

Photometric Test Report

Relevant Standards

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

Prepared For

RAB Lighting Inc.

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Issue Date: 2025-01-04

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		1524
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	154.7
			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	7.96
				277V	8.60
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	5029±283	4905
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		83.4
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		13
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		84
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		96
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-12%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	≥40%		62.7%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	29.2
			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		19.4

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-02	STRP2H @20W5000K	-	241225004-S1
2	Goniophotometer Test	2025-01-02	STRP2H @20W5000K	-	241225004-S1
3	THD and PF Test	2025-01-02	STRP2H @20W5000K	-	241225004-S1

Remark (If any):

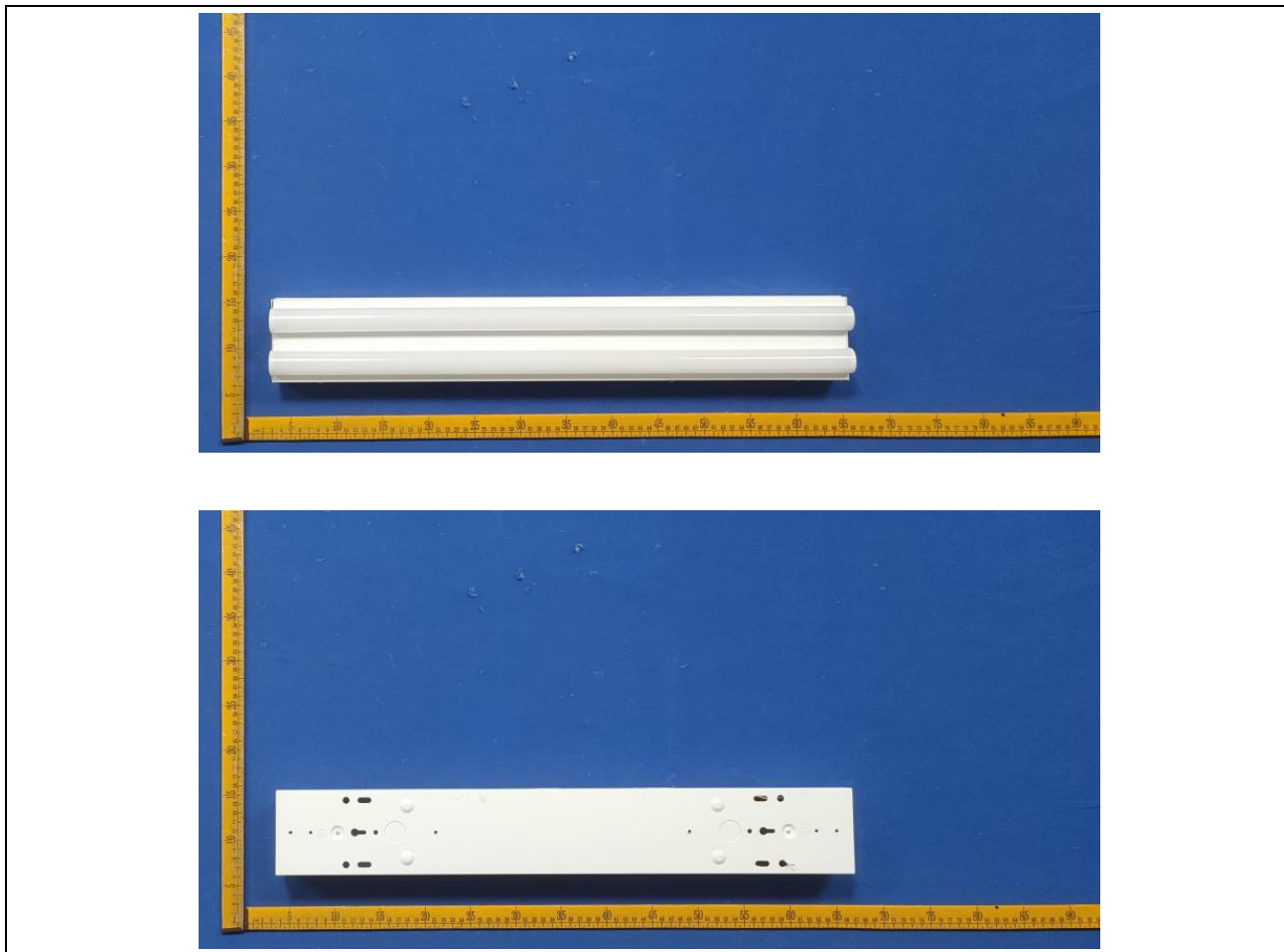
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. STRP2H @20W5000K, 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 @20W5000K	Sample ID	241225004-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

