

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: 2025-04-03

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		770
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	160.4
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.2
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	5.36
				277V	19.07
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.987
				277V	0.844
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4089
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		85.1
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%		63.1%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	27.1
			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		0.082
(Goniophotometer – Section 4.2)			Non-Worst Case		0.157
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.2
(Goniophotometer – Section 4.2)			Non-Worst Case		18.6

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-04-02	STRP4H/MVS @20W4000K	-	250402002-S1
2	Goniophotometer Test	2025-04-02	STRP4H/MVS @20W4000K	-	250402002-S1
3	THD and PF Test	2025-04-02	STRP4H/MVS @20W4000K	-	250402002-S1

Remark (If any):

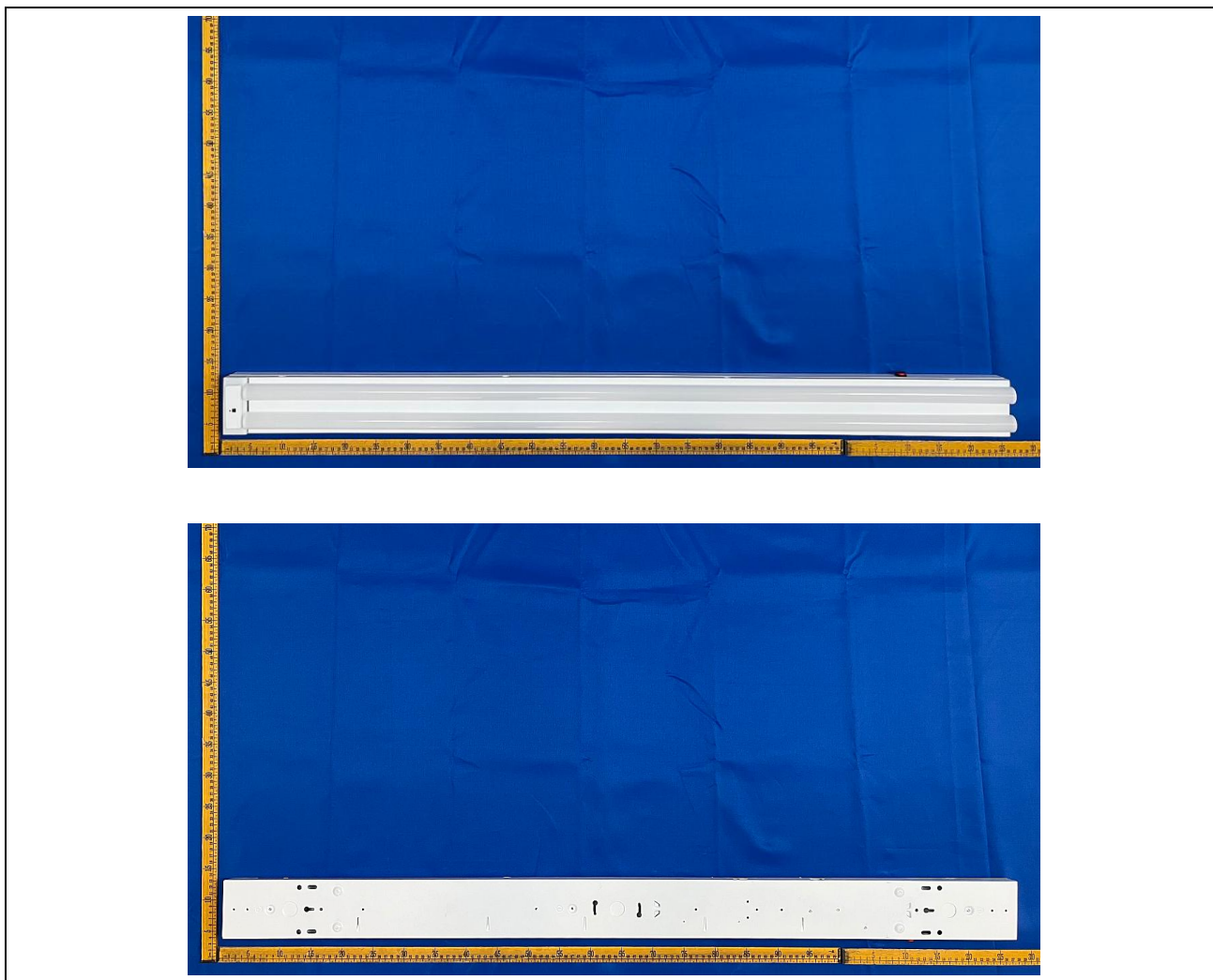
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. STRP4H/MVS @20W4000K, 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.	STRP4H/MVS @20W4000K	Sample ID	250402002-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

