

Photometric Test Report

Relevant Standards

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

Prepared For

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Revised Date: N/A

1.0 Test Summary

DLC Technical Requirements V5.1

Direct Linear Ambient Luminaires					
Requirement Category		Test Method	Requirements		Test Value
Luminaire Output (lm) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	375 lm/ft		731
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	153.9
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.0
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002	20.00%	120V	6.48
		ANSI C82-77-10:2020		277V	18.66
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002	0.9	120V	0.985
		ANSI C82-77-10:2020		277V	0.845
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3436
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		84.1
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		12
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%		63.3%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	26.8
			N/A	<22	
Input Voltage (V)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Cast		277.0
(Goniophotometer – Section 4.2)			Non-Worst Case		120.0
Input Current (A)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		0.081
(Goniophotometer – Section 4.2)			Non-Worst Case		0.157
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		19.0
(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	2025-01-05	STRP4H @20W3500K	-	241225006-S1
2	Goniophotometer Test	2025-01-05	STRP4H @20W3500K	-	241225006-S1
3	THD and PF Test	2025-01-05	STRP4H @20W3500K	-	241225006-S1

Remark (If any):

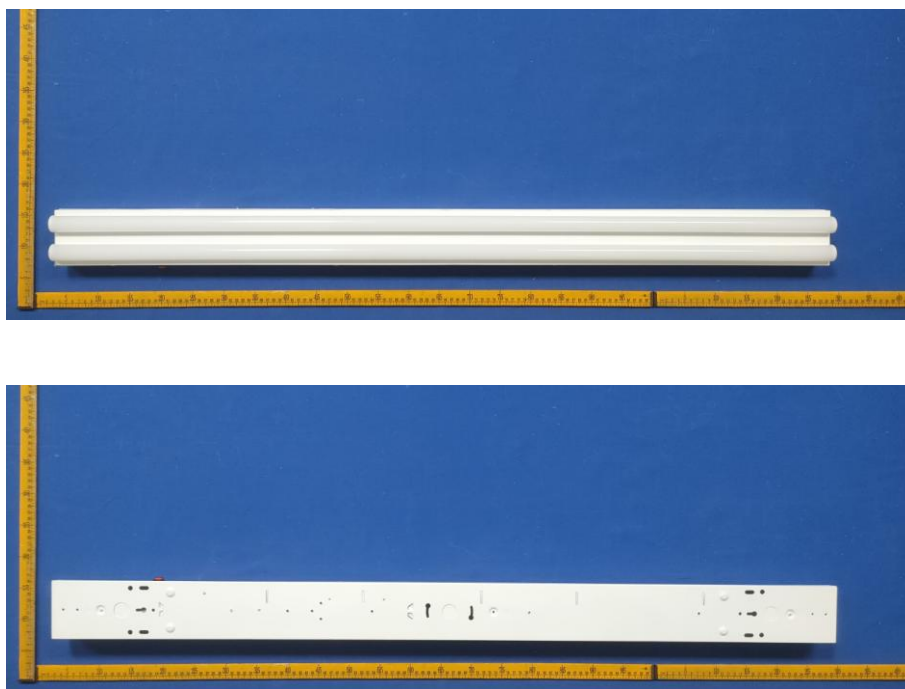
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3.0 Product Description

Luminaire Description: Model No. STRP4H @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.	STRP4H @20W3500K	Sample ID	241225006-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

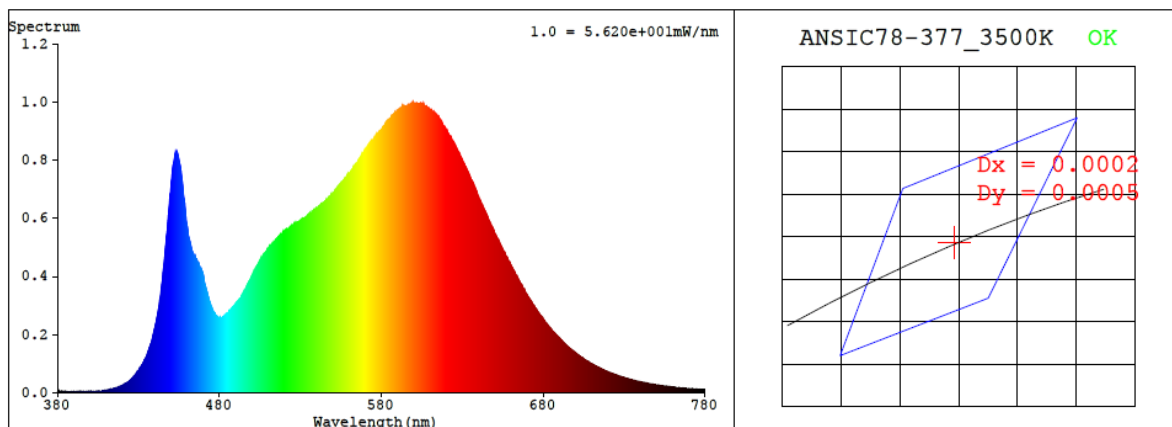
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.157	18.6	0.985
277.0	60	0.081	19.0	0.845