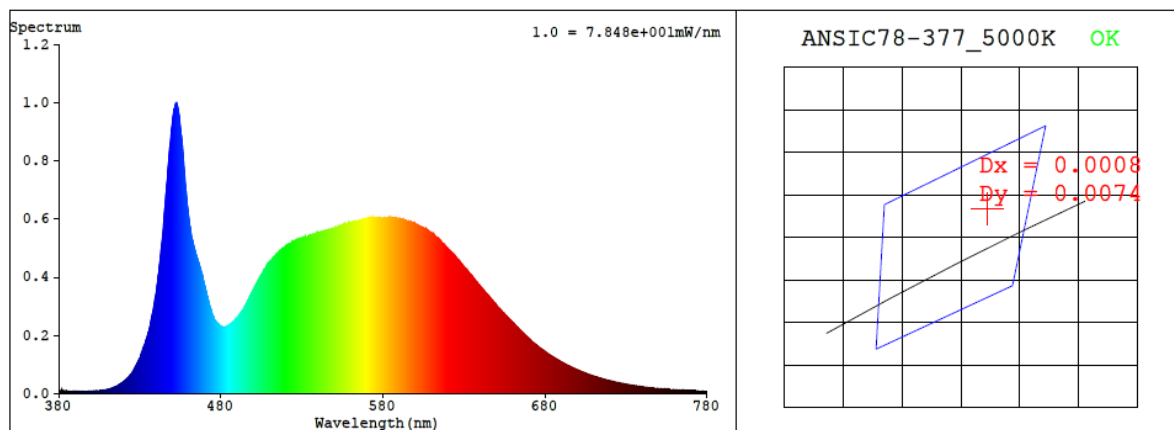
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	19.4	0.951

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
4905	83.4	13	0.0034	84	96	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3487$ $y = 0.3612$ / $u' = 0.2101$ $v' = 0.4898$ ($duv=3.36e-03$)

CCT= 4905K Prcp WL: $L_d=571.0nm$ Purity=13.0%

Peak WL: $L_p=452nm$ FWHM: $=20.6nm$ Ratio:R=15.9% G=79.8% B=4.4%

Render Index: $R_a = 83.4$ AvgR = 76.2 TM30:Rf=84 Rg=95

EEL: 0.08795 A++ Highest

R1 =81 R2 =88 R3 =93 R4 =82 R5 =81 R6 =83 R7 =89

R8 =69 R9 =13 R10=72 R11=81 R12=55 R13=83 R14=96 R15=76

4.1 Integrating Sphere Test

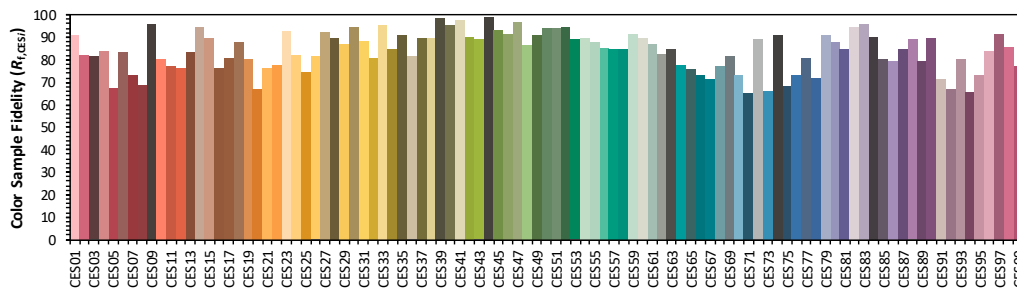
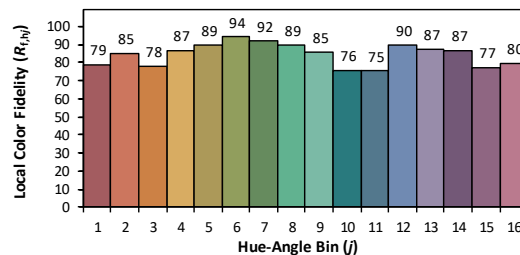
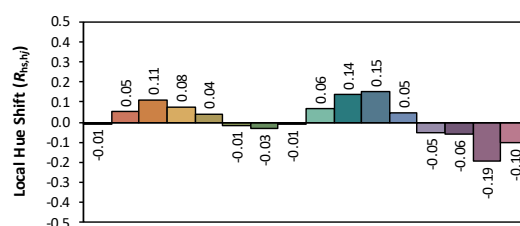
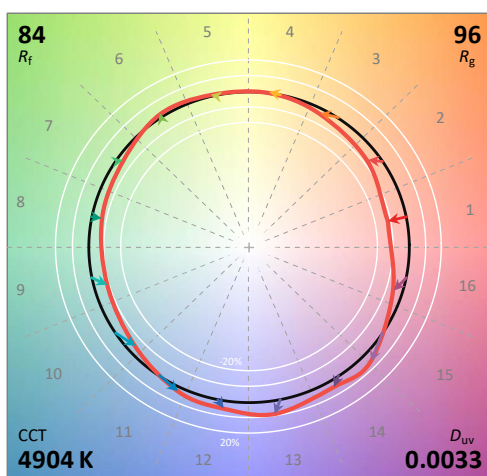
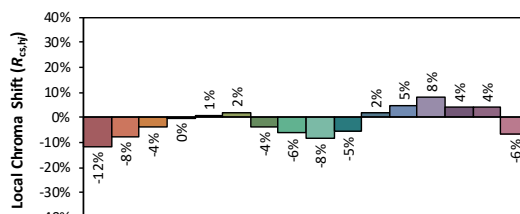
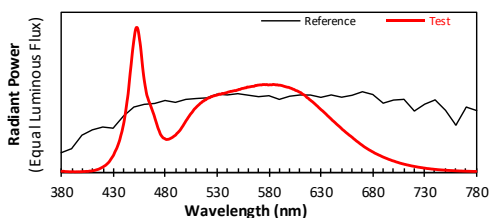
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/4

