

## Photometric Test Report

### Relevant Standards

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

Prepared For

**RAB Lighting Inc.**

Address: 408 W 14th St New York, NY 10014

Prepared By

**Dongguan New Testing Centre Co., Ltd.**

Address: 3F No. 1 the 1st North Industry Road, Songshan Lake Science & Technology Park, Dongguan, Guangdong, China

Prepare by:

*Alan Wang*

Engineer: Alan Wang

Date: 2025-04-01

Review by:

*Vincent Yuan*

Technical Lead: Vincent Yuan

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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		1136
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	154.6
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		14.7
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	6.75
				277V	13.98
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.993
				277V	0.912
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4053
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		85.0
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%		62.6%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	28.3
			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		0.058
(Goniophotometer – Section 4.2)			Non-Worst Case		0.122
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		14.7
(Goniophotometer – Section 4.2)			Non-Worst Case		14.5

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-03-28	STRP2H/MVS @15W4000K	-	250324006-S1
2	Goniophotometer Test	2025-03-28	STRP2H/MVS @15W4000K	-	250324006-S1
3	THD and PF Test	2025-03-28	STRP2H/MVS @15W4000K	-	250324006-S1

### Remark (If any):

1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

### 3.0 Product Description

Luminaire Description: Model No. STRP2H/MVS @15W4000K, color tunable from 3500K, 4000K and 5000K.

Electrical Specification: 120-277Vac, 50/60Hz

Photos of Luminaire Characteristics



## 4.0 LM-79 Measurement and Test Results

### 4.1 Integrating Sphere Test

Model No.	STRP2H/MVS @15W4000K	Sample ID	250324006-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

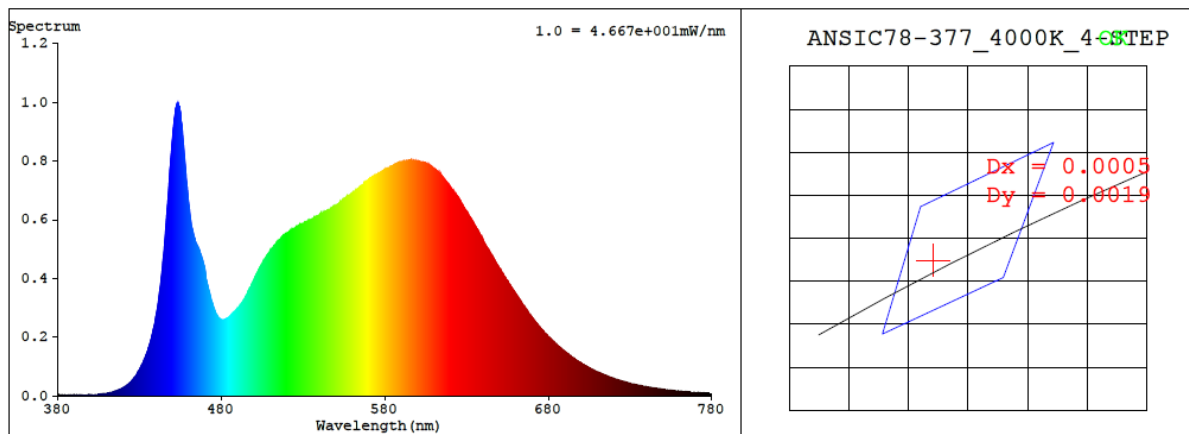
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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	0.122	14.5	0.993
277.0	60	0.058	14.7	0.912

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4053	85.0	18	0.0008	1.5	85	95	-11%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.3786$   $y = 0.3772$  /  $u' = 0.2237$   $v' = 0.5015$  ( $duv=7.50e-04$ )