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
3436	84.1	12	0.0002	85	95	-12%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.4091$ $y = 0.3930$ / $u' = 0.2373$ $v' = 0.5128$ ($duv = 1.74e-04$)

CCT= 3436K Prcp WL: Ld=581.0nm Purity=40.7%

Peak WL: Lp=599nm FWHM: =144.4nm Ratio:R=20.7% G=76.0% B=3.3%

Render Index: Ra = 84.1 AvgR = 78.4 TM30:Rf=85 Rg=95

EEL: 0.08800 A++ Highest

R1 =83 R2 =92 R3 =96 R4 =82 R5 =83 R6 =90 R7 =84

R8 =63 R9 =12 R10=82 R11=81 R12=68 R13=85 R14=99 R15=76

4.1 Integrating Sphere Test

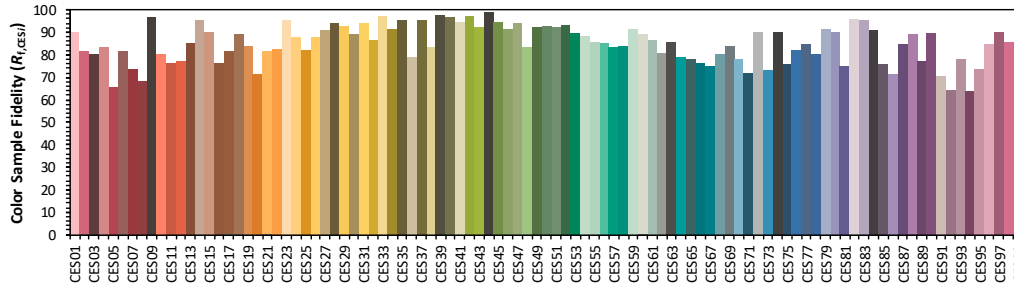
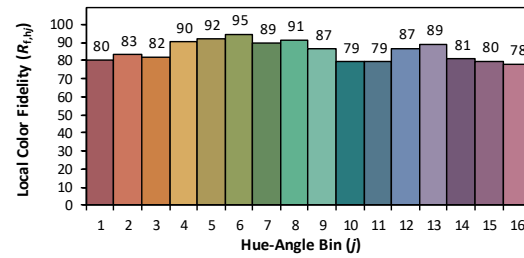
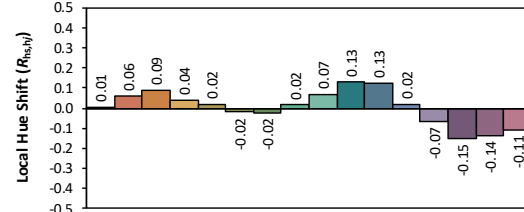
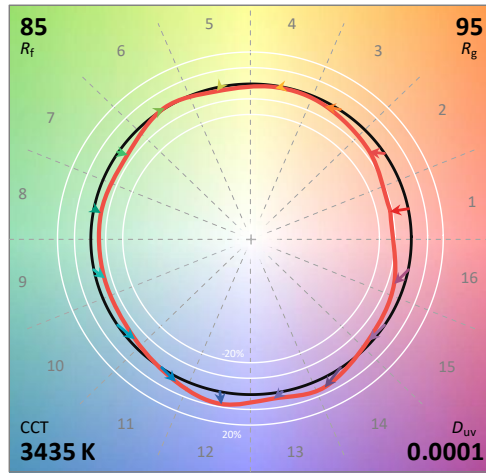
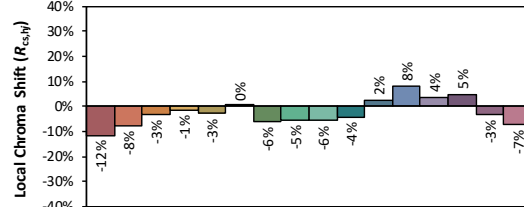
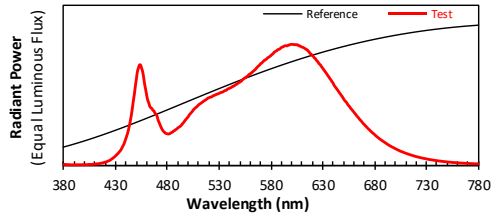
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/6

