

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: 2024-12-30

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		1483
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	150.5
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.7
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	8.05
				277V	8.58
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.994
				277V	0.951
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3435
			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		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%		62.7%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	29.1
			N/A	<22	
Input Voltage (V)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Cast		120.0
(Goniophotometer – Section 4.2)			Non-Worst Case		277.0
Input Current (A)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		0.165
(Goniophotometer – Section 4.2)			Non-Worst Case		0.074
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.7
(Goniophotometer – Section 4.2)			Non-Worst Case		19.5

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2024-12-26	STRP2H @20W3500K	-	241225004-S1
2	Goniophotometer Test	2024-12-26	STRP2H @20W3500K	-	241225004-S1
3	THD and PF Test	2024-12-26	STRP2H @20W3500K	-	241225004-S1

Remark (If any):

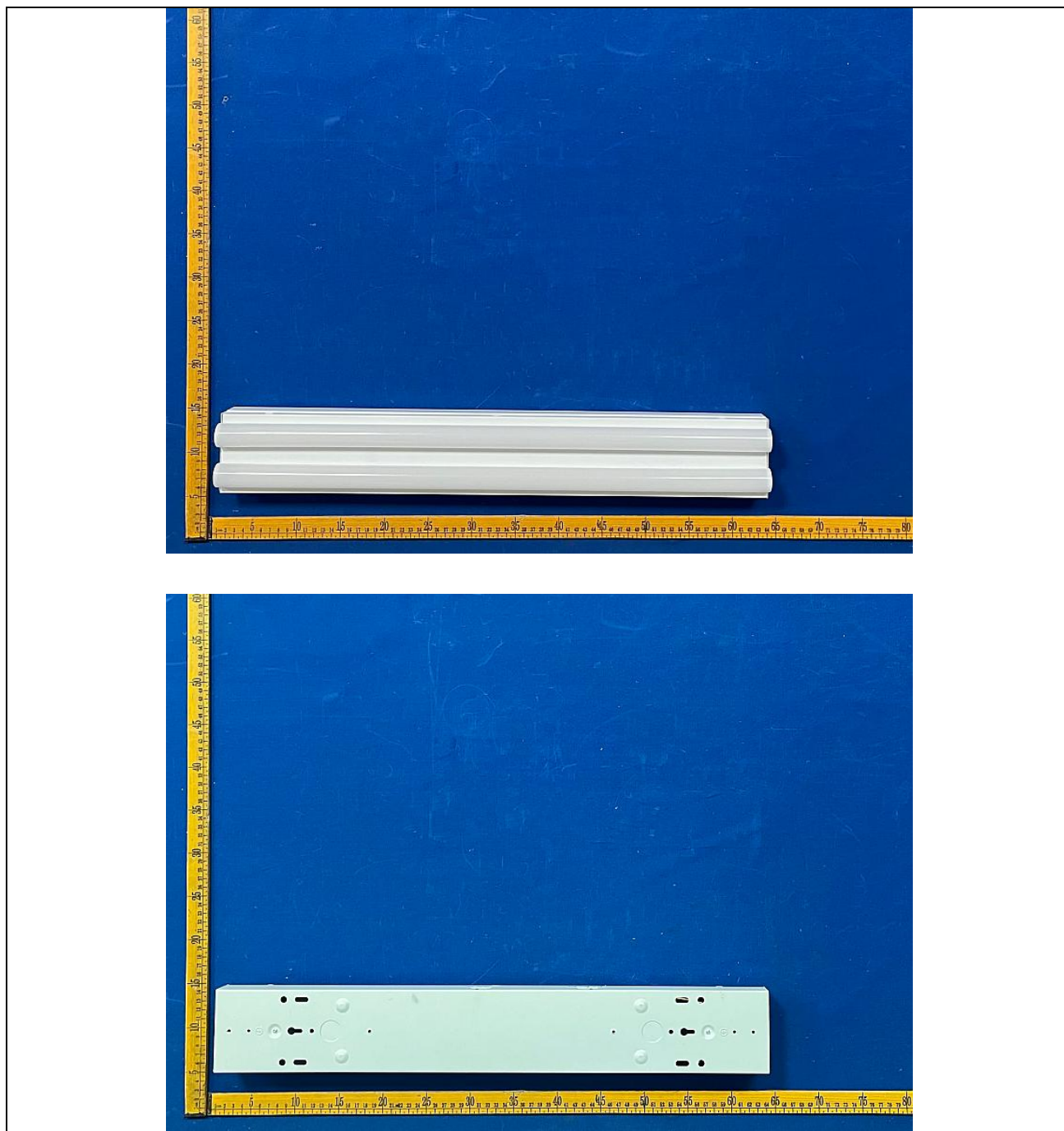
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
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3.0 Product Description

