

## 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: 2025-01-04

Review by:

*Vincent Yuan*

Technical Lead: Vincent Yuan

Issue Date: 2025-01-04

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		782
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	151.8
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.3
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	8.78
				277V	21.59
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.983
				277V	0.847
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	5029±283	4893
			4 steps	5029±220	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		83.6
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		14
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		84
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%		62.6%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	26.9
			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		0.044
(Goniophotometer – Section 4.2)			Non-Worst Case		0.081
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		10.3
(Goniophotometer – Section 4.2)			Non-Worst Case		9.6

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-02	STRP2H @10W5000K	-	241225004-S1
2	Goniophotometer Test	2025-01-02	STRP2H @10W5000K	-	241225004-S1
3	THD and PF Test	2025-01-02	STRP2H @10W5000K	-	241225004-S1

### Remark (If any):

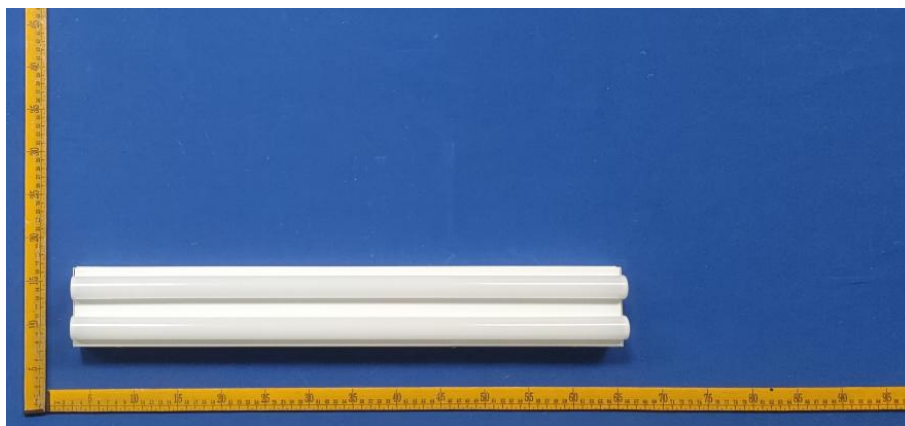
1. The results contained in this report pertain only to the tested samples.
2. This report shall not be reproduced, no limited part or full, without approval of Dongguan New Testing Centre Co., Ltd.
3. This report must not be used by the client to claim product certification, approval, or endorsement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

### 3.0 Product Description

Luminaire Description: Model No. STRP2H @10W5000K, 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

<b>Model No.</b>	STRP2H @10W5000K	<b>Sample ID</b>	241225004-S1
<b>Operate time (Min.)</b>	10	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	25.4	<b>Humidity (%RH)</b>	41.0

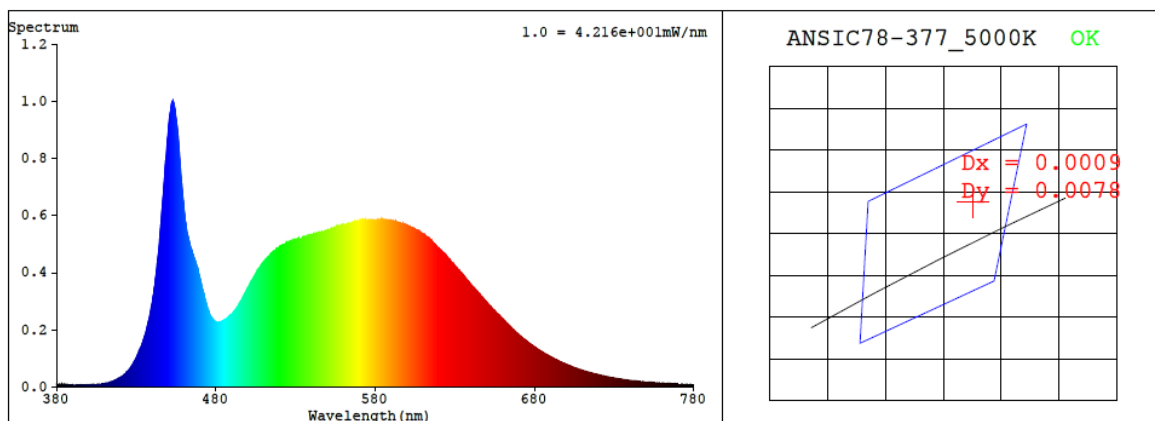
<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were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

<b>Voltage (Vac)</b>	<b>Frequency (Hz)</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Power Factor</b>
120.0	60	0.081	9.6	0.983
277.0	60	0.044	10.3	0.847

