

## Photometric Test Report

### Relevant Standards

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

Prepared For

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Prepared By

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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		1113
Minimum Luminaire Efficacy (lm/W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	149.3
			115	130	
Power (Input Wattage) (W) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		14.9
Total Harmonic Distortion (A%) (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	20.00%	120V	6.41
				277V	13.54
Power Factor (THD & PF – Section 4.3)		ANSI C82.77:2002 ANSI C82-77-10:2020	0.9	120V	0.992
				277V	0.911
Allowable CCTs* (K) (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019	7 steps	3465±245	3432
			4 steps	3465±124	
Minimum CRI (Integrating Sphere – Section 4.1)		ANSI/IES LM-79:2019 CIE13.3-1995	≥80		83.8
Minimum R9 (Integrating Sphere – Section 4.1)		ANSI/IES LM-79-2019 CIE13.3-1995	≥0		11
Minimum Rf (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥70		85
Minimum Rg (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	≥89		95
IES Rcs,h1 (Integrating Sphere – Section 4.1)		ANSI/IES TM-30-18	-12%≤IES Rcs,h1≤+23%		-12%
Zonal Lumen Requirement (0°-60°) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	≥40%		62.7%
Discomfort Glare (UGR) (Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Standard	Premium	28.1
			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		0.059
(Goniophotometer – Section 4.2)			Non-Worst Case		0.123
Power (Input Wattage – W)					
(Goniophotometer – Section 4.2)		ANSI/IES LM-79:2019	Worst Case		14.9
(Goniophotometer – Section 4.2)			Non-Worst Case		14.7

## 2.0 Test List

Test Item	Test	Test Date	Model Number	Build Level	Sample No.
1	Integrating Sphere Test	2025-01-02	STRP2H @15W3500K	-	241225004-S1
2	Goniophotometer Test	2025-01-02	STRP2H @15W3500K	-	241225004-S1
3	THD and PF Test	2025-01-02	STRP2H @15W3500K	-	241225004-S1

### Remark (If any):

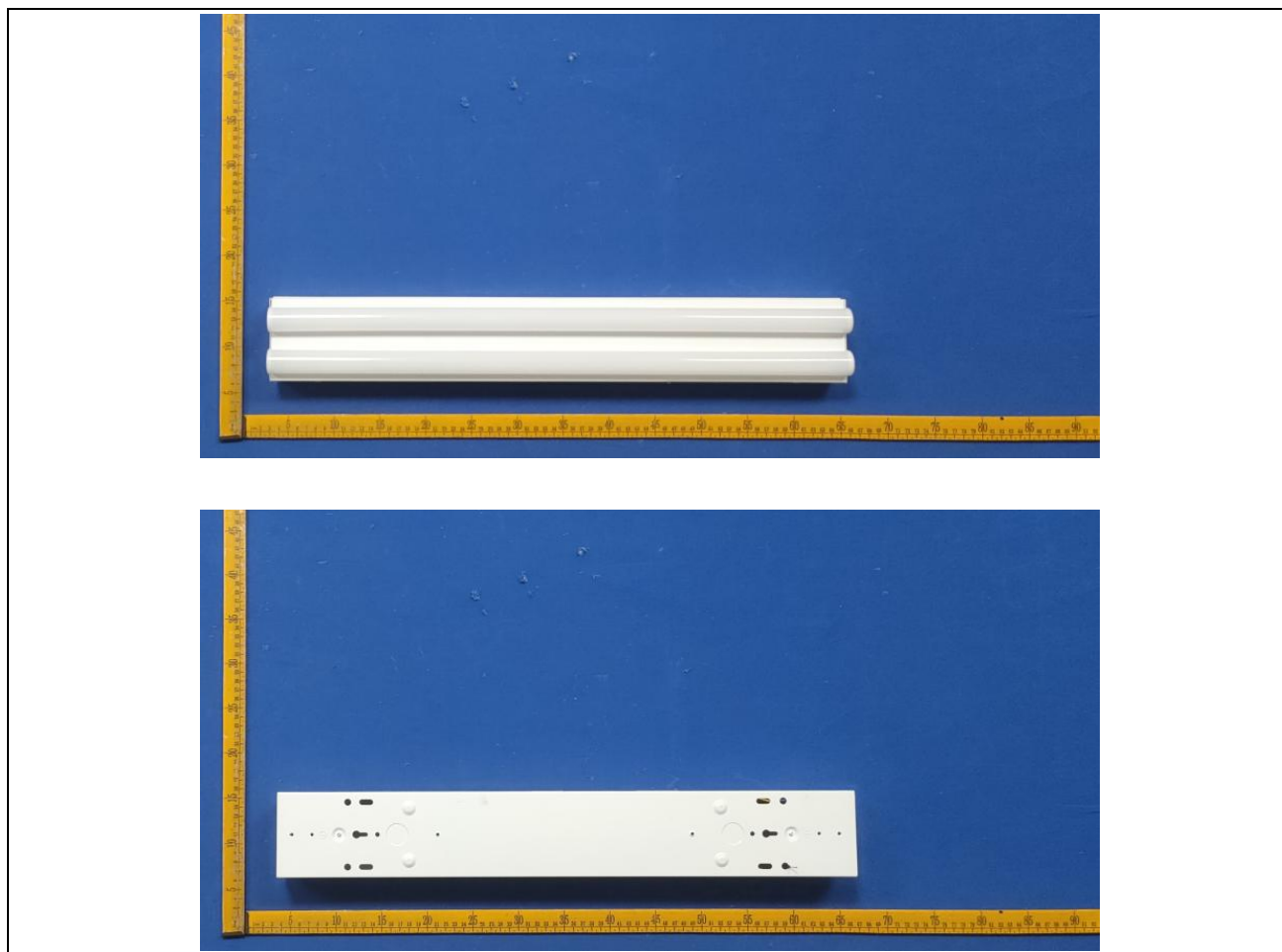
1. The results contained in this report pertain only to the tested samples.
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3. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the U.S. Government.