Luminaire Description: Model No. STRP2H @20W3500K, 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 @20W3500K	Sample ID	241225004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

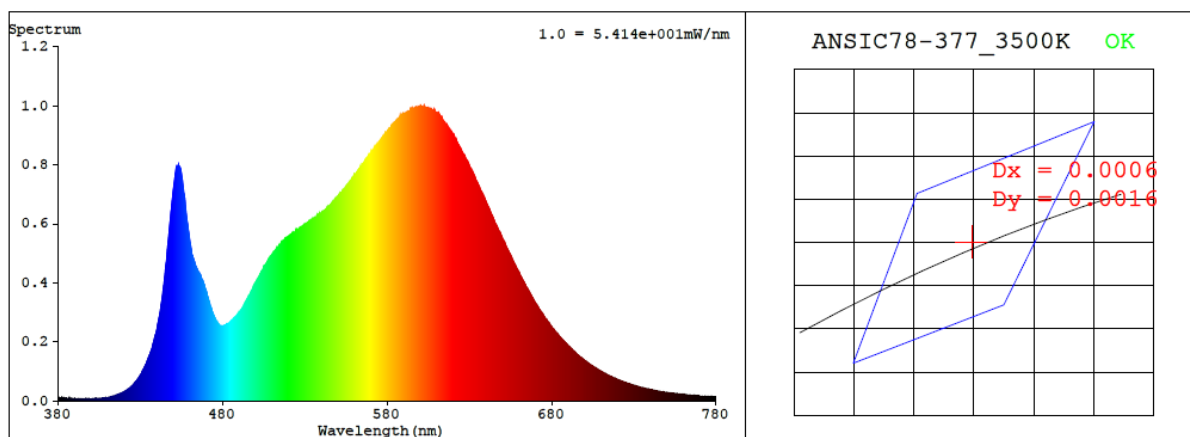
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.165	19.7	0.994
277.0	60	0.074	19.5	0.951

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
3435	83.7	10	0.0006	85	95	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4096$ $y = 0.3941$ / $u' = 0.2371$ $v' = 0.5133$ ($duv=5.64e-04$)

