

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: 2025-01-06

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		1084
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	151.6
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		28.6
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	7.86
				277V	10.33
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.993
				277V	0.920
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3441
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		83.9
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		11
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		85
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		94
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-12%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	≥40%		63.4%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	28.2
			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		0.240
(Goniophotometer – Section 4.2)			Non-Worst Case		0.111
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		28.6
(Goniophotometer – Section 4.2)			Non-Worst Case		28.3

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-05	STRP4H @30W3500K	-	241225006-S1
2	Goniophotometer Test	2025-01-05	STRP4H @30W3500K	-	241225006-S1
3	THD and PF Test	2025-01-05	STRP4H @30W3500K	-	241225006-S1

Remark (If any):

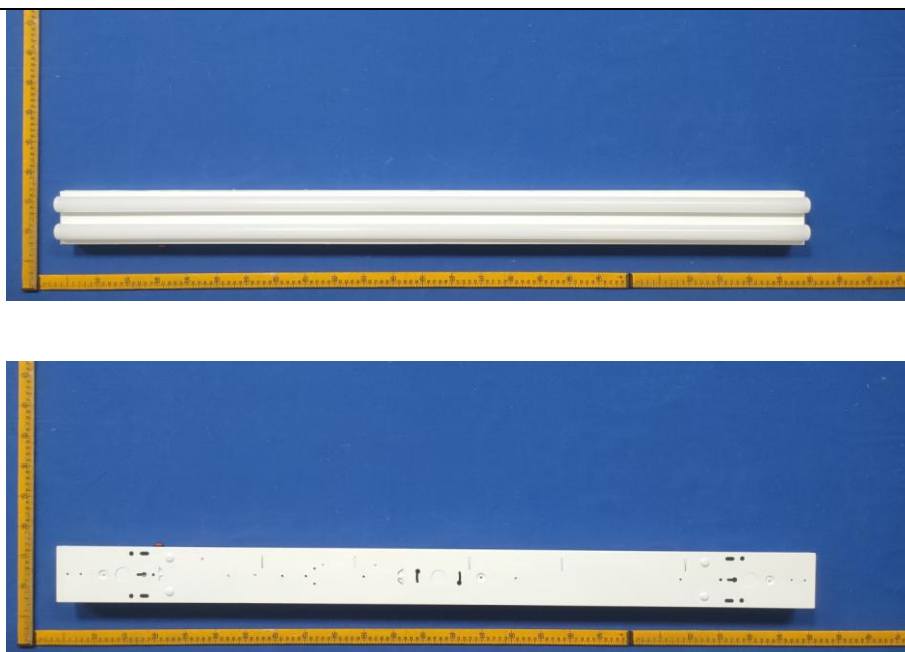
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

3.0 Product Description

Luminaire Description: Model No. STRP4H @30W3500K, 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 @30W3500K	Sample ID	241225006-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

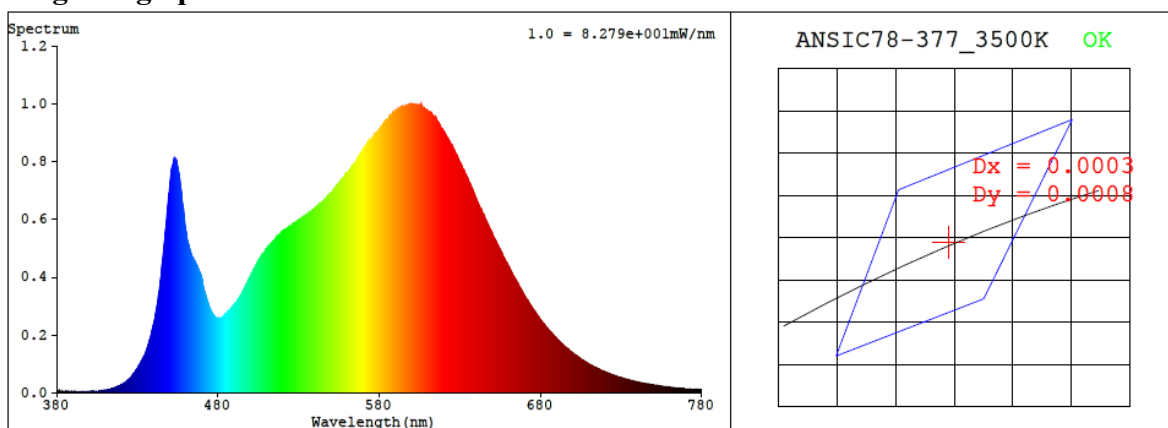
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.240	28.6	0.993
277.0	60	0.111	28.3	0.920