CCT= 4053K Prcp WL:  $L_d=578.5nm$  Purity=26.8%

Peak WL:  $L_p=454nm$  FWHM:  $\approx 21.4nm$  Ratio: R=18.5% G=77.7% B=3.9%

Render Index:  $R_a = 85.0$  AvgR = 78.9 TM30:  $R_f=85$   $R_g=95$

EEL: 0.09278 A++ Highest

R1 =84 R2 =91 R3 =96 R4 =83 R5 =83 R6 =88 R7 =87

R8 =68 R9 =18 R10=79 R11=82 R12=62 R13=86 R14=98 R15=78

## 4.1 Integrating Sphere Test

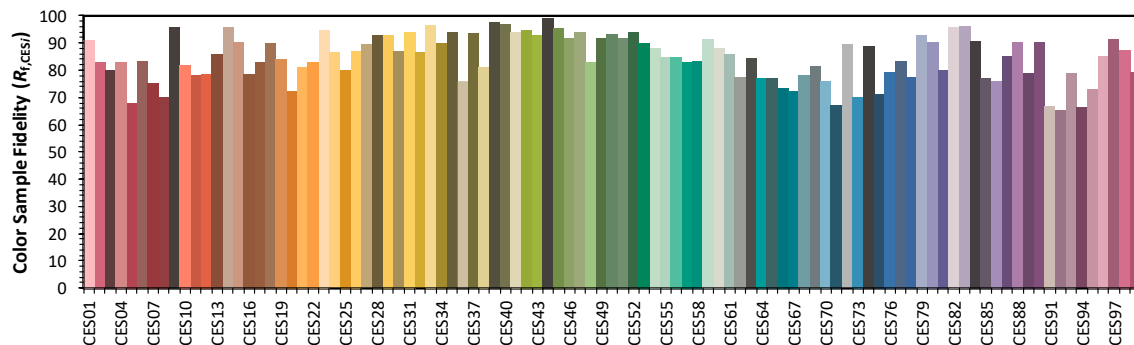
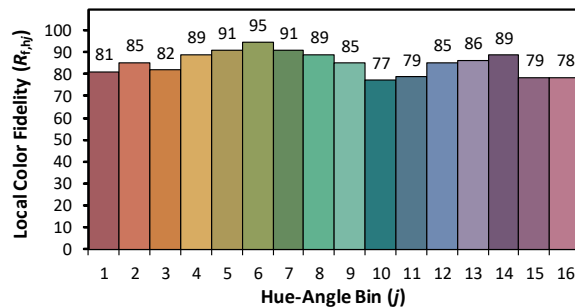
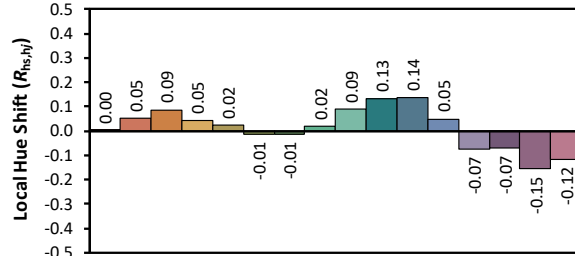
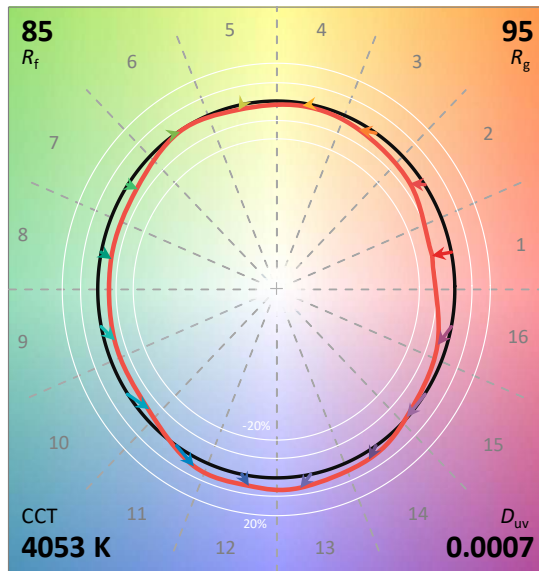
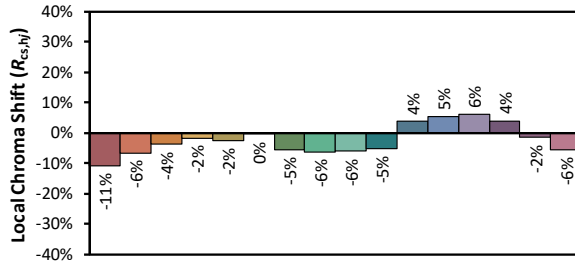
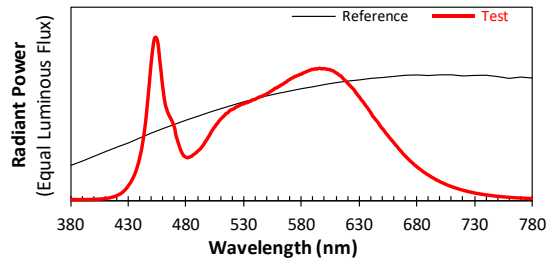
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/4/1