CCT= 3435K Prcp WL: $L_d=580.9nm$ Purity=41.2%

Peak WL: $L_p=601nm$ FWHM: $=144.2nm$ Ratio:R=20.6% G=76.2% B=3.2%

Render Index: $R_a = 83.7$ AvgR = 77.8 TM30:Rf=85 Rg=95

EEL: 0.09323 A++ Highest

R1 =82 R2 =91 R3 =97 R4 =82 R5 =82 R6 =89 R7 =84

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

4.1 Integrating Sphere Test

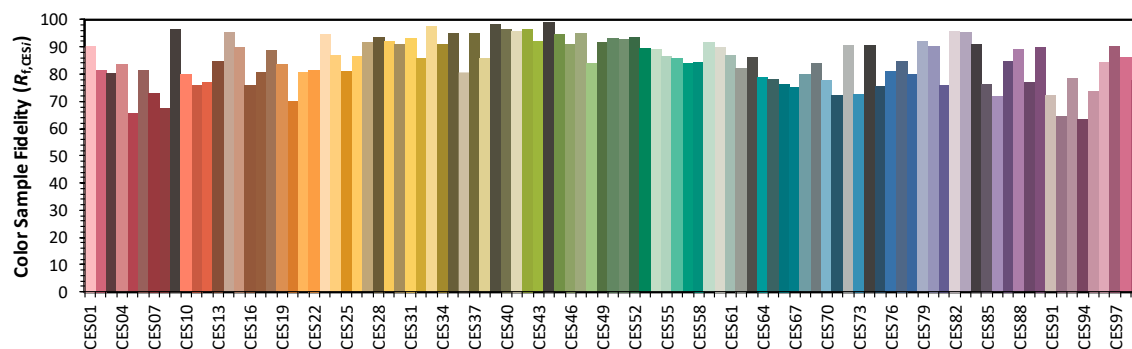
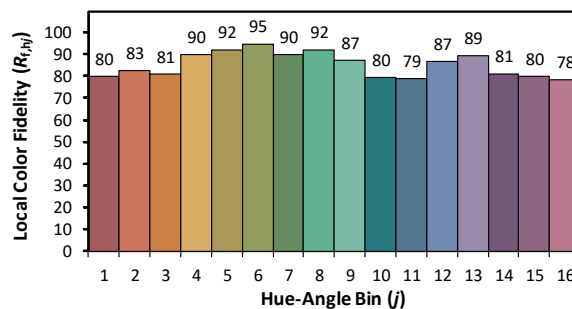
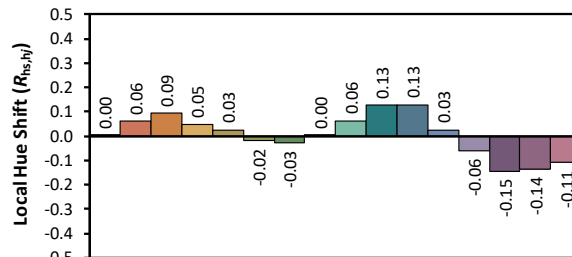
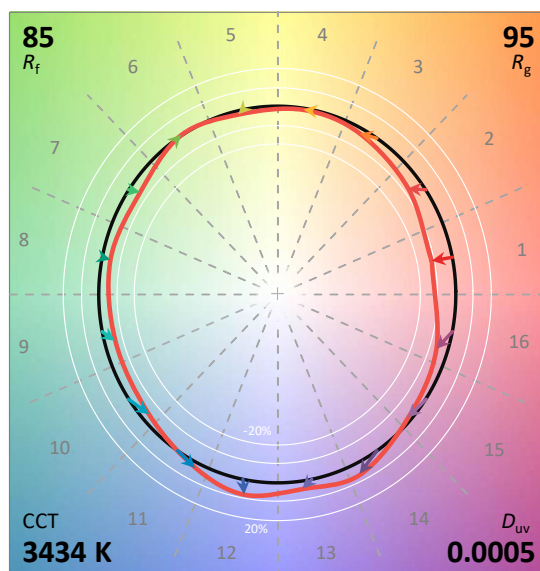
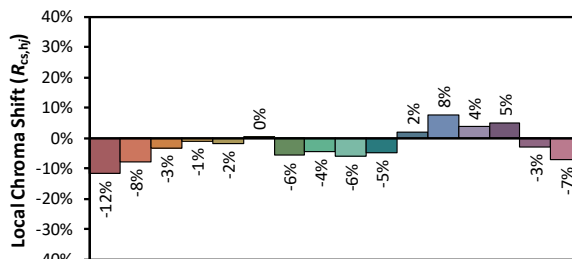
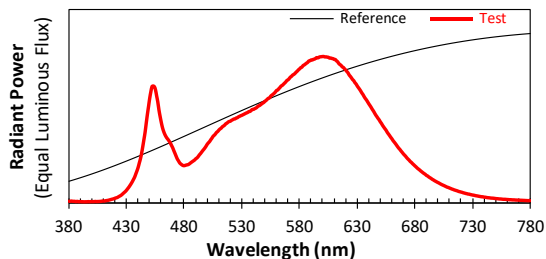
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2024/12/30