Model: STRP4H @20W3500K



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

x 0.4091
 y 0.3929
 u' 0.2373
 v' 0.5127

CIE 13.3-1995
(CRI)
 R_a 84
 R_g 12

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	4.70E-06	447	5.24E-04	514	5.21E-04	581	9.13E-04	648	5.75E-04	715	8.45E-05
381	6.50E-06	448	5.80E-04	515	5.28E-04	582	9.19E-04	649	5.64E-04	716	8.18E-05
382	4.20E-06	449	6.49E-04	516	5.33E-04	583	9.30E-04	650	5.50E-04	717	7.93E-05
383	4.30E-06	450	7.08E-04	517	5.39E-04	584	9.36E-04	651	5.36E-04	718	7.65E-05
384	4.00E-06	451	7.70E-04	518	5.45E-04	585	9.42E-04	652	5.27E-04	719	7.35E-05
385	4.60E-06	452	8.01E-04	519	5.53E-04	586	9.48E-04	653	5.18E-04	720	7.16E-05
386	2.60E-06	453	8.26E-04	520	5.55E-04	587	9.54E-04	654	5.03E-04	721	6.91E-05
387	2.50E-06	454	8.27E-04	521	5.60E-04	588	9.57E-04	655	4.92E-04	722	6.71E-05
388	2.90E-06	455	8.01E-04	522	5.62E-04	589	9.62E-04	656	4.82E-04	723	6.50E-05
389	2.50E-06	456	7.74E-04	523	5.64E-04	590	9.70E-04	657	4.69E-04	724	6.28E-05
390	4.00E-06	457	7.27E-04	524	5.72E-04	591	9.75E-04	658	4.60E-04	725	6.08E-05
391	3.10E-06	458	6.69E-04	525	5.75E-04	592	9.78E-04	659	4.49E-04	726	5.89E-05
392	3.60E-06	459	6.24E-04	526	5.79E-04	593	9.83E-04	660	4.39E-04	727	5.68E-05
393	3.10E-06	460	5.76E-04	527	5.82E-04	594	9.86E-04	661	4.28E-04	728	5.55E-05
394	3.20E-06	461	5.37E-04	528	5.86E-04	595	9.85E-04	662	4.17E-04	729	5.37E-05
395	3.60E-06	462	5.14E-04	529	5.89E-04	596	9.85E-04	663	4.06E-04	730	5.18E-05
396	3.30E-06	463	4.86E-04	530	5.92E-04	597	9.91E-04	664	3.97E-04	731	4.96E-05
397	3.20E-06	464	4.74E-04	531	5.98E-04	598	9.93E-04	665	3.86E-04	732	4.83E-05
398	4.30E-06	465	4.68E-04	532	6.00E-04	599	9.96E-04	666	3.75E-04	733	4.69E-05
399	4.10E-06	466	4.52E-04	533	6.03E-04	600	9.97E-04	667	3.67E-04	734	4.54E-05
400	4.10E-06	467	4.47E-04	534	6.07E-04	601	9.96E-04	668	3.56E-04	735	4.40E-05
401	3.90E-06	468	4.29E-04	535	6.13E-04	602	9.96E-04	669	3.45E-04	736	4.26E-05
402	4.20E-06	469	4.20E-04	536	6.16E-04	603	9.93E-04	670	3.36E-04	737	4.13E-05
403	4.80E-06	470	4.06E-04	537	6.18E-04	604	9.95E-04	671	3.27E-04	738	3.96E-05
404	5.60E-06	471	3.72E-04	538	6.27E-04	605	9.92E-04	672	3.19E-04	739	3.86E-05
405	5.50E-06	472	3.53E-04	539	6.31E-04	606	9.93E-04	673	3.09E-04	740	3.73E-05
406	5.80E-06	473	3.31E-04	540	6.35E-04	607	9.85E-04	674	3.01E-04	741	3.58E-05
407	6.10E-06	474	3.11E-04	541	6.39E-04	608	9.84E-04	675	2.92E-04	742	3.50E-05
408	7.10E-06	475	2.94E-04	542	6.43E-04	609	9.78E-04	676	2.84E-04	743	3.35E-05
409	7.30E-06	476	2.81E-04	543	6.50E-04	610	9.74E-04	677	2.75E-04	744	3.29E-05
410	8.20E-06	477	2.73E-04	544	6.51E-04	611	9.72E-04	678	2.67E-04	745	3.12E-05
411	9.70E-06	478	2.65E-04	545	6.58E-04	612	9.67E-04	679	2.61E-04	746	3.07E-05
412	1.09E-05	479	2.61E-04	546	6.64E-04	613	9.62E-04	680	2.53E-04	747	2.95E-05
