33.7
50	224.7	275.3	316.5	275.3	224.7	275.3	316.5	275.3	40- 50	227.2	751.6	48.3, 48.3
60	163.3	231.6	279.5	231.6	163.3	231.6	279.5	231.6	50- 60	224.0	975.6	62.6, 62.6
70	99.86	184.3	220.0	184.3	99.86	184.3	220.0	184.3	60- 70	198.8	1174	75.4, 75.4
80	38.76	120.8	152.0	120.8	38.76	120.8	152.0	120.8	70- 80	150.1	1324	85.1, 85.1
90	2.902	62.46	92.37	62.46	2.902	62.46	92.37	62.46	80- 90	89.64	1414	90.8, 90.8
100	2.523	48.45	76.08	48.45	2.523	48.45	76.08	48.45	90-100	54.47	1469	94.3, 94.3
110	2.523	34.02	59.12	34.02	2.523	34.02	59.12	34.02	100-110	39.92	1509	96.9, 96.9
120	2.710	20.54	40.91	20.54	2.710	20.54	40.91	20.54	110-120	25.81	1534	98.5, 98.5
130	2.804	8.588	24.19	8.588	2.804	8.588	24.19	8.588	120-130	14.06	1548	99.4, 99.4
140	2.804	2.026	9.391	2.026	2.804	2.026	9.391	2.026	130-140	5.818	1554	99.8, 99.8
150	2.898	1.750	1.018	1.750	2.898	1.750	1.018	1.750	140-150	1.613	1556	99.9, 99.9
160	2.897	1.474	1.018	1.474	2.897	1.474	1.018	1.474	150-160	0.8091	1557	100, 100
170	2.990	1.474	1.204	1.474	2.990	1.474	1.204	1.474	160-170	0.4693	1557	100, 100
180	2.990	1.474	1.202	1.474	2.990	1.474	1.202	1.474	170-180	0.1664	1557	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	37.96	0-10	37.96	2.44%
10-20	109.47	0-20	147.43	9.47%
20-30	168.34	0-30	315.77	20.28%
30-40	208.57	0-40	524.34	33.67%
40-50	227.23	0-50	751.57	48.27%
50-60	223.99	0-60	975.56	62.65%
60-70	198.84	0-70	1174.40	75.42%
70-80	150.06	0-80	1324.46	85.06%
80-90	89.64	0-90	1414.10	90.82%
90-100	54.47	0-100	1468.57	94.32%
100-110	39.92	0-110	1508.49	96.88%
110-120	25.81	0-120	1534.30	98.54%
120-130	14.06	0-130	1548.36	99.44%
130-140	5.82	0-140	1554.18	99.81%
140-150	1.61	0-150	1555.79	99.92%
150-160	0.81	0-160	1556.60	99.97%
160-170	0.47	0-170	1557.07	100.00%
170-180	0.17	0-180	1557.24	100.01%

4.2 Goniophotometer Test

UGR – Uncorrected Table:

UGR TABLE - UNCORRECTED

Reflectances		70	70	50	50	30	70	70	50	50	30
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	15.4	17.0	15.9	17.4	18.0	18.6	20.1	19.1	20.6	21.2
	3H	17.0	18.4	17.5	18.9	19.5	21.2	22.6	21.8	23.1	23.7
	4H	17.5	18.9	18.1	19.4	20.0	22.4	23.8	23.0	24.3	24.9
	6H	17.9	19.1	18.4	19.6	20.2	23.6	24.8	24.1	25.4	26.0
	8H	17.9	19.1	18.5	19.7	20.3	24.2	25.4	24.7	25.9	26.5
	12H	18.0	19.1	18.5	19.6	20.3	24.8	25.9	25.3	26.4	27.1
4H	2H	16.7	18.0	17.2	18.5	19.1	19.1	20.4	19.6	20.9	21.5
	3H	18.6	19.7	19.1	20.3	20.9	21.9	23.1	22.5	23.6	24.2
	4H	19.3	20.3	19.8	20.9	21.5	23.3	24.3	23.9	24.9	25.5
	6H	19.8	20.7	20.3	21.3	21.9	24.7	25.6	25.2	26.2	26.8
	8H	19.9	20.8	20.5	21.4	22.0	25.3	26.2	25.9	26.8	27.4
	12H	19.9	20.7	20.6	21.4	22.0	26.0	26.8	26.6	27.4	28.1
8H	4H	20.2	21.1	20.8	21.7	22.3	23.5	24.4	24.1	25.0	25.7
	6H	20.9	21.7	21.6	22.3	23.0	25.1	25.8	25.7	26.4	27.1
	8H	21.2	21.9	21.8	22.5	23.2	25.9	26.5	26.5	27.2	27.9
	12H	21.4	22.0	22.0	22.6	23.3	26.8	27.4	27.4	28.0	28.7
12H	4H	20.4	21.2	21.0	21.9	22.5	23.6	24.4	24.2	25.0	25.6
	6H	21.3	22.0	21.9	22.6	23.3	25.1	25.8	25.8	26.4	27.1
	8H	21.7	22.2	22.3	22.9	23.6	26.0	26.6	26.6	27.2	28.0