### 3.0 Product Description

Luminaire Description: Model No. STRP2H @15W3500K, 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 @15W3500K	<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

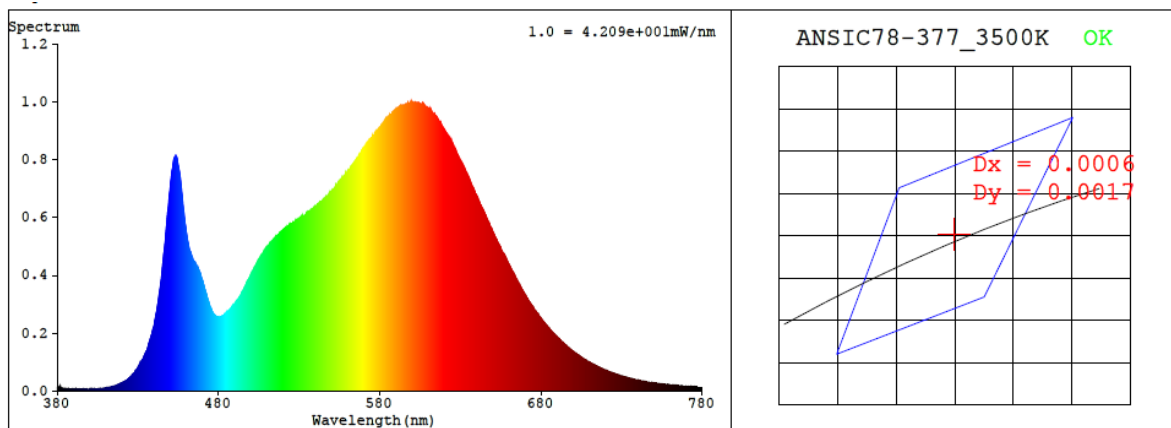
<b>Test Method</b>
<p>The Samples were tested according to the ANSI/IES LM-79:2019.</p> <p>Photometric parameters were measured using an integrating sphere, a spectroradiometer and software. The ambient temperature condition inside the sphere was maintained at 25±1°C.</p> <p>The sample measurements were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

<b>Voltage (Vac)</b>	<b>Frequency (Hz)</b>	<b>Current (A)</b>	<b>Power (W)</b>	<b>Power Factor</b>
120.0	60	0.123	14.7	0.992
277.0	60	0.059	14.9	0.911

<b>CCT (K)</b>	<b>CRI</b>	<b>R9</b>	<b>Duv</b>	<b>Rf</b>	<b>Rg</b>	<b>IES Rcs,h1</b>
3432	83.8	11	0.0006	85	95	-12%

## 4.1 Integrating Sphere Test



### Colorimetric Parameters

Chromaticity Coordinate:  $x = 0.4098$   $y = 0.3943$  /  $u' = 0.2372$   $v' = 0.5134$  ( $duv=5.90e-04$ )