413	1.15E-05	480	2.58E-04	547	6.69E-04	614	9.55E-04	681	2.45E-04	748	2.86E-05
414	1.24E-05	481	2.57E-04	548	6.74E-04	615	9.52E-04	682	2.38E-04	749	2.77E-05
415	1.47E-05	482	2.59E-04	549	6.81E-04	616	9.41E-04	683	2.30E-04	750	2.68E-05
416	1.62E-05	483	2.64E-04	550	6.85E-04	617	9.33E-04	684	2.24E-04	751	2.61E-05
417	1.75E-05	484	2.69E-04	551	6.91E-04	618	9.20E-04	685	2.17E-04	752	2.50E-05
418	1.99E-05	485	2.73E-04	552	6.99E-04	619	9.15E-04	686	2.11E-04	753	2.44E-05
419	2.27E-05	486	2.81E-04	553	7.08E-04	620	9.04E-04	687	2.05E-04	754	2.36E-05
420	2.54E-05	487	2.86E-04	554	7.15E-04	621	8.97E-04	688	1.99E-04	755	2.25E-05
421	2.71E-05	488	2.93E-04	555	7.21E-04	622	8.85E-04	689	1.93E-04	756	2.22E-05
422	3.09E-05	489	2.99E-04	556	7.26E-04	623	8.78E-04	690	1.87E-04	757	2.11E-05
423	3.47E-05	490	3.07E-04	557	7.32E-04	624	8.65E-04	691	1.81E-04	758	2.10E-05
424	3.81E-05	491	3.13E-04	558	7.40E-04	625	8.57E-04	692	1.76E-04	759	1.99E-05
425	4.34E-05	492	3.18E-04	559	7.49E-04	626	8.43E-04	693	1.70E-04	760	1.94E-05
426	4.90E-05	493	3.25E-04	560	7.53E-04	627	8.33E-04	694	1.65E-04	761	1.85E-05
427	5.55E-05	494	3.35E-04	561	7.60E-04	628	8.25E-04	695	1.59E-04	762	1.82E-05
428	6.19E-05	495	3.46E-04	562	7.67E-04	629	8.11E-04	696	1.55E-04	763	1.76E-05
429	6.96E-05	496	3.56E-04	563	7.75E-04	630	8.00E-04	697	1.50E-04	764	1.73E-05
430	7.63E-05	497	3.68E-04	564	7.83E-04	631	7.87E-04	698	1.46E-04	765	1.66E-05
431	8.59E-05	498	3.78E-04	565	7.90E-04	632	7.76E-04	699	1.41E-04	766	1.61E-05
432	9.38E-05	499	3.89E-04	566	8.01E-04	633	7.64E-04	700	1.37E-04	767	1.56E-05
433	1.04E-04	500	3.98E-04	567	8.10E-04	634	7.52E-04	701	1.32E-04	768	1.50E-05
434	1.14E-04	501	4.13E-04	568	8.19E-04	635	7.39E-04	702	1.28E-04	769	1.46E-05
435	1.24E-04	502	4.23E-04	569	8.26E-04	636	7.28E-04	703	1.24E-04	770	1.37E-05
436	1.41E-04	503	4.34E-04	570	8.37E-04	637	7.14E-04	704	1.20E-04	771	1.39E-05
437	1.57E-04	504	4.42E-04	571	8.42E-04	638	7.03E-04	705	1.15E-04	772	1.33E-05
438	1.74E-04	505	4.55E-04	572	8.51E-04	639	6.89E-04	706	1.13E-04	773	1.31E-05
439	1.97E-04	506	4.64E-04	573	8.59E-04	640	6.77E-04	707	1.09E-04	774	1.27E-05
440	2.22E-04	507	4.72E-04	574	8.67E-04	641	6.60E-04	708	1.06E-04	775	1.23E-05
441	2.48E-04	508	4.79E-04	575	8.70E-04	642	6.47E-04	709	1.02E-04	776	1.17E-05
442	2.78E-04	509	4.87E-04	576	8.78E-04	643	6.36E-04	710	9.92E-05	777	1.12E-05
443	3.15E-04	510	4.96E-04	577	8.87E-04	644	6.24E-04	711	9.61E-05	778	1.10E-05
444	3.56E-04	511	5.04E-04	578	8.91E-04	645	6.13E-04	712	9.26E-05	779	1.09E-05
445	4.05E-04	512	5.09E-04	579	8.98E-04	646	5.99E-04	713	9.01E-05	780	1.10E-05
446	4.59E-04	513	5.15E-04	580	9.04E-04	647	5.89E-04	714	8.70E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4H @20W3500K	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	277.0	60	0.081	19.0	0.845
NON-WORST CASE	120.0	60	0.157	18.6	0.985