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
3441	83.9	11	0.0003	85	94	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4089$ $y = 0.3931$ / $u' = 0.2371$ $v' = 0.5128$ ($duv=2.69e-04$)

CCT= 3441K Prcp WL: Ld=581.0nm Purity=40.7%

Peak WL: Lp=599nm FWHM: =144.3nm Ratio:R=20.7% G=76.1% B=3.3%

Render Index: Ra = 83.9 AvgR = 78.1 TM30:Rf=85 Rg=95

EEL: 0.08861 A++ Highest

R1 =83 R2 =92 R3 =96 R4 =82 R5 =83 R6 =89 R7 =84

R8 =63 R9 =11 R10=81 R11=81 R12=67 R13=85 R14=99 R15=76

4.1 Integrating Sphere Test

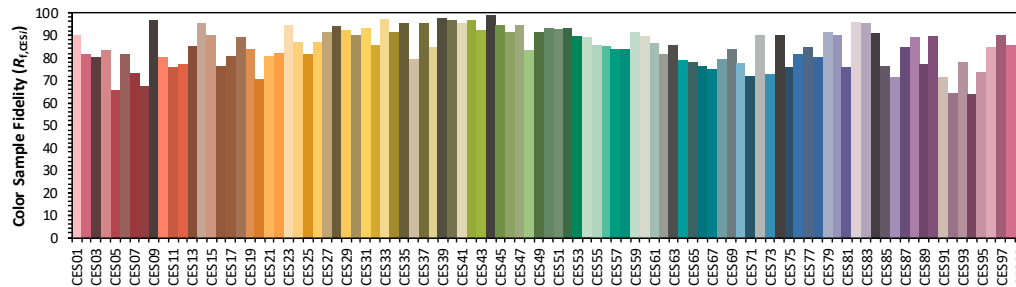
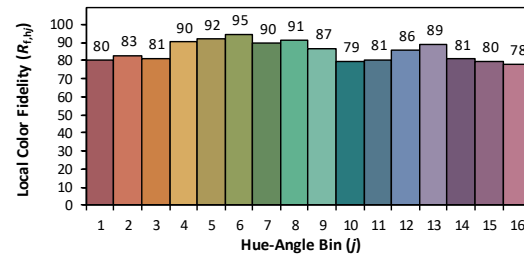
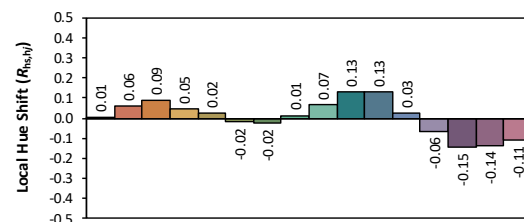
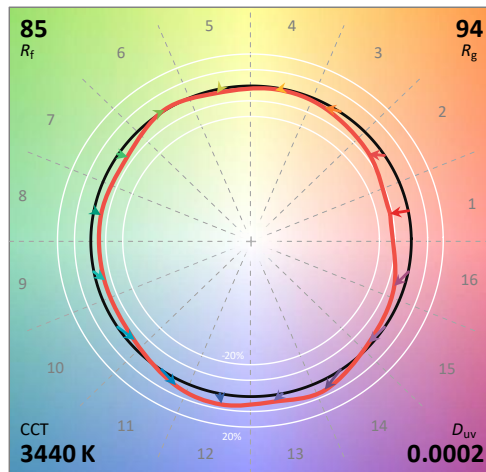
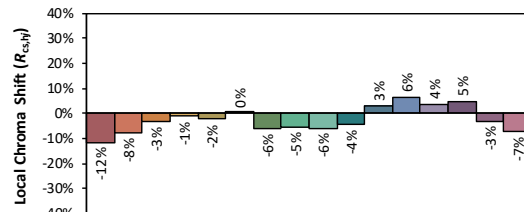
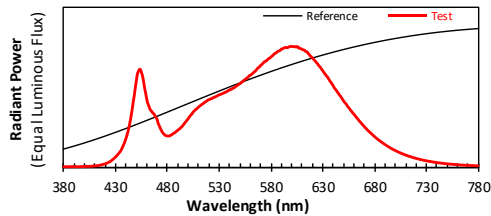
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/6