CCT= 3432K Prcp WL: Ld=580.9nm Purity=41.4%

Peak WL: Lp=600nm FWHM: =144.2nm Ratio:R=20.7% G=76.1% B=3.2%

Render Index: Ra = 83.8 AvgR = 77.9 TM30:Rf=85 Rg=95

EEL: 0.09159 A++ Highest

R1 =82 R2 =92 R3 =96 R4 =82 R5 =82 R6 =89 R7 =84

R8 =62 R9 =11 R10=80 R11=81 R12=67 R13=85 R14=99 R15=75

## 4.1 Integrating Sphere Test

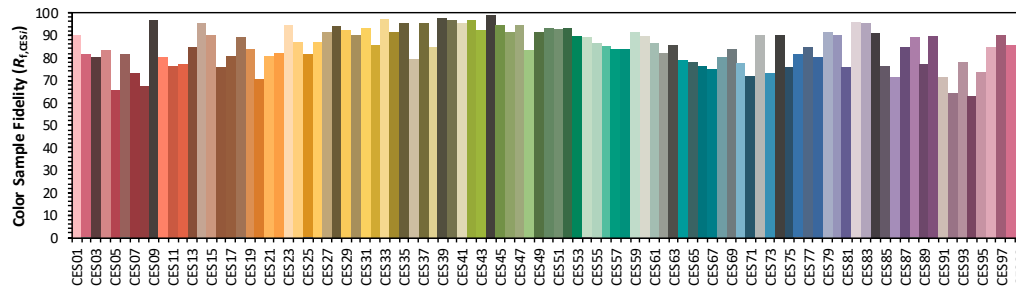
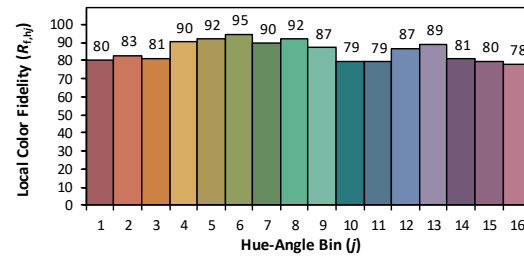
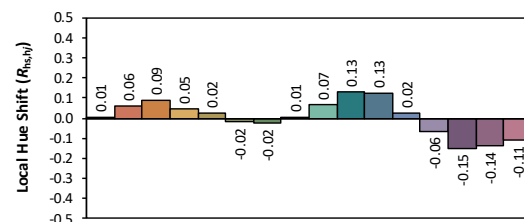
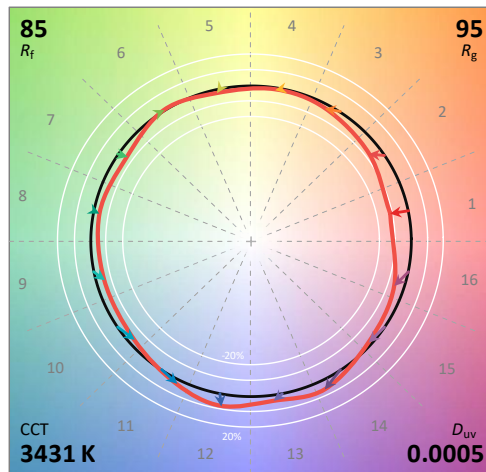
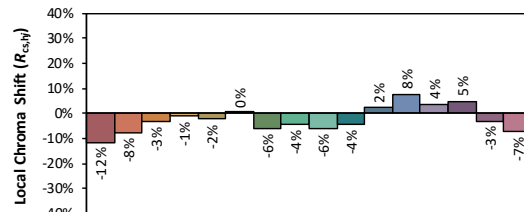
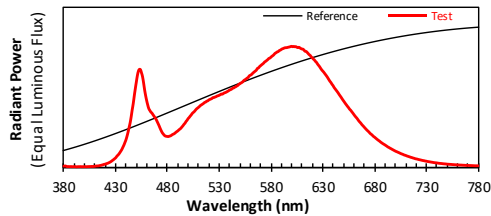
### ANSI/IES TM-30-18 Color Rendition Report

Source: 1 CIE F1

Manufacturer: RAB Lighting Inc.

