

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		1454
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	156.3
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		37.2
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	9.82
				277V	6.68
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.993
				277V	0.953
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4107
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		84.9
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		17
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%		63.4%
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		0.312
(Goniophotometer – Section 4.2)			Non-Worst Case		0.136
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		37.2
(Goniophotometer – Section 4.2)			Non-Worst Case		35.9

2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-05	STRP4H @40W4000K	-	241225006-S1
2	Goniophotometer Test	2025-01-05	STRP4H @40W4000K	-	241225006-S1
3	THD and PF Test	2025-01-05	STRP4H @40W4000K	-	241225006-S1

Remark (If any):

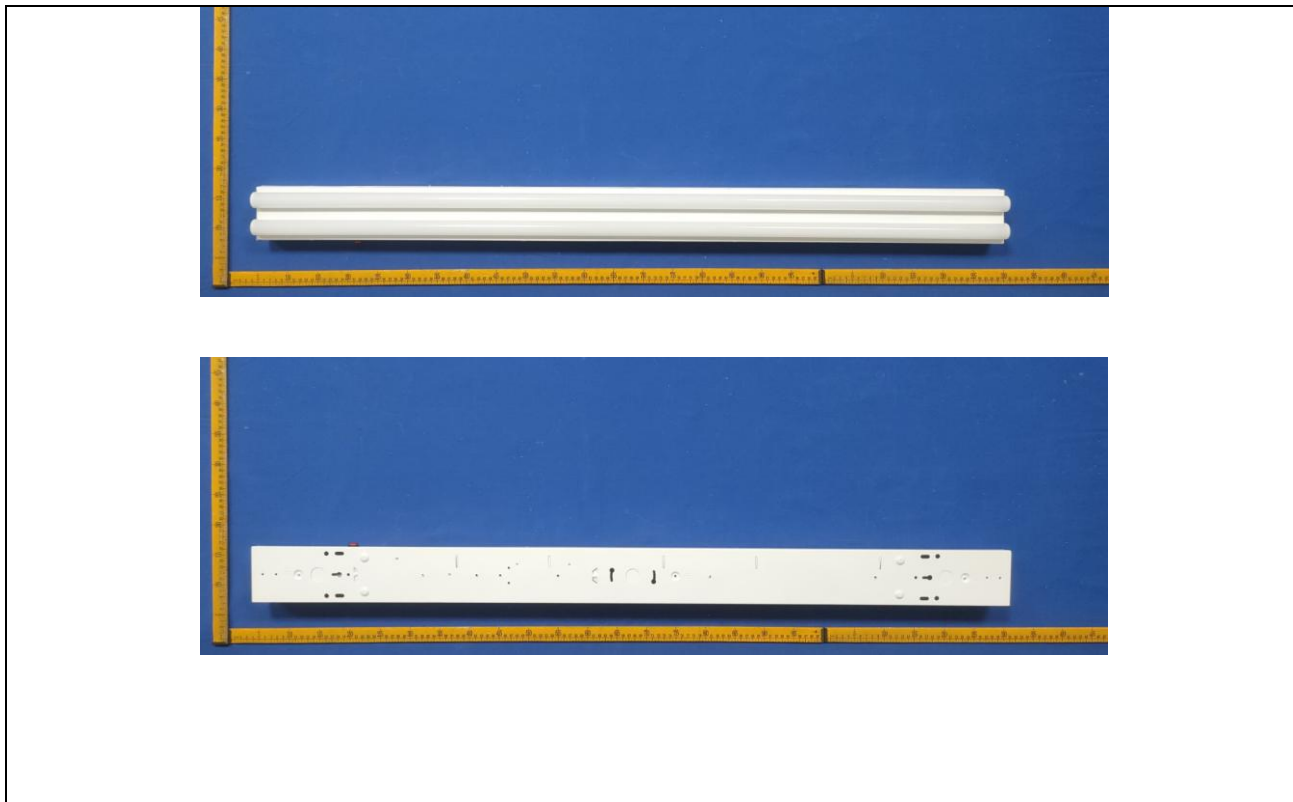
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2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
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3.0 Product Description

Luminaire Description: Model No. STRP4H @40W4000K, 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 @40W4000K	Sample ID	241225006-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