<b>CCT (K)</b>	<b>CRI</b>	<b>R9</b>	<b>Duv</b>	<b>Rf</b>	<b>Rg</b>	<b>IES Rcs,h1</b>
4893	83.6	14	0.0035	84	95	-12%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.3490$   $y = 0.3619$  /  $u' = 0.2101$   $v' = 0.4902$  ( $duv=3.54e-03$ )

CCT= 4893K Prcp WL: Ld=571.0nm Purity=13.3%

Peak WL: Lp=453nm FWHM: =19.4nm Ratio:R=15.9% G=79.6% B=4.4%

Render Index: Ra = 83.6 AvgR = 76.6 TM30:Rf=84 Rg=95

EEL: 0.09049 A++ Highest

R1 =82 R2 =89 R3 =94 R4 =82 R5 =81 R6 =84 R7 =89

R8 =69 R9 =14 R10=73 R11=81 R12=55 R13=84 R14=97 R15=77

## 4.1 Integrating Sphere Test

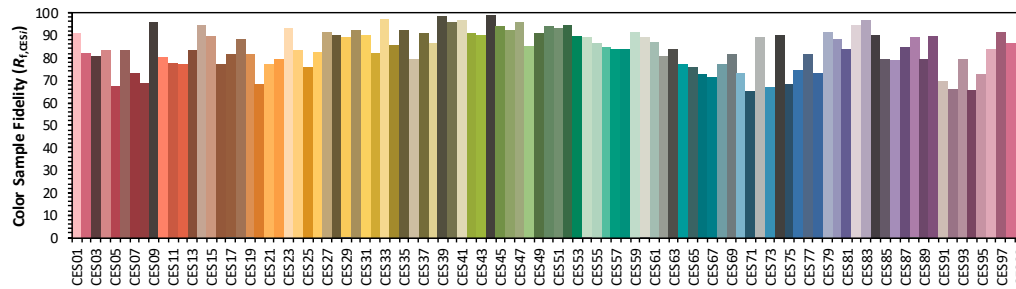
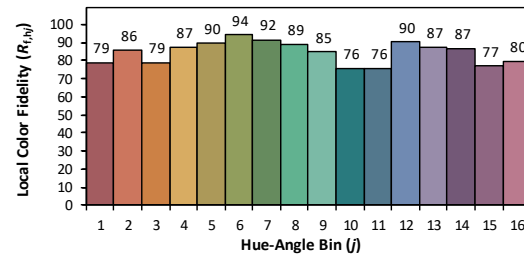
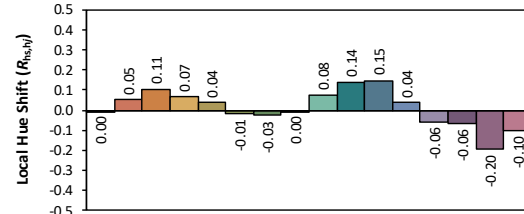
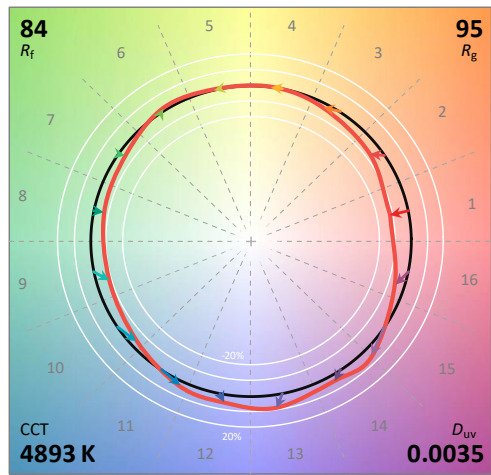
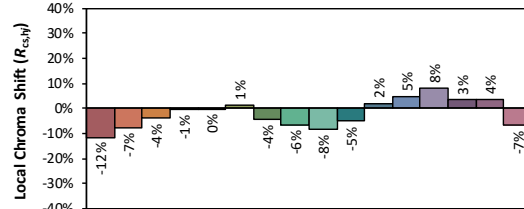
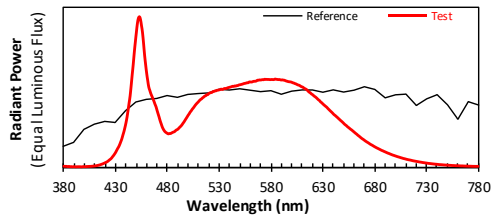
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/4