Date: 2025/1/4

Model: STRP2H @15W3500K



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

$x$  0.4098  
 $y$  0.3942  
 $u'$  0.2372  
 $v'$  0.5134

CIE 13.3-1995  
(CRI)  
 $R_a$  84  
 $R_g$  11

## 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	1.11E-05	447	5.27E-04	514	5.23E-04	581	9.18E-04	648	5.77E-04	715	8.46E-05
381	1.32E-05	448	5.91E-04	515	5.29E-04	582	9.24E-04	649	5.64E-04	716	8.24E-05
382	1.14E-05	449	6.50E-04	516	5.37E-04	583	9.32E-04	650	5.51E-04	717	7.93E-05
383	7.60E-06	450	7.06E-04	517	5.40E-04	584	9.42E-04	651	5.39E-04	718	7.70E-05
384	8.20E-06	451	7.59E-04	518	5.47E-04	585	9.46E-04	652	5.27E-04	719	7.40E-05
385	7.40E-06	452	7.95E-04	519	5.50E-04	586	9.54E-04	653	5.16E-04	720	7.17E-05
386	7.50E-06	453	8.10E-04	520	5.57E-04	587	9.56E-04	654	5.04E-04	721	7.01E-05
387	7.80E-06	454	8.06E-04	521	5.62E-04	588	9.64E-04	655	4.94E-04	722	6.76E-05
388	6.70E-06	455	7.80E-04	522	5.65E-04	589	9.68E-04	656	4.81E-04	723	6.54E-05
389	7.30E-06	456	7.49E-04	523	5.69E-04	590	9.74E-04	657	4.73E-04	724	6.35E-05
390	7.00E-06	457	6.98E-04	524	5.77E-04	591	9.79E-04	658	4.61E-04	725	6.15E-05
391	7.80E-06	458	6.40E-04	525	5.78E-04	592	9.82E-04	659	4.50E-04	726	5.93E-05
392	5.60E-06	459	5.92E-04	526	5.81E-04	593	9.86E-04	660	4.39E-04	727	5.74E-05
393	6.50E-06	460	5.51E-04	527	5.84E-04	594	9.88E-04	661	4.27E-04	728	5.60E-05
394	7.10E-06	461	5.16E-04	528	5.90E-04	595	9.89E-04	662	4.17E-04	729	5.37E-05
395	7.00E-06	462	4.87E-04	529	5.92E-04	596	9.90E-04	663	4.07E-04	730	5.23E-05
396	7.50E-06	463	4.71E-04	530	5.96E-04	597	9.93E-04	664	3.95E-04	731	5.05E-05
397	6.80E-06	464	4.58E-04	531	6.00E-04	598	9.94E-04	665	3.83E-04	732	4.87E-05
398	6.90E-06	465	4.50E-04	532	6.06E-04	599	9.97E-04	666	3.74E-04	733	4.74E-05
399	6.50E-06	466	4.37E-04	533	6.05E-04	600	9.99E-04	667	3.64E-04	734	4.59E-05
400	7.40E-06	467	4.24E-04	534	6.10E-04	601	9.96E-04	668	3.52E-04	735	4.43E-05
401	7.20E-06	468	4.12E-04	535	6.16E-04	602	9.99E-04	669	3.44E-04	736	4.31E-05
402	6.80E-06	469	3.99E-04	536	6.18E-04	603	9.96E-04	670	3.34E-04	737	4.12E-05
403	7.60E-06	470	3.81E-04	537	6.23E-04	604	9.97E-04	671	3.25E-04	738	4.02E-05
404	7.80E-06	471	3.63E-04	538	6.27E-04	605	9.92E-04	672	3.15E-04	739	3.90E-05
405	8.10E-06	472	3.44E-04	539	6.32E-04	606	9.89E-04	673	3.06E-04	740	3.83E-05
406	8.50E-06	473	3.23E-04	540	6.39E-04	607	9.92E-04	674	2.99E-04	741	3.68E-05
407	9.00E-06	474	3.05E-04	541	6.42E-04	608	9.87E-04	675	2.90E-04	742	3.53E-05
408	8.70E-06	475	2.88E-04	542	6.47E-04	609	9.81E-04	676	2.80E-04	743	3.44E-05
409	9.50E-06	476	2.77E-04	543	6.54E-04	610	9.77E-04	677	2.74E-04	744	3.34E-05
410	1.04E-05	477	2.66E-04	544	6.56E-04	611	9.76E-04	678	2.66E-04	745	3.28E-05
411	1.24E-05	478	2.60E-04	545	6.62E-04	612	9.68E-04	679	2.57E-04	746	3.14E-05
412	1.29E-05	479	2.58E-04	546	6.66E-04	613	9.59E-04	680	2.51E-04	747	3.07E-05
413	1.35E-05	480	2.56E-04	547	6.72E-04	614	9.57E-04	681	2.44E-04	748	2.99E-05
414	1.48E-05	481	2.56E-04	548	6.77E-04	615	9.50E-04	682	2.37E-04	749	2.92E-05
415	1.69E-05	482	2.59E-04	549	6.86E-04	616	9.40E-04	683	2.30E-04	750	2.80E-05
416	1.83E-05	483	2.61E-04	550	6.91E-04	617	9.30E-04	684	2.23E-04	751	2.72E-05
417	2.11E-05	484	2.66E-04	551	6.97E-04	618	9.24E-04	685	2.17E-04	752	2.68E-05
418	2.34E-05	485	2.73E-04	552	7.02E-04	619	9.12E-04	686	2.10E-04	753	2.60E-05
419	2.64E-05	486	2.76E-04	553	7.09E-04	620	9.04E-04	687	2.04E-04	754	2.57E-05
420	2.78E-05	487	2.82E-04	554	7.19E-04	621	8.94E-04	688	1.98E-04	755	2.47E-05
421	3.17E-05	488	2.89E-04	555	7.24E-04	622	8.87E-04	689	1.92E-04	756	2.42E-05
422	3.40E-05	489	2.96E-04	556	7.30E-04	623	8.75E-04	690	1.87E-04	757	2.34E-05
423	3.76E-05	490	3.02E-04	557	7.38E-04	624	8.67E-04	691	1.82E-04	758	2.30E-05
424	4.18E-05	491	3.10E-04	558	7.43E-04	625	8.54E-04	692	1.76E-04	759	2.20E-05
425	4.66E-05	492	3.17E-04	559	7.55E-04	626	8.43E-04	693	1.69E-04	760	2.16E-05
426	5.21E-05	493	3.24E-04	560	7.61E-04	627	8.32E-04	694	1.65E-04	761	2.15E-05
427	5.90E-05	494	3.35E-04	561	7.65E-04	628	8.18E-04	695	1.60E-04	762	2.07E-05
428	6.52E-05	495	3.44E-04	562	7.74E-04	629	8.06E-04	696	1.55E-04	763	2.04E-05
429	7.27E-05	496	3.56E-04	563	7.82E-04	630	7.96E-04	697	1.50E-04	764	2.02E-05
430	7.97E-05	497	3.66E-04	564	7.89E-04	631	7.87E-04	698	1.46E-04	765	1.94E-05
431	9.11E-05	498	3.80E-04	565	7.96E-04	632	7.75E-04	699	1.41E-04	766	1.89E-05
432	1.01E-04	499	3.90E-04	566	8.04E-04	633	7.64E-04	700	1.36E-04	767	1.87E-05
433	1.10E-04	500	4.03E-04	567	8.18E-04	634	7.52E-04	701	1.32E-04	768	1.78E-05
434	1.22E-04	501	4.12E-04	568	8.21E-04	635	7.39E-04	702	1.29E-04	769	1.76E-05
435	1.35E-04	502	4.24E-04	569	8.32E-04	636	7.25E-04	703	1.25E-04	770	1.72E-05
436	1.49E-04	503	4.34E-04	570	8.40E-04	637	7.11E-04	704	1.21E-04	771	1.70E-05
437	1.67E-04	504	4.46E-04	571	8.47E-04	638	7.01E-04	705	1.17E-04	772	1.65E-05
438	1.85E-04	505	4.54E-04	572	8.54E-04	639	6.87E-04	706	1.13E-04	773	1.64E-05
439	2.07E-04	506	4.62E-04	573	8.61E-04	640	6.76E-04	707	1.10E-04	774	1.58E-05
440	2.29E-04	507	4.72E-04	574	8.71E-04	641	6.61E-04	708	1.06E-04	775	1.56E-05
441	2.59E-04	508	4.82E-04	575	8.76E-04	642	6.49E-04	709	1.02E-04	776	1.50E-05
442	2.92E-04	509	4.89E-04	576	8.84E-04	643	6.38E-04	710	1.00E-04	777	1.46E-05
443	3.30E-04	510	4.96E-04	577	8.90E-04	644	6.27E-04	711	9.64E-05	778	1.44E-05
444	3.68E-04	511	5.04E-04	578	9.00E-04	645	6.15E-04	712	9.37E-05	779	1.44E-05
445	4.18E-04	512	5.12E-04	579	9.03E-04	646	6.01E-04	713	9.07E-05	780	1.45E-05
446	4.76E-04	513	5.18E-04	580	9.10E-04	647	5.89E-04	714	8.78E-05	N/A	N/A