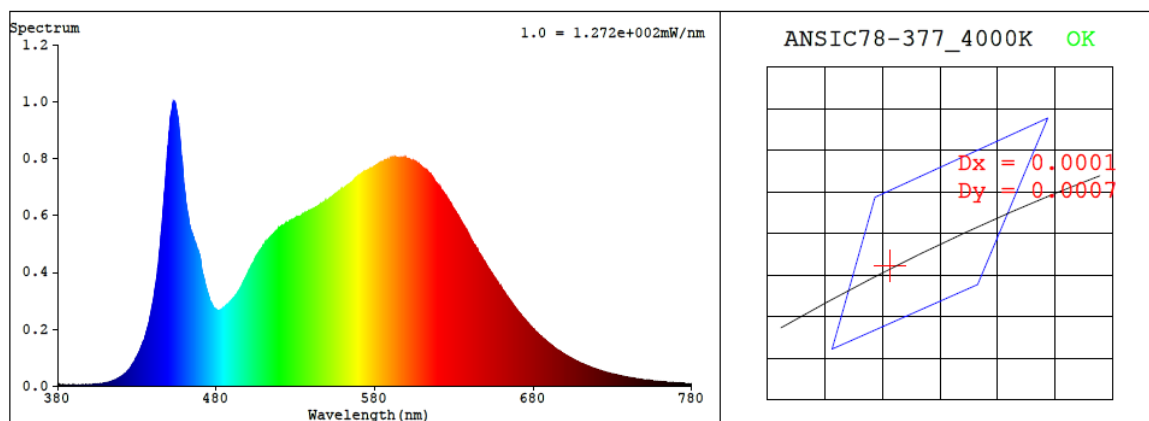
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.312	37.2	0.993
277.0	60	0.136	35.9	0.953

CCT (K)	CRI	R9	Duv	Rf	Rg	IES Rcs,h1
4107	84.9	17	0.0003	85	95	-11%

4.1 Integrating Sphere Test



Colorimetric Parameters

Chromaticity Coordinate: $x = 0.3760$ $y = 0.3746$ / $u' = 0.2230$ $v' = 0.5000$ ($duv=3.16e-04$)

CCT= 4107K Prcp WL: $L_d=578.5nm$ Purity=25.2%

Peak WL: $L_p=453nm$ FWHM: $=22.3nm$ Ratio: $R=18.3\%$ $G=77.8\%$ $B=3.9\%$

Render Index: $R_a = 84.9$ $AvgR = 78.8$ $TM30:R_f=85$ $R_g=95$

EEL: 0.08562 A++ Highest

R1 =84 R2 =92 R3 =96 R4 =83 R5 =83 R6 =87 R7 =87
R8 =68 R9 =17 R10=79 R11=82 R12=62 R13=86 R14=98 R15=78

4.1 Integrating Sphere Test

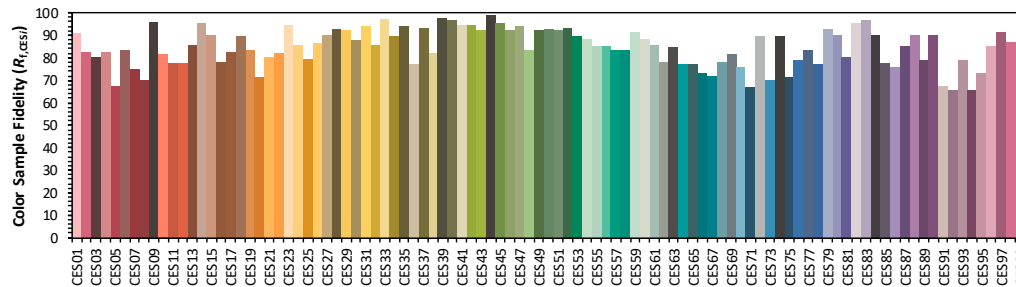
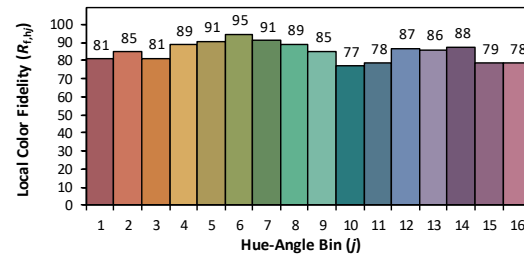
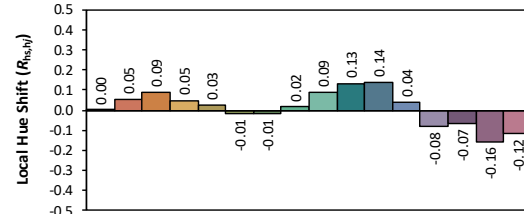
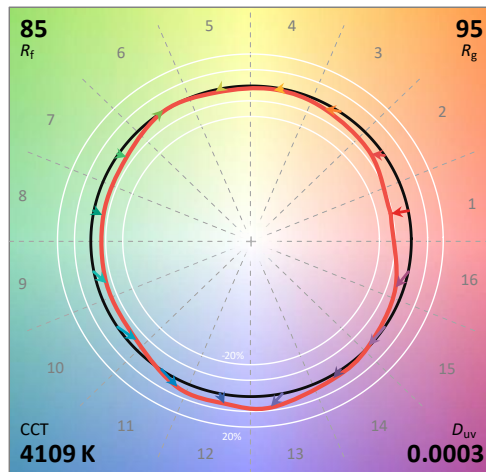
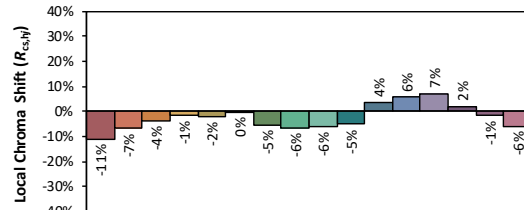
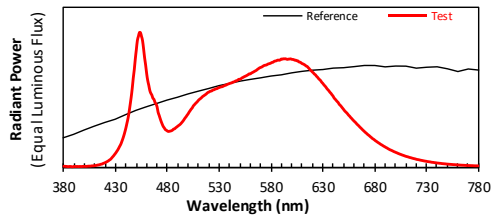
ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/6

