

## Photometric Test Report

### Relevant Standards

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

Prepared For

**RAB Lighting Inc.**

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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		721
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		9.5
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	6.44
				277V	11.12
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.993
				277V	0.914
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3985±275	4058
			4 steps	3985±154	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		84.8
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%		55.9%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	30.3
			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		0.038
(Goniophotometer – Section 4.2)			Non-Worst Case		0.076
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		9.5
(Goniophotometer – Section 4.2)			Non-Worst Case		9.1

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-03-29	STRP2/MVS @10W4000K	-	250324005-S1
2	Goniophotometer Test	2025-03-29	STRP2/MVS @10W4000K	-	250324005-S1
3	THD and PF Test	2025-03-29	STRP2/MVS @10W4000K	-	250324005-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. STRP2/MVS @10W4000K, 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.	STRP2/MVS @10W4000K	Sample ID	250324005-S1
Operate time (Min.)	10	Stabilization time (Min.)	60
Temperature (°C)	25.4	Humidity (%RH)	41.0

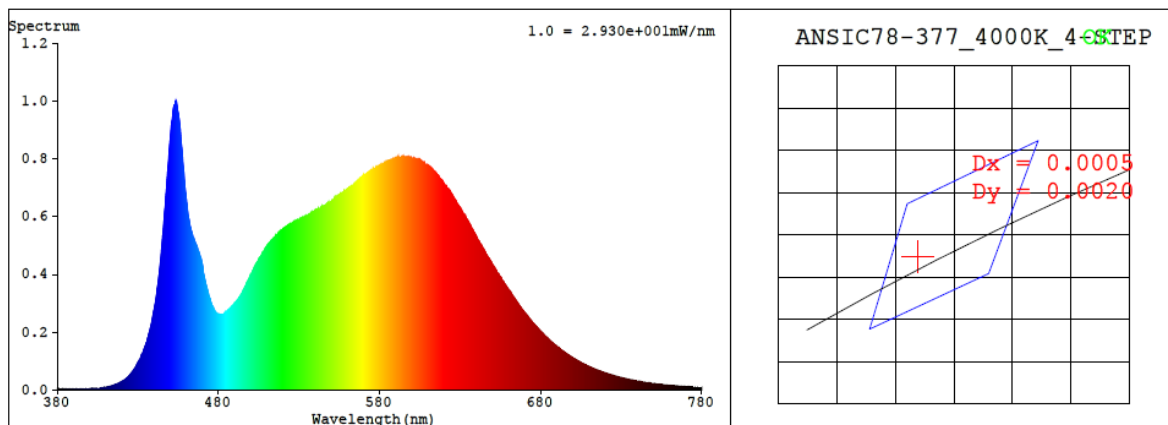
Test Method
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were made 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 4<math>\pi</math> 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	0.076	9.1	0.993
277.0	60	0.038	9.5	0.914

CCT (K)	CRI	R9	Duv	SDCM	Rf	Rg	IES Rcs,h1
4058	84.8	17	0.0008	1.6	85	95	-11%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.3784$   $y = 0.3772$  /  $u' = 0.2236$   $v' = 0.5015$  ( $duv = 7.98e-04$ )