Model: STRP4H @30W3500K



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

x 0.4090
 y 0.3930
 u' 0.2371
 v' 0.5128

CIE 13.3-1995
(CRI)
 R_a 84
 R_g 11

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	3.30E-06	447	5.40E-04	514	5.22E-04	581	9.18E-04	648	5.76E-04	715	8.57E-05
381	2.10E-06	448	5.93E-04	515	5.28E-04	582	9.25E-04	649	5.63E-04	716	8.28E-05
382	4.10E-06	449	6.57E-04	516	5.36E-04	583	9.34E-04	650	5.50E-04	717	7.97E-05
383	2.00E-06	450	7.14E-04	517	5.41E-04	584	9.41E-04	651	5.37E-04	718	7.67E-05
384	2.90E-06	451	7.70E-04	518	5.47E-04	585	9.45E-04	652	5.28E-04	719	7.48E-05
385	3.20E-06	452	7.90E-04	519	5.54E-04	586	9.52E-04	653	5.17E-04	720	7.25E-05
386	2.80E-06	453	8.08E-04	520	5.57E-04	587	9.59E-04	654	5.03E-04	721	7.02E-05
387	4.00E-06	454	8.07E-04	521	5.62E-04	588	9.61E-04	655	4.93E-04	722	6.81E-05
388	4.60E-06	455	7.81E-04	522	5.64E-04	589	9.66E-04	656	4.82E-04	723	6.60E-05
389	4.20E-06	456	7.53E-04	523	5.67E-04	590	9.76E-04	657	4.70E-04	724	6.33E-05
390	2.20E-06	457	7.07E-04	524	5.74E-04	591	9.77E-04	658	4.60E-04	725	6.16E-05
391	4.20E-06	458	6.53E-04	525	5.76E-04	592	9.83E-04	659	4.48E-04	726	5.96E-05
392	2.80E-06	459	6.12E-04	526	5.81E-04	593	9.86E-04	660	4.40E-04	727	5.77E-05
393	3.10E-06	460	5.64E-04	527	5.85E-04	594	9.90E-04	661	4.29E-04	728	5.56E-05
394	3.20E-06	461	5.29E-04	528	5.89E-04	595	9.89E-04	662	4.18E-04	729	5.40E-05
395	2.90E-06	462	5.08E-04	529	5.93E-04	596	9.88E-04	663	4.06E-04	730	5.24E-05
396	3.90E-06	463	4.83E-04	530	5.98E-04	597	9.93E-04	664	3.97E-04	731	5.06E-05
397	3.50E-06	464	4.69E-04	531	6.00E-04	598	9.96E-04	665	3.86E-04	732	4.88E-05
398	4.00E-06	465	4.60E-04	532	6.04E-04	599	9.99E-04	666	3.75E-04	733	4.75E-05
399	4.40E-06	466	4.45E-04	533	6.08E-04	600	9.98E-04	667	3.66E-04	734	4.61E-05
400	4.70E-06	467	4.41E-04	534	6.11E-04	601	9.97E-04	668	3.56E-04	735	4.47E-05
401	5.20E-06	468	4.24E-04	535	6.16E-04	602	9.98E-04	669	3.47E-04	736	4.27E-05
402	6.50E-06	469	4.11E-04	536	6.20E-04	603	9.94E-04	670	3.37E-04	737	4.18E-05
403	5.60E-06	470	3.96E-04	537	6.22E-04	604	9.97E-04	671	3.27E-04	738	4.03E-05
404	5.30E-06	471	3.64E-04	538	6.29E-04	605	9.93E-04	672	3.19E-04	739	3.86E-05
405	6.50E-06	472	3.45E-04	539	6.33E-04	606	9.96E-04	673	3.09E-04	740	3.76E-05
406	6.30E-06	473	3.24E-04	540	6.38E-04	607	9.85E-04	674	3.01E-04	741	3.63E-05
407	7.60E-06	474	3.06E-04	541	6.43E-04	608	9.82E-04	675	2.93E-04	742	3.52E-05
408	8.00E-06	475	2.91E-04	542	6.44E-04	609	9.79E-04	676	2.84E-04	743	3.43E-05
409	7.90E-06	476	2.79E-04	543	6.53E-04	610	9.75E-04	677	2.77E-04	744	3.31E-05
410	9.60E-06	477	2.70E-04	544	6.54E-04	611	9.70E-04	678	2.68E-04	745	3.19E-05
411	1.03E-05	478	2.63E-04	545	6.60E-04	612	9.69E-04	679	2.61E-04	746	3.11E-05
412	1.18E-05	479	2.60E-04	546	6.68E-04	613	9.61E-04	680	2.53E-04	747	3.02E-05