Model: STRP4H @40W4000K



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

x 0.3759
 y 0.3744
 u' 0.2231
 v' 0.4999

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	6.40E-06	447	6.59E-04	514	5.24E-04	581	7.77E-04	648	4.50E-04	715	6.99E-05
381	6.40E-06	448	7.23E-04	515	5.29E-04	582	7.78E-04	649	4.40E-04	716	6.75E-05
382	4.90E-06	449	8.03E-04	516	5.34E-04	583	7.84E-04	650	4.30E-04	717	6.53E-05
383	5.00E-06	450	8.73E-04	517	5.40E-04	584	7.87E-04	651	4.20E-04	718	6.32E-05
384	2.80E-06	451	9.40E-04	518	5.46E-04	585	7.89E-04	652	4.11E-04	719	6.17E-05
385	4.50E-06	452	9.70E-04	519	5.53E-04	586	7.92E-04	653	4.04E-04	720	5.93E-05
386	4.50E-06	453	9.99E-04	520	5.57E-04	587	7.95E-04	654	3.96E-04	721	5.70E-05
387	4.30E-06	454	9.97E-04	521	5.62E-04	588	7.93E-04	655	3.86E-04	722	5.57E-05
388	1.90E-06	455	9.70E-04	522	5.64E-04	589	7.96E-04	656	3.78E-04	723	5.43E-05
389	3.20E-06	456	9.39E-04	523	5.66E-04	590	8.03E-04	657	3.69E-04	724	5.23E-05
390	5.20E-06	457	8.78E-04	524	5.73E-04	591	8.01E-04	658	3.61E-04	725	5.06E-05
391	4.40E-06	458	8.11E-04	525	5.74E-04	592	8.04E-04	659	3.52E-04	726	4.91E-05
392	4.50E-06	459	7.56E-04	526	5.78E-04	593	8.04E-04	660	3.44E-04	727	4.75E-05
393	4.80E-06	460	6.93E-04	527	5.81E-04	594	8.04E-04	661	3.36E-04	728	4.59E-05
394	4.00E-06	461	6.43E-04	528	5.83E-04	595	8.02E-04	662	3.29E-04	729	4.44E-05
395	4.70E-06	462	6.08E-04	529	5.88E-04	596	8.00E-04	663	3.20E-04	730	4.32E-05
396	4.50E-06	463	5.70E-04	530	5.91E-04	597	8.02E-04	664	3.13E-04	731	4.16E-05
397	4.30E-06	464	5.48E-04	531	5.93E-04	598	8.02E-04	665	3.05E-04	732	4.04E-05
398	5.00E-06	465	5.34E-04	532	5.96E-04	599	8.04E-04	666	2.96E-04	733	3.93E-05
399	5.20E-06	466	5.11E-04	533	5.97E-04	600	8.00E-04	667	2.89E-04	734	3.83E-05
400	5.80E-06	467	5.03E-04	534	6.01E-04	601	7.99E-04	668	2.81E-04	735	3.64E-05
401	5.30E-06	468	4.81E-04	535	6.05E-04	602	7.98E-04	669	2.74E-04	736	3.54E-05
402	5.70E-06	469	4.68E-04	536	6.07E-04	603	7.94E-04	670	2.67E-04	737	3.47E-05
403	6.50E-06	470	4.48E-04	537	6.10E-04	604	7.94E-04	671	2.59E-04	738	3.32E-05
404	7.20E-06	471	4.08E-04	538	6.15E-04	605	7.89E-04	672	2.53E-04	739	3.24E-05
405	7.20E-06	472	3.85E-04	539	6.18E-04	606	7.89E-04	673	2.45E-04	740	3.12E-05
406	7.60E-06	473	3.61E-04	540	6.20E-04	607	7.81E-04	674	2.39E-04	741	3.00E-05
407	9.20E-06	474	3.38E-04	541	6.23E-04	608	7.79E-04	675	2.33E-04	742	2.93E-05
408	9.20E-06	475	3.19E-04	542	6.25E-04	609	7.75E-04	676	2.26E-04	743	2.82E-05
409	9.90E-06	476	3.02E-04	543	6.30E-04	610	7.69E-04	677	2.20E-04	744	2.77E-05
410	1.12E-05	477	2.91E-04	544	6.32E-04	611	7.66E-04	678	2.13E-04	745	2.63E-05
411	1.22E-05	478	2.79E-04	545	6.35E-04	612	7.62E-04	679	2.08E-04	746	2.56E-05