Model: STRP2H/MVS @15W4000K



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

$x$  0.3786  
 $y$  0.3771  
 $u'$  0.2238  
 $v'$  0.5015

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	2.90E-06	447	6.39E-04	514	5.23E-04	581	7.72E-04	648	4.54E-04	715	7.00E-05
381	3.30E-06	448	7.15E-04	515	5.28E-04	582	7.76E-04	649	4.44E-04	716	6.75E-05
382	2.60E-06	449	7.96E-04	516	5.32E-04	583	7.78E-04	650	4.36E-04	717	6.56E-05
383	3.60E-06	450	8.66E-04	517	5.39E-04	584	7.82E-04	651	4.28E-04	718	6.31E-05
384	3.10E-06	451	9.25E-04	518	5.46E-04	585	7.84E-04	652	4.18E-04	719	6.15E-05
385	2.60E-06	452	9.74E-04	519	5.49E-04	586	7.88E-04	653	4.08E-04	720	5.96E-05
386	2.60E-06	453	9.91E-04	520	5.53E-04	587	7.91E-04	654	4.00E-04	721	5.72E-05
387	2.20E-06	454	9.88E-04	521	5.56E-04	588	7.93E-04	655	3.91E-04	722	5.59E-05
388	2.50E-06	455	9.70E-04	522	5.60E-04	589	7.96E-04	656	3.82E-04	723	5.40E-05
389	3.10E-06	456	9.23E-04	523	5.66E-04	590	7.95E-04	657	3.74E-04	724	5.22E-05
390	3.80E-06	457	8.52E-04	524	5.68E-04	591	7.98E-04	658	3.65E-04	725	5.04E-05
391	2.70E-06	458	7.91E-04	525	5.71E-04	592	8.00E-04	659	3.57E-04	726	4.90E-05
392	3.20E-06	459	7.23E-04	526	5.76E-04	593	7.98E-04	660	3.49E-04	727	4.78E-05
393	3.20E-06	460	6.64E-04	527	5.79E-04	594	7.99E-04	661	3.41E-04	728	4.62E-05
394	3.40E-06	461	6.14E-04	528	5.84E-04	595	8.02E-04	662	3.32E-04	729	4.45E-05
395	3.00E-06	462	5.76E-04	529	5.85E-04	596	8.02E-04	663	3.24E-04	730	4.29E-05
396	3.20E-06	463	5.54E-04	530	5.87E-04	597	8.00E-04	664	3.14E-04	731	4.08E-05
397	3.40E-06	464	5.32E-04	531	5.90E-04	598	7.99E-04	665	3.07E-04	732	4.03E-05
398	3.30E-06	465	5.16E-04	532	5.92E-04	599	8.01E-04	666	2.98E-04	733	3.89E-05
399	4.50E-06	466	5.04E-04	533	5.93E-04	600	7.99E-04	667	2.92E-04	734	3.78E-05
400	4.30E-06	467	4.90E-04	534	5.98E-04	601	7.99E-04	668	2.82E-04	735	3.66E-05
401	4.70E-06	468	4.74E-04	535	6.00E-04	602	7.96E-04	669	2.75E-04	736	3.56E-05
402	4.70E-06	469	4.57E-04	536	6.03E-04	603	7.96E-04	670	2.68E-04	737	3.44E-05
403	5.10E-06	470	4.35E-04	537	6.09E-04	604	7.94E-04	671	2.60E-04	738	3.30E-05
404	5.40E-06	471	3.95E-04	538	6.10E-04	605	7.93E-04	672	2.53E-04	739	3.20E-05
405	5.60E-06	472	3.71E-04	539	6.12E-04	606	7.89E-04	673	2.46E-04	740	3.11E-05
406	6.00E-06	473	3.49E-04	540	6.15E-04	607	7.87E-04	674	2.39E-04	741	3.01E-05
407	6.90E-06	474	3.26E-04	541	6.19E-04	608	7.85E-04	675	2.33E-04	742	2.94E-05
408	7.40E-06	475	3.07E-04	542	6.23E-04	609	7.79E-04	676	2.27E-04	743	2.82E-05
409	8.30E-06	476	2.91E-04	543	6.27E-04	610	7.75E-04	677	2.21E-04	744	2.73E-05
410	8.70E-06	477	2.78E-04	544	6.29E-04	611	7.70E-04	678	2.13E-04	745	2.65E-05
411	9.60E-06	478	2.69E-04	545	6.31E-04	612	7.65E-04	679	2.09E-04	746	2.56E-05
412	1.16E-05	479	2.63E-04	546	6.33E-04	613	7.59E-04	680	2.02E-04	747	2.49E-05