CCT= 4058K Prcp WL: Ld=578.4nm Purity=26.8%

Peak WL: Lp=454nm FWHM: =21.8nm Ratio:R=18.4% G=77.7% B=3.9%

Render Index: Ra = 84.8 AvgR = 78.7 TM30:Rf=85 Rg=95

EEL: 0.09440 A++ Highest

R1 =84	R2 =91	R3 =96	R4 =83	R5 =83	R6 =87	R7 =87
R8 =67	R9 =17	R10=79	R11=82	R12=62	R13=86	R14=98 R15=78

## 4.1 Integrating Sphere Test

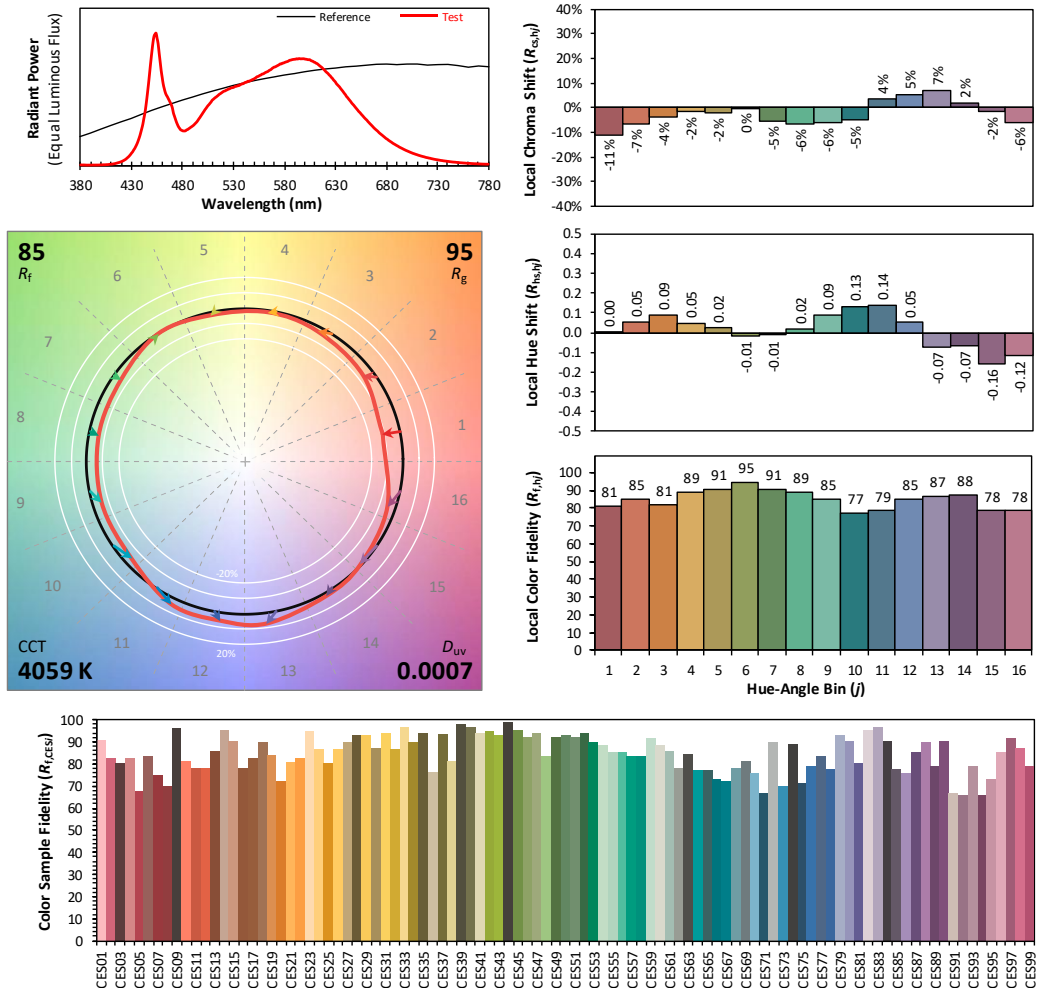
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/4/1

Model: STRP2/MVS @10W4000K



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

$x$  0.3784  
 $y$  0.3770  
 $u'$  0.2236  
 $v'$  0.5014

CIE 13.3-1995  
(CRI)