412	1.40E-05	479	2.74E-04	546	6.40E-04	613	7.57E-04	680	2.02E-04	747	2.49E-05
413	1.57E-05	480	2.68E-04	547	6.41E-04	614	7.50E-04	681	1.96E-04	748	2.42E-05
414	1.70E-05	481	2.65E-04	548	6.46E-04	615	7.47E-04	682	1.91E-04	749	2.35E-05
415	1.93E-05	482	2.66E-04	549	6.52E-04	616	7.39E-04	683	1.85E-04	750	2.23E-05
416	2.17E-05	483	2.68E-04	550	6.52E-04	617	7.31E-04	684	1.80E-04	751	2.20E-05
417	2.33E-05	484	2.70E-04	551	6.56E-04	618	7.21E-04	685	1.75E-04	752	2.11E-05
418	2.76E-05	485	2.75E-04	552	6.62E-04	619	7.15E-04	686	1.69E-04	753	2.07E-05
419	3.01E-05	486	2.83E-04	553	6.66E-04	620	7.07E-04	687	1.65E-04	754	2.00E-05
420	3.37E-05	487	2.84E-04	554	6.70E-04	621	7.00E-04	688	1.60E-04	755	1.95E-05
421	3.76E-05	488	2.92E-04	555	6.74E-04	622	6.91E-04	689	1.55E-04	756	1.86E-05
422	4.19E-05	489	2.97E-04	556	6.77E-04	623	6.85E-04	690	1.51E-04	757	1.84E-05
423	4.65E-05	490	3.04E-04	557	6.82E-04	624	6.75E-04	691	1.46E-04	758	1.78E-05
424	5.25E-05	491	3.10E-04	558	6.86E-04	625	6.67E-04	692	1.42E-04	759	1.70E-05
425	5.75E-05	492	3.15E-04	559	6.92E-04	626	6.57E-04	693	1.37E-04	760	1.66E-05
426	6.57E-05	493	3.23E-04	560	6.92E-04	627	6.50E-04	694	1.33E-04	761	1.59E-05
427	7.50E-05	494	3.32E-04	561	6.97E-04	628	6.42E-04	695	1.29E-04	762	1.55E-05
428	8.36E-05	495	3.41E-04	562	7.02E-04	629	6.31E-04	696	1.26E-04	763	1.49E-05
429	9.40E-05	496	3.52E-04	563	7.06E-04	630	6.22E-04	697	1.22E-04	764	1.45E-05
430	1.04E-04	497	3.64E-04	564	7.10E-04	631	6.12E-04	698	1.18E-04	765	1.40E-05
431	1.15E-04	498	3.73E-04	565	7.14E-04	632	6.04E-04	699	1.14E-04	766	1.38E-05
432	1.27E-04	499	3.85E-04	566	7.19E-04	633	5.95E-04	700	1.11E-04	767	1.33E-05
433	1.41E-04	500	3.95E-04	567	7.25E-04	634	5.84E-04	701	1.08E-04	768	1.28E-05
434	1.56E-04	501	4.08E-04	568	7.31E-04	635	5.75E-04	702	1.05E-04	769	1.23E-05
435	1.70E-04	502	4.19E-04	569	7.36E-04	636	5.66E-04	703	1.01E-04	770	1.20E-05
436	1.90E-04	503	4.31E-04	570	7.40E-04	637	5.56E-04	704	9.82E-05	771	1.16E-05
437	2.12E-04	504	4.39E-04	571	7.43E-04	638	5.48E-04	705	9.50E-05	772	1.15E-05
438	2.36E-04	505	4.54E-04	572	7.47E-04	639	5.37E-04	706	9.24E-05	773	1.11E-05
439	2.63E-04	506	4.62E-04	573	7.53E-04	640	5.27E-04	707	8.92E-05	774	1.08E-05
440	2.94E-04	507	4.71E-04	574	7.56E-04	641	5.13E-04	708	8.68E-05	775	1.07E-05
441	3.29E-04	508	4.79E-04	575	7.57E-04	642	5.05E-04	709	8.38E-05	776	1.00E-05
442	3.63E-04	509	4.87E-04	576	7.59E-04	643	4.96E-04	710	8.10E-05	777	9.70E-06
443	4.09E-04	510	4.96E-04	577	7.64E-04	644	4.87E-04	711	7.87E-05	778	9.50E-06
444	4.62E-04	511	5.03E-04	578	7.67E-04	645	4.79E-04	712	7.68E-05	779	9.50E-06
445	5.18E-04	512	5.09E-04	579	7.69E-04	646	4.66E-04	713	7.43E-05	780	9.50E-06
446	5.82E-04	513	5.16E-04	580	7.73E-04	647	4.59E-04	714	7.16E-05	N/A	N/A