Model: STRP2H @20W5000K



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

x 0.3486
 y 0.3611
 u' 0.2102
 v' 0.4897

CIE 13.3-1995
(CRI)
 R_a 83
 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	9.80E-06	447	7.48E-04	514	4.78E-04	581	6.04E-04	648	3.18E-04	715	5.17E-05
381	1.04E-05	448	8.19E-04	515	4.82E-04	582	6.03E-04	649	3.11E-04	716	5.01E-05
382	1.02E-05	449	8.78E-04	516	4.90E-04	583	6.04E-04	650	3.04E-04	717	4.84E-05
383	8.40E-06	450	9.32E-04	517	4.92E-04	584	6.06E-04	651	2.97E-04	718	4.68E-05
384	8.30E-06	451	9.77E-04	518	4.99E-04	585	6.05E-04	652	2.92E-04	719	4.56E-05
385	7.80E-06	452	9.97E-04	519	5.00E-04	586	6.04E-04	653	2.86E-04	720	4.42E-05
386	7.80E-06	453	9.93E-04	520	5.07E-04	587	6.02E-04	654	2.79E-04	721	4.28E-05
387	6.90E-06	454	9.65E-04	521	5.11E-04	588	6.04E-04	655	2.73E-04	722	4.17E-05
388	7.10E-06	455	9.16E-04	522	5.14E-04	589	6.01E-04	656	2.68E-04	723	4.04E-05
389	6.50E-06	456	8.66E-04	523	5.15E-04	590	6.01E-04	657	2.62E-04	724	3.88E-05
390	7.40E-06	457	7.96E-04	524	5.22E-04	591	6.01E-04	658	2.56E-04	725	3.79E-05
391	7.80E-06	458	7.25E-04	525	5.22E-04	592	5.99E-04	659	2.51E-04	726	3.67E-05
392	6.50E-06	459	6.65E-04	526	5.27E-04	593	5.97E-04	660	2.45E-04	727	3.55E-05
393	6.40E-06	460	6.16E-04	527	5.28E-04	594	5.95E-04	661	2.40E-04	728	3.48E-05
394	7.00E-06	461	5.74E-04	528	5.30E-04	595	5.93E-04	662	2.33E-04	729	3.33E-05
395	6.80E-06	462	5.35E-04	529	5.31E-04	596	5.90E-04	663	2.28E-04	730	3.24E-05
396	7.20E-06	463	5.14E-04	530	5.34E-04	597	5.89E-04	664	2.21E-04	731	3.14E-05
397	6.70E-06	464	4.91E-04	531	5.36E-04	598	5.87E-04	665	2.16E-04	732	3.01E-05
398	7.60E-06	465	4.76E-04	532	5.40E-04	599	5.86E-04	666	2.11E-04	733	2.91E-05
399	7.20E-06	466	4.55E-04	533	5.38E-04	600	5.83E-04	667	2.05E-04	734	2.86E-05
400	8.40E-06	467	4.36E-04	534	5.41E-04	601	5.80E-04	668	2.00E-04	735	2.77E-05
401	8.80E-06	468	4.15E-04	535	5.44E-04	602	5.78E-04	669	1.94E-04	736	2.69E-05
402	8.60E-06	469	3.96E-04	536	5.43E-04	603	5.74E-04	670	1.89E-04	737	2.58E-05
403	9.30E-06	470	3.72E-04	537	5.45E-04	604	5.72E-04	671	1.84E-04	738	2.54E-05
404	9.80E-06	471	3.49E-04	538	5.47E-04	605	5.68E-04	672	1.79E-04	739	2.46E-05
405	9.40E-06	472	3.26E-04	539	5.49E-04	606	5.64E-04	673	1.74E-04	740	2.36E-05
406	1.04E-05	473	3.04E-04	540	5.52E-04	607	5.63E-04	674	1.70E-04	741	2.31E-05
407	1.19E-05	474	2.87E-04	541	5.54E-04	608	5.59E-04	675	1.65E-04	742	2.25E-05
408	1.18E-05	475	2.68E-04	542	5.55E-04	609	5.55E-04	676	1.61E-04	743	2.16E-05
409	1.28E-05	476	2.56E-04	543	5.59E-04	610	5.52E-04	677	1.56E-04	744	2.10E-05
410	1.44E-05	477	2.46E-04	544	5.58E-04	611	5.49E-04	678	1.53E-04	745	2.04E-05
411	1.55E-05	478	2.38E-04	545	5.61E-04	612	5.42E-04	679	1.48E-04	746	1.99E-05
412	1.72E-05	479	2.36E-04	546	5.62E-04	613	5.37E-04	680	1.44E-04	747	1.93E-05