413	1.22E-05	480	2.60E-04	547	6.38E-04	614	7.56E-04	681	1.97E-04	748	2.38E-05
414	1.43E-05	481	2.57E-04	548	6.40E-04	615	7.49E-04	682	1.91E-04	749	2.32E-05
415	1.60E-05	482	2.59E-04	549	6.44E-04	616	7.40E-04	683	1.86E-04	750	2.25E-05
416	1.77E-05	483	2.63E-04	550	6.48E-04	617	7.34E-04	684	1.81E-04	751	2.18E-05
417	1.98E-05	484	2.65E-04	551	6.52E-04	618	7.27E-04	685	1.75E-04	752	2.11E-05
418	2.25E-05	485	2.68E-04	552	6.55E-04	619	7.19E-04	686	1.70E-04	753	2.06E-05
419	2.42E-05	486	2.76E-04	553	6.61E-04	620	7.12E-04	687	1.66E-04	754	1.99E-05
420	2.78E-05	487	2.80E-04	554	6.65E-04	621	7.04E-04	688	1.61E-04	755	1.91E-05
421	3.15E-05	488	2.86E-04	555	6.71E-04	622	6.97E-04	689	1.56E-04	756	1.85E-05
422	3.44E-05	489	2.91E-04	556	6.75E-04	623	6.89E-04	690	1.52E-04	757	1.82E-05
423	3.87E-05	490	2.99E-04	557	6.81E-04	624	6.83E-04	691	1.48E-04	758	1.73E-05
424	4.37E-05	491	3.05E-04	558	6.83E-04	625	6.75E-04	692	1.43E-04	759	1.67E-05
425	4.87E-05	492	3.10E-04	559	6.85E-04	626	6.67E-04	693	1.38E-04	760	1.64E-05
426	5.54E-05	493	3.19E-04	560	6.91E-04	627	6.55E-04	694	1.35E-04	761	1.58E-05
427	6.24E-05	494	3.28E-04	561	6.94E-04	628	6.46E-04	695	1.30E-04	762	1.55E-05
428	7.04E-05	495	3.38E-04	562	7.00E-04	629	6.36E-04	696	1.27E-04	763	1.51E-05
429	7.95E-05	496	3.49E-04	563	7.03E-04	630	6.29E-04	697	1.22E-04	764	1.44E-05
430	8.94E-05	497	3.61E-04	564	7.07E-04	631	6.19E-04	698	1.19E-04	765	1.39E-05
431	9.97E-05	498	3.70E-04	565	7.13E-04	632	6.09E-04	699	1.15E-04	766	1.35E-05
432	1.10E-04	499	3.83E-04	566	7.17E-04	633	6.01E-04	700	1.12E-04	767	1.30E-05
433	1.24E-04	500	3.93E-04	567	7.21E-04	634	5.92E-04	701	1.08E-04	768	1.26E-05
434	1.37E-04	501	4.06E-04	568	7.27E-04	635	5.81E-04	702	1.06E-04	769	1.24E-05
435	1.53E-04	502	4.19E-04	569	7.31E-04	636	5.72E-04	703	1.02E-04	770	1.17E-05
436	1.70E-04	503	4.29E-04	570	7.36E-04	637	5.63E-04	704	9.88E-05	771	1.17E-05
437	1.90E-04	504	4.40E-04	571	7.40E-04	638	5.52E-04	705	9.57E-05	772	1.14E-05
438	2.14E-04	505	4.48E-04	572	7.44E-04	639	5.43E-04	706	9.25E-05	773	1.10E-05
439	2.39E-04	506	4.60E-04	573	7.47E-04	640	5.32E-04	707	9.00E-05	774	1.07E-05
440	2.71E-04	507	4.66E-04	574	7.52E-04	641	5.20E-04	708	8.70E-05	775	1.03E-05
441	3.01E-04	508	4.78E-04	575	7.53E-04	642	5.08E-04	709	8.42E-05	776	9.80E-06
442	3.42E-04	509	4.85E-04	576	7.58E-04	643	5.01E-04	710	8.14E-05	777	9.60E-06
443	3.85E-04	510	4.94E-04	577	7.59E-04	644	4.91E-04	711	7.92E-05	778	9.40E-06
444	4.37E-04	511	5.01E-04	578	7.63E-04	645	4.83E-04	712	7.69E-05	779	9.40E-06
445	4.94E-04	512	5.08E-04	579	7.67E-04	646	4.75E-04	713	7.45E-05	780	9.40E-06
446	5.67E-04	513	5.14E-04	580	7.67E-04	647	4.65E-04	714	7.25E-05	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