4.0 LM-79 Measurement and Test Results

4.2 Goniophotometer Test

Model No.	STRP4H @40W4000K	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	0.312	37.2	0.993
NON-WORST CASE	277.0	60	0.136	35.9	0.953

Test Result

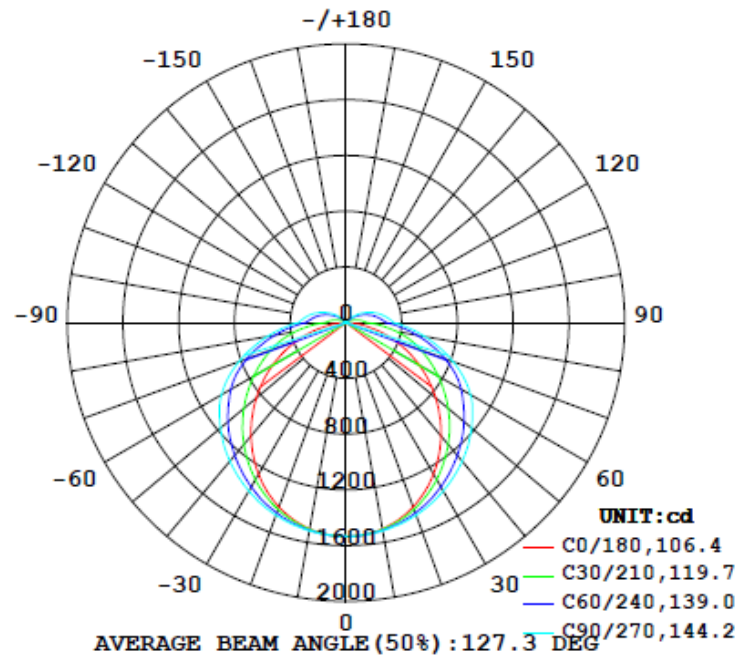
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
5815	1454	160.2	160.2	106.3	144.0	156.3