Test Result

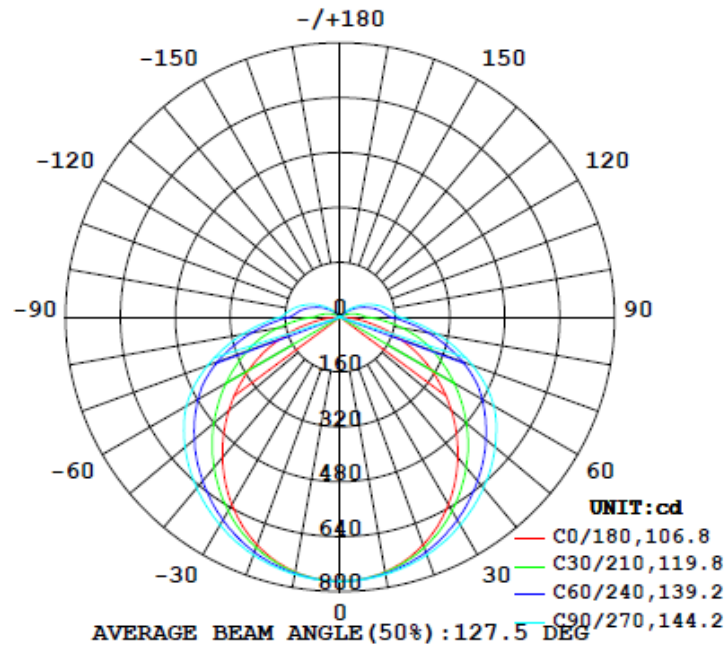
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
2924	731	161.2	161.2	106.9	143.9	153.9