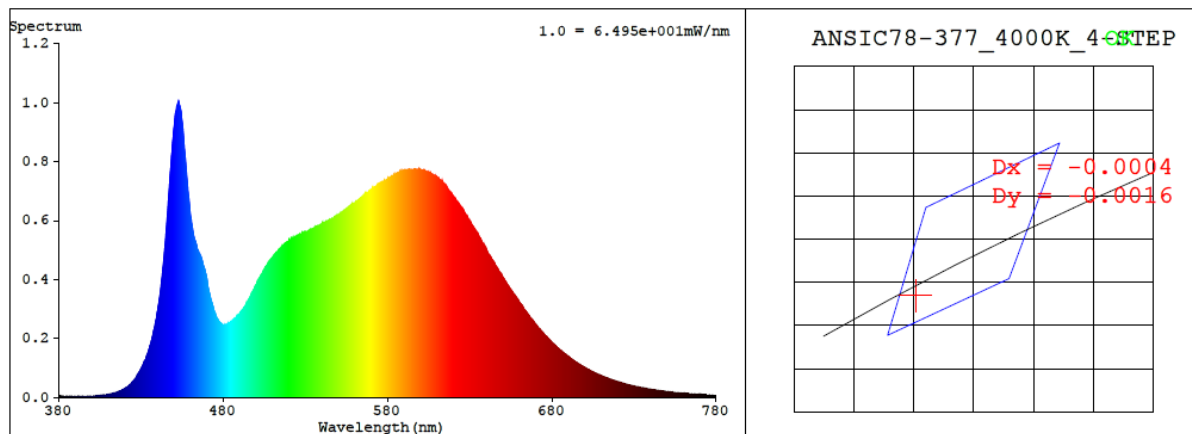
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.157	18.6	0.987
277.0	60	0.082	19.2	0.844

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4089	85.1	18	-0.0006	2.9	85	95	-11%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3762$ $y = 0.3728$ / $u' = 0.2239$ $v' = 0.4992$ ($duv = -6.13e-04$)

CCT= 4089K Prcp WL: $L_d = 579.1\text{nm}$ Purity=24.8%

Peak WL: $L_p = 453\text{nm}$ FWHM: $\approx 20.6\text{nm}$ Ratio: R=18.4% G=77.6% B=3.9%

Render Index: $R_a = 85.1$ AvgR = 79.1 TM30: $R_f = 85$ $R_g = 96$

EEL: 0.08969 A++ Highest

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

R8 =68 R9 =18 R10=79 R11=83 R12=63 R13=86 R14=98 R15=79

4.1 Integrating Sphere Test

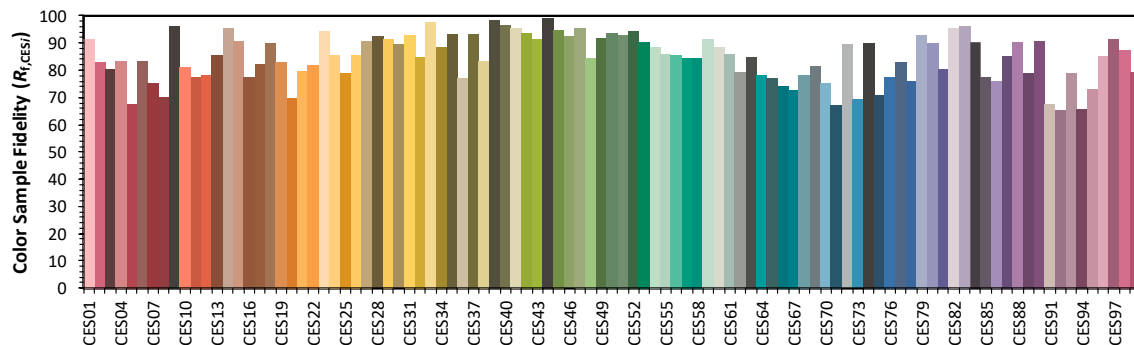
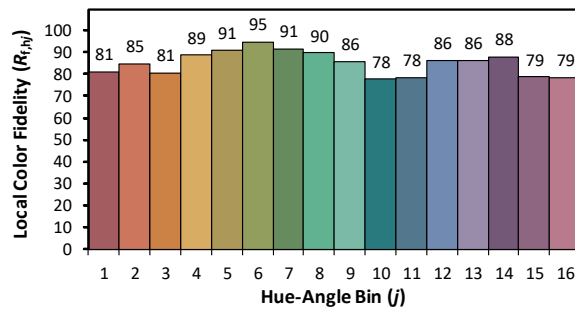
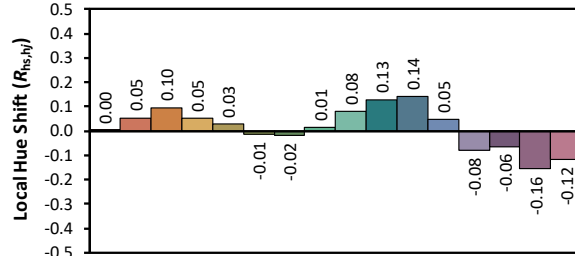
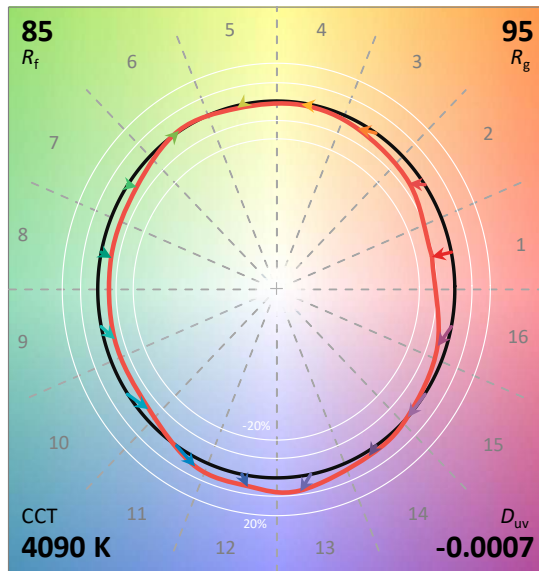
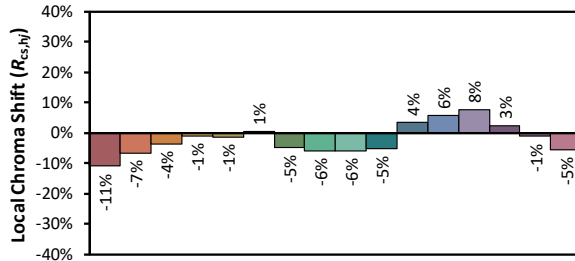
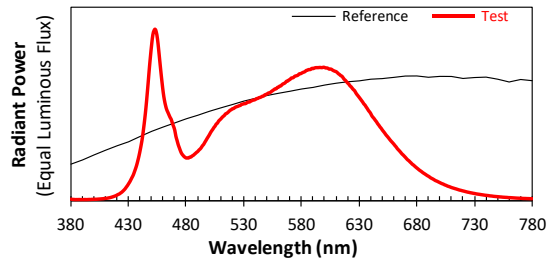
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/4/3