Zonal Lumen Requirement (0°-60°)	UGR	
	Crosswise	Endwise
63.4%	23.7	29.2

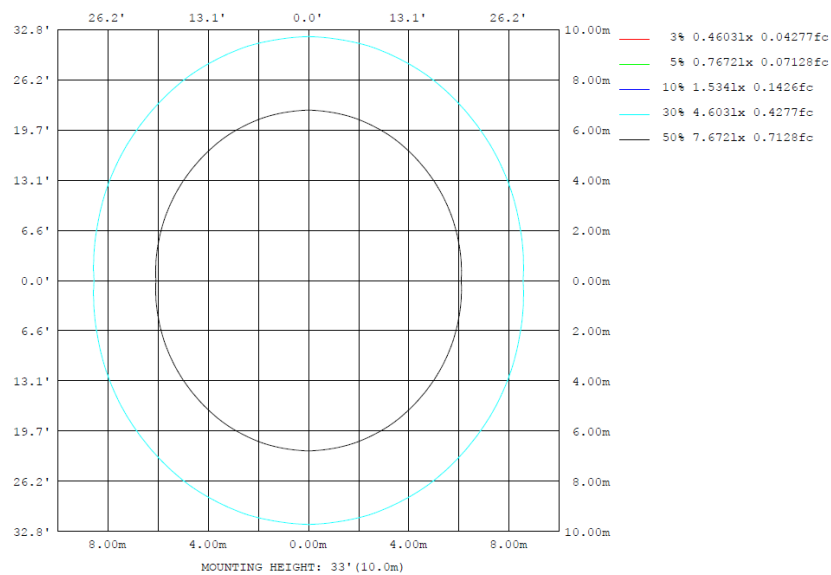
4.2 Goniophotometer Test

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	± zone	± total	%lum, lamp
10	1503	1507	1516	1507	1503	1507	1516	1507	0- 10	145.2	145.2	2.5, 2.5
20	1407	1437	1470	1437	1407	1437	1470	1437	10- 20	417.9	563.1	9.68, 9.68
30	1255	1328	1395	1328	1255	1328	1395	1328	20- 30	640.5	1204	20.7, 20.7
40	1061	1189	1297	1189	1061	1189	1297	1189	30- 40	790.0	1994	34.3, 34.3
50	840.6	1031	1176	1031	840.6	1031	1176	1031	40- 50	856.0	2850	49, 49
60	607.5	862.4	1032	862.4	607.5	862.4	1032	862.4	50- 60	838.4	3688	63.4, 63.4
70	369.5	680.7	817.5	680.7	369.5	680.7	817.5	680.7	60- 70	740.0	4428	76.1, 76.1
80	146.0	451.5	573.7	451.5	146.0	451.5	573.7	451.5	70- 80	560.1	4988	85.8, 85.8
90	8.313	233.5	347.1	233.5	8.313	233.5	347.1	233.5	80- 90	337.5	5326	91.6, 91.6
100	6.523	173.6	280.7	173.6	6.523	173.6	280.7	173.6	90-100	198.2	5524	95, 95
110	8.160	117.5	212.7	117.5	8.160	117.5	212.7	117.5	100-110	141.4	5665	97.4, 97.4
120	8.160	63.36	141.2	63.36	8.160	63.36	141.2	63.36	110-120	87.23	5752	98.9, 98.9
130	8.069	15.72	74.48	15.72	8.069	15.72	74.48	15.72	120-130	42.78	5795	99.7, 99.7
140	7.888	3.562	16.43	3.562	7.888	3.562	16.43	3.562	130-140	13.75	5809	99.9, 99.9
150	7.707	3.196	2.149	3.196	7.707	3.196	2.149	3.196	140-150	3.057	5812	99.9, 99.9
160	6.620	2.922	2.149	2.922	6.620	2.922	2.149	2.922	150-160	1.783	5814	100, 100
170	8.521	3.743	2.803	3.743	8.521	3.743	2.803	3.743	160-170	1.115	5815	100, 100
180	8.794	4.200	3.364	4.200	8.794	4.200	3.364	4.200	170-180	0.4699	5815	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	145.23	0-10	145.23	2.50%
10-20	417.87	0-20	563.10	9.68%
20-30	640.52	0-30	1203.62	20.70%
30-40	790.04	0-40	1993.66	34.29%
40-50	855.99	0-50	2849.65	49.01%
50-60	838.37	0-60	3688.02	63.42%
60-70	739.96	0-70	4427.98	76.15%
70-80	560.06	0-80	4988.04	85.78%
80-90	337.53	0-90	5325.57	91.59%
90-100	198.18	0-100	5523.75	94.99%
100-110	141.39	0-110	5665.14	97.43%
110-120	87.23	0-120	5752.37	98.93%
120-130	42.78	0-130	5795.15	99.66%
130-140	13.75	0-140	5808.90	99.90%
140-150	3.06	0-150	5811.96	99.95%
150-160	1.78	0-160	5813.74	99.98%
160-170	1.11	0-170	5814.85	100.00%
170-180	0.47	0-180	5815.32	100.01%

4.2 Goniophotometer Test

UGR – Uncorrected Table:

UGR TABLE - UNCORRECTED

Reflectances		70	70	50	50	30	70	70	50	50	30
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	13.2	14.7	13.7	15.2	15.7	16.2	17.8	16.7	18.3	18.8
	3H	14.7	16.1	15.2	16.6	17.2	18.9	20.3	19.4	20.8	21.4
	4H	15.2	16.6	15.7	17.1	17.6	20.1	21.5	20.6	22.0	22.5
	6H	15.6	16.8	16.1	17.3	17.9	21.4	22.6	21.9	23.1	23.7
	8H	15.6	16.8	16.2	17.4	18.0	22.0	23.2	22.5	23.7	24.3
	12H	15.7	16.8	16.2	17.4	18.0	22.6	23.8	23.2	24.3	24.9
4H	2H	14.4	15.8	14.9	16.3	16.8	16.7	18.1	17.2	18.6	19.1
	3H	16.3	17.4	16.8	18.0	18.6	19.6	20.8	20.1	21.3	21.9
	4H	17.0	18.0	17.5	18.6	19.2	21.0	22.1	21.5	22.6	23.2
	6H	17.5	18.4	18.0	19.0	19.6	22.4	23.4	23.0	23.9	24.6
	8H	17.6	18.5	18.1	19.0	19.7	23.1	24.0	23.7	24.6	25.2
	12H	17.6	18.4	18.2	19.0	19.7	23.9	24.7	24.5	25.3	26.0
8H	4H	17.9	18.8	18.5	19.4	20.0	21.3	22.1	21.8	22.7	23.4
	6H	18.6	19.4	19.2	20.0	20.6	22.9	23.6	23.5	24.2	24.9
	8H	18.9	19.6	19.5	20.2	20.8	23.7	24.4	24.3	25.0	25.7
	12H	19.0	19.6	19.6	20.3	21.0	24.6	25.2	25.2	25.9	26.6
12H	4H	18.1	18.9	18.7	19.6	20.2	21.3	22.1	21.9	22.7	23.3
	6H	19.0	19.7	19.6	20.3	21.0	22.9	23.6	23.5	24.2	24.9
	8H	19.3	20.0	20.0	20.6	21.3	23.8	24.4	24.4	25.0	25.8

Maximum UGR = 26.6

UGR – Corrected Table:

UGR TABLE - CORRECTED

Reflectances		70	70	50	50	30	70	70	50	50	30
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	19.3	20.8	19.8	21.3	21.8	22.3	23.9	22.8	24.4	24.9
	3H	20.8	22.2	21.3	22.7	23.3	25.0	26.4	25.5	26.9	27.5
	4H	21.3	22.7	21.8	23.2	23.7	26.2	27.6	26.7	28.1	28.6
	6H	21.7	22.9	22.2	23.4	24.0	27.5	28.7	28.0	29.2	29.8
	8H	21.7	22.9	22.3	23.5	24.1	28.1	29.3	28.6	29.8	30.4
	12H	21.8	22.9	22.3	23.5	24.1	28.7	29.9	29.3	30.4	31.0
4H	2H	20.5	21.9	21.0	22.4	22.9	22.8	24.2	23.3	24.7	25.2
	3H	22.4	23.5	22.9	24.1	24.7	25.7	26.9	26.2	27.4	28.0
	4H	23.1	24.1	23.6	24.7	25.3	27.1	28.2	27.6	28.7	29.3
	6H	23.6	24.5	24.1	25.1	25.7	28.5	29.5	29.1	30.0	30.7
	8H	23.7	24.6	24.2	25.1	25.8	29.2	30.1	29.8	30.7	31.3
	12H	23.7	24.5	24.3	25.1	25.8	30.0	30.8	30.6	31.4	32.1
8H	4H	24.0	24.9	24.6	25.5	26.1	27.4	28.2	27.9	28.8	29.5
	6H	24.7	25.5	25.3	26.1	26.7	29.0	29.7	29.6	30.3	31.0
	8H	25.0	25.7	25.6	26.3	26.9	29.8	30.5	30.4	31.1	31.8
	12H	25.1	25.7	25.7	26.4	27.1	30.7	31.3	31.3	32.0	32.7
12H	4H	24.2	25.0	24.8	25.7	26.3	27.4	28.2	28.0	28.8	29.4
	6H	25.1	25.8	25.7	26.4	27.1	29.0	29.7	29.6	30.3	31.0
	8H	25.4	26.1	26.1	26.7	27.4	29.9	30.5	30.5	31.1	31.9