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
63.3%	21.3	26.8

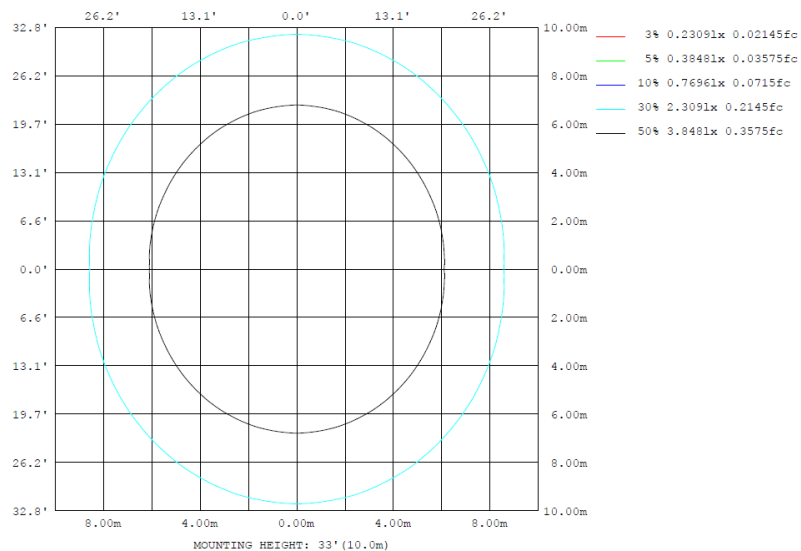
4.2 Goniophotometer Test

Lighting Distribution Curve

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



Isolux Plot



4.2 Goniophotometer Test

Zonal Lumen Summary

ZONAL FLUX DIAGRAM:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total	lum, lamp
10	754.4	757.6	761.8	757.6	754.4	757.6	761.8	757.6	0- 10	72.90	72.90	2.49, 2.49
20	706.7	722.2	738.0	722.2	706.7	722.2	738.0	722.2	10- 20	209.7	282.6	9.67, 9.67
30	631.0	667.5	700.1	667.5	631.0	667.5	700.1	667.5	20- 30	321.5	604.2	20.7, 20.7
40	534.1	597.6	649.8	597.6	534.1	597.6	649.8	597.6	30- 40	396.5	1001	34.2, 34.2
50	423.5	518.3	590.2	518.3	423.5	518.3	590.2	518.3	40- 50	429.7	1430	48.9, 48.9
60	307.1	433.0	517.3	433.0	307.1	433.0	517.3	433.0	50- 60	421.0	1851	63.3, 63.3
70	187.2	342.3	410.4	342.3	187.2	342.3	410.4	342.3	60- 70	371.8	2223	76, 76
80	75.01	227.8	288.6	227.8	75.01	227.8	288.6	227.8	70- 80	282.0	2505	85.7, 85.7
90	5.064	118.5	174.2	118.5	5.064	118.5	174.2	118.5	80- 90	170.6	2676	91.5, 91.5
100	3.352	87.68	140.8	87.68	3.352	87.68	140.8	87.68	90-100	99.95	2776	94.9, 94.9
110	4.088	59.41	106.7	59.41	4.088	59.41	106.7	59.41	100-110	71.40	2847	97.4, 97.4
120	4.259	32.33	70.80	32.33	4.259	32.33	70.80	32.33	110-120	44.22	2891	98.9, 98.9
130	4.192	8.629	37.61	8.629	4.192	8.629	37.61	8.629	120-130	21.90	2913	99.6, 99.6
140	4.108	2.103	8.751	2.103	4.108	2.103	8.751	2.103	130-140	7.272	2921	99.9, 99.9
150	4.024	1.845	1.393	1.845	4.024	1.845	1.393	1.845	140-150	1.754	2922	99.9, 99.9
160	3.623	1.745	1.354	1.745	3.623	1.745	1.354	1.745	150-160	1.029	2923	100, 100
170	4.074	1.817	1.315	1.817	4.074	1.817	1.315	1.817	160-170	0.6123	2924	100, 100
180	4.258	1.826	1.493	1.826	4.258	1.826	1.493	1.826	170-180	0.2256	2924	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	72.90	0-10	72.90	2.49%
10-20	209.74	0-20	282.64	9.67%
20-30	321.53	0-30	604.17	20.66%
30-40	396.55	0-40	1000.72	34.22%
40-50	429.69	0-50	1430.41	48.92%
50-60	420.99	0-60	1851.40	63.32%
60-70	371.83	0-70	2223.23	76.03%
70-80	282.01	0-80	2505.24	85.68%
80-90	170.59	0-90	2675.83	91.51%
90-100	99.95	0-100	2775.78	94.93%
100-110	71.40	0-110	2847.18	97.37%
110-120	44.22	0-120	2891.40	98.89%
120-130	21.90	0-130	2913.30	99.64%
130-140	7.27	0-140	2920.57	99.88%
140-150	1.75	0-150	2922.32	99.94%
150-160	1.03	0-160	2923.35	99.98%
160-170	0.61	0-170	2923.96	100.00%
170-180	0.23	0-180	2924.19	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				
		13.1	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	16.6	15.8	17.1	17.7	20.1	21.4	20.6	21.9
	6H	15.6	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
4H	12H	15.7	16.8	16.2	17.4	18.0	22.6	23.7	23.1	24.3
	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	18.0	18.6	19.6	20.7	20.1	21.3
	4H	17.0	18.0	17.5	18.6	19.2	21.0	22.0	21.5	22.6
	6H	17.4	18.4	18.0	18.9	19.6	22.4	23.3	23.0	23.9
	8H	17.6	18.4	18.2	19.0	19.7	23.1	24.0	23.7	24.6
8H	12H	17.6	18.4	18.2	19.0	19.7	23.9	24.7	24.5	25.3
	4H	17.9	18.8	18.5	19.3	20.0	21.2	22.1	21.8	22.7
	6H	18.6	19.4	19.2	20.0	20.7	22.8	23.6	23.4	24.2
	8H	18.9	19.5	19.5	20.2	20.9	23.7	24.3	24.3	25.0
	12H	19.0	19.6	19.7	20.3	21.0	24.6	25.2	25.2	25.8
	4H	18.1	18.9	18.7	19.5	20.2	21.2	22.0	21.9	22.6
12H	6H	19.0	19.6	19.6	20.3	21.0	22.9	23.5	23.5	24.2
	8H	19.3	19.9	20.0	20.6	21.3	23.8	24.4	24.4	25.0
										25.7