Model: STRP4H/MVS @20W4000K



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

x 0.3761
 y 0.3726
 u' 0.2239
 v' 0.4991

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	5.40E-06	447	6.90E-04	514	5.02E-04	581	7.44E-04	648	4.27E-04	715	6.30E-05
381	4.60E-06	448	7.71E-04	515	5.06E-04	582	7.47E-04	649	4.19E-04	716	6.08E-05
382	4.00E-06	449	8.44E-04	516	5.11E-04	583	7.50E-04	650	4.09E-04	717	5.86E-05
383	3.60E-06	450	9.10E-04	517	5.17E-04	584	7.56E-04	651	4.00E-04	718	5.72E-05
384	2.90E-06	451	9.64E-04	518	5.24E-04	585	7.57E-04	652	3.92E-04	719	5.52E-05
385	3.30E-06	452	9.88E-04	519	5.27E-04	586	7.61E-04	653	3.82E-04	720	5.35E-05
386	3.10E-06	453	9.96E-04	520	5.33E-04	587	7.61E-04	654	3.74E-04	721	5.19E-05
387	3.50E-06	454	9.79E-04	521	5.34E-04	588	7.63E-04	655	3.66E-04	722	5.00E-05
388	3.20E-06	455	9.40E-04	522	5.39E-04	589	7.69E-04	656	3.58E-04	723	4.83E-05
389	2.80E-06	456	8.80E-04	523	5.43E-04	590	7.67E-04	657	3.49E-04	724	4.66E-05
390	3.60E-06	457	8.12E-04	524	5.45E-04	591	7.70E-04	658	3.41E-04	725	4.53E-05
391	2.70E-06	458	7.46E-04	525	5.48E-04	592	7.72E-04	659	3.34E-04	726	4.37E-05
392	3.60E-06	459	6.84E-04	526	5.51E-04	593	7.72E-04	660	3.26E-04	727	4.23E-05
393	3.00E-06	460	6.27E-04	527	5.53E-04	594	7.72E-04	661	3.18E-04	728	4.11E-05
394	3.20E-06	461	5.84E-04	528	5.59E-04	595	7.73E-04	662	3.10E-04	729	3.96E-05
395	3.50E-06	462	5.52E-04	529	5.60E-04	596	7.74E-04	663	3.00E-04	730	3.86E-05
396	3.90E-06	463	5.28E-04	530	5.62E-04	597	7.73E-04	664	2.93E-04	731	3.70E-05
397	3.50E-06	464	5.13E-04	531	5.62E-04	598	7.73E-04	665	2.86E-04	732	3.59E-05
398	4.40E-06	465	4.97E-04	532	5.65E-04	599	7.75E-04	666	2.78E-04	733	3.48E-05
399	4.30E-06	466	4.82E-04	533	5.70E-04	600	7.73E-04	667	2.70E-04	734	3.39E-05
400	4.90E-06	467	4.70E-04	534	5.72E-04	601	7.70E-04	668	2.64E-04	735	3.28E-05
401	5.00E-06	468	4.47E-04	535	5.73E-04	602	7.71E-04	669	2.57E-04	736	3.17E-05
402	5.00E-06	469	4.29E-04	536	5.77E-04	603	7.68E-04	670	2.50E-04	737	3.07E-05
403	5.50E-06	470	4.08E-04	537	5.80E-04	604	7.64E-04	671	2.42E-04	738	2.96E-05
404	6.10E-06	471	3.72E-04	538	5.83E-04	605	7.64E-04	672	2.35E-04	739	2.86E-05
405	6.50E-06	472	3.48E-04	539	5.84E-04	606	7.62E-04	673	2.30E-04	740	2.78E-05
406	7.10E-06	473	3.23E-04	540	5.87E-04	607	7.57E-04	674	2.23E-04	741	2.71E-05
407	7.70E-06	474	3.05E-04	541	5.92E-04	608	7.54E-04	675	2.17E-04	742	2.62E-05
408	8.20E-06	475	2.86E-04	542	5.93E-04	609	7.51E-04	676	2.09E-04	743	2.51E-05
409	9.40E-06	476	2.71E-04	543	5.97E-04	610	7.49E-04	677	2.05E-04	744	2.43E-05
410	9.80E-06	477	2.63E-04	544	5.99E-04	611	7.43E-04	678	1.99E-04	745	2.37E-05
411	1.09E-05	478	2.55E-04	545	6.02E-04	612	7.37E-04	679	1.93E-04	746	2.27E-05
412	1.19E-05	479	2.49E-04	546	6.06E-04	613	7.32E-04	680	1.87E-04	747	2.19E-05