$R_a$  85  
 $R_g$  17

## 4.1 Integrating Sphere Test

Spectral Distribution over Visible Wavelength											
WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)	WL (nm)	Radiant (W/nm)
380	3.90E-06	447	6.47E-04	514	5.23E-04	581	7.79E-04	648	4.55E-04	715	6.93E-05
381	4.20E-06	448	7.23E-04	515	5.29E-04	582	7.82E-04	649	4.45E-04	716	6.72E-05
382	3.20E-06	449	7.97E-04	516	5.36E-04	583	7.84E-04	650	4.36E-04	717	6.53E-05
383	4.10E-06	450	8.67E-04	517	5.41E-04	584	7.88E-04	651	4.26E-04	718	6.30E-05
384	3.10E-06	451	9.30E-04	518	5.47E-04	585	7.93E-04	652	4.17E-04	719	6.06E-05
385	3.00E-06	452	9.75E-04	519	5.52E-04	586	7.94E-04	653	4.07E-04	720	5.91E-05
386	2.30E-06	453	9.90E-04	520	5.58E-04	587	7.97E-04	654	4.00E-04	721	5.75E-05
387	2.60E-06	454	9.97E-04	521	5.61E-04	588	7.99E-04	655	3.91E-04	722	5.54E-05
388	2.70E-06	455	9.59E-04	522	5.63E-04	589	8.00E-04	656	3.82E-04	723	5.43E-05
389	2.70E-06	456	9.19E-04	523	5.69E-04	590	8.01E-04	657	3.74E-04	724	5.20E-05
390	2.80E-06	457	8.49E-04	524	5.71E-04	591	8.02E-04	658	3.64E-04	725	5.04E-05
391	2.70E-06	458	7.84E-04	525	5.76E-04	592	8.05E-04	659	3.56E-04	726	4.86E-05
392	3.40E-06	459	7.17E-04	526	5.78E-04	593	8.03E-04	660	3.48E-04	727	4.69E-05
393	2.90E-06	460	6.65E-04	527	5.82E-04	594	8.06E-04	661	3.41E-04	728	4.55E-05
394	3.10E-06	461	6.15E-04	528	5.86E-04	595	8.06E-04	662	3.31E-04	729	4.40E-05
395	3.10E-06	462	5.81E-04	529	5.87E-04	596	8.04E-04	663	3.23E-04	730	4.29E-05
396	3.20E-06	463	5.52E-04	530	5.89E-04	597	8.05E-04	664	3.15E-04	731	4.15E-05
397	3.10E-06	464	5.33E-04	531	5.93E-04	598	8.05E-04	665	3.07E-04	732	4.02E-05
398	3.50E-06	465	5.20E-04	532	5.97E-04	599	8.05E-04	666	2.99E-04	733	3.86E-05
399	4.10E-06	466	5.04E-04	533	5.98E-04	600	8.03E-04	667	2.91E-04	734	3.74E-05
400	4.20E-06	467	4.89E-04	534	6.02E-04	601	8.02E-04	668	2.83E-04	735	3.66E-05
401	4.40E-06	468	4.74E-04	535	6.02E-04	602	8.01E-04	669	2.76E-04	736	3.51E-05
402	5.00E-06	469	4.57E-04	536	6.06E-04	603	7.98E-04	670	2.69E-04	737	3.41E-05
403	5.20E-06	470	4.34E-04	537	6.10E-04	604	7.98E-04	671	2.62E-04	738	3.30E-05
404	5.20E-06	471	3.97E-04	538	6.14E-04	605	7.97E-04	672	2.55E-04	739	3.21E-05
405	6.00E-06	472	3.73E-04	539	6.16E-04	606	7.92E-04	673	2.47E-04	740	3.09E-05
406	6.30E-06	473	3.50E-04	540	6.19E-04	607	7.88E-04	674	2.40E-04	741	3.03E-05
407	6.60E-06	474	3.27E-04	541	6.25E-04	608	7.86E-04	675	2.34E-04	742	2.89E-05
408	8.00E-06	475	3.09E-04	542	6.28E-04	609	7.80E-04	676	2.28E-04	743	2.80E-05
409	9.00E-06	476	2.92E-04	543	6.28E-04	610	7.78E-04	677	2.22E-04	744	2.70E-05
410	9.40E-06	477	2.81E-04	544	6.35E-04	611	7.72E-04	678	2.15E-04	745	2.61E-05
411	1.00E-05	478	2.70E-04	545	6.35E-04	612	7.69E-04	679	2.09E-04	746	2.54E-05
412	1.16E-05	479	2.66E-04	546	6.38E-04	613	7.63E-04	680	2.02E-04	747	2.48E-05