## 4.0 LM-79 Measurement and Test Results

### 4.2 Goniophotometer Test

<b>Model No.</b>	STRP2H @15W3500K	<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	0.059	14.9	0.911
<b>NON-WORST CASE</b>	120.0	60	0.123	14.7	0.992

### Test Result

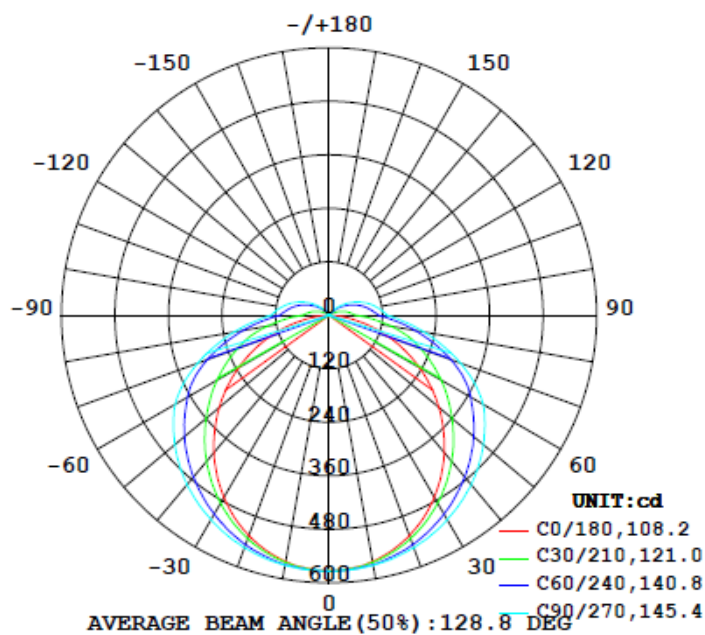
Flux (lm)	Flux per feet (lm/ft)	Field Angle (10%)		Beam Angle (50%)		Luminous Efficacy (lm/W)
		C0-180	C90-270	C0-180	C90-270	
2225	1113	161.2	161.2	108.3	145.3	149.3

Zonal Lumen Requirement	UGR	
(0°-60°)	Crosswise	Endwise
62.7%	22.7	28.1

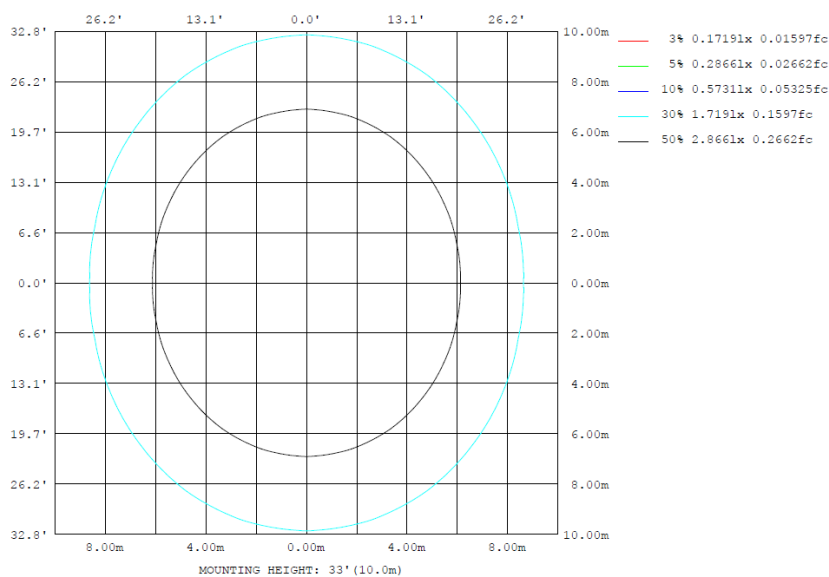
## 4.2 Goniophotometer Test

### Lighting Distribution Curve

#### LUMINOUS INTENSITY DISTRIBUTION DIAGRAM



### Isolux Plot



## 4.2 Goniophotometer Test

### Zonal Lumen Summary

ZONAL FLUX DIAGRAM:

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	$\Phi$ lum, lamp
10	560.8	564.6	569.4	564.6	560.8	564.6	569.4	564.6	0- 10	54.34	54.34	2.44, 2.44
20	525.7	539.4	554.8	539.4	525.7	539.4	554.8	539.4	10- 20	156.7	211.0	9.48, 9.48
30	471.6	500.8	529.4	500.8	471.6	500.8	529.4	500.8	20- 30	240.8	451.8	20.3, 20.3
40	401.9	449.2	495.7	449.2	401.9	449.2	495.7	449.2	30- 40	298.3	750.1	33.7, 33.7
50	321.0	392.7	451.6	392.7	321.0	392.7	451.6	392.7	40- 50	324.8	1075	48.3, 48.3
60	233.6	330.2	398.5	330.2	233.6	330.2	398.5	330.2	50- 60	319.9	1395	62.7, 62.7
70	142.6	262.5	313.3	262.5	142.6	262.5	313.3	262.5	60- 70	283.9	1679	75.5, 75.5
80	55.72	172.4	216.0	172.4	55.72	172.4	216.0	172.4	70- 80	214.1	1893	85.1, 85.1
90	4.352	89.33	131.0	89.33	4.352	89.33	131.0	89.33	80- 90	127.8	2021	90.8, 90.8
100	3.999	69.04	108.1	69.04	3.999	69.04	108.1	69.04	90-100	77.74	2098	94.3, 94.3
110	4.075	48.63	84.08	48.63	4.075	48.63	84.08	48.63	100-110	57.01	2155	96.9, 96.9
120	4.136	29.31	58.13	29.31	4.136	29.31	58.13	29.31	110-120	36.83	2192	98.5, 98.5
130	4.291	12.35	34.12	12.35	4.291	12.35	34.12	12.35	120-130	19.99	2212	99.4, 99.4
140	4.401	2.967	13.08	2.967	4.401	2.967	13.08	2.967	130-140	8.305	2220	99.8, 99.8
150	4.363	2.504	1.428	2.504	4.363	2.504	1.428	2.504	140-150	2.308	2223	99.9, 99.9
160	4.239	2.119	1.380	2.119	4.239	2.119	1.380	2.119	150-160	1.152	2224	100, 100
170	4.496	2.072	1.397	2.072	4.496	2.072	1.397	2.072	160-170	0.6752	2225	100, 100
180	4.425	2.040	1.583	2.040	4.425	2.040	1.583	2.040	170-180	0.2323	2225	100, 100
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Zonal (lm)		Total (lm)		Percent
0-10	54.34	0-10	54.34	2.44%
10-20	156.65	0-20	210.99	9.48%
20-30	240.83	0-30	451.82	20.31%
30-40	298.28	0-40	750.10	33.72%
40-50	324.80	0-50	1074.90	48.32%
50-60	319.90	0-60	1394.80	62.70%
60-70	283.88	0-70	1678.68	75.46%
70-80	214.06	0-80	1892.74	85.08%
80-90	127.80	0-90	2020.54	90.83%
90-100	77.74	0-100	2098.28	94.32%
100-110	57.01	0-110	2155.29	96.89%
110-120	36.83	0-120	2192.12	98.54%
120-130	19.99	0-130	2212.11	99.44%
130-140	8.30	0-140	2220.41	99.81%
140-150	2.31	0-150	2222.72	99.92%
150-160	1.15	0-160	2223.87	99.97%
160-170	0.68	0-170	2224.55	100.00%
170-180	0.23	0-180	2224.78	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	15.4	17.0	15.9	17.5	18.0	18.6	20.1	19.1	20.6	21.1
	3H	17.0	18.4	17.5	18.9	19.5	21.2	22.6	21.7	23.1	23.7
	4H	17.5	18.9	18.1	19.4	20.0	22.4	23.7	22.9	24.3	24.8
	6H	17.9	19.1	18.4	19.6	20.2	23.6	24.8	24.1	25.3	25.9
	8H	17.9	19.1	18.5	19.7	20.3	24.1	25.3	24.7	25.9	26.5
	12H	18.0	19.1	18.5	19.7	20.3	24.7	25.9	25.3	26.4	27.1
4H	2H	16.7	18.0	17.2	18.5	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	19.8	20.9	21.5	23.3	24.3	23.8	24.9	25.5
	6H	19.8	20.7	20.3	21.3	21.9	24.6	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	27.4
	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	20.9	21.7	21.6	22.3	23.0	25.1	25.8	25.7	26.4	27.1
	8H	21.2	21.9	21.8	22.5	23.2	25.9	26.5	26.5	27.2	27.8
	12H	21.4	22.0	22.0	22.6	23.3	26.7	27.3	27.4	28.0	28.7
12H	4H	20.4	21.2	21.0	21.9	22.5	23.5	24.3	24.1	25.0	25.6
	6H	21.3	22.0	21.9	22.6	23.3	25.1	25.8	25.8	26.4	27.1
	8H	21.7	22.2	22.3	22.9	23.6	26.0	26.6	26.6	27.2	27.9