413	1.34E-05	480	2.45E-04	547	6.07E-04	614	7.26E-04	681	1.82E-04	748	2.12E-05
414	1.47E-05	481	2.46E-04	548	6.13E-04	615	7.22E-04	682	1.76E-04	749	2.07E-05
415	1.67E-05	482	2.46E-04	549	6.16E-04	616	7.13E-04	683	1.71E-04	750	2.00E-05
416	1.87E-05	483	2.51E-04	550	6.19E-04	617	7.04E-04	684	1.66E-04	751	1.95E-05
417	2.10E-05	484	2.51E-04	551	6.24E-04	618	6.98E-04	685	1.61E-04	752	1.87E-05
418	2.34E-05	485	2.57E-04	552	6.26E-04	619	6.90E-04	686	1.56E-04	753	1.83E-05
419	2.61E-05	486	2.61E-04	553	6.29E-04	620	6.82E-04	687	1.52E-04	754	1.75E-05
420	2.98E-05	487	2.67E-04	554	6.34E-04	621	6.76E-04	688	1.48E-04	755	1.69E-05
421	3.33E-05	488	2.73E-04	555	6.39E-04	622	6.66E-04	689	1.43E-04	756	1.65E-05
422	3.63E-05	489	2.79E-04	556	6.44E-04	623	6.60E-04	690	1.39E-04	757	1.60E-05
423	4.13E-05	490	2.84E-04	557	6.49E-04	624	6.52E-04	691	1.35E-04	758	1.57E-05
424	4.60E-05	491	2.92E-04	558	6.49E-04	625	6.44E-04	692	1.30E-04	759	1.49E-05
425	5.22E-05	492	2.98E-04	559	6.57E-04	626	6.38E-04	693	1.26E-04	760	1.44E-05
426	5.90E-05	493	3.06E-04	560	6.59E-04	627	6.26E-04	694	1.23E-04	761	1.43E-05
427	6.64E-05	494	3.17E-04	561	6.65E-04	628	6.16E-04	695	1.19E-04	762	1.38E-05
428	7.61E-05	495	3.24E-04	562	6.66E-04	629	6.08E-04	696	1.14E-04	763	1.34E-05
429	8.50E-05	496	3.36E-04	563	6.73E-04	630	5.99E-04	697	1.12E-04	764	1.29E-05
430	9.60E-05	497	3.47E-04	564	6.78E-04	631	5.90E-04	698	1.08E-04	765	1.25E-05
431	1.07E-04	498	3.59E-04	565	6.81E-04	632	5.81E-04	699	1.05E-04	766	1.20E-05
432	1.20E-04	499	3.70E-04	566	6.86E-04	633	5.72E-04	700	1.02E-04	767	1.16E-05
433	1.33E-04	500	3.81E-04	567	6.94E-04	634	5.61E-04	701	9.82E-05	768	1.13E-05
434	1.46E-04	501	3.93E-04	568	6.94E-04	635	5.54E-04	702	9.53E-05	769	1.10E-05
435	1.65E-04	502	4.04E-04	569	7.01E-04	636	5.43E-04	703	9.29E-05	770	1.08E-05
436	1.84E-04	503	4.13E-04	570	7.04E-04	637	5.34E-04	704	8.92E-05	771	1.04E-05
437	2.05E-04	504	4.24E-04	571	7.12E-04	638	5.22E-04	705	8.68E-05	772	9.80E-06
438	2.31E-04	505	4.32E-04	572	7.13E-04	639	5.14E-04	706	8.37E-05	773	9.60E-06
439	2.59E-04	506	4.44E-04	573	7.15E-04	640	5.04E-04	707	8.07E-05	774	9.50E-06
440	2.91E-04	507	4.49E-04	574	7.22E-04	641	4.91E-04	708	7.88E-05	775	9.10E-06
441	3.27E-04	508	4.60E-04	575	7.24E-04	642	4.82E-04	709	7.61E-05	776	8.90E-06
442	3.67E-04	509	4.67E-04	576	7.26E-04	643	4.74E-04	710	7.34E-05	777	8.70E-06
443	4.19E-04	510	4.74E-04	577	7.29E-04	644	4.65E-04	711	7.12E-05	778	8.40E-06
444	4.75E-04	511	4.82E-04	578	7.36E-04	645	4.56E-04	712	6.92E-05	779	8.40E-06
445	5.38E-04	512	4.88E-04	579	7.37E-04	646	4.45E-04	713	6.71E-05	780	8.40E-06
446	6.12E-04	513	4.94E-04	580	7.40E-04	647	4.37E-04	714	6.52E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4H/MVS @20W4000K	Sample ID	250402002-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.8	Humidity (%RH)	42.9