Maximum UGR = 28.7

UGR – Corrected Table:

UGR TABLE - CORRECTED

Reflectances		70	70	50	50	30	70	70	50	50	30
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	16.9	18.5	17.4	18.9	19.5	20.1	21.6	20.6	22.1	22.7
	3H	18.5	19.9	19.0	20.4	21.0	22.7	24.1	23.3	24.6	25.2
	4H	19.0	20.4	19.6	20.9	21.5	23.9	25.3	24.5	25.8	26.4
	6H	19.4	20.6	19.9	21.1	21.7	25.1	26.3	25.6	26.9	27.5
	8H	19.4	20.6	20.0	21.2	21.8	25.7	26.9	26.2	27.4	28.0
	12H	19.5	20.6	20.0	21.1	21.8	26.3	27.4	26.8	27.9	28.6
4H	2H	18.2	19.5	18.7	20.0	20.6	20.6	21.9	21.1	22.4	23.0
	3H	20.1	21.2	20.6	21.8	22.4	23.4	24.6	24.0	25.1	25.7
	4H	20.8	21.8	21.3	22.4	23.0	24.8	25.8	25.4	26.4	27.0
	6H	21.3	22.2	21.8	22.8	23.4	26.2	27.1	26.7	27.7	28.3
	8H	21.4	22.3	22.0	22.9	23.5	26.8	27.7	27.4	28.3	28.9
	12H	21.4	22.2	22.1	22.9	23.5	27.5	28.3	28.1	28.9	29.6
8H	4H	21.7	22.6	22.3	23.2	23.8	25.0	25.9	25.6	26.5	27.2
	6H	22.4	23.2	23.1	23.8	24.5	26.6	27.3	27.2	27.9	28.6
	8H	22.7	23.4	23.3	24.0	24.7	27.4	28.0	28.0	28.7	29.4
	12H	22.9	23.5	23.5	24.1	24.8	28.3	28.9	28.9	29.5	30.2
12H	4H	21.9	22.7	22.5	23.4	24.0	25.1	25.9	25.7	26.5	27.1
	6H	22.8	23.5	23.4	24.1	24.8	26.6	27.3	27.3	27.9	28.6
	8H	23.2	23.7	23.8	24.4	25.1	27.5	28.1	28.1	28.7	29.5