Model: STRP2H @20W3500K



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

x 0.4096
 y 0.3940
 u' 0.2371
 v' 0.5133

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	1.02E-05	447	5.43E-04	514	5.23E-04	581	9.21E-04	648	5.75E-04	715	8.52E-05
381	9.80E-06	448	6.03E-04	515	5.29E-04	582	9.24E-04	649	5.65E-04	716	8.28E-05
382	1.15E-05	449	6.57E-04	516	5.38E-04	583	9.35E-04	650	5.52E-04	717	8.02E-05
383	1.00E-05	450	7.12E-04	517	5.43E-04	584	9.39E-04	651	5.41E-04	718	7.69E-05
384	9.60E-06	451	7.56E-04	518	5.50E-04	585	9.45E-04	652	5.27E-04	719	7.49E-05
385	9.40E-06	452	7.92E-04	519	5.54E-04	586	9.52E-04	653	5.16E-04	720	7.27E-05
386	7.20E-06	453	7.96E-04	520	5.56E-04	587	9.57E-04	654	5.05E-04	721	7.06E-05
387	9.30E-06	454	7.91E-04	521	5.62E-04	588	9.66E-04	655	4.94E-04	722	6.77E-05
388	7.80E-06	455	7.71E-04	522	5.66E-04	589	9.68E-04	656	4.80E-04	723	6.58E-05
389	6.90E-06	456	7.29E-04	523	5.71E-04	590	9.74E-04	657	4.69E-04	724	6.33E-05
390	8.20E-06	457	6.88E-04	524	5.72E-04	591	9.73E-04	658	4.59E-04	725	6.18E-05
391	6.60E-06	458	6.34E-04	525	5.78E-04	592	9.78E-04	659	4.47E-04	726	5.93E-05
392	6.90E-06	459	5.90E-04	526	5.80E-04	593	9.79E-04	660	4.37E-04	727	5.86E-05
393	6.00E-06	460	5.50E-04	527	5.86E-04	594	9.85E-04	661	4.24E-04	728	5.62E-05
394	6.40E-06	461	5.14E-04	528	5.89E-04	595	9.90E-04	662	4.14E-04	729	5.44E-05
395	6.50E-06	462	4.89E-04	529	5.93E-04	596	9.87E-04	663	4.04E-04	730	5.25E-05
396	6.80E-06	463	4.68E-04	530	5.96E-04	597	9.93E-04	664	3.93E-04	731	5.14E-05
397	7.60E-06	464	4.53E-04	531	6.00E-04	598	9.95E-04	665	3.82E-04	732	4.94E-05
398	6.40E-06	465	4.40E-04	532	6.04E-04	599	9.96E-04	666	3.72E-04	733	4.77E-05
399	7.70E-06	466	4.30E-04	533	6.09E-04	600	9.97E-04	667	3.63E-04	734	4.64E-05
400	7.50E-06	467	4.19E-04	534	6.12E-04	601	9.97E-04	668	3.53E-04	735	4.49E-05
401	7.20E-06	468	4.06E-04	535	6.16E-04	602	9.94E-04	669	3.43E-04	736	4.33E-05
402	7.80E-06	469	3.90E-04	536	6.21E-04	603	9.95E-04	670	3.33E-04	737	4.19E-05
403	8.80E-06	470	3.74E-04	537	6.23E-04	604	9.93E-04	671	3.25E-04	738	4.07E-05
404	7.50E-06	471	3.54E-04	538	6.29E-04	605	9.91E-04	672	3.16E-04	739	4.02E-05
405	8.30E-06	472	3.35E-04	539	6.36E-04	606	9.86E-04	673	3.06E-04	740	3.81E-05
406	8.30E-06	473	3.16E-04	540	6.36E-04	607	9.87E-04	674	2.98E-04	741	3.75E-05
407	9.20E-06	474	2.98E-04	541	6.41E-04	608	9.84E-04	675	2.90E-04	742	3.60E-05
408	9.80E-06	475	2.85E-04	542	6.45E-04	609	9.82E-04	676	2.81E-04	743	3.46E-05
409	1.17E-05	476	2.72E-04	543	6.51E-04	610	9.77E-04	677	2.75E-04	744	3.39E-05
410	1.10E-05	477	2.64E-04	544	6.59E-04	611	9.76E-04	678	2.66E-04	745	3.29E-05
411	1.24E-05	478	2.58E-04	545	6.62E-04	612	9.67E-04	679	2.59E-04	746	3.18E-05
412	1.40E-05	479	2.54E-04	546	6.67E-04	613	9.61E-04	680	2.51E-04	747	3.12E-05
413	1.52E-05	480	2.53E-04	547	6.73E-04	614	9.49E-04	681	2.44E-04	748	3.08E-05
414	1.66E-05	481	2.55E-04	548	6.79E-04	615	9.42E-04	682	2.37E-04	749	2.97E-05
415	1.87E-05	482	2.58E-04	549	6.84E-04	616	9.36E-04	683	2.30E-04	750	2.85E-05
416	2.10E-05	483	2.59E-04	550	6.92E-04	617	9.26E-04	684	2.24E-04	751	2.76E-05
417	2.33E-05	484	2.63E-04	551	6.98E-04	618	9.22E-04	685	2.17E-04	752	2.72E-05
418	2.52E-05	485	2.69E-04	552	7.06E-04	619	9.13E-04	686	2.11E-04	753	2.59E-05
419	2.77E-05	486	2.75E-04	553	7.12E-04	620	9.05E-04	687	2.05E-04	754	2.57E-05
420	3.09E-05	487	2.81E-04	554	7.16E-04	621	8.95E-04	688	1.99E-04	755	2.50E-05
421	3.35E-05	488	2.86E-04	555	7.27E-04	622	8.85E-04	689	1.94E-04	756	2.39E-05
422	3.61E-05	489	2.92E-04	556	7.33E-04	623	8.71E-04	690	1.87E-04	757	2.33E-05
423	4.10E-05	490	3.00E-04	557	7.40E-04	624	8.62E-04	691	1.82E-04	758	2.34E-05
424	4.54E-05	491	3.06E-04	558	7.47E-04	625	8.51E-04	692	1.76E-04	759	2.27E-05
425	4.99E-05	492	3.14E-04	559	7.55E-04	626	8.40E-04	693	1.71E-04	760	2.19E-05
426	5.61E-05	493	3.25E-04	560	7.65E-04	627	8.32E-04	694	1.66E-04	761	2.15E-05
427	6.34E-05	494	3.34E-04	561	7.69E-04	628	8.18E-04	695	1.60E-04	762	2.05E-05
428	7.05E-05	495	3.45E-04	562	7.78E-04	629	8.10E-04	696	1.56E-04	763	2.06E-05
429	7.75E-05	496	3.55E-04	563	7.86E-04	630	7.96E-04	697	1.50E-04	764	1.98E-05
430	8.65E-05	497	3.65E-04	564	7.96E-04	631	7.85E-04	698	1.46E-04	765	1.93E-05
431	9.67E-05	498	3.75E-04	565	8.00E-04	632	7.74E-04	699	1.42E-04	766	1.93E-05
432	1.07E-04	499	3.87E-04	566	8.08E-04	633	7.62E-04	700	1.38E-04	767	1.85E-05
433	1.19E-04	500	4.00E-04	567	8.16E-04	634	7.48E-04	701	1.34E-04	768	1.81E-05
434	1.31E-04	501	4.09E-04	568	8.24E-04	635	7.37E-04	702	1.29E-04	769	1.79E-05
435	1.45E-04	502	4.18E-04	569	8.34E-04	636	7.23E-04	703	1.25E-04	770	1.73E-05
436	1.60E-04	503	4.30E-04	570	8.38E-04	637	7.11E-04	704	1.21E-04	771	1.70E-05
437	1.76E-04	504	4.40E-04	571	8.47E-04	638	7.01E-04	705	1.18E-04	772	1.67E-05
438	1.97E-04	505	4.53E-04	572	8.56E-04	639	6.88E-04	706	1.14E-04	773	1.64E-05
439	2.18E-04	506	4.60E-04	573	8.62E-04	640	6.75E-04	707	1.10E-04	774	1.60E-05
440	2.42E-04	507	4.69E-04	574	8.70E-04	641	6.63E-04	708	1.06E-04	775	1.56E-05
441	2.72E-04	508	4.80E-04	575	8.75E-04	642	6.51E-04	709	1.04E-04	776	1.51E-05
442	3.00E-04	509	4.86E-04	576	8.82E-04	643	6.37E-04	710	1.00E-04	777	1.47E-05
443	3.38E-04	510	4.95E-04	577	8.90E-04	644	6.26E-04	711	9.71E-05	778	1.43E-05
444	3.83E-04	511	5.03E-04	578	8.97E-04	645	6.12E-04	712	9.36E-05	779	1.42E-05
445	4.31E-04	512	5.08E-04	579	9.06E-04	646	5.99E-04	713	9.10E-05	780	1.43E-05
446	4.80E-04	513	5.18E-04	580	9.13E-04	647	5.87E-04	714	8.77E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP2H @20W3500K	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±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	120.0	60	0.165	19.7	0.994
NON-WORST CASE	277.0	60	0.074	19.5	0.951