Model: STRP2H @10W5000K



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

$x$  0.3490  
 $y$  0.3617  
 $u'$  0.2101  
 $v'$  0.4901

CIE 13.3-1995  
(CRI)  
 $R_a$  84  
 $R_g$  14

## 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	1.01E-05	447	6.84E-04	514	4.63E-04	581	5.84E-04	648	3.09E-04	715	5.00E-05
381	9.20E-06	448	7.62E-04	515	4.68E-04	582	5.83E-04	649	3.03E-04	716	4.83E-05
382	9.30E-06	449	8.31E-04	516	4.74E-04	583	5.84E-04	650	2.96E-04	717	4.65E-05
383	8.50E-06	450	8.95E-04	517	4.77E-04	584	5.87E-04	651	2.89E-04	718	4.52E-05
384	7.50E-06	451	9.54E-04	518	4.84E-04	585	5.86E-04	652	2.83E-04	719	4.38E-05
385	8.60E-06	452	9.90E-04	519	4.84E-04	586	5.85E-04	653	2.78E-04	720	4.26E-05
386	6.50E-06	453	1.00E-03	520	4.92E-04	587	5.83E-04	654	2.71E-04	721	4.13E-05
387	7.40E-06	454	9.82E-04	521	4.95E-04	588	5.84E-04	655	2.66E-04	722	4.02E-05
388	6.00E-06	455	9.40E-04	522	4.97E-04	589	5.82E-04	656	2.60E-04	723	3.87E-05
389	6.60E-06	456	8.93E-04	523	4.99E-04	590	5.81E-04	657	2.55E-04	724	3.76E-05
390	7.10E-06	457	8.21E-04	524	5.05E-04	591	5.82E-04	658	2.50E-04	725	3.66E-05
391	5.80E-06	458	7.44E-04	525	5.05E-04	592	5.80E-04	659	2.44E-04	726	3.53E-05
392	6.30E-06	459	6.81E-04	526	5.09E-04	593	5.79E-04	660	2.38E-04	727	3.41E-05
393	6.50E-06	460	6.24E-04	527	5.09E-04	594	5.76E-04	661	2.32E-04	728	3.32E-05
394	6.60E-06	461	5.77E-04	528	5.13E-04	595	5.74E-04	662	2.27E-04	729	3.21E-05
395	6.70E-06	462	5.34E-04	529	5.14E-04	596	5.72E-04	663	2.21E-04	730	3.11E-05
396	6.40E-06	463	5.13E-04	530	5.16E-04	597	5.70E-04	664	2.15E-04	731	3.01E-05
397	5.80E-06	464	4.91E-04	531	5.18E-04	598	5.69E-04	665	2.10E-04	732	2.90E-05
398	6.70E-06	465	4.74E-04	532	5.21E-04	599	5.68E-04	666	2.04E-04	733	2.82E-05
399	7.20E-06	466	4.57E-04	533	5.18E-04	600	5.66E-04	667	1.98E-04	734	2.74E-05
400	7.30E-06	467	4.41E-04	534	5.21E-04	601	5.63E-04	668	1.93E-04	735	2.66E-05
401	6.80E-06	468	4.21E-04	535	5.24E-04	602	5.61E-04	669	1.88E-04	736	2.57E-05
402	8.10E-06	469	4.04E-04	536	5.25E-04	603	5.58E-04	670	1.84E-04	737	2.49E-05
403	8.10E-06	470	3.80E-04	537	5.25E-04	604	5.55E-04	671	1.78E-04	738	2.42E-05
404	8.70E-06	471	3.57E-04	538	5.29E-04	605	5.52E-04	672	1.74E-04	739	2.35E-05
405	8.90E-06	472	3.35E-04	539	5.31E-04	606	5.48E-04	673	1.69E-04	740	2.29E-05
406	9.10E-06	473	3.11E-04	540	5.33E-04	607	5.47E-04	674	1.65E-04	741	2.22E-05
407	9.80E-06	474	2.91E-04	541	5.34E-04	608	5.43E-04	675	1.60E-04	742	2.13E-05
408	1.04E-05	475	2.71E-04	542	5.37E-04	609	5.38E-04	676	1.56E-04	743	2.06E-05
409	1.12E-05	476	2.56E-04	543	5.39E-04	610	5.35E-04	677	1.52E-04	744	2.04E-05
410	1.19E-05	477	2.45E-04	544	5.38E-04	611	5.33E-04	678	1.48E-04	745	1.98E-05
411	1.31E-05	478	2.37E-04	545	5.41E-04	612	5.27E-04	679	1.44E-04	746	1.93E-05