413	1.94E-05	480	2.31E-04	547	5.64E-04	614	5.34E-04	681	1.41E-04	748	1.89E-05
414	2.15E-05	481	2.28E-04	548	5.63E-04	615	5.29E-04	682	1.36E-04	749	1.84E-05
415	2.35E-05	482	2.29E-04	549	5.67E-04	616	5.22E-04	683	1.33E-04	750	1.79E-05
416	2.63E-05	483	2.30E-04	550	5.68E-04	617	5.15E-04	684	1.29E-04	751	1.74E-05
417	2.99E-05	484	2.32E-04	551	5.72E-04	618	5.11E-04	685	1.26E-04	752	1.67E-05
418	3.35E-05	485	2.36E-04	552	5.72E-04	619	5.04E-04	686	1.22E-04	753	1.65E-05
419	3.73E-05	486	2.40E-04	553	5.75E-04	620	4.99E-04	687	1.19E-04	754	1.62E-05
420	4.13E-05	487	2.44E-04	554	5.78E-04	621	4.92E-04	688	1.16E-04	755	1.56E-05
421	4.61E-05	488	2.49E-04	555	5.79E-04	622	4.88E-04	689	1.12E-04	756	1.53E-05
422	5.04E-05	489	2.54E-04	556	5.80E-04	623	4.81E-04	690	1.09E-04	757	1.49E-05
423	5.63E-05	490	2.60E-04	557	5.83E-04	624	4.75E-04	691	1.06E-04	758	1.45E-05
424	6.30E-05	491	2.69E-04	558	5.83E-04	625	4.69E-04	692	1.03E-04	759	1.43E-05
425	6.99E-05	492	2.75E-04	559	5.88E-04	626	4.62E-04	693	1.00E-04	760	1.39E-05
426	7.83E-05	493	2.83E-04	560	5.87E-04	627	4.56E-04	694	9.75E-05	761	1.36E-05
427	8.94E-05	494	2.91E-04	561	5.89E-04	628	4.48E-04	695	9.44E-05	762	1.32E-05
428	1.00E-04	495	3.01E-04	562	5.90E-04	629	4.42E-04	696	9.15E-05	763	1.30E-05
429	1.11E-04	496	3.12E-04	563	5.92E-04	630	4.35E-04	697	8.93E-05	764	1.25E-05
430	1.22E-04	497	3.22E-04	564	5.93E-04	631	4.29E-04	698	8.65E-05	765	1.24E-05
431	1.39E-04	498	3.34E-04	565	5.93E-04	632	4.24E-04	699	8.36E-05	766	1.23E-05
432	1.54E-04	499	3.46E-04	566	5.94E-04	633	4.17E-04	700	8.16E-05	767	1.17E-05
433	1.68E-04	500	3.58E-04	567	5.99E-04	634	4.10E-04	701	7.95E-05	768	1.16E-05
434	1.87E-04	501	3.68E-04	568	5.98E-04	635	4.04E-04	702	7.69E-05	769	1.12E-05
435	2.06E-04	502	3.79E-04	569	6.01E-04	636	3.96E-04	703	7.42E-05	770	1.12E-05
436	2.28E-04	503	3.89E-04	570	6.01E-04	637	3.89E-04	704	7.24E-05	771	1.08E-05
437	2.57E-04	504	4.00E-04	571	6.02E-04	638	3.83E-04	705	7.01E-05	772	1.07E-05
438	2.82E-04	505	4.08E-04	572	6.03E-04	639	3.76E-04	706	6.77E-05	773	1.05E-05
439	3.14E-04	506	4.17E-04	573	6.02E-04	640	3.70E-04	707	6.55E-05	774	1.03E-05
440	3.48E-04	507	4.27E-04	574	6.05E-04	641	3.62E-04	708	6.38E-05	775	9.90E-06
441	3.92E-04	508	4.37E-04	575	6.05E-04	642	3.56E-04	709	6.16E-05	776	9.80E-06
442	4.40E-04	509	4.44E-04	576	6.05E-04	643	3.50E-04	710	6.02E-05	777	9.50E-06
443	4.92E-04	510	4.51E-04	577	6.04E-04	644	3.43E-04	711	5.80E-05	778	9.30E-06
444	5.41E-04	511	4.58E-04	578	6.05E-04	645	3.36E-04	712	5.68E-05	779	9.40E-06
445	6.13E-04	512	4.64E-04	579	6.03E-04	646	3.30E-04	713	5.46E-05	780	9.40E-06
446	6.84E-04	513	4.71E-04	580	6.03E-04	647	3.24E-04	714	5.33E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP2H @20W5000K	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	120.0	60	0.165	19.7	0.994
NON-WORST CASE	277.0	60	0.074	19.4	0.951