413	1.24E-05	480	2.58E-04	547	6.71E-04	614	9.55E-04	681	2.45E-04	748	2.87E-05
414	1.36E-05	481	2.57E-04	548	6.79E-04	615	9.53E-04	682	2.39E-04	749	2.80E-05
415	1.61E-05	482	2.58E-04	549	6.85E-04	616	9.40E-04	683	2.31E-04	750	2.72E-05
416	1.75E-05	483	2.63E-04	550	6.89E-04	617	9.32E-04	684	2.24E-04	751	2.64E-05
417	1.99E-05	484	2.67E-04	551	6.97E-04	618	9.19E-04	685	2.18E-04	752	2.54E-05
418	2.29E-05	485	2.72E-04	552	7.04E-04	619	9.13E-04	686	2.12E-04	753	2.46E-05
419	2.48E-05	486	2.80E-04	553	7.11E-04	620	9.02E-04	687	2.06E-04	754	2.40E-05
420	2.78E-05	487	2.84E-04	554	7.19E-04	621	8.95E-04	688	2.00E-04	755	2.33E-05
421	3.06E-05	488	2.91E-04	555	7.24E-04	622	8.84E-04	689	1.94E-04	756	2.25E-05
422	3.42E-05	489	2.98E-04	556	7.32E-04	623	8.76E-04	690	1.88E-04	757	2.18E-05
423	3.81E-05	490	3.05E-04	557	7.37E-04	624	8.64E-04	691	1.82E-04	758	2.11E-05
424	4.31E-05	491	3.12E-04	558	7.44E-04	625	8.55E-04	692	1.77E-04	759	2.05E-05
425	4.73E-05	492	3.18E-04	559	7.56E-04	626	8.42E-04	693	1.70E-04	760	1.96E-05
426	5.38E-05	493	3.27E-04	560	7.59E-04	627	8.33E-04	694	1.66E-04	761	1.93E-05
427	6.17E-05	494	3.35E-04	561	7.65E-04	628	8.22E-04	695	1.60E-04	762	1.88E-05
428	6.80E-05	495	3.45E-04	562	7.72E-04	629	8.10E-04	696	1.55E-04	763	1.79E-05
429	7.69E-05	496	3.56E-04	563	7.80E-04	630	7.98E-04	697	1.52E-04	764	1.73E-05
430	8.41E-05	497	3.68E-04	564	7.89E-04	631	7.85E-04	698	1.46E-04	765	1.68E-05
431	9.40E-05	498	3.77E-04	565	7.95E-04	632	7.73E-04	699	1.42E-04	766	1.64E-05
432	1.04E-04	499	3.89E-04	566	8.05E-04	633	7.62E-04	700	1.38E-04	767	1.58E-05
433	1.14E-04	500	3.99E-04	567	8.16E-04	634	7.51E-04	701	1.33E-04	768	1.54E-05
434	1.25E-04	501	4.12E-04	568	8.23E-04	635	7.41E-04	702	1.29E-04	769	1.49E-05
435	1.35E-04	502	4.24E-04	569	8.30E-04	636	7.26E-04	703	1.25E-04	770	1.45E-05
436	1.52E-04	503	4.33E-04	570	8.41E-04	637	7.12E-04	704	1.21E-04	771	1.39E-05
437	1.71E-04	504	4.43E-04	571	8.47E-04	638	7.01E-04	705	1.17E-04	772	1.35E-05
438	1.90E-04	505	4.57E-04	572	8.56E-04	639	6.87E-04	706	1.13E-04	773	1.29E-05
439	2.14E-04	506	4.65E-04	573	8.65E-04	640	6.75E-04	707	1.10E-04	774	1.28E-05
440	2.38E-04	507	4.74E-04	574	8.74E-04	641	6.58E-04	708	1.07E-04	775	1.27E-05
441	2.65E-04	508	4.80E-04	575	8.75E-04	642	6.47E-04	709	1.03E-04	776	1.18E-05
442	2.97E-04	509	4.87E-04	576	8.83E-04	643	6.36E-04	710	1.00E-04	777	1.17E-05
443	3.35E-04	510	4.97E-04	577	8.91E-04	644	6.23E-04	711	9.63E-05	778	1.11E-05
444	3.77E-04	511	5.03E-04	578	8.98E-04	645	6.12E-04	712	9.43E-05	779	1.11E-05
445	4.25E-04	512	5.10E-04	579	9.03E-04	646	5.98E-04	713	9.07E-05	780	1.11E-05
446	4.78E-04	513	5.17E-04	580	9.10E-04	647	5.89E-04	714	8.77E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4H @30W3500K	Sample ID	241225006-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	25.0	Humidity (%RH)	42.1