Maximum UGR = 30.2

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
y (DEG)	0	400	400	400	401	400	401	401	400	401	400	400	400	400	400	401	400	401	401
5	398	398	399	399	399	400	400	400	399	399	399	398	398	398	399	399	399	400	400
10	392	392	393	395	397	397	398	397	397	395	393	392	392	392	393	395	397	397	398
15	382	382	385	388	390	393	395	393	390	388	385	382	382	382	385	388	390	393	395
20	368	368	373	378	382	386	388	386	382	378	373	368	368	368	373	378	382	386	388
25	350	352	358	365	372	377	380	377	372	365	358	352	350	352	358	365	372	377	380
30	330	332	340	351	360	367	371	367	360	351	340	332	330	332	340	351	360	367	371
35	307	310	321	333	345	355	360	355	345	333	321	310	307	310	321	333	345	355	360
40	281	286	299	315	331	342	347	342	331	315	299	286	281	286	299	315	331	342	347
45	253	259	276	295	315	327	333	327	315	295	276	259	253	259	276	295	315	327	333
50	225	232	252	275	296	311	317	311	296	275	252	232	225	232	252	275	296	311	317
55	195	204	227	254	276	293	299	293	276	254	227	204	195	204	227	254	276	293	299
60	163	175	203	232	257	274	279	274	257	232	203	175	163	175	203	232	257	274	279
65	132	147	178	209	233	247	252	247	233	209	178	147	132	147	178	209	233	247	252
70	99.9	119	153	184	203	216	220	216	203	184	153	119	99.9	119	153	184	203	216	220
75	68.3	92.1	128	153	170	182	186	182	170	153	128	92.1	68.3	92.1	128	153	170	182	186
80	38.8	66.8	98.8	121	137	148	152	148	137	121	98.8	66.8	38.8	66.8	98.8	121	137	148	152
85	14.7	42.3	68.5	89.8	106	116	120	116	106	89.8	68.5	42.3	14.7	42.3	68.5	89.8	106	116	120
90	2.90	19.8	42.3	62.5	78.3	88.8	92.4	88.8	78.3	62.5	42.3	19.8	2.90	19.8	42.3	62.5	78.3	88.8	92.4
95	2.62	14.7	35.7	54.9	70.2	80.1	84.2	80.1	70.2	54.9	35.7	14.7	2.62	14.7	35.7	54.9	70.2	80.1	84.2
100	2.52	10.1	29.9	48.4	62.7	72.2	76.1	72.2	62.7	48.4	29.9	10.1	2.52	10.1	29.9	48.4	62.7	72.2	76.1
105	2.52	6.32	23.8	41.3	55.3	64.2	68.0	64.2	55.3	41.3	23.8	6.32	2.52	6.32	23.8	41.3	55.3	64.2	68.0
110	2.52	3.25	18.0	34.0	47.4	55.7	59.1	55.7	47.4	34.0	18.0	3.25	2.52	3.25	18.0	34.0	47.4	55.7	59.1
115	2.62	2.69	12.7	27.2	39.2	47.0	50.0	47.0	39.2	27.2	12.7	2.69	2.62	2.69	12.7	27.2	39.2	47.0	50.0
120	2.71	2.87	7.95	20.5	31.5	38.4	40.9	38.4	31.5	20.5	7.95	2.87	2.71	2.87	7.95	20.5	31.5	38.4	40.9
125	2.80	2.69	3.70	14.4	24.0	30.3	32.3	30.3	24.0	14.4	3.70	2.69	2.80	2.69	3.70	14.4	24.0	30.3	32.3
130	2.80	2.69	2.58	8.59	17.0	22.5	24.2	22.5	17.0	8.59	2.58	2.69	2.80	2.69	2.58	8.59	17.0	22.5	24.2
135	2.80	2.69	2.40	3.52	10.2	15.1	16.5	15.1	10.2	3.52	2.40	2.69	2.80	2.69	2.40	3.52	10.2	15.1	16.5
140	2.80	2.69	2.31	2.03	4.16	8.14	9.39	8.14	4.16	2.03	2.31	2.69	2.80	2.69	2.31	2.03	4.16	8.14	9.39
145	2.80	2.60	2.21	1.93	1.57	2.05	2.78	2.05	1.57	1.93	2.21	2.60	2.80	2.60	2.21	1.93	1.57	2.05	2.78
150	2.90	2.60	2.03	1.75	1.47	1.20	1.02	1.20	1.47	1.75	2.03	2.60	2.90	2.60	2.03	1.75	1.47	1.20	1.02
155	2.90	2.50	1.85	1.66	1.38	1.20	1.02	1.20	1.38	1.66	1.85	2.50	2.90	2.50	1.85	1.66	1.38	1.20	1.02
160	2.90	2.23	1.66	1.47	1.38	1.11	1.02	1.11	1.38	1.47	1.66	2.23	2.90	2.23	1.66	1.47	1.38	1.11	1.02
165	2.99	2.23	1.66	1.47	1.38	1.11	1.02	1.11	1.38	1.47	1.66	2.23	2.99	2.23	1.66	1.47	1.38	1.11	1.02
170	2.99	2.41	1.66	1.47	1.38	1.29	1.20	1.29	1.38	1.47	1.66	2.41	2.99	2.41	1.66	1.47	1.38	1.29	1.20
175	2.99	2.69	1.66	1.47	1.38	1.20	1.20	1.20	1.38	1.47	1.66	2.69	2.99	2.69	1.66	1.47	1.38	1.20	1.20
180	2.99	2.69	1.66	1.47	1.38	1.38	1.20	1.38	1.38	1.47	1.66	2.69	2.99	2.69	1.66	1.47	1.38	1.38	1.20

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
y (DEG)	0	401	400	401	400	400													
5	400	399	399	399	398														
10	397	397	395	393	392														
15	393	390	388	385	382														
20	386	382	378	373	368														
25	377	372	365	358	352														
30	367	360	351	340	332														
35	355	345	333	321	310														
40	342	331	315	299	286														
45	327	315	295	276	259														
50	311	296	275	252	232														
55	293	276	254	227	204														
60	274	257	232	203	175														
65	247	233	209	178	147														
70	216	203	184	153	119														
75	182	170	153	128	92.1														
80	148	137	121	98.8	66.8														
85	116	106	89.8	68.5	42.3														
90	88.8	78.3	62.5	42.3	19.8														
95	80.1	70.2	54.9	35.7	14.7														
100	72.2	62.7	48.4	29.9	10.1														
105	64.2	55.3	41.3	23.8	6.32														
110	55.7	47.4	34.0	18.0	3.25														
115	47.0	39.2	27.2	12.7	2.69														
120	38.4	31.5	20.5	7.95	2.87														
125	30.3	24.0	14.4	3.70	2.69														
130	22.5	17.0	8.59	2.58	2.69														
135	15.1	10.2	3.52	2.40	2.69														
140	8.14	4.16	2.03	2.31	2.69														
145	2.05	1.57	1.93	2.21	2.60														
150	1.20	1.47	1.75	2.03	2.60														
155	1.20	1.38	1.66	1.85	2.50														
160	1.11	1.38	1.47	1.66	2.23														
165	1.11	1.38	1.47	1.66	2.23														
170	1.29	1.38	1.47	1.66	2.41														
175	1.20	1.38	1.47	1.66	2.69														
180	1.38	1.38	1.47	1.66	2.69														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP2H @10W4000K	Sample ID	241225004-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	0.081	9.5	0.983	8.64
277.0	60	0.044	10.2	0.844	21.81

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*****