Maximum UGR = 28.7

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	18.2	19.8	18.7	20.3	20.8	21.4	22.9	21.9	23.4	23.9
	3H	19.8	21.2	20.3	21.7	22.3	24.0	25.4	24.5	25.9	26.5
	4H	20.3	21.7	20.9	22.2	22.8	25.2	26.5	25.7	27.1	27.6
	6H	20.7	21.9	21.2	22.4	23.0	26.4	27.6	26.9	28.1	28.7
	8H	20.7	21.9	21.3	22.5	23.1	26.9	28.1	27.5	28.7	29.3
	12H	20.8	21.9	21.3	22.5	23.1	27.5	28.7	28.1	29.2	29.9
4H	2H	19.5	20.8	20.0	21.3	21.9	21.9	23.2	22.4	23.7	24.3
	3H	21.4	22.5	21.9	23.1	23.7	24.7	25.9	25.3	26.4	27.0
	4H	22.1	23.1	22.6	23.7	24.3	26.1	27.1	26.6	27.7	28.3
	6H	22.6	23.5	23.1	24.1	24.7	27.4	28.4	28.0	29.0	29.6
	8H	22.7	23.6	23.3	24.2	24.8	28.1	29.0	28.7	29.6	30.2
	12H	22.8	23.6	23.4	24.2	24.8	28.8	29.6	29.4	30.2	30.9
8H	4H	23.0	23.9	23.6	24.5	25.1	26.3	27.2	26.9	27.8	28.5
	6H	23.7	24.5	24.4	25.1	25.8	27.9	28.6	28.5	29.2	29.9
	8H	24.0	24.7	24.6	25.3	26.0	28.7	29.3	29.3	30.0	30.6
	12H	24.2	24.8	24.8	25.4	26.1	29.5	30.1	30.2	30.8	31.5
12H	4H	23.2	24.0	23.8	24.7	25.3	26.3	27.1	26.9	27.8	28.4
	6H	24.1	24.8	24.7	25.4	26.1	27.9	28.6	28.6	29.2	29.9
	8H	24.5	25.0	25.1	25.7	26.4	28.8	29.4	29.4	30.0	30.7