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	0.240	28.6	0.993
NON-WORST CASE	277.0	60	0.111	28.3	0.920

Test Result

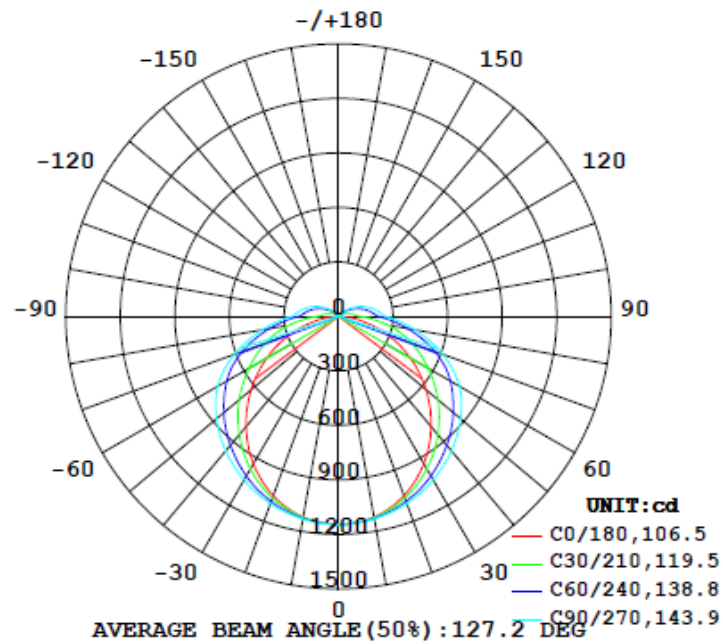
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
4337	1084	160.3	160.3	106.4	143.7	151.6