412	1.43E-05	479	2.32E-04	546	5.41E-04	613	5.23E-04	680	1.40E-04	747	1.85E-05
413	1.59E-05	480	2.27E-04	547	5.44E-04	614	5.19E-04	681	1.36E-04	748	1.82E-05
414	1.76E-05	481	2.24E-04	548	5.44E-04	615	5.14E-04	682	1.32E-04	749	1.75E-05
415	1.93E-05	482	2.27E-04	549	5.48E-04	616	5.07E-04	683	1.29E-04	750	1.70E-05
416	2.19E-05	483	2.26E-04	550	5.49E-04	617	5.00E-04	684	1.25E-04	751	1.67E-05
417	2.42E-05	484	2.30E-04	551	5.51E-04	618	4.96E-04	685	1.22E-04	752	1.61E-05
418	2.71E-05	485	2.34E-04	552	5.53E-04	619	4.89E-04	686	1.18E-04	753	1.59E-05
419	3.01E-05	486	2.37E-04	553	5.55E-04	620	4.85E-04	687	1.15E-04	754	1.56E-05
420	3.35E-05	487	2.40E-04	554	5.57E-04	621	4.79E-04	688	1.12E-04	755	1.48E-05
421	3.66E-05	488	2.46E-04	555	5.59E-04	622	4.73E-04	689	1.09E-04	756	1.47E-05
422	4.06E-05	489	2.51E-04	556	5.60E-04	623	4.68E-04	690	1.06E-04	757	1.43E-05
423	4.57E-05	490	2.55E-04	557	5.63E-04	624	4.63E-04	691	1.03E-04	758	1.38E-05
424	5.17E-05	491	2.62E-04	558	5.62E-04	625	4.56E-04	692	9.97E-05	759	1.35E-05
425	5.69E-05	492	2.69E-04	559	5.68E-04	626	4.49E-04	693	9.67E-05	760	1.34E-05
426	6.34E-05	493	2.75E-04	560	5.68E-04	627	4.44E-04	694	9.43E-05	761	1.33E-05
427	7.26E-05	494	2.84E-04	561	5.67E-04	628	4.36E-04	695	9.13E-05	762	1.27E-05
428	8.10E-05	495	2.94E-04	562	5.69E-04	629	4.31E-04	696	8.85E-05	763	1.23E-05
429	9.10E-05	496	3.03E-04	563	5.72E-04	630	4.24E-04	697	8.57E-05	764	1.20E-05
430	1.02E-04	497	3.14E-04	564	5.72E-04	631	4.17E-04	698	8.32E-05	765	1.21E-05
431	1.15E-04	498	3.25E-04	565	5.73E-04	632	4.11E-04	699	8.10E-05	766	1.16E-05
432	1.28E-04	499	3.36E-04	566	5.75E-04	633	4.06E-04	700	7.85E-05	767	1.13E-05
433	1.39E-04	500	3.47E-04	567	5.80E-04	634	4.00E-04	701	7.63E-05	768	1.09E-05
434	1.55E-04	501	3.57E-04	568	5.79E-04	635	3.92E-04	702	7.38E-05	769	1.07E-05
435	1.73E-04	502	3.68E-04	569	5.81E-04	636	3.86E-04	703	7.18E-05	770	1.04E-05
436	1.91E-04	503	3.77E-04	570	5.81E-04	637	3.79E-04	704	6.98E-05	771	1.03E-05
437	2.16E-04	504	3.87E-04	571	5.82E-04	638	3.72E-04	705	6.75E-05	772	1.01E-05
438	2.39E-04	505	3.95E-04	572	5.83E-04	639	3.66E-04	706	6.54E-05	773	1.00E-05
439	2.67E-04	506	4.05E-04	573	5.83E-04	640	3.59E-04	707	6.34E-05	774	9.70E-06
440	2.98E-04	507	4.14E-04	574	5.86E-04	641	3.51E-04	708	6.11E-05	775	9.30E-06
441	3.35E-04	508	4.23E-04	575	5.84E-04	642	3.46E-04	709	5.98E-05	776	9.30E-06
442	3.80E-04	509	4.30E-04	576	5.85E-04	643	3.40E-04	710	5.79E-05	777	9.10E-06
443	4.28E-04	510	4.37E-04	577	5.84E-04	644	3.34E-04	711	5.59E-05	778	9.00E-06
444	4.76E-04	511	4.45E-04	578	5.85E-04	645	3.28E-04	712	5.43E-05	779	9.10E-06
445	5.44E-04	512	4.52E-04	579	5.83E-04	646	3.21E-04	713	5.26E-05	780	9.10E-06
446	6.16E-04	513	4.56E-04	580	5.84E-04	647	3.15E-04	714	5.15E-05	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