Model No.	STRP2H/MVS @15W4000K	Sample ID	250324006-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	25.0	Humidity (%RH)	42.6

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 <math>25 \pm 1^\circ\text{C}</math>, 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 <math>\pm 0.2</math> 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 <math>1.0^\circ</math> vertical intervals and <math>15^\circ</math> horizontal intervals.</p>

#### Test Conditions

Condition	Voltage (Vac)	Frequency (Hz)	Current (A)	Power (W)	Power Factor
WORST CASE	277.0	60	0.058	14.7	0.912
NON-WORST CASE	120.0	60	0.122	14.5	0.993

#### Test Result

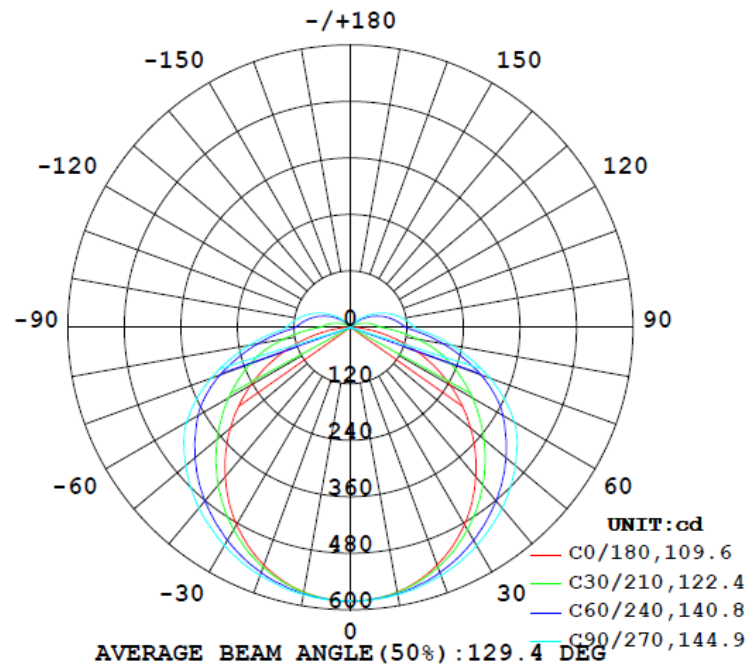
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
2272	1136	161.6	161.6	109.6	144.7	154.6

Zonal Lumen Requirement	UGR	
(0°-60°)	Crosswise	Endwise
62.6%	23.1	28.3

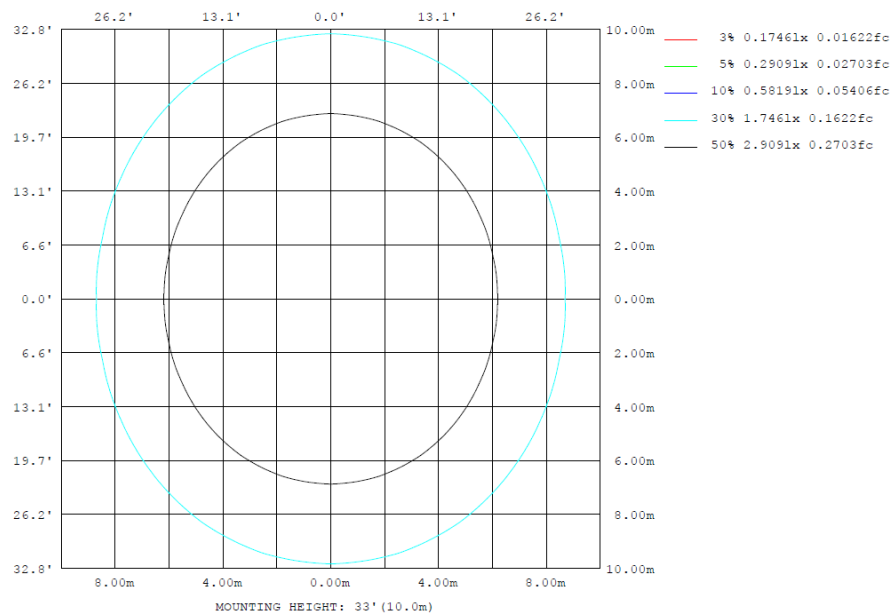
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