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
63.4%	22.7	28.2

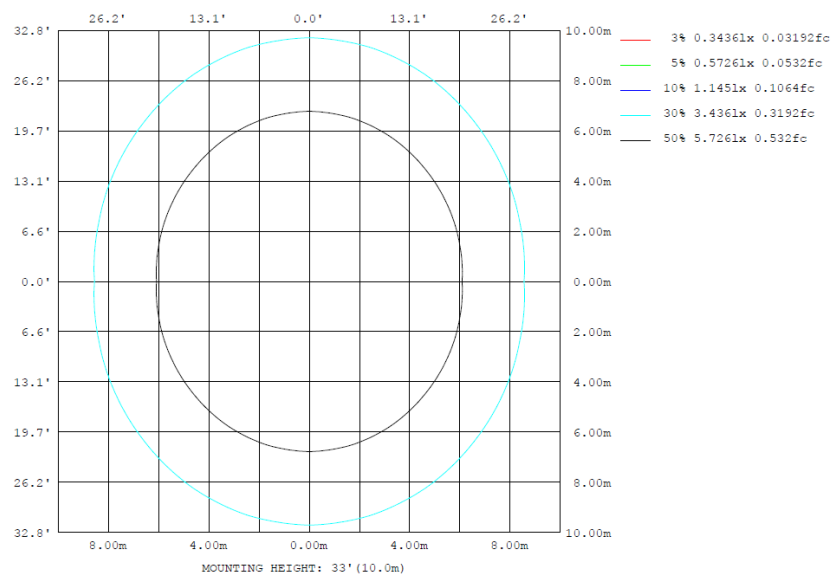
4.2 Goniophotometer Test

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	zone	total	%lum, lamp
10	1122	1125	1132	1125	1122	1125	1132	1125	0- 10	108.4	108.4	2.5,2.5
20	1050	1072	1096	1072	1050	1072	1096	1072	10- 20	311.8	420.2	9.69,9.69
30	937.4	990.5	1040	990.5	937.4	990.5	1040	990.5	20- 30	477.9	898.1	20.7,20.7
40	792.1	886.9	966.1	886.9	792.1	886.9	966.1	886.9	30- 40	589.1	1487	34.3,34.3
50	628.2	768.9	876.5	768.9	628.2	768.9	876.5	768.9	40- 50	638.1	2125	49,49
60	454.6	642.4	767.5	642.4	454.6	642.4	767.5	642.4	50- 60	624.7	2750	63.4,63.4
70	277.0	506.7	608.2	506.7	277.0	506.7	608.2	506.7	60- 70	551.3	3301	76.1,76.1
80	109.7	336.6	426.5	336.6	109.7	336.6	426.5	336.6	70- 80	417.4	3719	85.7,85.7
90	6.837	174.6	257.8	174.6	6.837	174.6	257.8	174.6	80- 90	251.8	3970	91.5,91.5
100	5.357	129.9	208.4	129.9	5.357	129.9	208.4	129.9	90-100	148.0	4118	95,95
110	6.271	87.99	157.9	87.99	6.271	87.99	157.9	87.99	100-110	105.7	4224	97.4,97.4
120	6.453	47.61	105.1	47.61	6.453	47.61	105.1	47.61	110-120	65.33	4289	98.9,98.9
130	6.541	12.20	55.43	12.20	6.541	12.20	55.43	12.20	120-130	32.19	4322	99.6,99.6
140	6.362	2.932	12.54	2.932	6.362	2.932	12.54	2.932	130-140	10.49	4332	99.9,99.9
150	6.182	2.471	1.686	2.471	6.182	2.471	1.686	2.471	140-150	2.437	4335	99.9,99.9
160	5.181	2.288	1.686	2.288	5.181	2.288	1.686	2.288	150-160	1.408	4336	100,100
170	6.270	2.561	1.969	2.561	6.270	2.561	1.969	2.561	160-170	0.8491	4337	100,100
180	6.635	3.384	2.532	3.384	6.635	3.384	2.532	3.384	170-180	0.3429	4337	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT: lm		

	Zonal (lm)		Total (lm)	Percent
0-10	108.40	0-10	108.40	2.50%
10-20	311.81	0-20	420.21	9.69%
20-30	477.86	0-30	898.07	20.71%
30-40	589.12	0-40	1487.19	34.29%
40-50	638.07	0-50	2125.26	49.00%
50-60	624.74	0-60	2750.00	63.41%
60-70	551.29	0-70	3301.29	76.12%
70-80	417.36	0-80	3718.65	85.75%
80-90	251.81	0-90	3970.46	91.55%
90-100	148.00	0-100	4118.46	94.96%
100-110	105.67	0-110	4224.13	97.40%
110-120	65.33	0-120	4289.46	98.91%
120-130	32.19	0-130	4321.65	99.65%
130-140	10.49	0-140	4332.14	99.89%
140-150	2.44	0-150	4334.58	99.95%
150-160	1.41	0-160	4335.99	99.98%
160-170	0.85	0-170	4336.84	100.00%
170-180	0.34	0-180	4337.18	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										
X=2H	Y=2H	13.1	14.7	13.6	15.2	15.7	16.2	17.7	16.7	18.2
	3H	14.7	16.1	15.2	16.6	17.2	18.9	20.3	19.4	20.8
	4H	15.2	16.5	15.7	17.1	17.6	20.1	21.4	20.6	21.9
	6H	15.5	16.8	16.1	17.3	17.9	21.3	22.6	21.9	23.1
	8H	15.6	16.8	16.2	17.4	18.0	21.9	23.1	22.5	23.7
	12H	15.6	16.8	16.2	17.3	18.0	22.6	23.7	23.1	24.3
UGR Viewed Endwise										
4H	2H	14.4	15.7	14.9	16.2	16.8	16.7	18.0	17.2	18.5
	3H	16.3	17.4	16.8	17.9	18.5	19.6	20.7	20.1	21.3
	4H	16.9	18.0	17.5	18.6	19.2	21.0	22.0	21.5	22.6
	6H	17.4	18.3	18.0	18.9	19.6	22.4	23.3	23.0	23.9
	8H	17.6	18.4	18.1	19.0	19.7	23.1	24.0	23.7	24.6
	12H	17.6	18.4	18.2	19.0	19.7	23.9	24.6	24.5	25.3
8H	4H	17.9	18.7	18.5	19.3	20.0	21.2	22.1	21.8	22.7
	6H	18.6	19.3	19.2	20.0	20.6	22.8	23.5	23.4	24.2
	8H	18.8	19.5	19.5	20.2	20.8	23.6	24.3	24.3	25.0
	12H	19.0	19.6	19.6	20.2	21.0	24.6	25.2	25.2	25.8
12H	4H	18.1	18.9	18.7	19.5	20.2	21.2	22.0	21.8	22.6
	6H	19.0	19.6	19.6	20.2	21.0	22.9	23.5	23.5	24.1
	8H	19.3	19.9	20.0	20.5	21.3	23.8	24.4	24.4	25.0