Maximum UGR = 32.7

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	1534	1534	1535	1534	1534	1534	1533	1534	1534	1534	1535	1534	1534	1535	1534	1534	1534	1534	1533
5	1527	1526	1527	1527	1528	1528	1529	1528	1528	1527	1527	1526	1527	1526	1527	1527	1528	1528	1529
10	1503	1503	1506	1507	1513	1516	1516	1516	1513	1507	1506	1503	1503	1506	1507	1513	1516	1516	1513
15	1463	1467	1472	1476	1488	1494	1497	1494	1488	1476	1472	1467	1463	1467	1472	1476	1488	1494	1497
20	1407	1415	1426	1437	1454	1465	1470	1465	1454	1437	1426	1415	1407	1415	1426	1437	1454	1465	1470
25	1337	1351	1368	1386	1411	1429	1436	1429	1411	1386	1368	1351	1337	1351	1368	1386	1411	1429	1436
30	1255	1275	1301	1328	1361	1385	1395	1385	1361	1328	1301	1275	1255	1275	1301	1328	1361	1385	1395
35	1162	1189	1224	1262	1305	1335	1348	1335	1305	1262	1224	1189	1162	1189	1224	1262	1305	1335	1348
40	1061	1094	1139	1189	1243	1281	1297	1281	1243	1189	1139	1094	1061	1094	1139	1189	1243	1281	1297
45	953	992	1051	1111	1178	1222	1240	1222	1178	1111	1051	992	953	992	1051	1111	1178	1222	1240
50	841	886	958	1031	1106	1157	1176	1157	1106	1031	958	886	841	886	958	1031	1106	1157	1176
55	725	776	861	948	1031	1087	1109	1087	1031	948	861	776	725	776	861	948	1031	1087	1109
60	607	666	765	862	953	1011	1032	1011	953	862	765	666	607	666	765	862	953	1011	1032
65	489	556	668	777	865	915	933	915	865	777	668	556	489	556	668	777	865	915	933
70	370	449	573	681	756	801	818	801	756	681	573	449	370	449	573	681	756	801	818
75	254	345	477	570	637	680	696	680	637	570	477	345	254	345	477	570	637	680	696
80	146	249	368	452	518	558	574	558	518	452	368	249	146	249	368	452	518	558	574
85	57.2	155	256	338	401	440	456	440	401	338	256	155	57.2	155	256	338	401	440	456
90	8.31	69.4	157	234	295	333	347	333	295	234	157	69.4	8.31	69.4	157	234	295	333	347
95	5.44	46.4	127	200	258	296	312	296	258	200	127	46.4	5.44	46.4	127	200	258	296	312
100	6.52	29.0	103	174	231	264	281	264	231	174	103	29.0	6.52	29.0	103	174	231	264	281
105	7.70	14.3	79.0	146	200	233	248	233	200	146	79.0	14.3	7.70	14.3	79.0	146	200	233	248
110	8.16	6.42	56.2	118	168	200	213	200	168	118	56.2	6.42	8.16	6.42	56.2	118	168	200	213
115	8.16	6.14	34.8	89.7	136	166	177	166	136	89.7	34.8	6.14	8.16	6.14	34.8	89.7	136	166	177
120	8.16	6.14	15.9	63.4	105	131	141	131	105	63.4	15.9	6.14	8.16	6.14	15.9	63.4	105	131	141
125	8.52	6.59	6.23	38.1	74.4	98.4	107	98.4	74.4	38.1	6.23	6.59	8.52	6.59	6.23	38.1	74.4	98.4	107
130	8.07	6.78	5.21	15.7	45.9	67.1	74.5	67.1	45.9	15.7	5.21	6.78	8.07	6.78	5.21	15.7	45.9	67.1	74.5
135	7.89	7.05	4.94	4.93	19.8	37.5	44.1	37.5	19.8	4.93	4.94	7.05	7.89	7.05	4.94	4.93	19.8	37.5	44.1
140	7.89	7.14	4.85	3.56	4.73	11.9	16.4	11.9	4.73	3.56	4.85	7.14	7.89	7.14	4.85	3.56	4.73	11.9	16.4
145	7.89	7.14	4.57	3.38	2.76	2.98	3.19	2.98	2.76	3.38	4.57	7.14	7.89	7.14	4.57	3.38	2.76	2.98	3.19
150	7.71	7.05	4.12	3.20	2.67	2.50	2.15	2.50	2.67	3.20	4.12	7.05	7.71	7.05	4.12	3.20	2.67	2.50	2.15
155	7.16	6.50	3.75	3.10	2.67	2.50	2.15	2.50	2.67	3.10	3.75	6.50	7.16	6.50	3.75	3.10	2.67	2.50	2.15
160	6.62	6.05	3.48	2.92	2.67	2.50	2.15	2.50	2.67	2.92	3.48	6.05	6.62	6.05	3.48	2.92	2.67	2.50	2.15
165	7.24	6.77	3.65	2.92	2.67	2.69	2.43	2.69	2.67	2.92	3.65	6.77	7.24	6.77	3.65	2.92	2.67	2.69	2.43
170	8.52	7.60	4.30	3.74	3.22	3.15	2.80	3.15	3.22	3.74	4.30	7.60	8.52	7.60	4.30	3.74	3.22	3.15	2.80
175	8.88	7.97	4.67	4.20	3.77	3.61	3.17	3.61	3.77	4.20	4.67	7.97	8.88	7.97	4.67	4.20	3.77	3.61	3.17
180	8.79	8.06	4.67	4.20	3.96	3.90	3.36	3.90	3.96	4.20	4.67	8.06	8.79	8.06	4.67	4.20	3.96	3.90	3.36

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	1534	1534	1534	1535	1534														
5	1528	1528	1527	1527	1526														
10	1516	1513	1507	1506	1503														
15	1494	1488	1476	1472	1467														
20	1465	1454	1437	1426	1415														
25	1429	1411	1386	1368	1351														
30	1385	1361	1328	1301	1275														
35	1335	1305	1262	1224	1189														
40	1281	1243	1189	1139	1094														
45	1222	1178	1111	1051	992														
50	1157	1106	1031	958	886														
55	1087	1031	948	861	776														
60	1011	953	862	765	666														
65	915	865	777	668	556														
70	801	756	681	573	449														
75	680	637	570	477	345														
80	558	518	452	368	249														
85	440	401	338	256	155														
90	333	295	234	157	69.4														
95	296	258	200	127	46.4														
100	264	231	174	103	29.0														
105	233	200	146	79.0	14.3														
110	200	168	118	56.2	6.42														
115	166	136	89.7	34.8	6.14														
120	131	105	63.4	15.9	6.14														
125	98.4	74.4	38.1	6.23	6.59														
130	67.1	45.9	15.7	5.21	6.78														
135	37.5	19.8	4.93	4.94	7.05														
140	11.9	4.73	3.56	4.85	7.14														
145	2.98	2.76	3.38	4.57	7.14														
150	2.50	2.67	3.20	4.12	7.05														
155	2.50	2.67	3.10	3.75	6.50														
160	2.50	2.67	2.92	3.48	6.05														
165	2.69	2.67	2.92	3.65	6.77														
170	3.15	3.22	3.74	4.30	7.60														
175	3.61	3.77	4.20	4.67	7.97														
180	3.90	3.96	4.20	4.67	8.06														

4.0 LM-79 Measurement and Test Results

4.3 THD and PF Test

Model No.	STRP4H @40W4000K	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	0.312	37.2	0.993	9.82
277.0	60	0.136	35.9	0.953	6.68

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*****