### Zonal Lumen Summary

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum, lamp
10	570.9	572.9	576.2	572.9	570.9	572.9	576.2	572.9	0- 10	55.10	55.10	2.42, 2.42
20	537.3	547.7	561.2	547.7	537.3	547.7	561.2	547.7	10- 20	159.0	214.1	9.42, 9.42
30	483.7	509.3	535.1	509.3	483.7	509.3	535.1	509.3	20- 30	244.8	458.8	20.2, 20.2
40	413.9	458.5	501.1	458.5	413.9	458.5	501.1	458.5	30- 40	303.7	762.6	33.6, 33.6
50	332.8	401.8	456.6	401.8	332.8	401.8	456.6	401.8	40- 50	331.5	1094	48.1, 48.1
60	243.8	338.7	401.5	338.7	243.8	338.7	401.5	338.7	50- 60	327.4	1421	62.6, 62.6
70	150.5	268.0	314.9	268.0	150.5	268.0	314.9	268.0	60- 70	290.1	1712	75.3, 75.3
80	60.57	176.4	218.3	176.4	60.57	176.4	218.3	176.4	70- 80	218.9	1930	85, 85
90	5.418	94.43	136.5	94.43	5.418	94.43	136.5	94.43	80- 90	131.4	2062	90.7, 90.7
100	4.264	72.50	112.8	72.50	4.264	72.50	112.8	72.50	90-100	81.99	2144	94.3, 94.3
110	4.286	50.36	86.09	50.36	4.286	50.36	86.09	50.36	100-110	59.30	2203	97, 97
120	4.308	29.24	58.48	29.24	4.308	29.24	58.48	29.24	110-120	37.59	2241	98.6, 98.6
130	4.328	10.71	32.93	10.71	4.328	10.71	32.93	10.71	120-130	19.73	2261	99.5, 99.5
140	4.329	3.299	10.84	3.299	4.329	3.299	10.84	3.299	130-140	7.691	2268	99.8, 99.8
150	4.331	2.600	1.504	2.600	4.331	2.600	1.504	2.600	140-150	2.172	2270	99.9, 99.9
160	4.108	2.041	1.465	2.041	4.108	2.041	1.465	2.041	150-160	1.177	2272	100, 100
170	4.329	2.005	1.482	2.005	4.329	2.005	1.482	2.005	160-170	0.6542	2272	100, 100
180	4.332	2.317	1.583	2.317	4.332	2.317	1.583	2.317	170-180	0.2263	2272	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	55.10	0-10	55.10	2.42%
10-20	158.96	0-20	214.06	9.42%
20-30	244.76	0-30	458.82	20.19%
30-40	303.75	0-40	762.57	33.56%
40-50	331.54	0-50	1094.11	48.15%
50-60	327.39	0-60	1421.50	62.56%
60-70	290.10	0-70	1711.60	75.33%
70-80	218.90	0-80	1930.50	84.96%
80-90	131.44	0-90	2061.94	90.74%
90-100	81.99	0-100	2143.93	94.35%
100-110	59.30	0-110	2203.23	96.96%
110-120	37.59	0-120	2240.82	98.62%
120-130	19.73	0-130	2260.55	99.49%
130-140	7.69	0-140	2268.24	99.82%
140-150	2.17	0-150	2270.41	99.92%
150-160	1.18	0-160	2271.59	99.97%
160-170	0.65	0-170	2272.24	100.00%
170-180	0.23	0-180	2272.47	100.01%

## 4.2 Goniophotometer Test

UGR – Uncorrected Table:

**UGR TABLE - UNCORRECTED**

Reflectances											
Ceiling Cavity		70	70	50	50	30	70	70	50	50	30
Walls		50	30	50	30	30	50	30	50	30	30
Floor Cavity		20	20	20	20	20	20	20	20	20	20
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	15.7	17.3	16.2	17.8	18.3	18.8	20.3	19.3	20.8	21.3
	3H	17.3	18.7	17.8	19.2	19.8	21.4	22.8	21.9	23.3	23.8
	4H	17.8	19.2	18.4	19.7	20.3	22.5	23.9	23.0	24.4	25.0
	6H	18.2	19.5	18.7	20.0	20.6	23.7	24.9	24.2	25.5	26.1
	8H	18.3	19.5	18.8	20.0	20.6	24.2	25.4	24.8	26.0	26.6
	12H	18.3	19.5	18.9	20.0	20.7	24.8	26.0	25.4	26.5	27.2
4H	2H	17.0	18.3	17.5	18.8	19.4	19.2	20.6	19.7	21.1	21.7
	3H	18.9	20.0	19.4	20.6	21.2	22.1	23.2	22.6	23.8	24.4
	4H	19.6	20.6	20.2	21.2	21.8	23.4	24.5	24.0	25.0	25.7
	6H	20.1	21.0	20.7	21.6	22.3	24.8	25.7	25.3	26.3	26.9
	8H	20.2	21.1	20.8	21.7	22.4	25.4	26.3	26.0	26.9	27.6
	12H	20.3	21.1	20.9	21.7	22.4	26.1	26.9	26.7	27.5	28.2
8H	4H	20.5	21.4	21.1	22.0	22.6	23.7	24.5	24.2	25.1	25.8
	6H	21.2	22.0	21.8	22.6	23.3	25.2	25.9	25.8	26.6	27.2
	8H	21.5	22.2	22.1	22.8	23.5	26.0	26.7	26.6	27.3	28.0
	12H	21.7	22.3	22.3	22.9	23.6	26.8	27.5	27.5	28.1	28.8
12H	4H	20.7	21.5	21.3	22.1	22.8	23.7	24.5	24.3	25.1	25.8
	6H	21.6	22.2	22.2	22.9	23.6	25.2	25.9	25.9	26.5	27.3
	8H	21.9	22.5	22.6	23.2	23.9	26.1	26.7	26.7	27.3	28.1