413	1.28E-05	480	2.62E-04	547	6.41E-04	614	7.56E-04	681	1.98E-04	748	2.42E-05
414	1.47E-05	481	2.60E-04	548	6.45E-04	615	7.50E-04	682	1.91E-04	749	2.30E-05
415	1.67E-05	482	2.60E-04	549	6.49E-04	616	7.44E-04	683	1.86E-04	750	2.25E-05
416	1.90E-05	483	2.62E-04	550	6.52E-04	617	7.37E-04	684	1.81E-04	751	2.17E-05
417	2.12E-05	484	2.68E-04	551	6.57E-04	618	7.29E-04	685	1.76E-04	752	2.10E-05
418	2.32E-05	485	2.71E-04	552	6.62E-04	619	7.23E-04	686	1.70E-04	753	2.01E-05
419	2.61E-05	486	2.77E-04	553	6.69E-04	620	7.14E-04	687	1.65E-04	754	1.97E-05
420	2.91E-05	487	2.82E-04	554	6.71E-04	621	7.06E-04	688	1.61E-04	755	1.91E-05
421	3.27E-05	488	2.88E-04	555	6.75E-04	622	6.99E-04	689	1.56E-04	756	1.84E-05
422	3.65E-05	489	2.93E-04	556	6.80E-04	623	6.92E-04	690	1.51E-04	757	1.80E-05
423	4.11E-05	490	2.99E-04	557	6.83E-04	624	6.82E-04	691	1.47E-04	758	1.74E-05
424	4.56E-05	491	3.05E-04	558	6.89E-04	625	6.76E-04	692	1.43E-04	759	1.64E-05
425	5.20E-05	492	3.13E-04	559	6.91E-04	626	6.65E-04	693	1.38E-04	760	1.61E-05
426	5.89E-05	493	3.21E-04	560	6.95E-04	627	6.58E-04	694	1.34E-04	761	1.58E-05
427	6.58E-05	494	3.29E-04	561	7.00E-04	628	6.47E-04	695	1.30E-04	762	1.56E-05
428	7.40E-05	495	3.39E-04	562	7.03E-04	629	6.39E-04	696	1.27E-04	763	1.49E-05
429	8.34E-05	496	3.51E-04	563	7.07E-04	630	6.30E-04	697	1.22E-04	764	1.43E-05
430	9.39E-05	497	3.61E-04	564	7.10E-04	631	6.18E-04	698	1.19E-04	765	1.40E-05
431	1.03E-04	498	3.74E-04	565	7.17E-04	632	6.09E-04	699	1.15E-04	766	1.33E-05
432	1.17E-04	499	3.85E-04	566	7.21E-04	633	6.01E-04	700	1.11E-04	767	1.29E-05
433	1.28E-04	500	3.97E-04	567	7.25E-04	634	5.93E-04	701	1.08E-04	768	1.29E-05
434	1.43E-04	501	4.08E-04	568	7.33E-04	635	5.83E-04	702	1.05E-04	769	1.25E-05
435	1.58E-04	502	4.20E-04	569	7.38E-04	636	5.73E-04	703	1.01E-04	770	1.19E-05
436	1.77E-04	503	4.30E-04	570	7.42E-04	637	5.63E-04	704	9.81E-05	771	1.19E-05
437	1.99E-04	504	4.42E-04	571	7.44E-04	638	5.53E-04	705	9.51E-05	772	1.14E-05
438	2.22E-04	505	4.52E-04	572	7.48E-04	639	5.42E-04	706	9.18E-05	773	1.08E-05
439	2.49E-04	506	4.60E-04	573	7.52E-04	640	5.33E-04	707	8.93E-05	774	1.05E-05
440	2.79E-04	507	4.70E-04	574	7.56E-04	641	5.20E-04	708	8.66E-05	775	1.01E-05
441	3.11E-04	508	4.79E-04	575	7.61E-04	642	5.12E-04	709	8.37E-05	776	9.90E-06
442	3.53E-04	509	4.91E-04	576	7.67E-04	643	5.02E-04	710	8.15E-05	777	9.60E-06
443	3.94E-04	510	4.98E-04	577	7.66E-04	644	4.92E-04	711	7.87E-05	778	9.40E-06
444	4.47E-04	511	5.05E-04	578	7.72E-04	645	4.83E-04	712	7.61E-05	779	9.40E-06
445	5.09E-04	512	5.11E-04	579	7.73E-04	646	4.72E-04	713	7.38E-05	780	9.50E-06
446	5.76E-04	513	5.17E-04	580	7.76E-04	647	4.63E-04	714	7.14E-05	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