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	0.082	19.2	0.844
NON-WORST CASE	120.0	60	0.157	18.6	0.987

Test Result

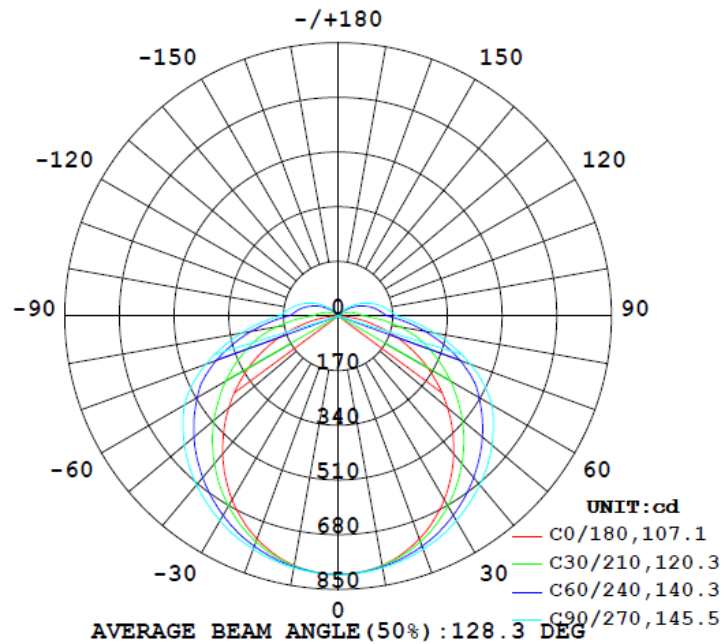
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
3079	770	160.7	160.7	107.3	145.2	160.4

Zonal Lumen Requirement	UGR	
(0° - 60°)	Crosswise	Endwise
63.1%	21.5	27.1

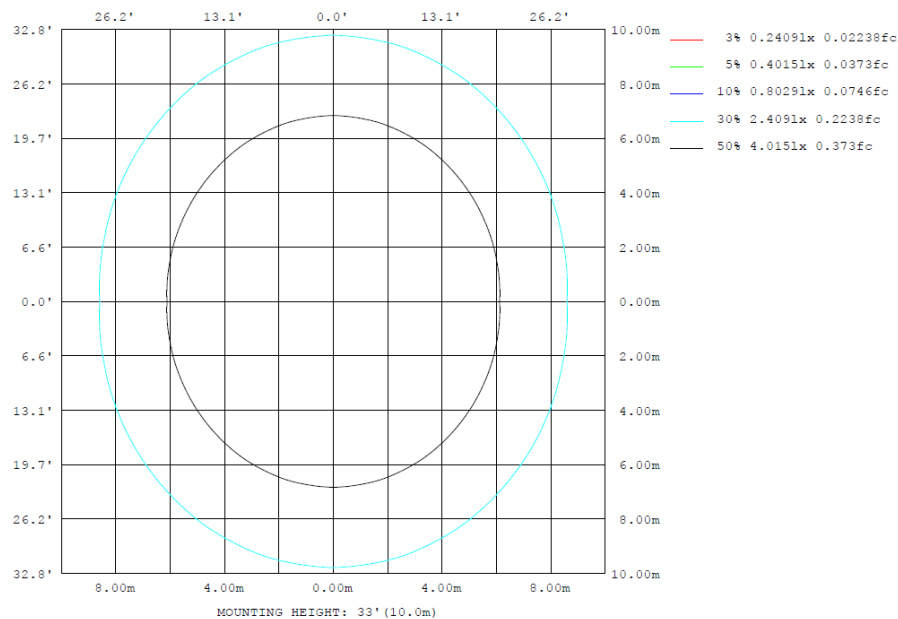
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