Test Result

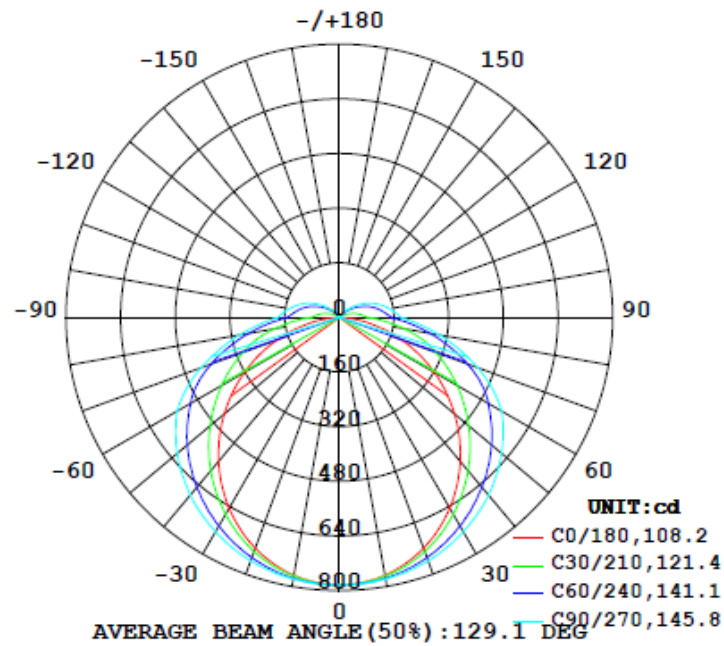
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
3048	1524	160.4	160.4	108.1	145.6	154.7