Model No.	STRP2/MVS @10W4000K	Sample ID	250324005-S1
Operate time (Min.)	30	Stabilization time (Min.)	60
Temperature (°C)	24.7	Humidity (%RH)	41.3

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	0.038	9.5	0.914
NON-WORST CASE	120.0	60	0.076	9.1	0.993

#### Test Result

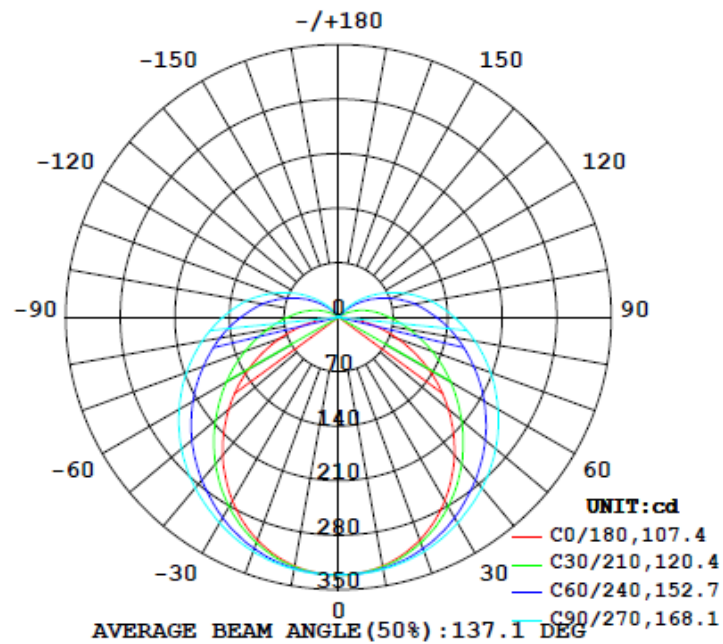
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
1442	721	161.3	161.3	107.6	168.2	151.8

Zonal Lumen Requirement	UGR	
( $0^\circ$ - $60^\circ$ )	Crosswise	Endwise
55.9%	22.3	30.3

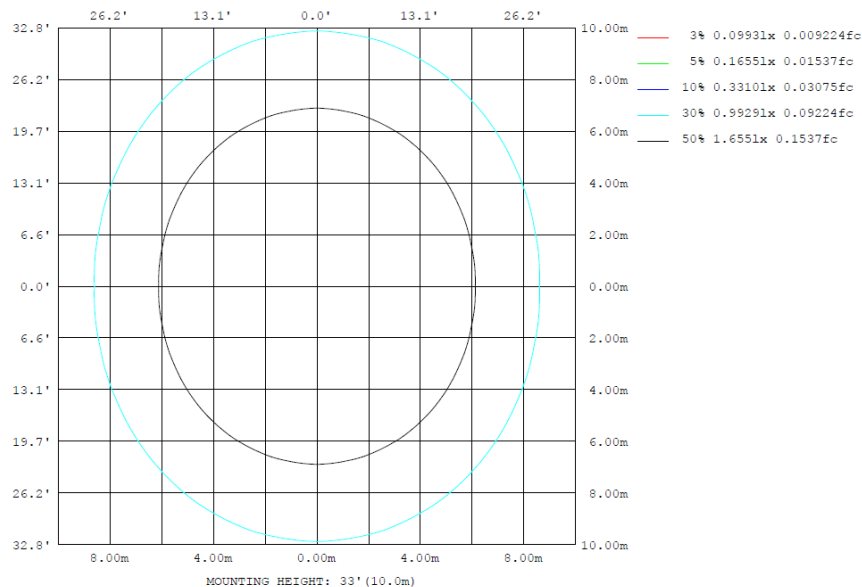
## 4.2 Goniophotometer Test

### 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	324.3	326.6	328.7	326.6	324.3	326.6	328.7	326.6	0- 10	31.39	31.39	2.18, 2.18
20	304.6	312.6	320.1	312.6	304.6	312.6	320.1	312.6	10- 20	90.57	122.0	8.46, 8.46
30	272.5	289.5	305.3	289.5	272.5	289.5	305.3	289.5	20- 30	139.2	261.2	18.1, 18.1
40	231.4	259.4	286.5	259.4	231.4	259.4	286.5	259.4	30- 40	172.1	433.2	30, 30
50	184.1	226.8	263.1	226.8	184.1	226.8	263.1	226.8	40- 50	187.5	620.7	43.1, 43.1
60	133.0	192.7	236.3	192.7	133.0	192.7	236.3	192.7	50- 60	185.6	806.4	55.9, 55.9
70	80.62	158.6	207.7	158.6	80.62	158.6	207.7	158.6	60- 70	169.1	975.5	67.7, 67.7
80	31.92	127.2	177.8	127.2	31.92	127.2	177.8	127.2	70- 80	142.4	1118	77.5, 77.5
90	3.380	98.85	148.3	98.85	3.380	98.85	148.3	98.85	80- 90	112.4	1230	85.3, 85.3
100	2.356	74.48	120.4	74.48	2.356	74.48	120.4	74.48	90-100	85.44	1316	91.3, 91.3
110	2.260	50.10	89.60	50.10	2.260	50.10	89.60	50.10	100-110	60.42	1376	95.4, 95.4
120	2.301	28.57	59.89	28.57	2.301	28.57	59.89	28.57	110-120	37.31	1413	98, 98
130	2.358	9.809	33.43	9.809	2.358	9.809	33.43	9.809	120-130	19.01	1432	99.4, 99.4
140	2.426	1.916	10.81	1.916	2.426	1.916	10.81	1.916	130-140	6.875	1439	99.8, 99.8
150	2.511	1.278	1.083	1.278	2.511	1.278	1.083	1.278	140-150	1.393	1441	99.9, 99.9
160	2.046	1.096	0.9651	1.096	2.046	1.096	0.9651	1.096	150-160	0.5836	1441	100, 100
170	2.135	1.095	0.9995	1.095	2.135	1.095	0.9995	1.095	160-170	0.3347	1442	100, 100
180	2.416	1.186	1.102	1.186	2.416	1.186	1.102	1.186	170-180	0.1211	1442	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