Maximum UGR = 26.6

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										
X=2H	Y=2H	18.2	19.8	18.7	20.3	20.8	21.3	22.8	21.8	23.3
	3H	19.8	21.2	20.3	21.7	22.3	24.0	25.4	24.5	25.9
	4H	20.3	21.6	20.8	22.2	22.7	25.2	26.5	25.7	27.0
	6H	20.6	21.9	21.2	22.4	23.0	26.4	27.7	27.0	28.2
	8H	20.7	21.9	21.3	22.5	23.1	27.0	28.2	27.6	28.8
	12H	20.7	21.9	21.3	22.4	23.1	27.7	28.8	28.2	29.4
UGR Viewed Endwise										
4H	2H	19.5	20.8	20.0	21.3	21.9	21.8	23.1	22.3	23.6
	3H	21.4	22.5	21.9	23.0	23.6	24.7	25.8	25.2	26.4
	4H	22.0	23.1	22.6	23.7	24.3	26.1	27.1	26.6	27.7
	6H	22.5	23.4	23.1	24.0	24.7	27.5	28.4	28.1	29.0
	8H	22.7	23.5	23.2	24.1	24.8	28.2	29.1	28.8	29.7
	12H	22.7	23.5	23.3	24.1	24.8	29.0	29.7	29.6	30.4
8H	4H	23.0	23.8	23.6	24.4	25.1	26.3	27.2	26.9	27.8
	6H	23.7	24.4	24.3	25.1	25.7	27.9	28.6	28.5	29.3
	8H	23.9	24.6	24.6	25.3	25.9	28.7	29.4	29.4	30.1
	12H	24.1	24.7	24.7	25.3	26.1	29.7	30.3	30.3	30.9
12H	4H	23.2	24.0	23.8	24.6	25.3	26.3	27.1	26.9	27.7
	6H	24.1	24.7	24.7	25.3	26.1	28.0	28.6	28.6	29.2
	8H	24.4	25.0	25.1	25.6	26.4	28.9	29.5	29.5	30.1

Maximum UGR = 31.7

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	1145	1145	1146	1146	1145	1145	1146	1145	1145	1146	1146	1145	1145	1145	1146	1146	1145	1145	1146
5	1140	1139	1140	1140	1140	1142	1142	1142	1140	1140	1140	1139	1140	1139	1140	1140	1140	1142	1142
10	1122	1123	1124	1125	1128	1131	1132	1131	1128	1125	1124	1123	1122	1123	1124	1125	1128	1131	1132
15	1092	1095	1099	1102	1110	1115	1117	1115	1110	1102	1099	1095	1092	1095	1099	1102	1110	1115	1117
20	1050	1057	1064	1072	1084	1093	1096	1093	1084	1072	1064	1057	1050	1057	1064	1072	1084	1093	1096
25	998	1009	1021	1034	1053	1066	1071	1066	1053	1034	1021	1009	998	1009	1021	1034	1053	1066	1071
30	937	952	970	991	1015	1033	1040	1033	1015	991	970	952	937	952	970	991	1015	1033	1040
35	868	887	913	941	972	995	1004	995	972	941	913	887	868	887	913	941	972	995	1004
40	792	816	850	887	926	955	966	955	926	887	850	816	792	816	850	887	926	955	966
45	712	740	784	828	877	910	923	910	877	828	784	740	712	740	784	828	877	910	923
50	628	660	714	769	824	862	876	862	824	769	714	660	628	660	714	769	824	862	876
55	542	579	642	706	768	810	826	810	768	706	642	579	542	579	642	706	768	810	826
60	455	497	570	642	710	753	768	753	710	642	570	497	455	497	570	642	710	753	768
65	366	415	498	578	644	681	694	681	644	578	498	415	366	415	498	578	644	681	694
70	277	335	426	507	563	596	608	596	563	507	426	335	277	335	426	507	563	596	608
75	190	258	356	424	475	506	517	506	475	424	356	258	190	258	356	424	475	506	517
80	110	185	275	337	386	416	426	416	386	337	275	185	110	185	275	337	386	416	426
85	42.9	116	191	252	299	328	339	328	299	252	191	116	42.9	116	191	252	299	328	339
90	6.84	52.2	118	175	220	248	258	248	220	175	118	52.2	6.84	52.2	118	175	220	248	258
95	4.73	35.2	95.5	150	192	220	232	220	192	150	95.5	35.2	4.73	35.2	95.5	150	192	220	232
100	5.36	22.5	77.5	130	172	197	208	197	172	130	77.5	22.5	5.36	22.5	77.5	130	172	197	208
105	6.09	11.4	59.5	109	150	174	184	174	150	109	59.5	11.4	6.09	11.4	59.5	109	150	174	184
110	6.27	5.51	42.5	88.0	125	149	158	149	125	88.0	42.5	5.51	6.27	5.51	42.5	88.0	125	149	158
115	6.36	5.23	27.0	67.5	102	123	131	123	102	67.5	27.0	5.23	6.36	5.23	27.0	67.5	102	123	131
120	6.45	5.23	12.7	47.6	78.3	97.5	105	97.5	78.3	47.6	12.7	5.23	6.45	5.23	12.7	47.6	78.3	97.5	105
125	6.45	5.50	5.15	29.1	55.6	73.3	79.8	73.3	55.6	29.1	5.15	5.50	6.45	5.50	5.15	29.1	55.6	73.3	79.8
130	6.54	5.51	4.40	12.2	34.3	50.1	55.4	50.1	34.3	12.2	4.40	5.51	6.54	5.51	4.40	12.2	34.3	50.1	55.4
135	6.36	5.51	4.12	4.06	15.2	28.1	33.0	28.1	15.2	4.06	4.12	5.51	6.36	5.51	4.12	4.06	15.2	28.1	33.0
140	6.36	5.69	3.94	2.93	3.82	8.96	12.5	8.96	3.82	2.93	3.94	5.69	6.36	5.69	3.94	2.93	3.82	8.96	12.5
145	6.36	5.60	3.67	2.83	2.21	2.33	2.63	2.33	2.21	2.83	3.67	5.60	6.36	5.60	3.67	2.83	2.21	2.33	2.63
150	6.18	5.60	3.30	2.47	2.12	1.95	1.69	1.95	2.12	2.47	3.30	5.60	6.18	5.60	3.30	2.47	2.12	1.95	1.69
155	5.64	5.05	2.93	2.29	2.12	1.95	1.69	1.95	2.12	2.29	2.93	5.05	5.64	5.05	2.93	2.29	2.12	1.95	1.69
160	5.18	4.68	2.75	2.29	2.12	1.95	1.69	1.95	2.12	2.29	2.75	4.68	5.18	4.68	2.75	2.29	2.12	1.95	1.69
165	5.45	5.04	2.75	2.29	2.12	1.95	1.78	1.95	2.12	2.29	2.75	5.04	5.45	5.04	2.75	2.29	2.12	1.95	1.78
170	6.27	5.51	3.11	2.56	2.58	2.51	1.97	2.51	2.58	2.56	3.11	5.51	6.27	5.51	3.11	2.56	2.58	2.51	1.97
175	6.54	5.78	3.39	2.93	2.67	2.60	2.53	2.60	2.67	2.93	3.39	5.78	6.54	5.78	3.39	2.93	2.67	2.60	2.53
180	6.63	5.78	3.48	3.38	2.67	2.79	2.53	2.79	2.67	3.38	3.48	5.78	6.63	5.78	3.48	3.38	2.67	2.79	2.53