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										
X=2H	Y=2H	UGR Viewed Crosswise				UGR Viewed Endwise				
		16.8	18.4	17.3	18.9	19.4	19.9	21.4	20.4	21.9
	3H	18.4	19.8	18.9	20.3	20.9	22.6	24.0	23.1	24.5
	4H	18.9	20.3	19.5	20.8	21.4	23.8	25.1	24.3	25.6
	6H	19.3	20.5	19.8	21.0	21.6	25.0	26.3	25.6	26.8
	8H	19.3	20.5	19.9	21.1	21.7	25.6	26.8	26.2	27.4
4H	12H	19.4	20.5	19.9	21.1	21.7	26.3	27.4	26.8	28.0
	2H	18.1	19.4	18.6	19.9	20.5	20.4	21.7	20.9	22.2
	3H	20.0	21.1	20.5	21.7	22.3	23.3	24.4	23.8	25.0
	4H	20.7	21.7	21.2	22.3	22.9	24.7	25.7	25.2	26.3
	6H	21.1	22.1	21.7	22.6	23.3	26.1	27.0	26.7	27.6
	8H	21.3	22.1	21.9	22.7	23.4	26.8	27.7	27.4	28.3
8H	12H	21.3	22.1	21.9	22.7	23.4	27.6	28.4	28.2	29.0
	4H	21.6	22.5	22.2	23.0	23.7	24.9	25.8	25.5	26.4
	6H	22.3	23.1	22.9	23.7	24.4	26.5	27.3	27.1	27.9
	8H	22.6	23.2	23.2	23.9	24.6	27.4	28.0	28.0	28.7
	12H	22.7	23.3	23.4	24.0	24.7	28.3	28.9	28.9	29.5
	4H	21.8	22.6	22.4	23.2	23.9	24.9	25.7	25.6	26.3
12H	6H	22.7	23.3	23.3	24.0	24.7	26.6	27.2	27.2	27.9
	8H	23.0	23.6	23.7	24.3	25.0	27.5	28.1	28.1	28.7
										29.4

Maximum UGR = 30.3

4.2 Goniophotometer Test

Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
y (DEG)	770	770	769	770	770	770	771	770	770	770	769	770	770	770	769	770	770	770	771
5	767	766	766	767	767	767	768	767	767	767	766	766	767	766	766	767	767	767	768
10	754	755	755	758	759	760	762	760	759	758	755	755	754	755	755	758	759	760	762
15	734	737	738	742	746	750	751	750	746	742	738	737	734	737	738	742	746	750	751
20	707	710	716	722	729	735	738	735	729	722	716	710	707	710	716	722	729	735	738
25	673	679	687	696	708	716	721	716	708	696	687	679	673	679	687	696	708	716	721
30	631	641	652	668	683	695	700	695	683	668	652	641	631	641	652	668	683	695	700
35	584	597	614	634	654	670	676	670	654	634	614	597	584	597	614	634	654	670	676
40	534	550	572	598	623	642	650	642	623	598	572	550	534	550	572	598	623	642	650
45	480	499	528	558	590	613	621	613	590	558	528	499	480	499	528	558	590	613	621
50	424	446	481	518	554	581	590	581	554	518	481	446	424	446	481	518	554	581	590
55	365	390	432	476	517	545	556	545	517	476	432	390	365	390	432	476	517	545	556
60	307	335	384	433	478	507	517	507	478	433	384	335	307	335	384	433	478	507	517
65	247	281	335	390	434	459	468	459	434	390	335	281	247	281	335	390	434	459	468
70	187	226	288	342	380	402	410	402	380	342	288	226	187	226	288	342	380	402	410
75	129	175	240	287	321	342	349	342	321	287	240	175	129	175	240	287	321	342	349
80	75.0	126	186	228	261	281	289	281	261	228	186	126	75.0	126	186	228	261	281	289
85	29.8	79.4	130	171	203	221	229	221	203	171	130	79.4	29.8	79.4	130	171	203	221	229
90	5.06	35.8	80.0	118	149	168	174	168	149	118	80.0	35.8	5.06	35.8	80.0	118	149	168	174
95	3.42	24.2	64.5	101	130	148	156	148	130	101	64.5	24.2	3.42	24.2	64.5	101	130	148	156
100	3.35	15.5	52.4	87.7	116	133	141	133	116	87.7	52.4	15.5	3.35	15.5	52.4	87.7	116	133	141
105	3.90	8.06	40.3	73.8	101	117	124	117	101	73.8	40.3	8.06	3.90	8.06	40.3	73.8	101	117	124
110	4.09	3.85	29.1	59.4	84.6	101	107	101	84.6	59.4	29.1	3.85	4.09	3.85	29.1	59.4	84.6	101	107
115	4.26	3.76	18.5	45.6	68.6	83.2	88.6	83.2	68.6	45.6	18.5	3.76	4.26	3.76	18.5	45.6	68.6	83.2	88.6
120	4.26	3.78	8.95	32.3	52.9	65.9	70.8	65.9	52.9	32.3	8.95	3.78	4.26	3.78	8.95	32.3	52.9	65.9	70.8
125	4.23	3.81	3.84	19.9	37.9	49.5	53.9	49.5	37.9	19.9	3.84	3.81	4.23	3.81	3.84	19.9	37.9	49.5	53.9
130	4.19	3.83	3.19	8.63	23.8	34.0	37.6	34.0	23.8	8.63	3.19	3.83	4.19	3.83	3.19	8.63	23.8	34.0	37.6
135	4.15	4.11	2.91	3.03	10.6	19.4	22.6	19.4	10.6	3.03	2.91	4.11	4.15	4.11	2.91	3.03	10.6	19.4	22.6
140	4.11	4.08	2.78	2.10	2.86	6.44	8.75	6.44	2.86	2.10	2.78	4.08	4.11	4.08	2.78	2.10	2.86	6.44	8.75
145	4.07	4.05	2.74	2.03	1.71	1.85	1.98	1.85	1.71	2.03	2.74	4.05	4.07	4.05	2.74	2.03	1.71	1.85	1.98
150	4.02	3.94	2.37	1.85	1.60	1.57	1.39	1.57	1.60	1.85	2.37	3.94	4.02	3.94	2.37	1.85	1.60	1.57	1.39
155	3.90	3.60	2.10	1.75	1.57	1.55	1.37	1.55	1.57	1.75	2.10	3.60	3.90	3.60	2.10	1.75	1.57	1.55	1.37
160	3.62	3.38	2.02	1.74	1.59	1.53	1.35	1.53	1.59	1.74	2.02	3.38	3.62	3.38	2.02	1.74	1.59	1.53	1.35
165	3.74	3.38	2.10	1.78	1.61	1.51	1.33	1.51	1.61	1.78	2.10	3.38	3.74	3.38	2.10	1.78	1.61	1.51	1.33
170	4.07	3.75	2.17	1.82	1.63	1.49	1.32	1.49	1.63	1.82	2.17	3.75	4.07	3.75	2.17	1.82	1.63	1.49	1.32
175	4.23	4.12	2.39	1.83	1.65	1.66	1.49	1.66	1.65	1.83	2.39	4.12	4.23	4.12	2.39	1.83	1.65	1.66	1.49
180	4.26	4.12	2.47	1.83	1.65	1.67	1.49	1.67	1.65	1.83	2.47	4.12	4.26	4.12	2.47	1.83	1.65	1.67	1.49