Zonal Lumen Summary

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	Φ zone	Φ total	Φ lum, lamp
10	787.1	790.4	794.7	790.4	787.1	790.4	794.7	790.4	0- 10	76.07	76.07	2.47,2.47
20	737.6	753.5	771.9	753.5	737.6	753.5	771.9	753.5	10- 20	219.0	295.1	9.58,9.58
30	659.5	698.3	734.5	698.3	659.5	698.3	734.5	698.3	20- 30	336.3	631.4	20.5,20.5
40	559.1	627.1	685.0	627.1	559.1	627.1	685.0	627.1	30- 40	415.8	1047	34,34
50	444.5	545.5	624.3	545.5	444.5	545.5	624.3	545.5	40- 50	451.8	1499	48.7,48.7
60	321.9	457.3	551.2	457.3	321.9	457.3	551.2	457.3	50- 60	443.9	1943	63.1,63.1
70	195.2	362.7	437.9	362.7	195.2	362.7	437.9	362.7	60- 70	393.6	2336	75.9,75.9
80	75.32	239.0	305.9	239.0	75.32	239.0	305.9	239.0	70- 80	297.8	2634	85.6,85.6
90	3.332	122.5	183.5	122.5	3.332	122.5	183.5	122.5	80- 90	178.2	2812	91.3,91.3
100	2.825	92.61	148.4	92.61	2.825	92.61	148.4	92.61	90-100	104.9	2917	94.8,94.8
110	3.456	63.99	114.5	63.99	3.456	63.99	114.5	63.99	100-110	76.01	2993	97.2,97.2
120	3.868	36.88	77.89	36.88	3.868	36.88	77.89	36.88	110-120	48.14	3041	98.8,98.8
130	4.015	12.75	44.11	12.75	4.015	12.75	44.11	12.75	120-130	24.86	3066	99.6,99.6
140	3.978	2.040	14.36	2.040	3.978	2.040	14.36	2.040	130-140	8.999	3075	99.9,99.9
150	4.111	1.748	1.395	1.748	4.111	1.748	1.395	1.748	140-150	1.829	3077	99.9,99.9
160	3.413	1.679	1.337	1.679	3.413	1.679	1.337	1.679	150-160	0.9677	3078	100,100
170	4.237	1.735	1.511	1.735	4.237	1.735	1.511	1.735	160-170	0.5867	3079	100,100
180	4.516	1.852	1.880	1.852	4.516	1.852	1.880	1.852	170-180	0.2281	3079	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	76.07	0-10	76.07	2.47%
10-20	219.01	0-20	295.08	9.58%
20-30	336.33	0-30	631.41	20.51%
30-40	415.82	0-40	1047.23	34.01%
40-50	451.79	0-50	1499.02	48.69%
50-60	443.90	0-60	1942.92	63.11%
60-70	393.58	0-70	2336.50	75.89%
70-80	297.76	0-80	2634.26	85.56%
80-90	178.19	0-90	2812.45	91.35%
90-100	104.89	0-100	2917.34	94.76%
100-110	76.01	0-110	2993.35	97.23%
110-120	48.13	0-120	3041.48	98.79%
120-130	24.86	0-130	3066.34	99.60%
130-140	9.00	0-140	3075.34	99.89%
140-150	1.83	0-150	3077.17	99.95%
150-160	0.97	0-160	3078.14	99.98%
160-170	0.59	0-170	3078.73	100.00%
170-180	0.23	0-180	3078.96	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										
X=2H	Y=2H	UGR Viewed Crosswise				UGR Viewed Endwise				
		13.2	14.7	13.7	15.2	15.8	16.3	17.9	16.8	18.4
	3H	14.8	16.2	15.3	16.7	17.2	19.0	20.4	19.5	20.9
	4H	15.3	16.6	15.8	17.1	17.7	20.3	21.6	20.8	22.1
	6H	15.6	16.8	16.1	17.4	18.0	21.5	22.7	22.0	23.3
	8H	15.7	16.9	16.2	17.4	18.0	22.1	23.3	22.6	23.8
	12H	15.7	16.8	16.3	17.4	18.0	22.7	23.9	23.3	24.4
4H	2H	14.5	15.8	15.0	16.3	16.9	16.8	18.1	17.3	18.6
	3H	16.3	17.5	16.9	18.0	18.6	19.7	20.9	20.3	21.4
	4H	17.0	18.1	17.6	18.6	19.3	21.1	22.2	21.7	22.7
	6H	17.5	18.4	18.1	19.0	19.7	22.5	23.5	23.1	24.1
	8H	17.6	18.5	18.2	19.1	19.7	23.2	24.1	23.8	24.7
	12H	17.7	18.5	18.3	19.1	19.8	24.0	24.8	24.6	25.4
8H	4H	18.0	18.8	18.6	19.4	20.1	21.4	22.2	22.0	22.8
	6H	18.7	19.4	19.3	20.1	20.7	23.0	23.7	23.6	24.3
	8H	18.9	19.6	19.6	20.2	20.9	23.8	24.5	24.4	25.1
	12H	19.1	19.7	19.7	20.3	21.1	24.7	25.3	25.4	26.0
12H	4H	18.2	19.0	18.8	19.6	20.3	21.4	22.2	22.0	22.8
	6H	19.1	19.7	19.7	20.3	21.1	23.0	23.7	23.7	24.3
	8H	19.4	20.0	20.0	20.6	21.4	23.9	24.5	24.5	25.1