<b>Model No.</b>	STRP2H @10W5000K	<b>Sample ID</b>	241225004-S1
<b>Operate time (Min.)</b>	30	<b>Stabilization time (Min.)</b>	60
<b>Temperature (°C)</b>	24.7	<b>Humidity (%RH)</b>	41.3

<b>Test Method</b>
<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
<b>WORST CASE</b>	277.0	60	0.044	10.3	0.847
<b>NON-WORST CASE</b>	120.0	60	0.081	9.6	0.983

### Test Result

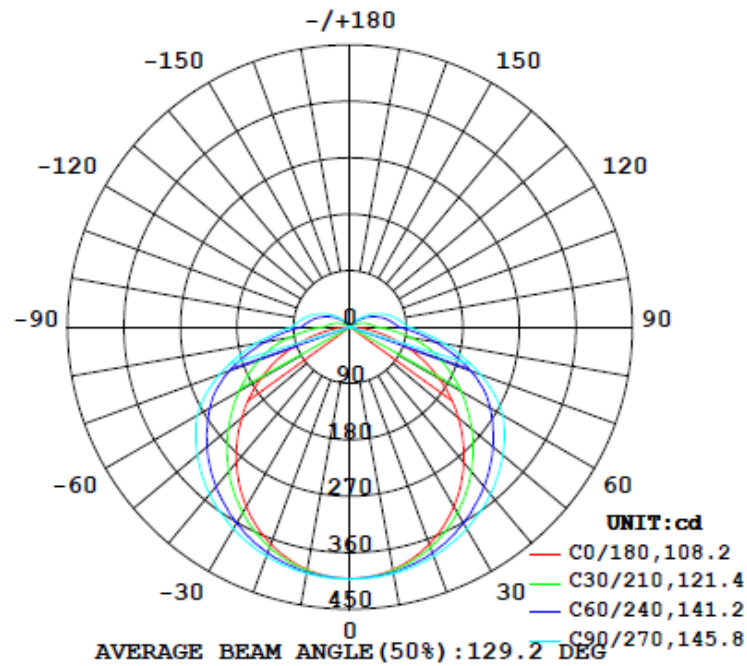
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
1563	782	161.2	161.2	108.4	145.7	151.8