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
62.7%	23.8	29.2

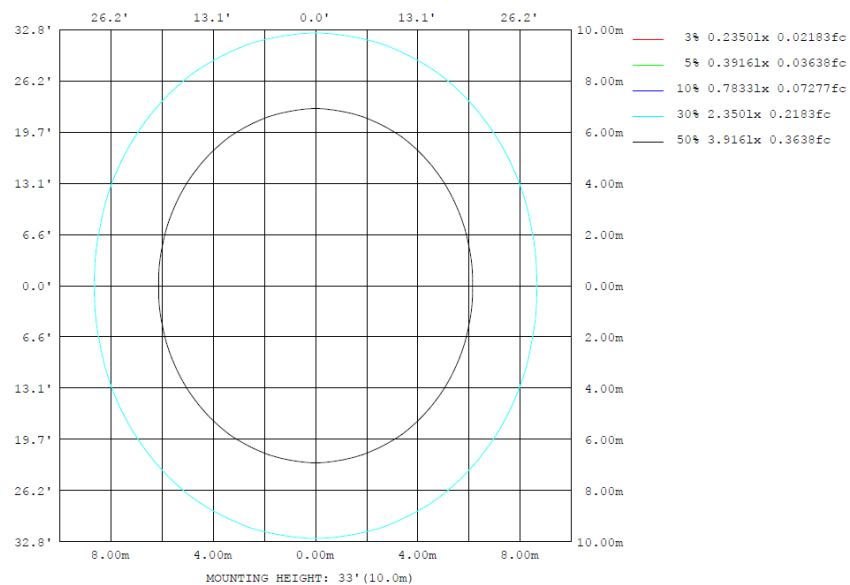
4.2 Goniophotometer Test

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	766.9	772.1	778.2	772.1	766.9	772.1	778.2	772.1	0- 10	74.27	74.27	2.44,2.44
20	719.5	738.5	758.6	738.5	719.5	738.5	758.6	738.5	10- 20	214.2	288.5	9.47,9.47
30	645.6	685.9	724.9	685.9	645.6	685.9	724.9	685.9	20- 30	329.6	618.1	20.3,20.3
40	550.0	616.1	679.2	616.1	550.0	616.1	679.2	616.1	30- 40	408.6	1027	33.7,33.7
50	440.1	538.9	619.3	538.9	440.1	538.9	619.3	538.9	40- 50	445.4	1472	48.3,48.3
60	320.1	453.5	547.5	453.5	320.1	453.5	547.5	453.5	50- 60	439.1	1911	62.7,62.7
70	195.2	360.6	430.6	360.6	195.2	360.6	430.6	360.6	60- 70	389.8	2301	75.5,75.5
80	75.63	236.4	297.5	236.4	75.63	236.4	297.5	236.4	70- 80	294.1	2595	85.1,85.1
90	4.805	122.2	180.5	122.2	4.805	122.2	180.5	122.2	80- 90	175.4	2771	90.9,90.9
100	4.232	94.54	148.9	94.54	4.232	94.54	148.9	94.54	90-100	106.2	2877	94.4,94.4
110	4.232	66.46	115.9	66.46	4.232	66.46	115.9	66.46	100-110	77.83	2955	96.9,96.9
120	4.607	39.63	80.34	39.63	4.607	39.63	80.34	39.63	110-120	50.15	3005	98.6,98.6
130	5.356	16.34	46.75	16.34	5.356	16.34	46.75	16.34	120-130	26.96	3032	99.5,99.5
140	5.737	3.424	17.84	3.424	5.737	3.424	17.84	3.424	130-140	10.94	3043	99.8,99.8
150	5.737	2.870	1.767	2.870	5.737	2.870	1.767	2.870	140-150	2.852	3046	99.9,99.9
160	5.363	2.406	1.673	2.406	5.363	2.406	1.673	2.406	150-160	1.397	3047	100,100
170	6.111	2.499	2.044	2.499	6.111	2.499	2.044	2.499	160-170	0.8230	3048	100,100
180	6.113	2.777	2.603	2.777	6.113	2.777	2.603	2.777	170-180	0.3239	3048	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	74.27	0-10	74.27	2.44%
10-20	214.24	0-20	288.51	9.47%
20-30	329.62	0-30	618.13	20.28%
30-40	408.62	0-40	1026.75	33.69%
40-50	445.40	0-50	1472.15	48.30%
50-60	439.13	0-60	1911.28	62.71%
60-70	389.85	0-70	2301.13	75.50%
70-80	294.11	0-80	2595.24	85.15%
80-90	175.38	0-90	2770.62	90.90%
90-100	106.25	0-100	2876.87	94.39%
100-110	77.83	0-110	2954.70	96.94%
110-120	50.15	0-120	3004.85	98.59%
120-130	26.96	0-130	3031.81	99.47%
130-140	10.94	0-140	3042.75	99.83%
140-150	2.85	0-150	3045.60	99.93%
150-160	1.40	0-160	3047.00	99.97%
160-170	0.82	0-170	3047.82	100.00%
170-180	0.33	0-180	3048.15	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	21.2	
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	19.7	20.3	24.8	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	24.3
	4H	19.3	20.3	19.9	20.9	21.5	23.3	24.3	23.9	24.9	25.6
	6H	19.8	20.7	20.4	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	27.5
	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	22.4	23.5	24.4	24.1	25.0	25.7
	6H	21.0	21.7	21.6	22.3	23.0	25.1	25.8	25.7	26.5	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	21.1	21.9	22.5	23.6	24.4	24.2	25.0	25.6
	6H	21.3	22.0	22.0	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											