Maximum UGR = 26.7

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				
		17.1	18.6	17.6	19.1	19.7	20.2	21.8	20.7	22.3
	3H	18.7	20.1	19.2	20.6	21.1	22.9	24.3	23.4	24.8
	4H	19.2	20.5	19.7	21.0	21.6	24.2	25.5	24.7	26.0
	6H	19.5	20.7	20.0	21.3	21.9	25.4	26.6	25.9	27.2
	8H	19.6	20.8	20.1	21.3	21.9	26.0	27.2	26.5	27.7
	12H	19.6	20.7	20.2	21.3	21.9	26.6	27.8	27.2	28.3
4H	2H	18.4	19.7	18.9	20.2	20.8	20.7	22.0	21.2	22.5
	3H	20.2	21.4	20.8	21.9	22.5	23.6	24.8	24.2	25.3
	4H	20.9	22.0	21.5	22.5	23.2	25.0	26.1	25.6	26.6
	6H	21.4	22.3	22.0	22.9	23.6	26.4	27.4	27.0	28.0
	8H	21.5	22.4	22.1	23.0	23.6	27.1	28.0	27.7	28.6
	12H	21.6	22.4	22.2	23.0	23.7	27.9	28.7	28.5	29.3
8H	4H	21.9	22.7	22.5	23.3	24.0	25.3	26.1	25.9	26.7
	6H	22.6	23.3	23.2	24.0	24.6	26.9	27.6	27.5	28.2
	8H	22.8	23.5	23.5	24.1	24.8	27.7	28.4	28.3	29.0
	12H	23.0	23.6	23.6	24.2	25.0	28.6	29.2	29.3	29.9
12H	4H	22.1	22.9	22.7	23.5	24.2	25.3	26.1	25.9	26.7
	6H	23.0	23.6	23.6	24.2	25.0	26.9	27.6	27.6	28.2
	8H	23.3	23.9	23.9	24.5	25.3	27.8	28.4	28.4	29.0