Table--2

UNIT: cd

C (DEG)	285	300	315	330	345														
y (DEG)	770	770	770	769	770														
5	767	767	767	766	766														
10	760	759	758	755	755														
15	750	746	742	738	737														
20	735	729	722	716	710														
25	716	708	696	687	679														
30	695	683	668	652	641														
35	670	654	634	614	597														
40	642	623	598	572	550														
45	613	590	558	528	499														
50	581	554	518	481	446														
55	545	517	476	432	390														
60	507	478	433	384	335														
65	459	434	390	335	281														
70	402	380	342	288	226														
75	342	321	287	240	175														
80	281	261	228	186	126														
85	221	203	171	130	79.4														
90	168	149	118	80.0	35.8														
95	148	130	101	64.5	24.2														
100	133	116	87.7	52.4	15.5														
105	117	101	73.8	40.3	8.06														
110	101	84.6	59.4	29.1	3.85														
115	83.2	68.6	45.6	18.5	3.76														
120	65.9	52.9	32.3	8.95	3.78														
125	49.5	37.9	19.9	3.84	3.81														
130	34.0	23.8	8.63	3.19	3.83														
135	19.4	10.6	3.03	2.91	4.11														
140	6.44	2.86	2.10	2.78	4.08														
145	1.85	1.71	2.03	2.74	4.05														
150	1.57	1.60	1.85	2.37	3.94														
155	1.55	1.57	1.75	2.10	3.60														
160	1.53	1.59	1.74	2.02	3.38														
165	1.51	1.61	1.78	2.10	3.38														
170	1.49	1.63	1.82	2.17	3.75														
175	1.66	1.65	1.83	2.39	4.12														
180	1.67	1.65	1.83	2.47	4.12														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4H @20W3500K	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	0.157	18.6	0.985	6.48
277.0	60	0.081	19.0	0.845	18.66

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*****