Maximum UGR = 28.8

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					UGR Viewed Endwise				
X=2H	Y=2H	18.6	20.2	19.1	20.7	21.2	21.7	23.2	22.2	23.7	24.2
	3H	20.2	21.6	20.7	22.1	22.7	24.3	25.7	24.8	26.2	26.7
	4H	20.7	22.1	21.3	22.6	23.2	25.4	26.8	25.9	27.3	27.9
	6H	21.1	22.4	21.6	22.9	23.5	26.6	27.8	27.1	28.4	29.0
	8H	21.2	22.4	21.7	22.9	23.5	27.1	28.3	27.7	28.9	29.5
	12H	21.2	22.4	21.8	22.9	23.6	27.7	28.9	28.3	29.4	30.1
4H	2H	19.9	21.2	20.4	21.7	22.3	22.1	23.5	22.6	24.0	24.6
	3H	21.8	22.9	22.3	23.5	24.1	25.0	26.1	25.5	26.7	27.3
	4H	22.5	23.5	23.1	24.1	24.7	26.3	27.4	26.9	27.9	28.6
	6H	23.0	23.9	23.6	24.5	25.2	27.7	28.6	28.2	29.2	29.8
	8H	23.1	24.0	23.7	24.6	25.3	28.3	29.2	28.9	29.8	30.5
	12H	23.2	24.0	23.8	24.6	25.3	29.0	29.8	29.6	30.4	31.1
8H	4H	23.4	24.3	24.0	24.9	25.5	26.6	27.4	27.1	28.0	28.7
	6H	24.1	24.9	24.7	25.5	26.2	28.1	28.8	28.7	29.5	30.1
	8H	24.4	25.1	25.0	25.7	26.4	28.9	29.6	29.5	30.2	30.9
	12H	24.6	25.2	25.2	25.8	26.5	29.7	30.4	30.4	31.0	31.7
12H	4H	23.6	24.4	24.2	25.0	25.7	26.6	27.4	27.2	28.0	28.7
	6H	24.5	25.1	25.1	25.8	26.5	28.1	28.8	28.8	29.4	30.2
	8H	24.8	25.4	25.5	26.1	26.8	29.0	29.6	29.6	30.2	31.0