Zonal Lumen Requirement	UGR	
(0°-60°)	Crosswise	Endwise
62.6%	21.5	26.9

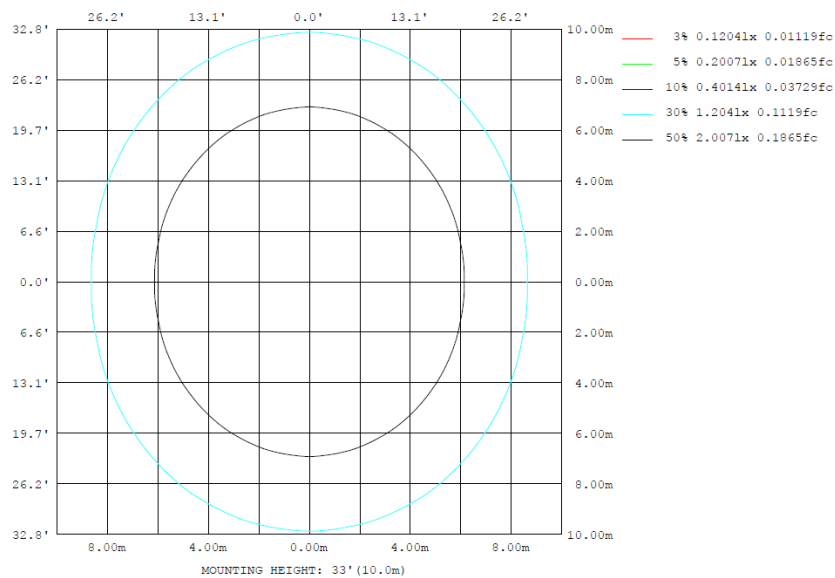
## 4.2 Goniophotometer Test

### 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	393.0	395.3	399.0	395.3	393.0	395.3	399.0	395.3	0- 10	38.05	38.05	2.43,2.43
20	368.6	378.4	389.0	378.4	368.6	378.4	389.0	378.4	10- 20	109.7	147.8	9.45,9.45
30	331.0	351.2	371.6	351.2	331.0	351.2	371.6	351.2	20- 30	168.9	316.7	20.3,20.3
40	282.0	315.5	347.9	315.5	282.0	315.5	347.9	315.5	30- 40	209.4	526.1	33.7,33.7
50	225.2	276.3	317.9	276.3	225.2	276.3	317.9	276.3	40- 50	228.2	754.3	48.3,48.3
60	164.2	232.5	280.8	232.5	164.2	232.5	280.8	232.5	50- 60	224.9	979.3	62.6,62.6
70	100.2	185.1	221.1	185.1	100.2	185.1	221.1	185.1	60- 70	199.8	1179	75.4,75.4
80	38.75	121.3	152.9	121.3	38.75	121.3	152.9	121.3	70- 80	150.9	1330	85.1,85.1
90	2.612	62.50	92.86	62.50	2.612	62.50	92.86	62.50	80- 90	90.03	1420	90.8,90.8
100	2.329	48.63	76.43	48.63	2.329	48.63	76.43	48.63	90-100	54.57	1474	94.3,94.3
110	2.329	34.31	59.49	34.31	2.329	34.31	59.49	34.31	100-110	40.01	1515	96.9,96.9
120	2.423	20.84	41.42	20.84	2.423	20.84	41.42	20.84	110-120	25.87	1540	98.5,98.5
130	2.609	8.540	24.53	8.540	2.609	8.540	24.53	8.540	120-130	14.08	1554	99.4,99.4
140	2.702	1.926	9.325	1.926	2.702	1.926	9.325	1.926	130-140	5.766	1560	99.8,99.8
150	2.795	1.653	1.014	1.653	2.795	1.653	1.014	1.653	140-150	1.554	1562	99.9,99.9
160	2.795	1.376	1.014	1.376	2.795	1.376	1.014	1.376	150-160	0.7759	1563	100,100
170	2.983	1.467	1.106	1.467	2.983	1.467	1.106	1.467	160-170	0.4533	1563	100,100
180	2.982	1.467	1.199	1.467	2.982	1.467	1.199	1.467	170-180	0.1611	1563	100,100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	38.05	0-10	38.05	2.43%
10-20	109.75	0-20	147.80	9.46%
20-30	168.91	0-30	316.71	20.26%
30-40	209.42	0-40	526.13	33.66%
40-50	228.20	0-50	754.33	48.26%
50-60	224.92	0-60	979.25	62.65%
60-70	199.79	0-70	1179.04	75.43%
70-80	150.85	0-80	1329.89	85.09%
80-90	90.03	0-90	1419.92	90.85%
90-100	54.57	0-100	1474.49	94.34%
100-110	40.01	0-110	1514.50	96.90%
110-120	25.87	0-120	1540.37	98.55%
120-130	14.08	0-130	1554.45	99.45%
130-140	5.77	0-140	1560.22	99.82%
140-150	1.55	0-150	1561.77	99.92%
150-160	0.78	0-160	1562.55	99.97%
160-170	0.45	0-170	1563.00	100.00%
170-180	0.16	0-180	1563.16	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	15.4	17.0	15.9	17.5	18.0	18.6	20.1	19.1	20.6	21.2
	3H	17.0	18.4	17.5	18.9	19.5	21.2	22.6	21.8	23.1	23.7
	4H	17.5	18.9	18.1	19.4	20.0	22.4	23.8	23.0	24.3	24.9
	6H	17.9	19.1	18.4	19.6	20.2	23.6	24.8	24.2	25.4	26.0
	8H	17.9	19.1	18.5	19.7	20.3	24.2	25.4	24.7	25.9	26.5
	12H	18.0	19.1	18.5	19.7	20.3	24.8	25.9	25.3	26.4	27.1
4H	2H	16.7	18.0	17.2	18.6	19.1	19.1	20.4	19.6	20.9	21.5
	3H	18.6	19.7	19.1	20.3	20.9	21.9	23.1	22.5	23.6	24.2
	4H	19.3	20.3	19.9	20.9	21.5	23.3	24.3	23.9	24.9	25.6
	6H	19.8	20.7	20.4	21.3	21.9	24.7	25.6	25.2	26.2	26.8
	8H	19.9	20.8	20.5	21.4	22.0	25.3	26.2	25.9	26.8	27.5
	12H	20.0	20.8	20.6	21.4	22.0	26.0	26.8	26.6	27.4	28.1
8H	4H	20.2	21.1	20.8	21.7	22.3	23.5	24.4	24.1	25.0	25.7
	6H	21.0	21.7	21.6	22.3	23.0	25.1	25.8	25.7	26.5	27.1
	8H	21.2	21.9	21.8	22.5	23.2	25.9	26.5	26.5	27.2	27.9
	12H	21.4	22.0	22.0	22.6	23.3	26.8	27.4	27.4	28.0	28.7
12H	4H	20.4	21.2	21.0	21.9	22.5	23.6	24.4	24.2	25.0	25.6
	6H	21.3	22.0	22.0	22.6	23.3	25.1	25.8	25.8	26.4	27.1
	8H	21.7	22.3	22.3	22.9	23.6	26.0	26.6	26.6	27.2	28.0

Maximum UGR = 28.7

UGR – Corrected Table:

**UGR TABLE - CORRECTED**

Reflectances											
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30	
Walls	50	30	50	30	30	50	30	50	30	30	
Floor Cavity	20	20	20	20	20	20	20	20	20	20	
Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	17.0	18.6	17.5	19.1	19.6	20.2	21.7	20.7	22.2	22.8
	3H	18.6	20.0	19.1	20.5	21.1	22.8	24.2	23.4	24.7	25.3
	4H	19.1	20.5	19.7	21.0	21.6	24.0	25.4	24.6	25.9	26.5
	6H	19.5	20.7	20.0	21.2	21.8	25.2	26.4	25.8	27.0	27.6
	8H	19.5	20.7	20.1	21.3	21.9	25.8	27.0	26.3	27.5	28.1
	12H	19.6	20.7	20.1	21.3	21.9	26.4	27.5	26.9	28.0	28.7
4H	2H	18.3	19.6	18.8	20.2	20.7	20.7	22.0	21.2	22.5	23.1
	3H	20.2	21.3	20.7	21.9	22.5	23.5	24.7	24.1	25.2	25.8
	4H	20.9	21.9	21.5	22.5	23.1	24.9	25.9	25.5	26.5	27.2
	6H	21.4	22.3	22.0	22.9	23.5	26.3	27.2	26.8	27.8	28.4
	8H	21.5	22.4	22.1	23.0	23.6	26.9	27.8	27.5	28.4	29.1
	12H	21.6	22.4	22.2	23.0	23.6	27.6	28.4	28.2	29.0	29.7
8H	4H	21.8	22.7	22.4	23.3	23.9	25.1	26.0	25.7	26.6	27.3
	6H	22.6	23.3	23.2	23.9	24.6	26.7	27.4	27.3	28.1	28.7
	8H	22.8	23.5	23.4	24.1	24.8	27.5	28.1	28.1	28.8	29.5
	12H	23.0	23.6	23.6	24.2	24.9	28.4	29.0	29.0	29.6	30.3
12H	4H	22.0	22.8	22.6	23.5	24.1	25.2	26.0	25.8	26.6	27.2
	6H	22.9	23.6	23.6	24.2	24.9	26.7	27.4	27.4	28.0	28.7
	8H	23.3	23.9	23.9	24.5	25.2	27.6	28.2	28.2	28.8	29.6

Maximum UGR = 30.3

## 4.2 Goniophotometer Test

### Luminous Distribution Intensity Data

Table--1

UNIT: cd

C (DEG) γ (DEG)	0	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270
0	401	401	401	401	401	401	402	401	401	401	401	401	401	401	401	401	401	401	402
5	399	399	400	400	399	401	401	401	399	400	400	399	399	399	400	400	399	401	401
10	393	394	395	395	397	399	399	399	397	395	395	394	393	394	395	395	397	399	399
15	383	383	386	388	392	393	395	393	392	388	386	383	383	383	386	388	392	393	395
20	369	370	374	378	383	387	389	387	383	378	374	370	369	370	374	378	383	387	389
25	351	353	360	366	373	379	381	379	373	366	360	353	351	353	360	366	373	379	381
30	331	334	342	351	362	368	372	368	362	351	342	334	331	334	342	351	362	368	372
35	307	311	322	334	347	357	361	357	347	334	322	311	307	311	322	334	347	357	361
40	282	287	301	316	332	344	348	344	332	316	301	287	282	287	301	316	332	344	348
45	254	261	278	297	316	328	334	328	316	297	278	261	254	261	278	297	316	328	334
50	225	233	253	276	297	312	318	312	297	276	253	233	225	233	253	276	297	312	318
55	195	205	229	255	278	294	300	294	278	255	229	205	195	205	229	255	278	294	300
60	164	176	204	233	257	275	281	275	257	233	204	176	164	176	204	233	257	275	281
65	132	148	179	210	235	248	253	248	235	210	179	148	132	148	179	210	235	248	253
70	100	120	154	185	205	217	221	217	205	185	154	120	100	120	154	185	205	217	221
75	68.5	92.8	129	154	171	183	187	183	171	154	129	92.8	68.5	92.8	129	154	171	183	187
80	38.7	67.4	99.6	121	138	149	153	149	138	121	99.6	67.4	38.7	67.4	99.6	121	138	149	153
85	14.6	42.4	68.9	90.1	106	117	120	117	106	90.1	68.9	42.4	14.6	42.4	68.9	90.1	106	117	120
90	2.61	19.9	42.5	62.5	78.5	89.1	92.9	89.1	78.5	62.5	42.5	19.9	2.61	19.9	42.5	62.5	78.5	89.1	92.9
95	2.33	14.4	35.7	55.0	70.2	80.4	84.5	80.4	70.2	55.0	35.7	14.4	2.33	14.4	35.7	55.0	70.2	80.4	84.5
100	2.33	10.0	30.0	48.6	63.0	72.6	76.4	72.6	63.0	48.6	30.0	10.0	2.33	10.0	30.0	48.6	63.0	72.6	76.4
105	2.33	6.03	23.8	41.6	55.6	64.4	68.2	64.4	55.6	41.6	23.8	6.03	2.33	6.03	23.8	41.6	55.6	64.4	68.2
110	2.33	2.97	17.9	34.3	47.6	56.1	59.5	56.1	47.6	34.3	17.9	2.97	2.33	2.97	17.9	34.3	47.6	56.1	59.5
115	2.33	2.50	12.6	27.4	39.4	47.3	50.4	47.3	39.4	27.4	12.6	2.50	2.33	2.50	12.6	27.4	39.4	47.3	50.4
120	2.42	2.50	7.76	20.8	31.8	38.6	41.4	38.6	31.8	20.8	7.76	2.50	2.42	2.50	7.76	20.8	31.8	38.6	41.4
125	2.61	2.50	3.50	14.5	24.2	30.5	32.7	30.5	24.2	14.5	3.50	2.50	2.61	2.50	3.50	14.5	24.2	30.5	32.7
130	2.61	2.50	2.30	8.54	17.0	22.7	24.5	22.7	17.0	8.54	2.30	2.50	2.61	2.50	2.30	8.54	17.0	22.7	24.5
135	2.70	2.50	2.21	3.41	10.3	15.1	16.5	15.1	10.3	3.41	2.21	2.50	2.70	2.50	2.21	3.41	10.3	15.1	16.5
140	2.70	2.50	2.21	1.93	4.17	8.04	9.33	8.04	4.17	1.93	2.21	2.50	2.70	2.50	2.21	1.93	4.17	8.04	9.33
145	2.70	2.50	2.12	1.74	1.47	1.87	2.88	1.87	1.47	1.74	2.12	2.50	2.70	2.50	2.12	1.74	1.47	1.87	2.88
150	2.80	2.50	1.93	1.65	1.38	1.20	1.01	1.20	1.38	1.65	1.93	2.50	2.80	2.50	1.93	1.65	1.38	1.20	1.01
155	2.80	2.32	1.66	1.47	1.38	1.20	1.01	1.20	1.38	1.47	1.66	2.32	2.80	2.32	1.66	1.47	1.38	1.20	1.01
160	2.80	2.22	1.57	1.38	1.29	1.10	1.01	1.10	1.29	1.38	1.57	2.22	2.80	2.22	1.57	1.38	1.29	1.10	1.01
165	2.80	2.13	1.57	1.47	1.29	1.10	1.01	1.10	1.29	1.47	1.57	2.13	2.80	2.13	1.57	1.47	1.29	1.10	1.01
170	2.98	2.41	1.57	1.47	1.29	1.10	1.11	1.10	1.29	1.47	1.57	2.41	2.98	2.41	1.57	1.47	1.29	1.10	1.11
175	2.98	2.78	1.57	1.47	1.38	1.10	1.29	1.10	1.38	1.47	1.57	2.78	2.98	2.78	1.57	1.47	1.38	1.10	1.29
180	2.98	2.78	1.57	1.47	1.38	1.10	1.20	1.10	1.38	1.47	1.57	2.78	2.98	2.78	1.57	1.47	1.38	1.10	1.20