	Zonal (lm)		Total (lm)	Percent
0-10	31.39	0-10	31.39	2.18%
10-20	90.57	0-20	121.96	8.46%
20-30	139.21	0-30	261.17	18.12%
30-40	172.07	0-40	433.24	30.05%
40-50	187.48	0-50	620.72	43.06%
50-60	185.63	0-60	806.35	55.93%
60-70	169.10	0-70	975.45	67.66%
70-80	142.44	0-80	1117.89	77.54%
80-90	112.40	0-90	1230.29	85.34%
90-100	85.44	0-100	1315.73	91.27%
100-110	60.42	0-110	1376.15	95.46%
110-120	37.31	0-120	1413.46	98.05%
120-130	19.01	0-130	1432.47	99.36%
130-140	6.87	0-140	1439.34	99.84%
140-150	1.39	0-150	1440.73	99.94%
150-160	0.58	0-160	1441.31	99.98%
160-170	0.33	0-170	1441.64	100.00%
170-180	0.12	0-180	1441.76	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		UGR Viewed Crosswise					UGR Viewed Endwise			
Y=2H		16.9	18.3	17.5	18.9	19.6	21.0	22.5	21.6	23.1
3H		18.3	19.6	18.8	20.2	20.9	24.0	25.3	24.6	25.9
4H		18.7	20.0	19.3	20.6	21.3	25.6	26.8	26.2	27.4
6H		19.0	20.1	19.6	20.8	21.5	27.2	28.3	27.8	29.0
8H		19.0	20.1	19.6	20.8	21.5	28.0	29.1	28.7	29.8
12H		19.0	20.1	19.7	20.7	21.5	29.0	30.0	29.6	30.7
4H		2H	18.2	19.5	18.8	20.1	20.8	21.4	22.6	22.0
		3H	19.9	21.0	20.5	21.6	22.4	24.6	25.6	25.2
		4H	20.5	21.5	21.1	22.1	22.9	26.2	27.2	26.9
		6H	20.9	21.8	21.5	22.5	23.2	28.1	29.0	28.7
		8H	21.0	21.8	21.6	22.5	23.3	29.0	29.9	29.7
		12H	21.0	21.8	21.7	22.5	23.3	30.1	30.9	30.8
8H		4H	21.7	22.5	22.3	23.2	24.0	26.4	27.2	27.1
		6H	22.3	23.0	23.0	23.8	24.5	28.4	29.1	29.1
		8H	22.6	23.2	23.3	23.9	24.7	29.5	30.1	30.2
		12H	22.7	23.3	23.4	24.0	24.8	30.7	31.3	31.4
12H		4H	22.0	22.8	22.7	23.5	24.3	26.4	27.2	27.1
		6H	22.9	23.5	23.6	24.2	25.1	28.4	29.1	29.1
		8H	23.2	23.8	23.9	24.5	25.4	29.6	30.2	30.3