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											
X=2H	Y=2H	UGR Viewed Crosswise				UGR Viewed Endwise					
3H	19.3	20.9	19.8	21.4	21.9	22.5	24.0	23.0	24.5	25.1	
4H	20.9	22.3	21.4	22.8	23.4	25.1	26.5	25.7	27.0	27.6	
6H	21.4	22.8	22.0	23.3	23.9	26.3	27.7	26.9	28.2	28.8	
8H	21.8	23.0	22.3	23.5	24.1	27.5	28.7	28.0	29.3	29.9	
12H	21.8	23.0	22.4	23.6	24.2	28.1	29.3	28.6	29.8	30.4	
		21.9	23.0	22.4	23.6	24.2	28.7	29.8	29.2	30.3	31.0
4H	2H	20.6	21.9	21.1	22.5	23.0	23.0	24.3	23.5	24.8	25.4
	3H	22.5	23.6	23.0	24.2	24.8	25.8	27.0	26.4	27.5	28.2
	4H	23.2	24.2	23.8	24.8	25.4	27.2	28.2	27.8	28.8	29.5
	6H	23.7	24.6	24.3	25.2	25.8	28.6	29.5	29.1	30.1	30.7
	8H	23.8	24.7	24.4	25.3	25.9	29.2	30.1	29.8	30.7	31.4
	12H	23.9	24.7	24.5	25.3	25.9	29.9	30.7	30.5	31.3	32.0
8H	4H	24.1	25.0	24.7	25.6	26.3	27.4	28.3	28.0	28.9	29.6
	6H	24.9	25.6	25.5	26.2	26.9	29.0	29.7	29.6	30.4	31.0
	8H	25.1	25.8	25.7	26.4	27.1	29.8	30.4	30.4	31.1	31.8
	12H	25.3	25.9	25.9	26.5	27.2	30.7	31.3	31.3	31.9	32.6
12H	4H	24.3	25.1	25.0	25.8	26.4	27.5	28.3	28.1	28.9	29.5
	6H	25.2	25.9	25.9	26.5	27.2	29.0	29.7	29.7	30.3	31.0
	8H	25.6	26.2	26.2	26.8	27.5	29.9	30.5	30.5	31.1	31.9
Maximum UGR = 32.6											