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	401	401	401	401	401														
5	401	399	400	400	399														
10	399	397	395	395	394														
15	393	392	388	386	383														
20	387	383	378	374	370														
25	379	373	366	360	353														
30	368	362	351	342	334														
35	357	347	334	322	311														
40	344	332	316	301	287														
45	328	316	297	278	261														
50	312	297	276	253	233														
55	294	278	255	229	205														
60	275	257	233	204	176														
65	248	235	210	179	148														
70	217	205	185	154	120														
75	183	171	154	129	92.8														
80	149	138	121	99.6	67.4														
85	117	106	90.1	68.9	42.4														
90	89.1	78.5	62.5	42.5	19.9														
95	80.4	70.2	55.0	35.7	14.4														
100	72.6	63.0	48.6	30.0	10.0														
105	64.4	55.6	41.6	23.8	6.03														
110	56.1	47.6	34.3	17.9	2.97														
115	47.3	39.4	27.4	12.6	2.50														
120	38.6	31.8	20.8	7.76	2.50														
125	30.5	24.2	14.5	3.50	2.50														
130	22.7	17.0	8.54	2.30	2.50														
135	15.1	10.3	3.41	2.21	2.50														
140	8.04	4.17	1.93	2.21	2.50														
145	1.87	1.47	1.74	2.12	2.50														
150	1.20	1.38	1.65	1.93	2.50														
155	1.20	1.38	1.47	1.66	2.32														
160	1.10	1.29	1.38	1.57	2.22														
165	1.10	1.29	1.47	1.57	2.13														
170	1.10	1.29	1.47	1.57	2.41														
175	1.10	1.38	1.47	1.57	2.78														
180	1.10	1.38	1.47	1.57	2.78														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	STRP2H @10W5000K	<b>Sample ID</b>	241225004-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 <math>25 \pm 1^{\circ}\text{C}</math>. 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	0.081	9.6	0.983	8.78
277.0	60	0.044	10.3	0.847	21.59

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