Test Result

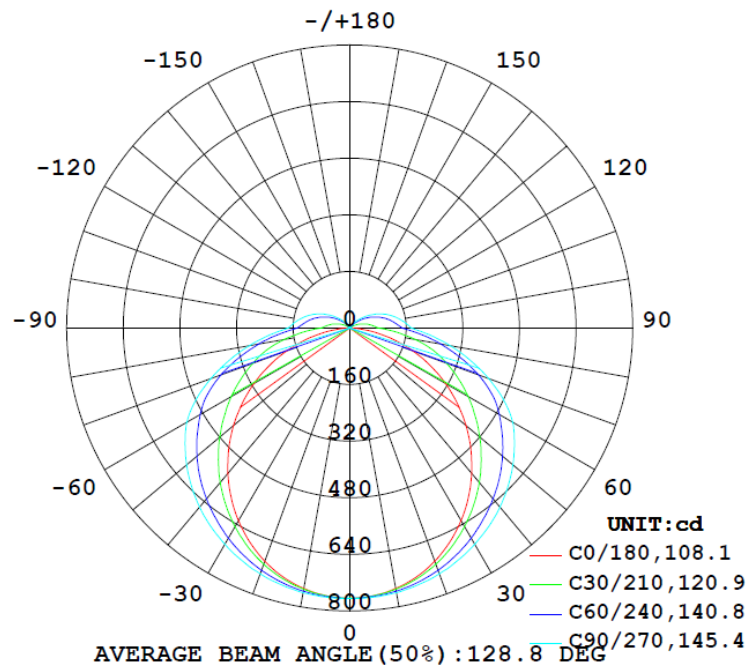
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
2965	1483	162.5	162.5	108.8	145.3	150.5