Maximum UGR = 32.9

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		UGR Viewed Crosswise					UGR Viewed Endwise			
Y=2H		18.2	19.6	18.8	20.2	20.9	22.3	23.8	22.9	24.4
3H		19.6	20.9	20.1	21.5	22.2	25.3	26.6	25.9	27.2
4H		20.0	21.3	20.6	21.9	22.6	26.9	28.1	27.5	28.7
6H		20.3	21.4	20.9	22.1	22.8	28.5	29.6	29.1	30.3
8H		20.3	21.4	20.9	22.1	22.8	29.3	30.4	30.0	31.1
12H		20.3	21.4	21.0	22.0	22.8	30.3	31.3	30.9	32.0
4H		2H	19.5	20.8	20.1	21.4	22.1	22.7	23.9	23.3
		3H	21.2	22.3	21.8	22.9	23.7	25.9	26.9	26.5
		4H	21.8	22.8	22.4	23.4	24.2	27.5	28.5	28.2
		6H	22.2	23.1	22.8	23.8	24.5	29.4	30.3	30.0
		8H	22.3	23.1	22.9	23.8	24.6	30.3	31.2	31.0
		12H	22.3	23.1	23.0	23.8	24.6	31.4	32.2	32.1
8H		4H	23.0	23.8	23.6	24.5	25.3	27.7	28.5	28.4
		6H	23.6	24.3	24.3	25.1	25.8	29.7	30.4	30.4
		8H	23.9	24.5	24.6	25.2	26.0	30.8	31.4	31.5
		12H	24.0	24.6	24.7	25.3	26.1	32.0	32.6	32.7
12H		4H	23.3	24.1	24.0	24.8	25.6	27.7	28.5	28.4
		6H	24.2	24.8	24.9	25.5	26.4	29.7	30.4	30.4
		8H	24.5	25.1	25.2	25.8	26.7	30.9	31.5	31.6

Maximum UGR = 34.2

## 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	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331
5	329	330	329	330	330	330	331	330	330	330	329	330	329	330	329	330	330	330	331
10	324	325	326	327	327	328	329	328	327	327	326	325	324	325	326	327	327	328	329
15	316	317	318	321	323	324	325	324	323	321	318	317	316	317	318	321	323	324	325
20	305	306	309	313	316	319	320	319	316	313	309	306	305	306	309	313	316	319	320
25	290	292	296	302	308	312	313	312	308	302	296	292	290	292	296	302	308	312	313
30	273	275	281	290	298	303	305	303	298	290	281	275	273	275	281	290	298	303	305
35	253	256	264	275	285	293	296	293	285	275	264	256	253	256	264	275	285	293	296
40	231	236	246	259	273	283	286	283	273	259	246	236	231	236	246	259	273	283	286
45	208	214	226	243	260	271	275	271	260	243	226	214	208	214	226	243	260	271	275
50	184	191	206	227	246	259	263	259	246	227	206	191	184	191	206	227	246	259	263
55	159	168	186	210	231	245	250	245	231	210	186	168	159	168	186	210	231	245	250
60	133	144	166	193	216	231	236	231	216	193	166	144	133	144	166	193	216	231	236
65	107	120	147	175	200	217	222	217	200	175	147	120	107	120	147	175	200	217	222
70	80.6	96.5	128	159	184	202	208	202	184	159	128	96.5	80.6	96.5	128	159	184	202	208
75	55.2	75.0	110	142	169	187	193	187	169	142	110	75.0	55.2	75.0	110	142	169	187	193
80	31.9	55.8	93.2	127	155	172	178	172	155	127	93.2	55.8	31.9	55.8	93.2	127	155	172	178
85	13.2	40.0	78.4	113	140	157	163	157	140	113	78.4	40.0	13.2	40.0	78.4	113	140	157	163
90	3.38	28.3	65.0	98.8	125	142	148	142	125	98.8	65.0	28.3	3.38	28.3	65.0	98.8	125	142	148
95	2.45	20.0	54.3	86.5	112	128	134	128	112	86.5	54.3	20.0	2.45	20.0	54.3	86.5	112	128	134
100	2.36	13.2	43.8	74.5	99.0	114	120	114	99.0	74.5	43.8	13.2	2.36	13.2	43.8	74.5	99.0	114	120
105	2.31	7.30	34.1	62.0	85.1	99.5	105	99.5	85.1	62.0	34.1	7.30	2.31	7.30	34.1	62.0	85.1	99.5	105
110	2.26	3.05	25.2	50.1	71.3	84.7	89.6	84.7	71.3	50.1	25.2	3.05	2.26	3.05	25.2	50.1	71.3	84.7	89.6
115	2.27	2.68	16.7	38.8	57.9	69.7	74.5	69.7	57.9	38.8	16.7	2.68	2.27	2.68	16.7	38.8	57.9	69.7	74.5
120	2.30	2.45	9.18	28.6	45.1	55.8	59.9	55.8	45.1	28.6	9.18	2.45	2.30	2.45	9.18	28.6	45.1	55.8	59.9
125	2.33	2.40	3.11	18.7	33.1	42.9	46.2	42.9	33.1	18.7	3.11	2.40	2.33	2.40	3.11	18.7	33.1	42.9	46.2
130	2.36	2.35	2.29	9.81	22.4	30.8	33.4	30.8	22.4	9.81	2.29	2.35	2.36	2.35	2.29	9.81	22.4	30.8	33.4
135	2.39	2.29	2.19	2.68	12.1	19.3	21.8	19.3	12.1	2.68	2.19	2.29	2.39	2.29	2.19	2.68	12.1	19.3	21.8
140	2.43	2.24	2.05	1.92	3.14	8.69	10.8	8.69	3.14	1.92	2.05	2.24	2.43	2.24	2.05	1.92	3.14	8.69	10.8
145	2.49	2.22	1.83	1.55	1.46	1.47	1.84	1.47	1.46	1.55	1.83	2.22	2.49	2.22	1.83	1.55	1.46	1.47	1.84
150	2.51	1.76	1.37	1.28	1.33	1.21	1.08	1.21	1.33	1.28	1.37	1.76	2.51	1.76	1.37	1.28	1.33	1.21	1.08
155	2.05	1.29	1.12	1.21	1.16	1.09	0.99	1.09	1.16	1.21	1.12	1.29	2.05	1.29	1.12	1.21	1.16	1.09	0.99
160	2.05	1.22	1.11	1.10	1.06	1.05	0.97	1.05	1.06	1.10	1.11	1.22	2.05	1.22	1.11	1.10	1.06	1.05	0.97
165	2.05	1.21	1.13	1.10	1.04	1.10	0.98	1.10	1.04	1.10	1.13	1.21	2.05	1.21	1.13	1.10	1.04	1.10	0.98
170	2.14	1.26	1.16	1.09	1.03	1.14	1.00	1.14	1.03	1.09	1.16	1.26	2.14	1.26	1.16	1.09	1.03	1.14	1.00
175	2.41	1.66	1.18	1.16	1.01	1.18	1.10	1.18	1.01	1.16	1.18	1.66	2.41	1.66	1.18	1.16	1.01	1.18	1.10
180	2.42	1.57	1.19	1.19	1.00	1.19	1.10	1.19	1.00	1.19	1.19	1.57	2.42	1.57	1.19	1.19	1.00	1.19	1.10