Maximum UGR = 32.6

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	783	784	783	783	784	784	783	784	784	783	783	784	783	784	783	783	784	784	783
5	779	780	780	780	782	782	782	782	782	780	780	780	779	780	780	780	782	782	782
10	767	768	769	772	776	777	778	777	776	772	769	768	767	768	769	772	776	777	778
15	747	749	753	758	764	769	770	769	764	758	753	749	747	749	753	758	764	769	770
20	719	722	730	738	749	755	759	755	749	738	730	722	719	722	730	738	749	755	759
25	685	690	701	714	730	739	743	739	730	714	701	690	685	690	701	714	730	739	743
30	646	652	666	686	705	719	725	719	705	686	666	652	646	652	666	686	705	719	725
35	600	608	628	653	678	696	703	696	678	653	628	608	600	608	628	653	678	696	703
40	550	560	586	616	650	679	679	670	650	616	586	560	550	560	586	616	650	679	679
45	497	509	541	579	617	641	651	641	617	579	541	509	497	509	541	579	617	641	651
50	440	456	494	539	581	609	619	609	581	539	494	456	440	456	494	539	581	609	619
55	381	400	446	497	543	574	585	574	543	497	446	400	381	400	446	497	543	574	585
60	320	344	398	453	503	536	548	536	503	453	398	344	320	344	398	453	503	536	548
65	258	288	349	410	458	485	494	485	458	410	349	288	258	288	349	410	458	485	494
70	195	233	301	361	400	423	431	423	400	361	301	233	195	233	301	361	400	423	431
75	133	181	252	300	334	356	363	356	334	300	252	181	133	181	252	300	334	356	363
80	75.6	131	194	236	269	291	297	291	269	236	194	131	75.6	131	194	236	269	291	297
85	28.0	82.9	134	175	208	228	234	228	208	175	134	82.9	28.0	82.9	134	175	208	228	234
90	4.81	38.2	82.8	122	153	173	180	173	153	122	82.8	38.2	4.81	38.2	82.8	122	153	173	180
95	4.23	27.9	69.6	107	137	156	164	156	137	107	69.6	27.9	4.23	27.9	69.6	107	137	156	164
100	4.23	19.0	57.8	94.5	123	142	149	142	123	94.5	57.8	19.0	4.23	19.0	57.8	94.5	123	142	149
105	4.23	11.4	45.7	80.7	109	126	133	126	109	80.7	45.7	11.4	4.23	11.4	45.7	80.7	109	126	133
110	4.23	5.35	34.3	66.5	93.0	109	116	109	93.0	66.5	34.3	5.35	4.23	5.35	34.3	66.5	93.0	109	116
115	4.33	4.68	24.3	52.7	76.7	92.2	98.2	92.2	76.7	52.7	24.3	4.68	4.33	4.68	24.3	52.7	76.7	92.2	98.2
120	4.61	4.68	14.6	39.6	61.2	75.0	80.3	75.0	61.2	39.6	14.6	4.68	4.61	4.68	14.6	39.6	61.2	75.0	80.3
125	4.89	4.58	6.36	27.5	46.3	58.6	63.0	58.6	46.3	27.5	6.36	4.58	4.89	4.58	6.36	27.5	46.3	58.6	63.0
130	5.36	4.58	4.27	16.3	32.5	43.2	46.7	43.2	32.5	16.3	4.27	4.58	5.36	4.58	4.27	16.3	32.5	43.2	46.7
135	5.74	4.58	3.99	6.17	19.5	28.7	31.9	28.7	19.5	6.17	3.99	4.58	5.74	4.58	3.99	6.17	19.5	28.7	31.9
140	5.74	4.58	3.90	3.42	7.71	15.2	17.8	15.2	7.71	3.42	3.90	4.58	5.74	4.58	3.90	3.42	7.71	15.2	17.8
145	5.74	4.58	3.81	3.24	2.78	3.37	5.12	3.37	2.78	3.24	3.81	4.58	5.74	4.58	3.81	3.24	2.78	3.37	5.12
150	5.74	4.67	3.44	2.87	2.50	2.04	1.77	2.04	2.50	2.87	3.44	4.67	5.74	4.67	3.44	2.87	2.50	2.04	1.77
155	5.55	4.21	3.07	2.59	2.32	2.13	1.67	2.13	2.32	2.59	3.07	4.21	5.55	4.21	3.07	2.59	2.32	2.13	1.67
160	5.36	3.93	2.79	2.41	2.23	1.95	1.67	1.95	2.23	2.41	2.79	3.93	5.36	3.93	2.79	2.41	2.23	1.95	1.67
165	5.83	4.21	2.79	2.41	2.23	1.95	1.67	1.95	2.23	2.41	2.79	4.21	5.83	4.21	2.79	2.41	2.23	1.95	1.67
170	6.11	4.67	3.34	2.50	2.04	2.04	2.04	2.04	2.50	3.34	4.67	6.11	4.67	3.34	2.50	2.04	2.04	2.04	2.51
175	6.11	4.86	3.53	2.68	2.69	2.60	2.51	2.60	2.69	3.53	4.86	6.11	4.86	3.53	2.68	2.69	2.60	2.51	2.60
180	6.11	4.86	3.62	2.78	2.69	2.69	2.60	2.69	2.78	3.62	4.86	6.11	4.86	3.62	2.78	2.69	2.69	2.60	2.60

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	784	784	783	783	784														
5	782	782	780	780	780														
10	777	776	772	769	768														
15	769	764	758	753	749														
20	755	749	738	730	722														
25	739	730	714	701	690														
30	719	705	686	666	652														
35	696	678	653	628	608														
40	670	650	616	586	560														
45	641	617	579	541	509														
50	609	581	539	494	456														
55	574	543	497	446	400														
60	536	503	453	398	344														
65	485	458	410	349	288														
70	423	400	361	301	233														
75	356	334	300	252	181														
80	291	269	236	194	131														
85	228	208	175	134	82.9														
90	173	153	122	82.8	38.2														
95	156	137	107	69.6	27.9														
100	142	123	94.5	57.8	19.0														
105	126	109	80.7	45.7	11.4														
110	109	93.0	66.5	34.3	5.35														
115	92.2	76.7	52.7	24.3	4.68														
120	75.0	61.2	39.6	14.6	4.68														
125	58.6	46.3	27.5	6.36	4.58														
130	43.2	32.5	16.3	4.27	4.58														
135	28.7	19.5	6.17	3.99	4.58														
140	15.2	7.71	3.42	3.90	4.58														
145	3.37	2.78	3.24	3.81	4.58														
150	2.04	2.50	2.87	3.44	4.67														
155	2.13	2.32	2.59	3.07	4.21														
160	1.95	2.23	2.41	2.79	3.93														
165	1.95	2.23	2.41	2.79	4.21														
170	2.04	2.50	2.50	3.34	4.67														
175	2.60	2.69	2.68	3.53	4.86														
180	2.69	2.69	2.78	3.62	4.86														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP2H @20W5000K	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	7.96
277.0	60	0.074	19.4	0.951	8.60

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*****