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
62.7%	23.7	29.1

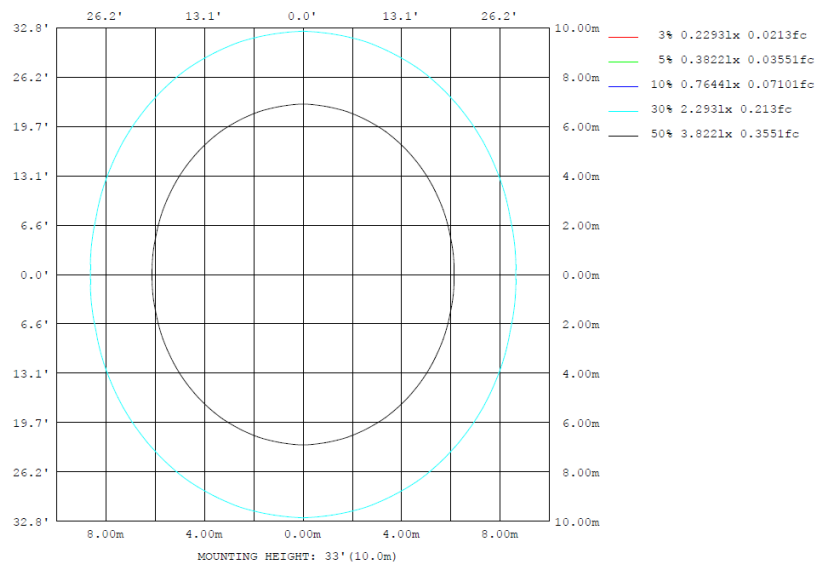
4.2 Goniophotometer Test

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	747.8	753.4	759.5	753.4	747.8	753.4	759.5	753.4	0~ 10	72.41	72.41	2.44, 2.44
20	701.6	720.0	739.7	720.0	701.6	720.0	739.7	720.0	10~ 20	208.8	281.2	9.49, 9.49
30	629.1	667.1	706.1	667.1	629.1	667.1	706.1	667.1	20~ 30	321.0	602.2	20.3, 20.3
40	536.3	599.2	660.9	599.2	536.3	599.2	660.9	599.2	30~ 40	397.5	999.7	33.7, 33.7
50	428.8	523.7	602.2	523.7	428.8	523.7	602.2	523.7	40~ 50	432.9	1433	48.3, 48.3
60	312.1	439.9	531.7	439.9	312.1	439.9	531.7	439.9	50~ 60	426.4	1859	62.7, 62.7
70	190.1	349.9	418.0	349.9	190.1	349.9	418.0	349.9	60~ 70	378.3	2237	75.5, 75.5
80	74.30	229.5	288.3	229.5	74.30	229.5	288.3	229.5	70~ 80	285.4	2523	85.1, 85.1
90	5.658	119.2	175.0	119.2	5.658	119.2	175.0	119.2	80~ 90	170.4	2693	90.8, 90.8
100	5.184	92.34	144.0	92.34	5.184	92.34	144.0	92.34	90~100	103.5	2797	94.3, 94.3
110	5.183	64.92	112.3	64.92	5.183	64.92	112.3	64.92	100~110	75.95	2873	96.9, 96.9
120	5.463	38.75	77.62	38.75	5.463	38.75	77.62	38.75	110~120	49.05	2922	98.5, 98.5
130	5.779	16.17	45.22	16.17	5.779	16.17	45.22	16.17	120~130	26.51	2948	99.4, 99.4
140	5.823	3.805	17.06	3.805	5.823	3.805	17.06	3.805	130~140	10.88	2959	99.8, 99.8
150	5.838	3.173	1.730	3.173	5.838	3.173	1.730	3.173	140~150	2.969	2962	99.9, 99.9
160	5.373	2.688	1.648	2.688	5.373	2.688	1.648	2.688	150~160	1.452	2963	100, 100
170	5.948	2.625	1.863	2.625	5.948	2.625	1.863	2.625	160~170	0.8558	2964	100, 100
180	6.031	2.690	2.610	2.690	6.031	2.690	2.610	2.690	170~180	0.3210	2965	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