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	331	331	331	331	331														
5	330	330	330	329	330														
10	328	327	327	326	325														
15	324	323	321	318	317														
20	319	316	313	309	306														
25	312	308	302	296	292														
30	303	298	290	281	275														
35	293	285	275	264	256														
40	283	273	259	246	236														
45	271	260	243	226	214														
50	259	246	227	206	191														
55	245	231	210	186	168														
60	231	216	193	166	144														
65	217	200	175	147	120														
70	202	184	159	128	96.5														
75	187	169	142	110	75.0														
80	172	155	127	93.2	55.8														
85	157	140	113	78.4	40.0														
90	142	125	98.8	65.0	28.3														
95	128	112	86.5	54.3	20.0														
100	114	99.0	74.5	43.8	13.2														
105	99.5	85.1	62.0	34.1	7.30														
110	84.7	71.3	50.1	25.2	3.05														
115	69.7	57.9	38.8	16.7	2.68														
120	55.8	45.1	28.6	9.18	2.45														
125	42.9	33.1	18.7	3.11	2.40														
130	30.8	22.4	9.81	2.29	2.35														
135	19.3	12.1	2.68	2.19	2.29														
140	8.69	3.14	1.92	2.05	2.24														
145	1.47	1.46	1.55	1.83	2.22														
150	1.21	1.33	1.28	1.37	1.76														
155	1.09	1.16	1.21	1.12	1.29														
160	1.05	1.06	1.10	1.11	1.22														
165	1.10	1.04	1.10	1.13	1.21														
170	1.14	1.03	1.09	1.16	1.26														
175	1.18	1.01	1.16	1.18	1.66														
180	1.19	1.00	1.19	1.19	1.57														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	STRP2/MVS @10W4000K	<b>Sample ID</b>	250324005-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

<b>Voltage (Vac)</b>	<b>Frequency (Hz)</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Power Factor</b>	<b>iTHD(%)</b>
120.0	60	0.076	9.1	0.993	6.44
277.0	60	0.038	9.5	0.914	11.12

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