Maximum UGR = 31.5

## 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	573	573	573	573	574	574	573	574	574	573	573	573	573	573	573	573	574	574	573
5	570	570	570	571	572	573	573	573	572	571	570	570	570	570	570	571	572	573	573
10	561	561	563	565	568	569	569	569	568	565	563	561	561	561	563	565	568	569	569
15	546	548	550	555	559	562	563	562	559	555	550	548	546	548	550	555	559	562	563
20	526	528	533	539	548	553	555	553	548	539	533	528	526	528	533	539	548	553	555
25	501	504	512	522	533	540	543	540	533	522	512	504	501	504	512	522	533	540	543
30	472	476	487	501	515	525	529	525	515	501	487	476	472	476	487	501	515	525	529
35	438	444	459	476	495	508	514	508	495	476	459	444	438	444	459	476	495	508	514
40	402	409	428	449	473	490	496	490	473	449	428	409	402	409	428	449	473	490	496
45	363	371	395	422	449	468	475	468	449	422	395	371	363	371	395	422	449	468	475
50	321	332	360	393	423	444	452	444	423	393	360	332	321	332	360	393	423	444	452
55	278	292	325	362	395	418	426	418	395	362	325	292	278	292	325	362	395	418	426
60	234	251	290	330	367	390	399	390	367	330	290	251	234	251	290	330	367	390	399
65	188	210	254	298	334	353	360	353	334	298	254	210	188	210	254	298	334	353	360
70	143	170	219	262	291	308	313	308	291	262	219	170	143	170	219	262	291	308	313
75	97.8	132	184	219	243	259	264	259	243	219	184	132	97.8	132	184	219	243	259	264
80	55.7	95.9	141	172	196	211	216	211	196	172	141	95.9	55.7	95.9	141	172	196	211	216
85	21.2	60.7	97.8	128	151	165	170	165	151	128	97.8	60.7	21.2	60.7	97.8	128	151	165	170
90	4.35	28.7	60.8	89.3	112	126	131	126	112	89.3	60.8	28.7	4.35	28.7	60.8	89.3	112	126	131
95	3.96	21.2	51.3	78.3	100	114	120	114	100	78.3	51.3	21.2	3.96	21.2	51.3	78.3	100	114	120
100	4.00	14.6	42.6	69.0	89.6	103	108	103	89.6	69.0	42.6	14.6	4.00	14.6	42.6	69.0	89.6	103	108
105	4.04	9.18	34.0	59.1	79.3	91.4	96.5	91.4	79.3	59.1	34.0	9.18	4.04	9.18	34.0	59.1	79.3	91.4	96.5
110	4.07	4.78	25.8	48.6	67.5	79.5	84.1	79.5	67.5	48.6	25.8	4.78	4.07	4.78	25.8	48.6	67.5	79.5	84.1
115	4.11	4.28	18.4	38.6	56.0	66.9	71.0	66.9	56.0	38.6	18.4	4.28	4.11	4.28	18.4	38.6	56.0	66.9	71.0
120	4.14	4.15	11.4	29.3	44.7	54.5	58.1	54.5	44.7	29.3	11.4	4.15	4.14	4.15	11.4	29.3	44.7	54.5	58.1
125	4.19	4.07	5.43	20.3	34.0	42.7	45.7	42.7	34.0	20.3	5.43	4.07	4.19	4.07	5.43	20.3	34.0	42.7	45.7
130	4.29	4.02	3.81	12.4	24.1	31.8	34.1	31.8	24.1	12.4	3.81	4.02	4.29	4.02	3.81	12.4	24.1	31.8	34.1
135	4.42	3.96	3.54	5.03	14.6	21.2	23.2	21.2	14.6	5.03	3.54	3.96	4.42	3.96	3.54	5.03	14.6	21.2	23.2
140	4.40	4.00	3.40	2.97	5.89	11.3	13.1	11.3	5.89	2.97	3.40	4.00	4.40	4.00	3.40	2.97	5.89	11.3	13.1
145	4.38	3.94	3.18	2.69	2.36	2.63	3.82	2.63	2.36	2.69	3.18	3.94	4.38	3.94	3.18	2.69	2.36	2.63	3.82
150	4.36	3.78	2.87	2.50	2.11	1.76	1.43	1.76	2.11	2.50	2.87	3.78	4.36	3.78	2.87	2.50	2.11	1.76	1.43
155	4.34	3.50	2.61	2.27	1.96	1.63	1.37	1.63	1.96	2.27	2.61	3.50	4.34	3.50	2.61	2.27	1.96	1.63	1.37
160	4.24	3.27	2.51	2.12	1.85	1.66	1.38	1.66	1.85	2.12	2.51	3.27	4.24	3.27	2.51	2.12	1.85	1.66	1.38
165	4.42	3.27	2.51	2.10	1.83	1.69	1.39	1.69	1.83	2.10	2.51	3.27	4.42	3.27	2.51	2.10	1.83	1.69	1.39
170	4.50	3.46	2.51	2.07	1.80	1.73	1.40	1.73	1.80	2.07	2.51	3.46	4.50	3.46	2.51	2.07	1.80	1.73	1.40
175	4.45	3.56	2.51	2.05	1.78	1.76	1.49	1.76	1.78	2.05	2.51	3.56	4.45	3.56	2.51	2.05	1.78	1.76	1.49
180	4.42	3.56	2.51	2.04	1.77	1.68	1.58	1.68	1.77	2.04	2.51	3.56	4.42	3.56	2.51	2.04	1.77	1.68	1.58

Table--2

UNIT: cd

C (DEG) γ (DEG)	285	300	315	330	345														
0	574	574	573	573	573														
5	573	572	571	570	570														
10	569	568	565	563	561														
15	562	559	555	550	548														
20	553	548	539	533	528														
25	540	533	522	512	504														
30	525	515	501	487	476														
35	508	495	476	459	444														
40	490	473	449	428	409														
45	468	449	422	395	371														
50	444	423	393	360	332														
55	418	395	362	325	292														
60	390	367	330	290	251														
65	353	334	298	254	210														
70	308	291	262	219	170														
75	259	243	219	184	132														
80	211	196	172	141	95.9														
85	165	151	128	97.8	60.7														
90	126	112	89.3	60.8	28.7														
95	114	100	78.3	51.3	21.2														
100	103	89.6	69.0	42.6	14.6														
105	91.4	79.3	59.1	34.0	9.18														
110	79.5	67.5	48.6	25.8	4.78														
115	66.9	56.0	38.6	18.4	4.28														
120	54.5	44.7	29.3	11.4	4.15														
125	42.7	34.0	20.3	5.43	4.07														
130	31.8	24.1	12.4	3.81	4.02														
135	21.2	14.6	5.03	3.54	3.96														
140	11.3	5.89	2.97	3.40	4.00														
145	2.63	2.36	2.69	3.18	3.94														
150	1.76	2.11	2.50	2.87	3.78														
155	1.63	1.96	2.27	2.61	3.50														
160	1.66	1.85	2.12	2.51	3.27														
165	1.69	1.83	2.10	2.51	3.27														
170	1.73	1.80	2.07	2.51	3.46														
175	1.76	1.78	2.05	2.51	3.56														
180	1.68	1.77	2.04	2.51	3.56														

## 4.0 LM-79 Measurement and Test Results

### 4.3 THD and PF Test

<b>Model No.</b>	STRP2H @15W3500K	<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	0.123	14.7	0.992	6.41
277.0	60	0.059	14.9	0.911	13.54

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