0-10	72.41	0-10	72.41	2.44%
10-20	208.79	0-20	281.20	9.49%
20-30	320.98	0-30	602.18	20.31%
30-40	397.51	0-40	999.69	33.73%
40-50	432.89	0-50	1432.58	48.33%
50-60	426.39	0-60	1858.97	62.71%
60-70	378.28	0-70	2237.25	75.47%
70-80	285.39	0-80	2522.64	85.10%
80-90	170.39	0-90	2693.03	90.85%
90-100	103.54	0-100	2796.57	94.34%
100-110	75.95	0-110	2872.52	96.91%
110-120	49.05	0-120	2921.57	98.56%
120-130	26.51	0-130	2948.08	99.45%
130-140	10.88	0-140	2958.96	99.82%
140-150	2.97	0-150	2961.93	99.92%
150-160	1.45	0-160	2963.38	99.97%
160-170	0.86	0-170	2964.24	100.00%
170-180	0.32	0-180	2964.56	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	15.4	17.0	15.9	17.5	18.0	18.6	20.1	19.1	20.6	21.1
	3H	17.0	18.4	17.5	18.9	19.5	21.2	22.6	21.7	23.1	23.7
	4H	17.5	18.9	18.1	19.4	20.0	22.4	23.7	22.9	24.3	24.8
	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	24.1	25.3	24.7	25.9	26.5
	12H	18.0	19.1	18.5	19.7	20.3	24.7	25.9	25.3	26.4	27.1
4H	2H	16.7	18.0	17.2	18.6	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	19.9	20.9	21.5	23.3	24.3	23.8	24.9	25.5
	6H	19.8	20.7	20.3	21.3	21.9	24.6	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	20.0	20.8	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	27.8
	12H	21.4	22.0	22.0	22.6	23.3	26.7	27.3	27.4	28.0	28.7
12H	4H	20.4	21.2	21.0	21.9	22.5	23.5	24.3	24.1	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	22.3	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											
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	19.2	20.8	19.7	21.3	21.8	22.4	23.9	22.9	24.4	24.9
	3H	20.8	22.2	21.3	22.7	23.3	25.0	26.4	25.5	26.9	27.5
	4H	21.3	22.7	21.9	23.2	23.8	26.2	27.5	26.7	28.1	28.6
	6H	21.7	22.9	22.2	23.4	24.0	27.4	28.6	27.9	29.2	29.8
	8H	21.7	22.9	22.3	23.5	24.1	27.9	29.1	28.5	29.7	30.3
	12H	21.8	22.9	22.3	23.5	24.1	28.5	29.7	29.1	30.2	30.9
4H	2H	20.5	21.8	21.0	22.4	22.9	22.9	24.2	23.4	24.7	25.3
	3H	22.4	23.5	22.9	24.1	24.7	25.7	26.9	26.3	27.4	28.0
	4H	23.1	24.1	23.7	24.7	25.3	27.1	28.1	27.6	28.7	29.3
	6H	23.6	24.5	24.1	25.1	25.7	28.4	29.4	29.0	30.0	30.6
	8H	23.7	24.6	24.3	25.2	25.8	29.1	30.0	29.7	30.6	31.2
	12H	23.8	24.6	24.4	25.2	25.8	29.8	30.6	30.4	31.2	31.9
8H	4H	24.0	24.9	24.6	25.5	26.1	27.3	28.2	27.9	28.8	29.5
	6H	24.7	25.5	25.4	26.1	26.8	28.9	29.6	29.5	30.2	30.9
	8H	25.0	25.7	25.6	26.3	27.0	29.7	30.3	30.3	31.0	31.6
	12H	25.2	25.8	25.8	26.4	27.1	30.5	31.1	31.2	31.8	32.5
12H	4H	24.2	25.0	24.8	25.7	26.3	27.3	28.1	27.9	28.8	29.4
	6H	25.1	25.8	25.7	26.4	27.1	28.9	29.6	29.6	30.2	30.9
	8H	25.5	26.1	26.1	26.7	27.4	29.8	30.4	30.4	31.0	31.8