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	1145	1145	1146	1146	1145														
5	1142	1140	1140	1140	1139														
10	1131	1128	1125	1124	1123														
15	1115	1110	1102	1099	1095														
20	1093	1084	1072	1064	1057														
25	1066	1053	1034	1021	1009														
30	1033	1015	991	970	952														
35	995	972	941	913	887														
40	955	926	887	850	816														
45	910	877	828	784	740														
50	862	824	769	714	660														
55	810	768	706	642	579														
60	753	710	642	570	497														
65	681	644	578	498	415														
70	596	563	507	426	335														
75	506	475	424	356	258														
80	416	386	337	275	185														
85	328	299	252	191	116														
90	248	220	175	118	52.2														
95	220	192	150	95.5	35.2														
100	197	172	130	77.5	22.5														
105	174	150	109	59.5	11.4														
110	149	125	88.0	42.5	5.51														
115	123	102	67.5	27.0	5.23														
120	97.5	78.3	47.6	12.7	5.23														
125	73.3	55.6	29.1	5.15	5.50														
130	50.1	34.3	12.2	4.40	5.51														
135	28.1	15.2	4.06	4.12	5.51														
140	8.96	3.82	2.93	3.94	5.69														
145	2.33	2.21	2.83	3.67	5.60														
150	1.95	2.12	2.47	3.30	5.60														
155	1.95	2.12	2.29	2.93	5.05														
160	1.95	2.12	2.29	2.75	4.68														
165	1.95	2.12	2.29	2.75	5.04														
170	2.51	2.58	2.56	3.11	5.51														
175	2.60	2.67	2.93	3.39	5.78														
180	2.79	2.67	3.38	3.48	5.78														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4H @30W3500K	Sample ID	241225006-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	0.240	28.6	0.993	7.86
277.0	60	0.111	28.3	0.920	10.33

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*****