Maximum UGR = 30.6

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	803	804	804	804	803	803	803	803	803	804	804	804	803	804	804	804	803	803	803
5	800	800	799	800	800	801	801	801	800	800	799	800	800	800	799	800	800	801	801
10	787	788	789	790	792	794	795	794	792	790	789	788	787	788	789	790	792	794	795
15	766	769	771	775	779	783	785	783	779	775	771	769	766	769	771	775	779	783	785
20	738	743	747	754	762	769	772	769	762	754	747	743	738	743	747	754	762	769	772
25	702	709	718	728	741	751	755	751	741	728	718	709	702	709	718	728	741	751	755
30	659	669	682	698	715	729	734	729	715	698	682	669	659	669	682	698	715	729	734
35	611	625	642	665	687	704	711	704	687	665	642	625	611	625	642	665	687	704	711
40	559	575	599	627	656	677	685	677	656	627	599	575	559	575	599	627	656	677	685
45	503	522	553	587	622	647	657	647	622	587	553	522	503	522	553	587	622	647	657
50	445	466	504	546	586	614	624	614	586	546	504	466	445	466	504	546	586	614	624
55	384	409	453	502	547	578	589	578	547	502	453	409	384	409	453	502	547	578	589
60	322	351	403	457	507	539	551	539	507	457	403	351	322	351	403	457	507	539	551
65	259	294	353	413	461	489	499	489	461	413	353	294	259	294	353	413	461	489	499
70	195	237	303	363	403	428	438	428	403	363	303	237	195	237	303	363	403	428	438
75	133	182	253	303	339	363	371	363	339	303	253	182	133	182	253	303	339	363	371
80	75.3	131	194	239	275	297	306	297	275	239	194	131	75.3	131	194	239	275	297	306
85	28.1	81.3	134	178	212	234	242	234	212	178	134	81.3	28.1	81.3	134	178	212	234	242
90	3.33	36.0	81.8	123	155	176	184	176	155	123	81.8	36.0	3.33	36.0	81.8	123	155	176	184
95	2.75	25.3	67.3	106	137	157	165	157	137	106	67.3	25.3	2.75	25.3	67.3	106	137	157	165
100	2.82	16.5	55.2	92.6	123	141	148	141	123	92.6	55.2	16.5	2.82	16.5	55.2	92.6	123	141	148
105	3.23	9.09	43.1	78.3	107	125	132	125	107	78.3	43.1	9.09	3.23	9.09	43.1	78.3	107	125	132
110	3.46	3.53	32.1	64.0	90.8	108	115	108	90.8	64.0	32.1	3.53	3.46	3.53	32.1	64.0	90.8	108	115
115	3.63	3.15	21.6	49.9	74.6	90.4	96.2	90.4	74.6	49.9	21.6	3.15	3.63	3.15	21.6	49.9	74.6	90.4	96.2
120	3.87	3.15	11.7	36.9	58.7	72.7	77.9	72.7	58.7	36.9	11.7	3.15	3.87	3.15	11.7	36.9	58.7	72.7	77.9
125	4.15	3.15	3.64	24.4	43.5	56.2	60.5	56.2	43.5	24.4	3.64	3.15	4.15	3.15	3.64	24.4	43.5	56.2	60.5
130	4.02	3.15	2.67	12.7	29.3	40.3	44.1	40.3	29.3	12.7	2.67	3.15	4.02	3.15	2.67	12.7	29.3	40.3	44.1
135	4.00	3.15	2.55	3.06	15.9	25.3	28.9	25.3	15.9	3.06	2.55	3.15	4.00	3.15	2.55	3.06	15.9	25.3	28.9
140	3.98	3.15	2.51	2.04	3.83	11.3	14.4	11.3	3.83	2.04	2.51	3.15	3.98	3.15	2.51	2.04	3.83	11.3	14.4
145	4.05	3.15	2.39	1.92	1.63	1.60	2.09	1.60	1.63	1.92	2.39	3.15	4.05	3.15	2.39	1.92	1.63	1.60	2.09
150	4.11	3.15	2.31	1.75	1.54	1.50	1.40	1.50	1.54	1.75	2.31	3.15	4.11	3.15	2.31	1.75	1.54	1.50	1.40
155	3.87	3.15	2.04	1.69	1.55	1.50	1.37	1.50	1.55	1.69	2.04	3.15	3.87	3.15	2.04	1.69	1.55	1.50	1.37
160	3.41	3.00	1.94	1.68	1.56	1.50	1.34	1.50	1.56	1.68	1.94	3.00	3.41	3.00	1.94	1.68	1.56	1.50	1.34
165	3.32	3.20	1.88	1.70	1.57	1.54	1.42	1.54	1.57	1.70	1.88	3.20	3.32	3.20	1.88	1.70	1.57	1.54	1.42
170	4.24	3.52	1.94	1.73	1.58	1.57	1.51	1.57	1.58	1.73	1.94	3.52	4.24	3.52	1.94	1.73	1.58	1.57	1.51
175	4.48	3.99	2.59	1.85	1.77	1.69	1.51	1.69	1.77	1.85	2.59	3.99	4.48	3.99	2.59	1.85	1.77	1.69	1.51
180	4.52	4.08	2.59	1.85	1.68	1.69	1.88	1.69	1.68	1.85	2.59	4.08	4.52	4.08	2.59	1.85	1.68	1.69	1.88

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	803	803	804	804	804														
5	801	800	800	799	800														
10	794	792	790	789	788														
15	783	779	775	771	769														
20	769	762	754	747	743														
25	751	741	728	718	709														
30	729	715	698	682	669														
35	704	687	665	642	625														
40	677	656	627	599	575														
45	647	622	587	553	522														
50	614	586	546	504	466														
55	578	547	502	453	409														
60	539	507	457	403	351														
65	489	461	413	353	294														
70	428	403	363	303	237														
75	363	339	303	253	182														
80	297	275	239	194	131														
85	234	212	178	134	81.3														
90	176	155	123	81.8	36.0														
95	157	137	106	67.3	25.3														
100	141	123	92.6	55.2	16.5														
105	125	107	78.3	43.1	9.09														
110	108	90.8	64.0	32.1	3.53														
115	90.4	74.6	49.9	21.6	3.15														
120	72.7	58.7	36.9	11.7	3.15														
125	56.2	43.5	24.4	3.64	3.15														
130	40.3	29.3	12.7	2.67	3.15														
135	25.3	15.9	3.06	2.55	3.15														
140	11.3	3.83	2.04	2.51	3.15														
145	1.60	1.63	1.92	2.39	3.15														
150	1.50	1.54	1.75	2.31	3.15														
155	1.50	1.55	1.69	2.04	3.15														
160	1.50	1.56	1.68	1.94	3.00														
165	1.54	1.57	1.70	1.88	3.20														
170	1.57	1.58	1.73	1.94	3.52														
175	1.69	1.77	1.85	2.59	3.99														
180	1.69	1.68	1.85	2.59	4.08														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4H/MVS @20W4000K	Sample ID	250402002-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±1°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	0.157	18.6	0.987	5.36
277.0	60	0.082	19.2	0.844	19.07

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*****