Maximum UGR = 32.5

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	764	764	764	765	764	765	764	765	764	765	764	764	764	764	764	765	764	765	764
5	760	760	760	762	762	763	764	763	762	762	760	760	760	760	760	762	762	763	764
10	748	748	750	753	756	758	760	758	756	753	750	748	748	748	750	753	756	758	760
15	728	730	734	739	744	749	751	749	744	739	734	730	728	730	734	739	744	749	751
20	702	704	711	720	729	736	740	736	729	720	711	704	702	704	711	720	729	736	740
25	668	672	682	696	709	720	724	720	709	696	682	672	668	672	682	696	709	720	724
30	629	634	649	667	686	700	706	700	686	667	649	634	629	634	649	667	686	700	706
35	585	591	611	635	659	677	685	677	659	635	611	591	585	591	611	635	659	677	685
40	536	545	570	599	630	652	661	652	630	599	570	545	536	545	570	599	630	652	661
45	484	495	526	562	599	623	633	623	599	562	526	495	484	495	526	562	599	623	633
50	429	443	480	524	564	591	602	591	564	524	480	443	429	443	480	524	564	591	602
55	371	389	433	483	526	557	569	557	526	483	433	389	371	389	433	483	526	557	569
60	312	334	386	440	488	520	532	520	488	440	386	334	312	334	386	440	488	520	532
65	251	280	339	397	444	470	480	470	444	397	339	280	251	280	339	397	444	470	480
70	190	227	292	350	387	410	418	410	387	350	292	227	190	227	292	350	387	410	418
75	131	176	245	291	324	345	352	345	324	291	245	176	131	176	245	291	324	345	352
80	74.3	128	188	230	261	282	288	282	261	230	188	128	74.3	128	188	230	261	282	288
85	28.1	81.0	131	171	201	221	227	221	201	171	131	81.0	28.1	81.0	131	171	201	221	227
90	5.66	38.0	81.3	119	149	168	175	168	149	119	81.3	38.0	5.66	38.0	81.3	119	149	168	175
95	5.18	27.9	68.2	105	133	152	159	152	133	105	68.2	27.9	5.18	27.9	68.2	105	133	152	159
100	5.18	19.2	56.9	92.3	120	137	144	137	120	92.3	56.9	19.2	5.18	19.2	56.9	92.3	120	137	144
105	5.18	11.9	45.2	78.8	106	122	129	122	106	78.8	45.2	11.9	5.18	11.9	45.2	78.8	106	122	129
110	5.18	6.19	34.2	64.9	90.1	106	112	106	90.1	64.9	34.2	6.19	5.18	6.19	34.2	64.9	90.1	106	112
115	5.18	5.52	24.5	51.5	74.4	89.1	95.0	89.1	74.4	51.5	24.5	5.52	5.18	5.52	24.5	51.5	74.4	89.1	95.0
120	5.46	5.32	15.2	38.8	59.6	72.5	77.6	72.5	59.6	38.8	15.2	5.32	5.46	5.32	15.2	38.8	59.6	72.5	77.6
125	5.75	5.28	7.00	27.1	45.0	56.8	60.8	56.8	45.0	27.1	7.00	5.28	5.75	5.28	7.00	27.1	45.0	56.8	60.8
130	5.78	5.27	4.84	16.2	31.8	41.8	45.2	41.8	31.8	16.2	4.84	5.27	5.78	5.27	4.84	16.2	31.8	41.8	45.2
135	5.82	5.25	4.65	6.44	19.1	27.8	30.7	27.8	19.1	6.44	4.65	5.25	5.82	5.25	4.65	6.44	19.1	27.8	30.7
140	5.82	5.22	4.46	3.81	7.68	14.8	17.1	14.8	7.68	3.81	4.46	5.22	5.82	5.22	4.46	3.81	7.68	14.8	17.1
145	5.83	5.16	4.15	3.53	2.79	3.40	4.87	3.40	2.79	3.53	4.15	5.16	5.83	5.16	4.15	3.53	2.79	3.40	4.87
150	5.84	4.77	3.77	3.17	2.51	2.14	1.73	2.14	2.51	3.17	3.77	4.77	5.84	4.77	3.77	3.17	2.51	2.14	1.73
155	5.84	4.33	3.35	2.78	2.45	2.14	1.63	2.14	2.45	2.78	3.35	4.33	5.84	4.33	3.35	2.78	2.45	2.14	1.63
160	5.37	4.03	3.10	2.69	2.32	2.05	1.65	2.05	2.32	2.69	3.10	4.03	5.37	4.03	3.10	2.69	2.32	2.05	1.65
165	5.75	4.12	3.24	2.65	2.32	2.05	1.67	2.05	2.32	2.65	3.24	4.12	5.75	4.12	3.24	2.65	2.32	2.05	1.67
170	5.95	4.68	3.44	2.62	2.58	2.23	1.86	2.23	2.58	2.62	3.44	4.68	5.95	4.68	3.44	2.62	2.58	2.23	1.86
175	6.01	4.75	3.57	2.68	2.78	2.55	2.33	2.55	2.78	2.68	3.57	4.75	6.01	4.75	3.57	2.68	2.78	2.55	2.33
180	6.03	4.77	3.63	2.69	2.79	2.51	2.61	2.51	2.79	2.69	3.63	4.77	6.03	4.77	3.63	2.69	2.79	2.51	2.61

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	765	764	765	764	764														
5	763	762	762	760	760														
10	758	756	753	750	748														
15	749	744	739	734	730														
20	736	729	720	711	704														
25	720	709	696	682	672														
30	700	686	667	649	634														
35	677	659	635	611	591														
40	652	630	599	570	545														
45	623	599	562	526	495														
50	591	564	524	480	443														
55	557	526	483	433	389														
60	520	488	440	386	334														
65	470	444	397	339	280														
70	410	387	350	292	227														
75	345	324	291	245	176														
80	282	261	230	188	128														
85	221	201	171	131	81.0														
90	168	149	119	81.3	38.0														
95	152	133	105	68.2	27.9														
100	137	120	92.3	56.9	19.2														
105	122	106	78.8	45.2	11.9														
110	106	90.1	64.9	34.2	6.19														
115	89.1	74.4	51.5	24.5	5.52														
120	72.5	59.6	38.8	15.2	5.32														
125	56.8	45.0	27.1	7.00	5.28														
130	41.8	31.8	16.2	4.84	5.27														
135	27.8	19.1	6.44	4.65	5.25														
140	14.8	7.68	3.81	4.46	5.22														
145	3.40	2.79	3.53	4.15	5.16														
150	2.14	2.51	3.17	3.77	4.77														
155	2.14	2.45	2.78	3.35	4.33														
160	2.05	2.32	2.69	3.10	4.03														
165	2.05	2.32	2.65	3.24	4.12														
170	2.23	2.58	2.62	3.44	4.68														
175	2.55	2.78	2.68	3.57	4.75														
180	2.51	2.79	2.69	3.63	4.77														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP2H @20W3500K	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	0.165	19.7	0.994	8.05
277.0	60	0.074	19.5	0.951	8.58

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*****