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	582	581	581	581	582	582	581	582	582	581	581	581	582	581	581	581	582	582	581
5	579	578	578	579	580	580	580	580	580	579	578	578	579	578	578	579	580	580	580
10	571	570	572	573	574	576	576	576	574	573	572	570	571	570	572	573	574	576	576
15	557	557	559	563	566	569	570	569	566	563	559	557	557	557	559	563	566	569	570
20	537	538	542	548	554	559	561	559	554	548	542	538	537	538	542	548	554	559	561
25	513	515	521	530	540	546	550	546	540	530	521	515	513	515	521	530	540	546	550
30	484	487	496	509	522	531	535	531	522	509	496	487	484	487	496	509	522	531	535
35	451	455	468	485	503	514	518	514	503	485	468	455	451	455	468	485	503	514	518
40	414	420	437	458	481	496	501	496	481	458	437	420	414	420	437	458	481	496	501
45	375	382	404	431	457	474	480	474	457	431	404	382	375	382	404	431	457	474	480
50	333	343	370	402	431	450	457	450	431	402	370	343	333	343	370	402	431	450	457
55	289	302	335	371	403	424	432	424	403	371	335	302	289	302	335	371	403	424	432
60	244	260	299	339	374	396	402	396	374	339	299	260	244	260	299	339	374	396	402
65	198	218	263	306	338	356	361	356	338	306	263	218	198	218	263	306	338	356	361
70	150	177	226	268	294	310	315	310	294	268	226	177	150	177	226	268	294	310	315
75	104	138	189	223	247	262	266	262	247	223	189	138	104	138	189	223	247	262	266
80	60.6	101	145	176	200	214	218	214	200	176	145	101	60.6	101	145	176	200	214	218
85	24.4	63.7	101	131	154	168	172	168	154	131	101	63.7	24.4	63.7	101	131	154	168	172
90	5.42	31.3	64.9	94.4	118	132	137	132	118	94.4	64.9	31.3	5.42	31.3	64.9	94.4	118	132	137
95	4.37	22.6	54.2	83.0	106	120	125	120	106	83.0	54.2	22.6	4.37	22.6	54.2	83.0	106	120	125
100	4.26	15.5	44.8	72.5	94.2	108	113	108	94.2	72.5	44.8	15.5	4.26	15.5	44.8	72.5	94.2	108	113
105	4.27	9.19	35.2	61.6	82.3	95.2	100	95.2	82.3	61.6	35.2	9.19	4.27	9.19	35.2	61.6	82.3	95.2	100
110	4.29	5.06	26.3	50.4	69.7	82.0	86.1	82.0	69.7	50.4	26.3	5.06	4.29	5.06	26.3	50.4	69.7	82.0	86.1
115	4.30	4.68	18.1	39.3	57.3	68.5	72.1	68.5	57.3	39.3	18.1	4.68	4.30	4.68	18.1	39.3	57.3	68.5	72.1
120	4.31	4.43	10.6	29.2	45.1	55.1	58.5	55.1	45.1	29.2	10.6	4.43	4.31	4.43	10.6	29.2	45.1	55.1	58.5
125	4.32	4.33	4.84	19.5	33.4	42.5	45.3	42.5	33.4	19.5	4.84	4.33	4.32	4.33	4.84	19.5	33.4	42.5	45.3
130	4.33	4.24	4.04	10.7	22.9	30.7	32.9	30.7	22.9	10.7	4.04	4.24	4.33	4.24	4.04	10.7	22.9	30.7	32.9
135	4.33	4.19	3.83	4.01	12.7	19.4	21.7	19.4	12.7	4.01	3.83	4.19	4.33	4.19	3.83	4.01	12.7	19.4	21.7
140	4.33	4.11	3.67	3.30	4.18	9.05	10.8	9.05	4.18	3.30	3.67	4.11	4.33	4.11	3.67	3.30	4.18	9.05	10.8
145	4.33	3.98	3.44	2.96	2.55	1.88	2.44	1.88	2.55	2.96	3.44	3.98	4.33	3.98	3.44	2.96	2.55	1.88	2.44
150	4.33	3.82	3.25	2.60	2.32	1.67	1.50	1.67	2.32	2.60	3.25	3.82	4.33	3.82	3.25	2.60	2.32	1.67	1.50
155	4.33	3.56	2.84	2.44	2.05	1.57	1.46	1.57	2.05	2.44	2.84	3.56	4.33	3.56	2.84	2.44	2.05	1.57	1.46
160	4.11	3.09	2.51	2.04	1.77	1.55	1.46	1.55	1.77	2.04	2.51	3.09	4.11	3.09	2.51	2.04	1.77	1.55	1.46
165	4.14	3.18	2.47	1.97	1.83	1.62	1.47	1.62	1.83	1.97	2.47	3.18	4.14	3.18	2.47	1.97	1.83	1.62	1.47
170	4.33	3.30	2.44	2.01	1.80	1.69	1.48	1.69	1.80	2.01	2.44	3.30	4.33	3.30	2.44	2.01	1.80	1.69	1.48
175	4.26	3.27	2.51	2.04	1.77	1.76	1.58	1.76	1.77	2.04	2.51	3.27	4.26	3.27	2.51	2.04	1.77	1.76	1.58
180	4.33	3.37	2.70	2.32	1.76	1.67	1.58	1.67	1.76	2.32	2.70	3.37	4.33	3.37	2.70	2.32	1.76	1.67	1.58

Table--2

UNIT: cd

C (DEG) y (DEG)	285	300	315	330	345														
0	582	582	581	581	581														
5	580	580	579	578	578														
10	576	574	573	572	570														
15	569	566	563	559	557														
20	559	554	548	542	538														
25	546	540	530	521	515														
30	531	522	509	496	487														
35	514	503	485	468	455														
40	496	481	458	437	420														
45	474	457	431	404	382														
50	450	431	402	370	343														
55	424	403	371	335	302														
60	396	374	339	299	260														
65	356	338	306	263	218														
70	310	294	268	226	177														
75	262	247	223	189	138														
80	214	200	176	145	101														
85	168	154	131	101	63.7														
90	132	118	94.4	64.9	31.3														
95	120	106	83.0	54.2	22.6														
100	108	94.2	72.5	44.8	15.5														
105	95.2	82.3	61.6	35.2	9.19														
110	82.0	69.7	50.4	26.3	5.06														
115	68.5	57.3	39.3	18.1	4.68														
120	55.1	45.1	29.2	10.6	4.43														
125	42.5	33.4	19.5	4.84	4.33														
130	30.7	22.9	10.7	4.04	4.24														
135	19.4	12.7	4.01	3.83	4.19														
140	9.05	4.18	3.30	3.67	4.11														
145	1.88	2.55	2.96	3.44	3.98														
150	1.67	2.32	2.60	3.25	3.82														
155	1.57	2.05	2.44	2.84	3.56														
160	1.55	1.77	2.04	2.51	3.09														
165	1.62	1.83	1.97	2.47	3.18														
170	1.69	1.80	2.01	2.44	3.30														
175	1.76	1.77	2.04	2.51	3.27														
180	1.67	1.76	2.32	2.70	3.37														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	STRP2H/MVS @15W4000K	<b>Sample ID</b>	250324006-S1
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

<b>Test Method</b>
<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	0.122	14.5	0.993	6.75
277.0	60	0.058	14.7	0.912	13.98

## 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\*\*\*\*\*